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OF THE

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

NATIONAL EDUCATION ASSOCIATION
OF THE UNITED STATES

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OF THE

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HELD AT

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NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

1857–1870

THE NATIONAL TEACHERS ASSOCIATION

Organized August 26, 1857, at Philadelphia, Pennsylvania.

PURPOSE—*To elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States.*

The name of the association was changed at Cleveland, Ohio, on August 15, 1870, to the "National Educational Association."

1870–1907

NATIONAL EDUCATIONAL ASSOCIATION

Incorporated under the laws of the District of Columbia, February 24, 1886, under the name, "National Education Association," which was changed to "National Educational Association," by certificate filed November 6, 1886.

1907–

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

Incorporated under a special act of Congress, approved June 30, 1906, to succeed the "National Educational Association." The charter was accepted and by-laws were adopted at the Fiftieth Anniversary Convention held July 10, 1907, at Los Angeles, California.

ACT OF INCORPORATION

AN ACT TO INCORPORATE THE NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That the following named persons, who are now officers and directors and trustees of the National Educational Association, a corporation organized in the year eighteen hundred and eighty-six, under the Act of General Incorporation of the Revised Statutes of the District of Columbia, viz.: Nathan C. Schaeffer, *Eliphalet Oram Lyte, John W. Lansinger, of Pennsylvania; Isaac W. Hill, of Alabama; Arthur J. Matthews, of Arizona; John H. Hinemon, George B. Cook, of Arkansas; Joseph O'Connor, *Josiah L. Pickard, Arthur H. Chamberlain, of California; Aaron Gove, *Ezekiel H. Cook, Lewis C. Greenlee, of Colorado; Charles H. Keyes, of Connecticut; *George W. Twitmyer, of Delaware; *J. Ormond Wilson, *William T. Harris, Alexander T. Stuart, of the District

* Deceased.

of Columbia; Clem Hampton, of Florida; William M. Slaton, of Georgia; Frances Mann, of Idaho; J. Stanley Brown, *Albert G. Lane, Charles I. Parker, John W. Cook, Joshua Pike, Albert R. Taylor, Joseph A. Mercer, of Illinois; Nebraska Cropsey, Thomas A. Mott, of Indiana; John D. Benedict, of Indian Territory; John F. Riggs, Ashley V. Storm, of Iowa; John W. Spindler, Jasper N. Wilkinson, A. V. Jewett, Luther D. Whittemore, of Kansas; William Henry Bartholomew, of Kentucky; *Warren Easton, of Louisiana; *John S. Locke, of Maine; M. Bates Stephens, of Maryland; Charles W. Eliot, *Mary H. Hunt, Henry T. Bailey, of Massachusetts; Hugh A. Graham, Charles G. White, William H. Elson, of Michigan; *William F. Phelps, Irwin Shepard, John A. Cranston, of Minnesota; Robert B. Fulton, of Mississippi; *F. Louis Soldan, *James M. Greenwood, William J. Hawkins, of Missouri; *Oscar J. Craig, of Montana; George L. Towne, of Nebraska; *Joseph E. Stubbs, of Nevada; James E. Klock, of New Hampshire; James M. Green, John Enright, of New Jersey; Charles M. Light, of New Mexico; *James H. Canfield, Nicholas Murray Butler, William H. Maxwell, Charles R. Skinner, *Albert P. Marble, James C. Byrnes, of New York; James Y. Joyner, Julius Isaac Foust, of North Carolina; *Pitt Gordon Knowlton, of North Dakota; Oscar T. Corson, Jacob A. Shawan, Wells L. Griswold, of Ohio; Edgar S. Vaught, Andrew R. Hickam, of Oklahoma; *Charles Carroll Stratton, Edwin D. Ressler, of Oregon; Thomas W. Bicknell, Walter Ballou Jacobs, of Rhode Island; David B. Johnson, Robert P. Pell, of South Carolina; Moritz Adelbert Lange, of South Dakota; Eugene F. Turner, of Tennessee; Lloyd E. Wolfe, of Texas; David H. Christensen, of Utah; Henry O. Wheeler, Isaac Thomas, of Vermont; Joseph L. Jarman, of Virginia; Edward T. Mathes, of Washington; T. Marcellus Marshall, Lucy Robinson, of West Virginia; Lorenzo D. Harvey, of Wisconsin; Thomas T. Tynan, of Wyoming; Cassia Patton, of Alaska; Frank H. Ball, of Porto Rico; Arthur F. Griffiths, of Hawaii; C. H. Maxson, of the Philippine Islands, and such other persons as now are or may hereafter be associated with them as officers or members of said Association, are hereby incorporated and declared to be a body corporate of the District of Columbia by the name of the "National Education Association of the United States," and by that name shall be known and have perpetual succession with the powers, limitations, and restrictions herein contained.

SEC. 2. That the purpose and object of the said corporation shall be to elevate the character and advance the interests of the profession of teaching, and to promote the cause of education in the United States. This corporation shall include the National Council of Education and the following departments, and such others as may hereafter be created by organization or consolidation, to wit: the Departments, first, of Superintendence; second, of Normal Schools; third, of Elementary Education; fourth, of Higher Education; fifth, of Manual Training; sixth, of Art Education; seventh, of Kindergarten Education; eighth, of Music Education; ninth, of Secondary Education; tenth, of Business Education; eleventh, of Child Study; twelfth, of Physical Education; thirteenth, of Natural Science Instruction; fourteenth, of School Administration; fifteenth, the Library Department; sixteenth, of Special Education; seventeenth, of Indian Education; the powers and duties and the number and names of these departments and of the National Council of Education may be changed or abolished at the pleasure of the corporation, as provided in its by-laws.

SEC. 3. That the said corporation shall further have power to have and to use a common seal, and to alter and change the same at its pleasure; to sue or to be sued in any court of the United States, or other court of competent jurisdiction; to make by-laws not inconsistent with the provisions of this act or of the Constitution of the United States; to take or receive, whether by gift, grant, devise, bequest, or purchase, any real or personal estate, and to hold, grant, convey, hire, or lease the same for the purposes of its incorporation; and to accept and administer any trust of real or personal estate for any educationa purpose within the objects of the corporation.

*Deceased.

SEC. 4. That all real property of the corporation within the District of Columbia, which shall be used by the corporation for the educational or other purposes of the corporation as aforesaid, other than the purposes of producing income, and all personal property and funds of the corporation held, used, or invested for educational purposes aforesaid, or to produce income to be used for such purposes, shall be exempt from taxation; *provided*, however, That this exemption shall not apply to any property of the corporation which shall not be used for, or the income of which shall not be applied to, the educational purposes of the corporation; and, *provided further*, That the corporation shall annually file, with the Commissioner of Education of the United States, a report in writing, stating in detail the property, real and personal, held by the corporation, and the expenditure or other use or disposition of the same, or the income thereof, during the preceding year.

SEC. 5. That the membership of the said corporation shall consist of three classes of members—viz., active, associate, and corresponding—whose qualifications, terms of membership, rights, and obligations shall be prescribed by the by-laws of the corporation.

SEC. 6. That the officers of the said corporation shall be a President, twelve Vice-Presidents, a Secretary, a Treasurer, a Board of Directors, an Executive Committee, and a Board of Trustees.

The Board of Directors shall consist of the President, the First Vice-President, the Secretary, the Treasurer, the chairman of the Board of Trustees, and one additional member from each state, territory, or district, to be elected by the active members for the term of one year, or until their successors are chosen, and of all life directors of the National Educational Association. The United States Commissioner of Education, and all former Presidents of the said Association now living, and all future Presidents of the Association hereby incorporated, at the close of their respective terms of office, shall be members of the Board of Directors for life. The Board of Directors shall have power to fill all vacancies in their own body; shall have in charge the general interests of the corporation, excepting those herein intrusted to the Board of Trustees; and shall possess such other powers as shall be conferred upon them by the by-laws of the corporation.

The Executive Committee shall consist of five members, as follows: the President of the Association, the First Vice-President, the Treasurer, the Chairman of the Board of Trustees, and a member of the Association, to be chosen annually by the Board of Directors, to serve one year. The said committee shall have authority to represent, and to act for, the Board of Directors in the intervals between the meetings of that body, to the extent of carrying out the legislation adopted by the Board of Directors under general directions as may be given by said board.

The Board of Trustees shall consist of four members, elected by the Board of Directors for the term of four years, and the President of the Association, who shall be a member *ex officio*, during his term of office. At the first meeting of the Board of Directors, held during the annual meeting of the Association at which they were elected, they shall elect one trustee for the term of four years. All vacancies occurring in said Board of Trustees, whether by resignation or otherwise, shall be filled by the Board of Directors for the unexpired term; and the absence of a trustee from two successive annual meetings of the board shall forfeit his membership.

SEC. 7. That the invested fund now known as the "Permanent Fund of the National Educational Association," when transferred to the corporation hereby created, shall be held by such corporation as a Permanent Fund and shall be in charge of the Board of Trustees, who shall provide for the safekeeping and investment of such fund, and of all other funds which the corporation may receive by donation, bequest, or devise. No part of the principal of such Permanent Fund or its accretions shall be expended, except by a two-thirds vote of the active members of the Association present at any annual meeting, upon the recommendation of the Board of Trustees, after such recommendation has been approved by vote of the Board of Directors, and after printed notice of the proposed

expenditure has been mailed to all active members of the Association. The income of the Permanent Fund shall be used only to meet the cost of maintaining the organization of the Association and of publishing its annual volume of *Proceedings*, unless the terms of the donation, bequest, or devise shall otherwise specify, or the Board of Directors shall otherwise order. It shall also be the duty of the Board of Trustees to issue orders on the Treasurer for the payment of all bills approved by the Board of Directors, or by the President and Secretary of the Association acting under the authority of the Board of Directors. When practicable, the Board of Trustees shall invest, as part of the Permanent Fund, all surplus funds exceeding five hundred dollars that shall remain in the hands of the Treasurer after paying the expenses of the Association for the previous year, and providing for the fixed expenses and for all appropriations made by the Board of Directors for the ensuing year.

The Board of Trustees shall elect the Secretary of the Association, who shall also be secretary of the Executive Committee, and shall fix the compensation and the term of his office for a period not to exceed four years.

SEC. 8. That the principal office of the said corporation shall be in the city of Washington, District of Columbia; *provided*, That the meetings of the corporation, its officers committees, and departments, may be held, and that its business may be transacted, and an office or offices may be maintained, elsewhere, within the United States, as may be determined, by the Board of Directors, or otherwise in accordance with the by-laws.

SEC. 9. That the charter, constitution, and by-laws of the National Educational Association shall continue in full force and effect until the charter granted by this act shall be accepted by such Association at the next annual meeting of the Association, and until new by-laws shall be adopted; and that the present officers, directors, and trustees of said Association shall continue to hold office and perform their respective duties as such until the expiration of terms for which they were severally elected or appointed, and until their successors are elected. That at such annual meeting the active members of the National Educational Association, then present, may organize and proceed to accept the charter granted by this act and adopt by-laws, to elect officers to succeed those whose terms have expired or are about to expire, and generally to organize the "National Education Association of the United States"; and that the Board of Trustees of the corporation hereby incorporated shall thereupon, if the charter granted by this act be accepted, receive, take over, and enter into possession, custody, and management of all property, real and personal, of the corporation heretofore known as the National Educational Association, incorporated as aforesaid, under the Revised Statutes of the District of Columbia and all its rights, contracts, claims, and property of every kind and nature whatsoever, and the several officers, directors, and trustees of such last-named Association, or any other person having charge of any of the securities, funds, books, or property thereof, real or personal, shall on demand deliver the same to the proper officers, directors, or trustees of the corporation hereby created. *Provided*, That a verified certificate executed by the presiding officer and secretary of such annual meeting, showing the acceptance of the charter granted by this act by the National Educational Association shall be legal evidence of the fact, when filed with the Recorder of Deeds of the District of Columbia; and, *provided further*, That in the event of the failure of the Association to accept the charter granted by this act at said annual meeting then the charter of the National Educational Association and its corporate existence shall be, and are hereby extended until the thirty-first day of July, nineteen hundred and eight, and at any time before said date its charter may be extended in the manner and form provided by the general corporation law of the District of Columbia.

SEC. 10. That the rights of creditors of the said existing corporation, known as the National Educational Association, shall not in any manner be impaired by the passage of this act, or the transfer of the property heretofore mentioned, nor shall any liability or obligation, or the payment of any sum due or to become due, or any claim or demand,

in any manner, or for any cause existing against the said existing corporation, be released or impaired; and the corporation hereby incorporated is declared to succeed to the obligations and liabilities, and to be held liable to pay and discharge all of the debts, liabilities, and contracts of the said corporation so existing, to the same effect as if such new corporation had itself incurred the obligation or liability to pay such debt or damages, and no action or proceeding before any court or tribunal shall be deemed to have abated or been discontinued by reason of this act.

SEC. 11. That Congress may from time to time alter, repeal, or modify this act of incorporation, but no contract or individual right made or acquired shall thereby be divested or impaired.

Approved June 30, 1906.

Accepted and adopted as the constitution of the National Education Association of the United States by the active members of the National Educational Association in annual session at Los Angeles, California, July 10, 1907.

BY-LAWS

(Amended at meeting of active members held in St. Paul, Minn., July 9, 1914)

ARTICLE I—MEMBERSHIP

SECTION 1. Teachers, others actively engaged in educational work, and educational institutions as defined in Section 2, may become active members of the National Education Association of the United States upon the payment of an enrolment fee of two dollars and the annual dues for the current year.

SEC. 2. Educational institutions shall include schools, school boards, library boards, educational publishers, and such clubs and similar organizations as are distinctly educational or have educational departments properly organized with a definite membership.

SEC. 3. Educational institutions as defined in Section 2 may be enrolled as active members and represented by any person regularly connected with or a member of the institution, and such representative may exercise all the rights and enjoy all the privileges of active membership, including the right to vote at business meetings; *provided*, That such representative presents a certificate showing that the person named therein has been regularly elected as such representative of the faculty or membership of such institution; but no person shall under any circumstances have the right to cast more than one vote.

SEC. 4. The annual dues of active members are two dollars, which shall be paid at the time of the annual meeting of the Association, or shall be sent to the Secretary before November 1 of each year. An active member may discontinue his membership by giving written notice to the Secretary before November 1. An active member forfeits his membership by being two years in arrears. Those who have forfeited or discontinued their membership may exercise the option of renewing the same by paying all arrears and getting the published *Proceedings* of the intervening years, or of becoming members on the same terms as new members. Active members shall be entitled to the published *Proceedings* without coupon or other conditions.

SEC. 5. All life members and life directors shall be denominated active members, and shall have all the rights and privileges of such members without the payment of the annual dues.

SEC. 6. The right to vote and to hold office in the Association or the departments is open to all active members whose dues are paid; the right to vote and hold office in the Council is open to members of the Council whose dues are paid.

SEC. 7. Any person may become an associate member for one year by paying a membership fee of two dollars.

SEC. 8. Eminent educators not residing in America may be elected, by the Board of Directors, corresponding members. The number of corresponding members shall at no time exceed fifty. They shall not pay any dues.

SEC. 9. The names of active and corresponding members shall be printed in the published *Proceedings*, or the *Yearbook* of the Association, with their respective educational titles, offices, and addresses.

ARTICLE II—ELECTION OF OFFICERS

SECTION 1. The President, Vice-Presidents, Treasurer, and Directors of the National Education Association of the United States shall be chosen by the active members of the Association by ballot, at their annual business meeting, a majority of the votes cast being necessary for a choice. They shall continue in office until the close of the annual meeting subsequent to their election, and until their successors are chosen, except as herein provided. The Secretary and the Treasurer shall enter upon their duties at a date which shall be determined by the Board of Trustees and which shall not be later than the first of October and shall continue in office during the terms for which they are separately chosen and until their successors are duly elected.

ARTICLE III—DUTIES OF OFFICERS

SECTION 1. The President shall preside at all meetings of the Association, and shall perform the duties usually devolving upon the chief executive of such an association. In his absence, the ranking Vice-President who is present shall preside; and in the absence of all Vice-Presidents a chairman *pro tempore* shall be elected. The President shall prepare the program for the general sessions of the annual meeting of the Association, and with the approval of the Executive Committee, shall determine the time and place of the general meeting of the Association and of the various departments not definitely fixed by these by-laws, and shall have the power to require such changes to be made in the programs of the Council and the departments as will promote the interest of the annual meeting. The President shall be a member *ex officio* of the Board of Trustees and chairman of the Board of Directors and of the Executive Committee. He shall sign all bills approved for payment by the Board of Directors, and all bills approved or authorized by the Executive Committee between the meetings of the Board of Directors. On the expiration of his term of office as President, he shall become first Vice-President for the ensuing year, and shall be chairman *ex officio* of the Committee on Publication.

SEC. 2. The Secretary shall keep a full and accurate record of the proceedings of the general meetings of the Association and all meetings of the Board of Directors and of the Executive Committee, shall conduct the business of the Association as provided in the articles of incorporation and the by-laws, and in all matters not definitely prescribed therein, shall be under the direction of the Executive Committee and in the absence of direction by the Executive Committee, shall be under the direction of the President, and shall receive or collect all moneys due the Association and pay the same each month to the Treasurer, shall countersign all bills approved for payment by the Board of Directors or by the Executive Committee in the interval between the meetings of the Board of Directors or on the approval of the President acting under authority of the Board of Directors, or Executive Committee. The Secretary shall have his records present at all meetings of the active members of the Association, of the Board of Directors, and of the Executive Committee. He shall keep a list of members as required by Section 9 of Article I of these by-laws and shall revise said list annually. He shall be secretary of the Board of Directors, and a member of the Committee on Publication. He shall be the custodian of all the property of the Association not in charge of the Treasurer and the Board of Trustees. He shall give such bond for the faithful performance of his duties as may be required by the Board of Trustees. He shall submit his annual report

to the Executive Committee not later than July 1 prior to the annual meeting of the Association, which report shall be transmitted to the Board of Directors at its annual meeting. At the expiration of his term of office, he shall transfer to his successor all moneys, books, and other property in his possession belonging to the Association. The Secretary shall not print, publish, or distribute any official report or other document without the approval of the publication committee.

SEC. 3. The Treasurer shall receive from the Secretary and under the direction of the Board of Trustees shall hold in safekeeping all moneys paid to the Association; shall pay the same only upon the order of the Board of Trustees; shall notify the President of the Association and the Chairman of the Board of Trustees whenever the surplus funds in his possession exceed five hundred dollars; shall keep an exact account of his receipts and expenditures, with vouchers for the latter; and said accounts, ending on the thirtieth day of June of each year, he shall render to the Executive Committee not later than July 1, and when approved by said committee, they shall be transmitted by the committee to the Board of Directors at the first regular meeting of the board held during the week of the annual meeting and to the active members at their annual business meeting. The Treasurer shall give such bond for the faithful performance of his duties as may be required by the Board of Trustees. At the expiration of his term of office, he shall transfer to his successor all moneys, books, and other property in his possession belonging to the Association.

SEC. 4. The Board of Directors shall elect corresponding members as prescribed by Section 8 of Article I of these by-laws, shall elect members of the National Council of Education as provided in Section 3 of Article IV of these by-laws, shall have power to fill all vacancies in its own body and in the Board of Trustees; shall recommend to the Executive Committee the place for holding the annual meeting of the Association, the Council of Education, and the departments. The Board of Directors shall approve all bills incurred under authority of the Board of Directors, the Executive Committee, or the President and Secretary acting under the authority of the Board of Directors or Executive Committee, shall appropriate from the current funds of the year the amounts of money ordered by the active members at their annual business meeting for the work of all special committees of investigation and research authorized and provided for by such active members at their annual business meeting, shall make a full report of the financial condition of the Association (including the reports of the Secretary, the Treasurer, and the Board of Trustees) to the active members at their annual business meeting, and shall do all in its power to make the Association a useful and honorable institution.

SEC. 5. The Executive Committee shall assist the presiding officer in arranging for the time and place of the annual meeting of the Association, of the National Council of Education, and of the various departments.

The Executive Committee shall recommend to active members at their annual business meeting the appointment of special committees for investigation or research, the subjects for which may have been suggested by the National Council or by the active membership of the National Education Association or by any of its departments; it shall recommend the amount of money to be appropriated for such investigations. When such special committees are provided for and duly authorized by the active members at their annual business meeting, the Executive Committee shall have general supervision of them; shall receive and consider all reports made by them and shall print such reports, and present the same, together with the reports received from the Secretary, the Treasurer, and the Board of Trustees and the recommendations of the Executive Committee thereon, to the active members at their annual business meeting. All such special committees shall be appointed by the President of the National Education Association.

The Executive Committee shall fill all vacancies occurring in the body of officers of the Association except vacancies in the Board of Directors, Board of Trustees, and the office of Secretary.

SEC. 6. The Board of Trustees shall require of the Secretary and Treasurer bonds of such amount as may be determined by said board, for the faithful performance of their duties, shall make a full report of the finances of the Association to the Executive Committee not later than July 1 prior to the annual meeting of the Association, which report shall be transmitted by the Executive Committee to the Board of Directors at the first regular meeting of the board held during the week of the annual meeting of the Association. It shall choose annually its own chairman and secretary.

ARTICLE IV—THE NATIONAL COUNCIL OF EDUCATION

SECTION 1. The National Council of Education shall discuss educational questions of public and professional interest; propose to the Executive Committee, from time to time, suitable subjects for investigation and research; have a report made at its annual meeting on "Educational Progress during the Past Year"; and in other ways use its best efforts to further the objects of the Association and to promote the cause of education in general.

SEC. 2. The National Council of Education shall consist of one hundred and twenty regular members, selected from the active membership of the National Education Association. Any active member of the Association is eligible to membership in the Council, and each member shall be elected for six years and until his successor is elected.

SEC. 3. The annual election of members of the Council shall be held at the time of the annual meeting of the Association. The Board of Directors of the Association shall annually elect ten members and the Council ten members, and each body shall fill all vacancies in its quota of members. No state, territory, or district in the United States shall have at one time more than seven regular members in the Council.

SEC. 4. The annual meeting of the Council shall be held during the week of the annual meeting of the Association.

SEC. 5. The absence of a regular member from two successive annual meetings of the Council shall be considered equivalent to his resignation of membership. Persons whose regular membership in the Council has expired shall be denominated honorary members of the Council during the time of their active membership in the Association, with the privilege of attending the regular sessions of the Council and participating in its discussions. A member who discontinues or forfeits his active membership in the Association forfeits his membership in the Council.

SEC. 6. The officers of the Council shall consist of a president, a vice-president, a secretary, and such standing committees as may be prescribed by its by-laws, all of whom shall be regular members of the Council. The secretary of the Council shall, in addition to performing the duties pertaining to his office, furnish the Secretary of the Association a copy of the proceedings of the Council for publication.

SEC. 7. The National Council of Education is hereby authorized to adopt by-laws for its government not inconsistent with the act of incorporation or the by-laws of the Association; *provided*, That such by-laws be submitted to, and approved by, the Board of Directors of the Association before they shall become operative.

SEC. 8. The powers and duties of the Council may be changed or the Council abolished upon a two-thirds vote of the Association taken at the annual business meeting of the Association; *provided*, That notice of the proposed action has been given at the preceding annual business meeting of the Association.

ARTICLE V—DEPARTMENTS

SECTION 1. The following departments are now (1914) in existence, to wit: The departments, first, of Superintendence; second, of Normal Schools; third, of Elementary Education; fourth, of Higher Education; fifth, of Vocational Education and Practical Arts; sixth, of Kindergarten Education; seventh, of Music Education; eighth, of

Secondary Education; ninth, of Business Education; tenth, of Child Hygiene; eleventh, of Physical Education; twelfth, of Science Instruction; thirteenth, of School Administration; fourteenth, the Library Department; fifteenth, of Special Education; sixteenth, of School Patrons; seventeenth, of Rural and Agricultural Education; eighteenth, of Classroom Teachers.

SEC. 2. The active members of the Association, and no others, are members of each department of the Association.

SEC. 3. Each department shall hold its annual meeting at the time and place of the annual meeting of the Association, except the Department of Superintendence, which may hold its annual meeting in February of each year or at such other time as may be determined by said department, subject to the approval of the Board of Directors of the Association.

SEC. 4. The object of the meetings of the departments shall be the discussion of questions pertaining to their respective fields of educational work. The programs of these meetings shall be prepared by the respective presidents in conference with, and under the general direction of, the President of the Association. Each department shall be limited to two sessions, with formal programs, unless otherwise ordered by the President of the Association, except that a third session for business or informal round-table conference may be held at the discretion of the department officers.

SEC. 5. The officers of each department shall consist of a president, a vice-president, and a secretary, who shall be elected at the last formal session of the department to serve one year and until their successors are duly elected, and who shall, at the time of their election, be active members of the Association. In case there is a vacancy in the office of president of any of the departments, it shall be filled by an appointment made by the President of the Association. Any other departmental vacancy shall be filled by appointment made by the president of the department.

SEC. 6. The secretary of each department shall, in addition to performing the duties usually pertaining to his office, furnish the Secretary of the Association a copy of the proceedings of the meetings of the department for publication.

SEC. 7. All departments shall have equal rights and privileges, with the exception stated in Section 3 of this article. They shall be named in Section 1 of this article in the order of their establishment and shall be dropped from the list when discontinued. Each department may be governed by its own regulations in so far as they are not inconsistent with the act of incorporation or these by-laws.

SEC. 8. A new department may be established by a two-thirds vote of the Board of Directors taken at a regular meeting of the board or by a two-thirds vote of the active members at any annual business meeting; *provided*, That a written application for said department, with title and purpose of the same, shall have been made at the regular meeting of the board next preceding the one at which action is taken, or at the preceding annual business meeting, by at least twenty-five members engaged or interested in the field of labor in the interest of which the department is purposed to be established. A department already established may be discontinued by the Board of Directors upon a two-thirds vote taken at a regular meeting, or by a two-thirds vote of the active members at any business meeting of the active members; *provided*, That announcement has been made of the proposed action at a regular meeting of the board the preceding year, or at the preceding annual business meeting. A department shall be discontinued when it fails to hold a regular meeting for two successive years.

ARTICLE VI—COMMITTEES

SECTION 1. On the first day of each annual meeting of the Association, unless appointment has already been made, the President shall appoint a Committee on Resolutions, consisting of seven active members, and a Committee on Necrology, consisting of five active members, and on the third day of such meeting he shall

appoint a Committee on Nominations, consisting of one active member from each state, territory, and district represented at the meeting. Each state, territorial, and district representative shall be appointed on the nomination of the active members in attendance from said state, territory, or district; *provided*, That three or more active members participate in said nomination in accordance with these by-laws; and *provided further*, That in case of the failure of the active members of any state, territory, or district to nominate a member of the nominating committee in accordance with these by-laws, the President shall appoint an active member from said state, territory, or district, to serve on said committee. At the regular meeting of the Board of Directors on the first day of the annual meeting, the President shall appoint an Auditing Committee consisting of three active members of the Association, no one of whom shall be either a trustee or a director; to this committee shall be referred the report of the expert accountant, together with the communication of the President transmitting the same, as provided in Section 6 of this article; and the committee shall report its findings at the meeting of active members. The chairman of each of the foregoing committees shall be designated by the President of the Association at the time of its appointment.

SEC. 2. The meetings of active members present from the several states, territories, etc., to nominate members of the nominating committee shall be held on the first day of the annual meeting of the Association, at such time and places as shall be designated on the annual program by the President of the Association.

SEC. 3. The Committee on Nominations shall meet on the fourth day of the annual meeting at 9:00 A.M., at a place designated by the President of the Association, and shall nominate persons for the following offices in the Association, to wit: one person for President, eleven persons for Vice-Presidents, one person for Treasurer, and one person from each state, territory, and district in the United States as a member of the Board of Directors. It shall report to the active members at their annual business meeting.

SEC. 4. The Committee on Resolutions shall report at the annual business meeting of active members, and, except by unanimous consent, all resolutions shall be referred to said committee, without discussion. This committee shall receive and consider all resolutions proposed by active members, or referred to it by the President; some time during the second day of the annual meeting of the Association the committee shall hold a meeting, at a place and time to be announced in the printed program, for the purpose of receiving proposed resolutions and hearing those who may wish to advocate them.

SEC. 5. The Committee on Necrology shall prepare for the published *Proceedings* a list of the active and corresponding members that have died during the year, accompanied by memorial sketches whenever practicable.

SEC. 6. Within thirty days prior to the time of the annual meeting of the Association, the President shall appoint a competent person, firm, or corporation licensed to do business as expert accountants; the accountants so appointed shall examine the accounts, papers, and vouchers of the Secretary, the Treasurer, and the Board of Trustees, and compare the same, and shall also examine the securities of the Permanent Fund held by the Board of Trustees. The report of the said accountants shall be filed with the President before the opening day of the annual meeting of the Association, and shall be by him submitted with such comments as he may think proper, to the Board of Directors, at their meeting held on the first day of the annual meeting of the Association.

ARTICLE VII—MEETINGS

SECTION 1. A stated meeting of the Association, of the Council of Education, and of each department shall be held annually at such time and place as shall be determined by the Board of Directors or the Executive Committee acting for the board in accordance with these by-laws. An annual meeting of the Association and its subordinate bodies may be omitted for an extraordinary cause, upon the written consent of two-thirds of the directors of the Association, obtained by the Executive Committee.

SEC. 2. The annual meeting of the Association shall be held in July, beginning on a day determined by the Executive Committee. Two sessions shall be held daily, unless otherwise ordered by the President of the Association. The annual business meeting of the active members shall be held on the fourth day of the annual meeting at 11:00 A.M. A regular meeting of the Board of Directors shall be held on the first day of the annual meeting at 10:30 A.M. The first regular meeting of the new Board of Directors shall be held as soon as practicable and within twenty-four hours after the close of the last session of the annual meeting, the place and time of the meeting to be announced in the printed program. The Board of Trustees shall hold its annual meeting at some convenient time and immediately following the meeting of the new Board of Directors referred to above in this section. Special meetings of the trustees may be called by the chairman, and shall be called on request of the majority of the Board of Trustees. Due notice of all meetings of the Board of Trustees shall be given to every member of the board by the secretary thereof.

ARTICLE VIII—PROCEEDINGS

SECTION 1. The proceedings of the meeting of the Association, the Council, and the departments shall be published under the direction of a committee consisting of the President, the First Vice-President, and the Secretary, the First Vice-President acting as chairman of the committee; *provided*, That in the opinion of the Executive Committee the funds of the Association warrant the publication. Each member of the Association shall be entitled to a copy of the *Proceedings*. Associate members must make written application to the Secretary on or before November 1 for a copy in order to obtain it. Corresponding members, and active members whose dues are paid, will receive the published *Proceedings* without written application.

SEC. 2. No paper, lecture, or address shall be read before the Association or any of the departments in the absence of its author, without the approval of the President of the Association or of the departments interested, nor shall any such paper, lecture, or address be published in the *Proceedings*, without the approval of the Executive Committee.

ARTICLE IX—ELECTIONS, QUORUM

SECTION 1. The certificate of membership, in connection with the official list of active members, shall be accepted as evidence that members are entitled to vote.

SEC. 2. Representatives from twenty-five states and territories shall constitute a quorum in all meetings of active members and of the Board of Directors.

ARTICLE X—APPROPRIATIONS

SECTION 1. Unless otherwise ordered by the active members at their annual business meeting, not less than 10 per cent of the gross income of the Association each year shall be set aside for such educational investigations and studies as may be ordered in accordance with Section 5 of Article III.

ARTICLE XI—AMENDMENTS

SECTION 1. These by-laws may be altered or amended at the annual business meeting of the active members by unanimous consent, or by a two-thirds vote of the active members present if the alteration or amendment shall have been substantially proposed in writing at the annual business meeting next preceding the one at which action is taken; due announcement of the proposed action shall be made in the annual published *Proceedings*.

NATIONAL EDUCATIONAL ASSOCIATION

NOW KNOWN AS THE

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

CERTIFICATE

of Acceptance of Charter and Adoption of By-Laws under Act of Congress approved June 30, 1906.

We, the undersigned, Nathan C. Schaeffer, the presiding officer, and Irwin Shepard, the Secretary of the meeting of the National Educational Association held at Los Angeles, California, on the 10th day of July, 1907, said meeting being the annual meeting of the Association held next after the passage of an act of Congress entitled "An Act to Incorporate the National Education Association of the United States,"

Do hereby certify, that at said meeting held pursuant to due notice, a quorum being present, the said Association adopted resolutions of which true copies are hereto attached, and accepted the charter of the National Education Association of the United States, granted by said act of Congress, and adopted by-laws as provided in said act and elected officers; and the undersigned pursuant to said resolutions

Do hereby certify that the National Education Association of the United States has duly accepted said charter granted by said act of Congress, and adopted by-laws, and is the lawful successor to the National Educational Association.

In witness whereof, we have hereunto signed our names this 20th day of August, 1907.

NATHAN C. SCHAEFFER, *Presiding Officer*
IRWIN SHEPARD, *Secretary*

VERIFICATION

RESOLUTIONS ADOPTED BY THE ACTIVE MEMBERS, JULY 10, 1907

1. *Resolved*, That the National Educational Association hereby accepts the charter granted by an act of Congress entitled "An Act to Incorporate the National Education Association of the United States," passed June 30, 1906, and that the President and Secretary of this meeting be authorized and directed to execute and file with the Recorder of Deeds of the District of Columbia a verified certificate showing the acceptance by the Association of the charter granted by said act.

2. *Resolved*, That the proposed by-laws of which notice was given at the annual meeting of the Association held on July 6, 1905, which are printed in full in the journal of said meeting, be and the same are hereby adopted to take effect immediately.

3. *Resolved*, That the Association adopt as its corporate seal a circle containing the title "National Education Association of the United States," and the dates "1857–1907."

4. *Resolved*, That the Association do now proceed to elect officers, and to organize under the charter granted by the act of Congress.

Filed in the office of the Recorder of Deeds of the District of Columbia, September 4, 1907.

CALENDAR OF MEETINGS

NATIONAL TEACHERS ASSOCIATION

1857—PHILADELPHIA, PA. (Organized)
James L. Enos, Chairman.
W. E. Sheldon, Secretary.

1858—CINCINNATI, OHIO
Z. Richards, President.
J. W. Bulkley, Secretary.
A. J. Rickoff, Treasurer.

1859—**WASHINGTON, D.C.**
A. J. Rickoff, President.
J. W. Bulkley, Secretary.
C. S. Pennell, Treasurer.

1860—BUFFALO, N.Y.
J. W. Bulkley, President.
Z. Richards, Secretary.
O. C. Wight, Treasurer.

1861, 1862—No session.

1863—**CHICAGO, ILL.**
John D. Philbrick, President.
James Cruikshank, Secretary.
O. C. Wight, Treasurer.

1864—OGDENSBURG, N.Y.
W. H. Wells, President.
David N. Camp, Secretary.
Z. Richards, Treasurer.

1865—HARRISBURG, PA.
S. S. Greene, President.
W. E. Sheldon, Secretary.
Z. Richards, Treasurer.

1866—INDIANAPOLIS, IND.
J. P. Wickersham, President.
S. H. White, Secretary.
S. P. Bates, Treasurer.

1867—No session.

1868—NASHVILLE, TENN.
J. M. Gregory, President.
L. Van Bokkelen, Secretary.
James Cruikshank, Treasurer.

1869—TRENTON, N.J.
L. Van Bokkelen, President.
W. E. Crosby, Secretary.
A. L. Barber, Treasurer.

1870—CLEVELAND, OHIO
Daniel B. Hagar, President.
A. P. Marble, Secretary.
W. E. Crosby, Treasurer.

NAME CHANGED TO

NATIONAL EDUCATIONAL ASSOCIATION

1871—ST. LOUIS, MO.
J. L. Pickard, President.
W. E. Crosby, Secretary.
John Hancock, Treasurer.

1872—BOSTON, MASS.
E. E. White, President.
S. H. White, Secretary.
John Hancock, Treasurer.

1873—ELMIRA, N.Y.
B. G. Northrop, President.
S. H. White, Secretary.
John Hancock, Treasurer.

1874—DETROIT, MICH.
S. H. White, President.
A. P. Marble, Secretary.
John Hancock, Treasurer.

1875—MINNEAPOLIS, MINN.
W. T. Harris, President.
M. R. Abbott, Secretary.
A. P. Marble, Treasurer.

1876—**BALTIMORE, MD.**
W. F. Phelps, President.
W. D. Henkle, Secretary.
A. P. Marble, Treasurer.

1877—LOUISVILLE, KY.
M. A. Newell, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer.

1878—No session.

1879—PHILADELPHIA, PA.
John Hancock, President.
W. D. Henkle, Secretary.
J. Ormond Wilson, Treasurer.

1880—CHAUTAUQUA, N.Y.
J. Ormond Wilson, President.
W. D. Henkle, Secretary.
E. T. Tappan, Treasurer.

1881—**ATLANTA, GA.**
James H. Smart, President.
W. D. Henkle, Secretary.
E. T. Tappan, Treasurer.

1882—**SARATOGA SPRINGS, N.Y.**
G. J. Orr, President.
W. E. Sheldon, Secretary.
H. S. Tarbell, Treasurer.

1883—**SARATOGA SPRINGS, N.Y.**
E. T. Tappan, President.
W. E. Sheldon, Secretary.
N. A. Calkins, Treasurer.

1884—MADISON, WIS.
Thomas W. Bicknell, President.
H. S. Tarbell, Secretary.
N. A. Calkins, Treasurer.

1885—SARATOGA SPRINGS, N.Y.
F. Louis Soldan, President.
W. E. Sheldon, Secretary.
N. A. Calkins, Treasurer.

1886—TOPEKA, KANS.
N. A. CALKINS, President.
W. E. SHELDON, Secretary.
E. C. HEWETT, Treasurer.

1887—CHICAGO, ILL.
W. E. SHELDON, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1888—SAN FRANCISCO, CAL.
AARON GOVE, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1889—NASHVILLE, TENN.
ALBERT P. MARBLE, President.
J. H. CANFIELD, Secretary.
E. C. HEWETT, Treasurer.

1890—ST PAUL, MINN.
J. H. CANFIELD, President.
W. R. GARRETT, Secretary
E. C. HEWETT, Treasurer.

1891—TORONTO, ONT.
W. R. GARRETT, President.
E. H. COOK, Secretary.
J. M. GREENWOOD, Treasurer.

1892—SARATOGA SPRINGS, N.Y.
E. H. COOK, President.
R. W. STEVENSON, Secretary.
J. M. GREENWOOD, Treasurer.

1893—CHICAGO, ILL.
(International Congress of Education)
ALBERT G. LANE, President.
IRWIN SHEPARD, Secretary.
J. M. GREENWOOD, Treasurer.

1894—ASBURY PARK, N.J.
ALBERT G. LANE, President.
IRWIN SHEPARD, Secretary.
J. M. GREENWOOD, Treasurer.

1895—DENVER, COLO.
NICHOLAS MURRAY BUTLER, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1896—BUFFALO, N.Y.
NEWTON C. DOUGHERTY, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1897—MILWAUKEE, WIS.
CHARLES R. SKINNER, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1898—WASHINGTON, D.C.
J. M. GREENWOOD, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1899—LOS ANGELES, CAL.
E. ORAM LYTE, President.
IRWIN SHEPARD, Secretary.
I. C. MCNEILL, Treasurer.

1900—CHARLESTON, S.C.
OSCAR T. CORSON, President.
IRWIN SHEPARD, Secretary.
CARROLL G. PEARSE, Treasurer.

1901—DETROIT, MICH.
JAMES M. GREEN, President.
IRWIN SHEPARD, Secretary.
L. C. GREENLEE, Treasurer.

1902—MINNEAPOLIS, MINN.
WILLIAM M. BEARDSHEAR, President.
IRWIN SHEPARD, Secretary.
CHARLES H. KEYES, Treasurer.

1903—BOSTON, MASS.
CHARLES W. ELIOT, President.
IRWIN SHEPARD, Secretary.
W. M. DAVIDSON, Treasurer.

1904—ST. LOUIS, MO.
JOHN W. COOK, President.
IRWIN SHEPARD, Secretary.
MCHENRY RHOADS, Treasurer.

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PARKER, CHARLES I., Chicago, Ill.

*Deceased.

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JOURNAL OF PROCEEDINGS

OF THE

FIFTY-SECOND ANNUAL MEETING

OF THE

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES

ST. PAUL, MINN., JULY 4–11, 1914

EDUCATIONAL SUNDAY

In accordance with an established custom, Sunday, July 5, was observed as Educational Sunday by a large number of the churches of St. Paul, on which date the respective pastors held special services, preaching sermons on educational topics as follows. All services were held in the forenoon unless otherwise noted.

"The Master Spirit in Education"—Rev. James F. Beates, Holy Trinity English Lutheran Church.

"Education the Handmaid of Religion"—Rev. Benjamin Bunn Royer, Merriam Park Presbyterian Church, at 7:30 P.M.

"Oxford and Rhodes Scholarships"—Rev. W. P. Millar, First Methodist Church.

"An Age of Knowledge Is an Age of Faith"—Rev. Frank Doran, Central Park Methodist Church.

"The Teachers' Vocation"—Rev. Frank Doran, Central Park Methodist Church, at 8:00 P.M.

"Religion as an Education"—Rev. Maurice D. Edwards, Dayton Avenue Presbyterian Church.

"Fundamental Need in Modern Education"—Rev. S. T. Willis, First Christian Church.

"Moral Leadership in Education"—Rev. F. M. Rule, Holman Memorial Church.

"Christian Education"—Rev. William C. Pope, Church of the Good Shepherd.

"Church and Public School"—Rev. Karl Koch, St. Paul's Evangelical Church.

"A Teacher Come from God"—Rev. George Mahlon Miller, Olivet Congregational Church.

"Patriotism and Spirituality"—Rev. Addison Moore, Peoples Church.

"Matters of Moment for Modern Minds"—Rev. Addison Moore, Peoples Church, at 7:45 P.M.

"The Beginning of Wisdom"—Rev. D. Dimond Mitchell, Grand View Heights Presbyterian Church.

"Studying Our Magna Charta"—Rev. B. Scott Bates, Knox Presbyterian Church.

"Education"—Rev. E. B. Woodruff, St. Clement's Memorial Church.

"The Call of the World for Teachers"—Rev. J. D. McCormick, King Street Methodist Church, at 7:45 P.M.

"The Privileges and the Power of the Possessors of the Truth"—Rev. H. G. Beeman, First Baptist Church, at 8:00 P.M.

"Education: What Do We Imply by That Word?"—Rev. G. R. Fisher, Hazel Park Peoples Church, at 8:00 P.M.

"Education"—Rev. Edward L. Roland, St. Paul's Church-on-the-Hill.

FIRST DAY'S PROCEEDINGS

OPENING SESSION—MONDAY AFTERNOON, JULY 6, 2:00 O'CLOCK

The Fifty-second Annual Convention of the National Education Association was opened in the Auditorium, St. Paul, Minn., at 2:00 P.M., on July 6.

Vice-President Edward T. Fairchild, president, New Hampshire College, Durham N.H., presided at the opening of the session.

Invocation—Rt. Rev. John J. Lawler, Auxiliary Bishop of St. Paul, St. Paul, Minn.

Vice-President Fairchild then introduced the following speakers, who delivered addresses of welcome: J. A. A. Burnquist, lieutenant-governor of the state of Minnesota; C. G. Schulz, state superintendent of education, St. Paul, Minn.; Winn Powers, mayor of St. Paul; and Dietrich Lange, superintendent of schools, St. Paul, Minn.

A response to the addresses of welcome was made by Vice-President Fairchild.

Following the addresses of welcome and the response, Chairman Fairchild introduced to the audience Joseph Swain, president, Swarthmore College, Swarthmore, Pa., president of the National Education Association, and transferred to him the conduct of the convention.

At this point, President Joseph Swain delivered the presidential address of the year, which was entitled "The Relation of the Teacher to American Citizenship."

This was followed by an address on "The Responsibility of American Educators in the Solution of America's Oriental Problem" by Sidney Lewis Gulick, professor in Doshisha University and lecturer in Imperial University at Kyoto, Japan, and representative on Commission on International Relations of the Federal Council of the Churches of Christ in America.

The following committees were announced by President Swain:

COMMITTEE ON RESOLUTIONS

William O. Thompson, of Ohio, *Chairman*
Charles E. Chadsey, of Michigan
L. E. Wolfe, of Texas
John H. Phillips, of Alabama
John R. Kirk, of Missouri
E. T. Fairchild, of New Hampshire
G. W. A. Luckey, of Nebraska
P. P. Claxton, of District of Columbia
Arthur H. Chamberlain, of California
Francis G. Blair, of Illinois
Adelaide Steele Baylor, of Indiana
Homer H. Seerley, of Iowa

COMMITTEE ON NECROLOGY

James M. Greenwood, of Missouri, *Chairman*
Katherine D. Blake, of New York
W. N. Sheats, of Florida
Josephine C. Preston, of Washington
J. M. H. Frederick, of Ohio

Following the announcements, the convention adjourned to Monday evening, the active members of the Association reassembling by states at 5:30 P.M., either in sections of the Auditorium or at their respective state headquarters, for the selection of members of the nominating committee.

SECOND SESSION—MONDAY EVENING, JULY 6, 7:30 O'CLOCK

Preceding the opening of the session, the following musical program was given by classes of the St. Paul Normal School, under the direction of Elsie M. Shawe, supervisor of music, city schools, St. Paul, Minn.

Operetta—"Hiawatha's Childhood" . . . . . *Bessie M. Whiteley*
(Text selected from "Hiawatha" by Henry W. Longfellow)

CAST OF CHARACTERS

Hiawatha . . . . . FRANCES SEDDON
Nokomis . . . . . MATHILDA HECK
Mudjikeewis (West Wind) . . . . . ETHEL LARPENTEUR
Iagoo (The Boaster) . . . . . MILDRED HESSIAN
Warriors, Maidens, Wind-Spirits, Fireflies

1. Introduction: Indian War Dance
2. Chorus: "By the Shores of Gitchie Gumee"
3. Solo: "Ewa-yea." Nokomis
4. Wind Song and Phantom Dance: Wind-Spirits and Phantoms
5. Chorus: "At the Door on Summer Evenings"
6. Solo: "Wah-wah-taysee." Hiawatha

7. Dance of the Fireflies
8. Chorus: "Saw the Moon"
9. Chorus: "Then the Little Hiawatha"
10. Solo: "Go, My Son." Iagoo
11. Semi-Chorus: "All Alone Walked Hiawatha"
12. Chorus: "And the Birds Sang Round Him"
13. Finale: (*a*) "Then Upon One Knee." Chorus
(*b*) "Dead He Lay There in the Forest." Semi-Chorus
(*c*) "But the Heart of Hiawatha." Chorus
(*d*) "Strong-Heart." Chorus

Stage Managers and Directors of Dances

MARY MCCLELLAN and FLORENCE ROOD

After the musical program, the meeting was called to order by President Swain, and the following addresses were given on the general topic, "The Status of Woman":

"Training Women for Social Responsibility"—Lois Kimball Mathews, dean of women, University of Wisconsin, Madison, Wis.

"Some Aspects of the Public School from a Social Worker's Point of View"—Sophonisba Preston Breckinridge, assistant professor of social economy, University of Chicago, Chicago, Ill.

"The Humanities, Old and New"—Emma M. Perkins, professor of Latin, College for Women, Western Reserve University, Cleveland, Ohio.

"Preparation of Women for Twentieth-Century Life"—Mary E. Woolley, president, Mount Holyoke College, South Hadley, Mass.

SECOND DAY'S PROCEEDINGS

THIRD SESSION—TUESDAY AFTERNOON, JULY 7, 2:00 O'CLOCK

Preceding the addresses of the afternoon, the following musical recital was given by four hundred children of the Ericsson Grade School, St. Paul, Minn., under the direction of Elsie M. Shawe, supervisor of music, city schools, St. Paul, Minn.:

1. Spring Song . . . . . *Leo Delibes*
2. Barcarolle (from "Tales of Hoffman") . . . . . *Offenbach*
3. Stars of the Summer Night
4. Star Spangled Banner

After the recital, the meeting was called to order by President Swain, and the following addresses were given on the general topic, "Teachers' Salaries and Pensions":

"Present Salaries of Teachers"—Margaret A. Haley, business representative, Chicago Teachers Federation, and member of the National Education Association Committee on Teachers' Salaries, Tenure, and Pensions, Chicago, Ill.

"The College Professor and the Nation"—Charles William Dabney, president, University of Cincinnati, Cincinnati, Ohio.

"Salaries Based on the Position and Not on the Sex of Incumbent"—Grace C. Strachan, district superintendent of schools, and member of the National Education Association Committee on Teachers' Salaries, Tenure, and Pensions, Brooklyn, N.Y.

"Teachers' Retirement Allowances"—Walter I. Hamilton, agent, Massachusetts Board of Education, Boston, Mass.

The Committee on Teachers' Salaries and Cost of Living, thru its chairman, Joseph Swain, announced that its report this year had been issued by the United States Bureau of Education as *Bulletin No. 16*, 1914, under the title "The Tangible Rewards of Teaching," and that it was now ready for distribution. It also presented a supplementary report prepared by Scott Nearing, The Wharton School, University of Pennsylvania, Philadelphia, Pa., on "The Public-School Teacher and the Standard of Living," which report appears in the *Proceedings*.

Discussion—Philander P. Claxton, United States commissioner of education, Washington, D.C.; John W. Carr, superintendent of schools, Bayonne, N.J.; Lloyd E. Wolfe, San Antonio, Tex.; and David B. Johnson, president, Winthrop Normal and Industrial College, Rock Hill, S.C.

TUESDAY EVENING, JULY 7, 8:30 O'CLOCK

Tuesday evening was given over to a reception at the state capitol, to which the visiting teachers were invited.

THIRD DAY'S PROCEEDINGS

FOURTH SESSION—WEDNESDAY EVENING, JULY 8, 8:00 O'CLOCK

Preceding the addresses of the evening, there was a program of moving pictures illustrating various phases of St. Paul public-school activities.

President Swain called the meeting to order, and the program of the evening was presented as follows, on the general topic, "Principles and Aims of Education":

"Common Sense and Beyond"—William L. Bryan, president, Indiana University, Bloomington, Ind.

"The Purpose of Elementary and High-School Education"—Nathan C. Schaeffer, state superintendent of public instruction, Harrisburg, Pa.

"The Purpose of the Liberal College"—Alexander Meiklejohn, president, Amherst College, Amherst, Mass.

At the close of the program, President Swain announced the following Committee on Nominations:

COMMITTEE ON NOMINATIONS

JOHN W. CARR, of New Jersey, *Chairman*

T. W. PALMER	Alabama
A. J. MATTHEWS	Arizona
GEORGE B. COOK	Arkansas
ELIZABETH SHERMAN	California
JAMES B. RAGAN	Colorado
A. C. MONAHAN	District of Col.
G. M. LYNCH	Florida
G. L. CARVER	Georgia
W. R. SIDERS	Idaho
F. G. BLAIR	Illinois
J. W. CRAVENS	Indiana
P. E. MCCLENAHAN	Iowa
T. W. BUTCHER	Kansas
M. A. CASSIDY	Kentucky
CLARA G. BAER	Louisiana
ROBERT J. ALEY	Maine
A. J. PIETSCH	Maryland
A. L. WILLISTON	Massachusetts
C. E. CHADSEY	Michigan
FLORENCE ROOD	Minnesota
J. A. WHITEFORD	Missouri
R. J. CUNNINGHAM	Montana
J. E. DELZELL	Nebraska
E. T. FAIRCHILD	New Hampshire
J. MILNE	New Mexico
KATHERINE D. BLAKE	New York
J. Y. JOYNER	North Carolina
W. E. HOOVER	North Dakota
J. M. H. FREDERICK	Ohio
F. W. WENNER	Oklahoma
O. M. PLUMMER	Oregon
S. E. WEBER	Pennsylvania
S. S. COLVIN	Rhode Island
J. E. WALMSLEY	South Carolina
C. G. LAWRENCE	South Dakota
S. H. THOMPSON	Tennessee
H. F. ESTILL	Texas
A. C. MATHESON	Utah
G. P. BENTON	Vermont
J. A. C. CHANDLER	Virginia
C. E. BEACH	Washington
T. C. MILLER	West Virginia
J. CALLAHAN	Wisconsin
J. J. EARLY	Wyoming
E. M. BAINTER	Porto Rico

FOURTH DAY'S PROCEEDINGS

FIFTH SESSION—THURSDAY EVENING, JULY 9, 8:00 O'CLOCK

President Swain called the meeting to order and the following program was given on the general topic, "Education in a Democracy":

"For Social Service"—Edward A. Ross, professor of sociology, University of Wisconsin, Madison, Wis.

"For Political and Moral Service"—William O. Thompson, president, Ohio State University, Columbus, Ohio.

"Organization of Education for Democracy"—Philander P. Claxton, United States commissioner of education, Washington, D.C.

FIFTH DAY'S PROCEEDINGS

SIXTH SESSION—FRIDAY EVENING, JULY 10, 7:30 O'CLOCK

Preceding the opening of the meeting, a program of folk dances was given under the direction of Josephine Brower, physical director, State Normal School, St. Cloud, Minn.

President Swain called the meeting to order at 8:00 P.M. The following addresses were presented on the general topic, "The Needs of the Public Schools":

"Professionally Prepared Teachers"—John W. Cook, president, State Normal School, De Kalb, Ill.

"The Kingdom of Little Things"—James M. Greenwood, advisory superintendent of schools, Kansas City, Mo.

"Systematic Education for Those Pupils Leaving School Too Soon"—Lorenzo D. Harvey, president, Stout Institute, Menomonie, Wis.

"Progress of the Rural Schools"—Edward T. Fairchild, president, New Hampshire College, Durham, N.H.

"Let Both Grow Together until the Harvest"—Carroll G. Pearse, president, State Normal School, Milwaukee, Wis.

"The Adaptation of the Work of the School to the Needs of the People"—James Y. Joyner, state superintendent of public instruction, Raleigh, N.C.

At this time, President Swain read a letter received from the President of the United States, and his reply thereto, as follows:

THE WHITE HOUSE, WASHINGTON
June 30, 1914

MY DEAR DOCTOR SWAIN:

I was very much complimented by the courtesy and urgency of the kind invitation which you conveyed to me to be present at the meeting of the National Education Association at St. Paul and genuinely regretted that public duties made it impossible for me to give myself that pleasure.

Thoughtful people all over the country follow the deliberations of the National Education Association with genuine interest. The problems of education are really problems affecting national development and national ideas. I think that no one long associated with the profession of teaching can have failed to catch the inspiration of it or to see how great a power may be exercised thru the classroom in directing the thinking and the ambition of the generations coming on, or can have failed to realize that nothing less than a comprehension of the national life is necessary to fit a teacher for the great task of preparation and adaptation to the future that education attempts.

Cordially and sincerely yours,

(*Signed*) WOODROW WILSON

ST. PAUL, MINN., July 6, 1914

The President,
Washington, D.C.

DEAR MR. PRESIDENT:

The members of the National Education Association wish to express their great appreciation of your welcome and encouraging message. They beg you to receive their cordial and sincere greeting.

(*Signed*) JOSEPH SWAIN
President, National Education Association

President Swain then read the cablegram sent to David Starr Jordan notifying him of his election to the presidency of the National Education Association and the reply received thereto, as follows:

ST. PAUL, MINN., July 9, 1914

David Starr Jordan
Bank of Montreal Limited
London, England

Elected president of National Education Association unanimously. Congratulations. Wire acceptance.

(*Signed*) JOSEPH SWAIN
President, National Education Association

LONDON, ENGLAND, July 10, 1914

Joseph Swain, President
National Education Association
St. Paul, Minn.

Honor highly appreciated. If I can serve the teachers, I will gladly do so.

(*Signed*) DAVID STARR JORDAN

In closing, President Swain spoke as follows:

We have come to the closing hour of the Fifty-second Annual Convention. I certainly deeply appreciate the good will of this Association as expressed in the resolution of the active members yesterday. I appreciate still more the cordial co-operation of all the forces in the National Education Association and in this state and city, which have made this convention an inspiration and an influence for good in the development of the schools.

Your cordial reception reminds me of a statement of President Angell, of the University of Michigan. The alumni of Michigan on one occasion were trying to tell President Angell how much the University of Michigan was indebted to him for his service. When it came his turn to speak, he said: "I did not make the University of Michigan. The University of Michigan made me." My part has been the very humble one of helping you to give expression to the high ideal and tradition of this Association. In a very real sense I have not made this convention, this convention has made me.

I ask that you give David Starr Jordan, the scholar, the philosopher, the poet, the democrat of democrats, the promoter of the world's peace, the help and co-operation which you have given me. I cannot ask more.

President Swain then announced the adjournment of the Fifty-second Convention of the National Education Association.

DURAND W. SPRINGER, *Secretary*

GENERAL SESSIONS OF THE ASSOCIATION

ADDRESSES OF WELCOME

I. J. A. A. BURNQUIST, LIEUTENANT-GOVERNOR OF THE STATE OF MINNESOTA, ST. PAUL, MINN.

While you are here as our guests, I wish it were possible for us, as citizens of this commonwealth, to show you the state of Minnesota as we should like to show it to you.

We should like to have you see the ten thousand beautiful lakes within its borders, its winding rivers, and its wooded hills. We should like to show you Minnesota's twenty million acres of agricultural lands now under cultivation, on which are being produced immense crops that within a few days will be harvested and sent to the world's different markets, especially to those of our own state, in which are located the largest flour mills in the world. I wish too it were possible for us to take you to the northeastern portion of the state, where are to be found the richest known deposits of iron, where men are digging down into the depths of the earth and taking out of it this much-used mineral which is being manufactured into products that are shipped thruout the length and breadth of this country and the civilized world. We should also be pleased to take you to those sections of the state where you could see our virgin forests. Already large tracts of these forests have been cut down and sawed into lumber, some of which may have been used in the building of homes where many of you are living and in the construction of the schoolhouses and college buildings in which some of you have taught.

But especially do I wish that it were possible for us to have you visit our schools and colleges and universities, for we in Minnesota have ever been interested in education. Our first territorial governor, Alexander Ramsey, who subsequently became the second governor of the state, more than half a century ago recommended certain legislation which has resulted in a school fund that today is equal to more than thirty millions of dollars, and is larger, it is said, than the school funds of all the states east of the Mississippi River put together, and which in the years to come will be equivalent to many times its present amount.

We, as residents of Minnesota, like to call the attention of our guests to the picturesque scenery, the healthful climate, the great industries, the natural resources, and the educational system, of which I have spoken, just as you from other parts of the country like to speak of the interesting facts relative to the sections from which you have come; and yet I feel that, however great may be the pride that we have in our respective states

and territories, we all have a still greater pride in our common country, the United States of America, and that today all of us, regardless of whether we come from the South or the North, from the Atlantic coast or the Pacific slope, regardless of where we live, rejoice in the fact that back of the Constitution which gives us our federal government, back of the congress which enacts for us our laws, back of the federal courts which construe that Constitution and those laws, and back of the federal executive who enforces them, stand the people, not of different, separate, independent, and fighting states, but the people of the whole of the United States as the real power and the true sovereignty in our representative form of government.

So, we of Minnesota, constituting a small portion of the great American Republic, extend to you a most cordial welcome, trusting that you will receive much profit from this convention and much enjoyment from your visit to our state, and knowing that we shall be greatly benefited by your presence with us, for we realize that in the teachers of our country, in the ideas which they impart, and in the ideals which they teach, are wrapped up the true prosperity, the real progress, and the highest development of our state and nation.

II. C. G. SCHULZ, STATE SUPERINTENDENT OF EDUCATION, ST. PAUL, MINN.

In extending welcome to the National Education Association, I speak for the educational agencies in Minnesota as represented by our ten thousand rural schools and teachers, by the public-school forces of our towns and cities, by the higher institutions of learning, and by every agency that seeks to train and develop character thru organized educational forces.

Minnesota is full of joy, of promise, of opportunity. Our resources are great, our confidence in our own ability to do and achieve the useful and the beautiful is of that subdued and silent character which must be experienced in order that it may be known and felt. We have a pride in our progress, considering that scarcely more than half a century marks the state's history in its industrial, social, educational, and religious activities. You will find reflected in the school work of Minnesota types of what each state is seeking to achieve thru its educational efforts. While we hope that you may enjoy our climate, our scenery, and our hospitality, we, on our part, are conscious that the presence of the National Education Association in Minnesota will be an inspiration and a guide to more useful and practical efforts on our part. We are young in years and still more youthful in spirit. Teaching in the Northwest not only retains but restores the vigor and energy of youth. We are confident that the deliberations of the National Education Association in the North Star State will mark such an epoch in the history of this gathering of missionary workers in the educational field that the entire movement for better schools thru more purposeful and better directed training will raise and advance the whole level of public-school service thruout the nation.

III. WINN POWERS, MAYOR OF ST. PAUL, MINN.

Any city which entertains a convention of the National Education Association is distinguished thereby and reaps a harvest of honor from its hospitality. Education has been the glory of all nations that have prospered, but in no nation has education meant what it means in this country, because democracy, which in America has sought and found its final expression, must be founded upon the intellectual wealth of a whole people. An unenlightened aristocracy is a cesspool of injustice; but an unenlightened democracy, if such a thing were possible, would be hideous to contemplate in the horror of its ravages. In the final analysis, democracy and education must be one, since democracy cannot exist save thru the strength of its individual units.

Here on this continent, democracy, making not only its first but its final triumphant experiment in government and society, has taken its painful but progressive way step by step, not along the avenues of passion and prejudice, but slowly upward by paths of intelligent conquest, lighted by the torch of wisdom upheld in thousands and thousands of schools and colleges where brave and patient men and women have toiled to create citizens with a vision.

I contemplate such a gathering with a sense of reverential joy, with a sure belief that these days are to be big with a mighty devotion to high ideals in the quest for truth. As an American citizen, I am thrilled with the consciousness that your work underlies the very foundations of our government because it underlies the sanctity and integrity of our personal and social living.

My own sentiment toward your noble profession I cannot better express than to use again the words I used in my inaugural address as mayor:

> I am strongly of the feeling that to no class of people do we owe so much as to our teachers. No other profession calls for greater nobility of character, greater patience, more unselfish service. Whatever we can do to lighten the burdens of those to whom we trust, in so large a measure, the fashioning of each new generation should be done gladly and willingly, and we should, so far as is possible, make them feel that they fill a large and useful place in the city's activity, and that they represent the power and dignity of the community, and have the support and sympathy of the people.

So I welcome you to our city gladly and heartily. I trust that you may find time to test our hospitality, which I assure you will not fail. We have not the greatest city in the world—as yet—but we are a neighborly people and keep our hearts warm and our hands open in welcome to all other people. During your brief stay here, you will be able, we trust, to glimpse something of our natural beauty; but most of all we hope that you may realize the warmth of our personal sentiments toward you. A city's greatness, while it may be built upon its material achievements, cannot be sustained by these alone, but must be kept alive and new by the human and kindly spirit of its people reaching out hands of friendship toward all

other people and all other communities. In this spirit I give you welcome sincere and hearty. I will not say, in the stereotyped phrase, that "the keys of the city are yours," but rather I would say, "We give to you the keys to our hearts, to our homes, and to our affections."

IV. DIETRICH LANGE, SUPERINTENDENT OF SCHOOLS, ST. PAUL, MINN.

It is only about half a century ago that the magnificent city which welcomes you today was a small town on the Indian frontier. There are men in this audience now who were then small boys who went to sleep many a night with their heads tucked under their blankets, thinking that thus they would have a better chance to save their scalps from marauding Indians who were reported killing whites all over the state.

It is less than a century ago that the first company of United States soldiers pushed their batteaus up against the current of the Mississippi to the white cliffs of Fort Snelling, where they built the old historic fort and the old stone tower which very appropriately adorn the badges of this great convention.

These soldiers were one of the advance guards of civilization, and their work was to enforce peace between the warring Chippewa and Sioux nations.

About the same time, and at even earlier dates, missionaries came into the wilderness to spread the gospel among both the Sioux and the Chippewa.

You, also, have come here as pioneers of progress and civilization. The physical conquest of this continent is rapidly being completed by the railroads, the telegraph, and many other powerful physical appliances of the white race. But physical conquest, the building of machinery, and the accumulation of wealth alone do not make man better or life more worth living, and it is pre-eminently the duty and privilege of the teacher to create in the growing generations a sense of devotion to duty, efficiency in all the walks of life, idealism for the performance of even the humblest duties, and that broad love, charity, and sympathy for all mankind of which the Great Teacher of Nazareth will always remain the most luminous example.

For this great and inspiring task I bid you Godspeed, and on behalf of the teachers of St. Paul and the Commissioner of Education, I welcome you.

RESPONSE TO ADDRESSES OF WELCOME

EDWARD T. FAIRCHILD, PRESIDENT, NEW HAMPSHIRE COLLEGE, DURHAM, N.H.

On behalf of the National Education Association I thank you most sincerely for your friendly words of welcome.

We have come here with a full knowledge of the splendid citizenship of St. Paul and of the state at large. We are proud to be thus eloquently

here such hopeless conditions of want and degradation as we find in many parts of Europe. The mere struggle for existence among the lower classes in the Old World is much more severe than in the new. Caste, unjust laws, long years of oppression, traditions, and crowded conditions of the people, life under unhealthful and unwholesome surroundings, have made the lives of the poor pitiable indeed. In our land, while there are slums in parts of some of our great cities, and in some of our rural districts as well, they are nowhere so bad or so hopeless as they are in Europe, and they do not affect so large a proportion of our population. This is a blessing the full meaning of which is not realized by many of us.

One who has never traveled in any country except our own cannot fully realize how much better the condition of woman is in America than in other countries. The European woman seems too often to be either a doll or a drudge. Everywhere in the Old World one sees women working on the streets and in the fields, doing the work of men. In the higher walks of life, in aristocratic circles, young women at least are guarded so closely that they have little contact with life and grow up, as it were, in a convent. If the American man has greater opportunity than the man of other countries, the American woman has far greater advantages than has her European sister, especially far greater independence, and is held in much greater respect and esteem. She is becoming the best educated woman in the world, and bids fair to become better educated than the American man.

There is greater freedom in thought and action in America than in other parts of the world. Even in a democracy like that of France there are monarchical traditions, and the idea of caste is in no sense eliminated. Where there are caste lines there can be no sense of equality of opportunity. There is a conviction that birth alone makes one man better than another, regardless of attainment or character. There is no other country in the world where the worth of the individual human being, regardless of birth, wealth, or position, counts for so much as in America.

Again the United States has much cause for gratitude that it is a union of states—a "nation one and indivisible," under one flag, with a common aim and purpose, one people speaking a common language, and comparatively free from sectionalism. Few nations of the earth are so favored. Take for example the Austrian empire. There the government is very unstable. Baron Plener, a member of the Austrian Senate, told me that the Austrian government had to deal within the empire with people speaking twenty-six different languages. In view of their past history, these conditions make jealousy, and lack of co-operation is inevitable. Altho there are as many or more languages spoken in the United States, there is one common language which all the inhabitants of the country are anxious to learn.

It is only by such comparisons as those given above that we in America can realize how relatively simple our isolation from other nations makes the problem of our government.

and generously received by the lieutenant-governor of this state, the state superintendent of public instruction, the mayor of this city, and the superintendent of your city schools.

Our interest has been challenged and our admiration aroused by the facts and figures setting forth the charms and the material resources of the city and the state. We have listened with peculiar interest and satisfaction to the recital of the vast resources of Minnesota which are devoted to educational purposes. We are glad to know that so much money is available for the instruction of the youth and it will be our earnest endeavor while here to study the manner in which these funds for educational purposes are used and to learn if possible how rich a return in citizenship is secured thru the material help of the state.

We all know something of the importance and beauty of your city and the splendid spirit of Americanism which characterizes the Twin Cities. The description of St. Paul which we have just heard adds to our knowledge and confirms our admiration. But we are most interested in the description of your educational system as set forth by the state superintendent of public instruction. It is the interests which he represents that appeal to us most. Minnesota, with her splendid universities, her well-equipped and fully modern high schools, and her most excellent elementary schools, impresses us profoundly, and it is a pleasure to recall the efficient work accomplished by State Superintendent Schulz.

Again, gentlemen and citizens of Minnesota, we thank you most sincerely for this free, this full, this friendly welcome; we have no doubt that our sojourn here will be one of great pleasure and profit to ourselves, and we trust that pleasant memories of our stay may linger long with you.

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE RELATION OF THE TEACHER TO AMERICAN CITIZENSHIP

JOSEPH SWAIN, PRESIDENT, SWARTHMORE COLLEGE, SWARTHMORE, PA., PRESIDENT OF THE NATIONAL EDUCATION ASSOCIATION

It was my privilege to spend several months not long since in Europe. While I had been abroad a half-dozen times previously, I was never before so impressed by the contrast of the privileges we enjoy in America with those of the Old World, and I desire to give brief expression to the feeling of obligation which our opportunities place upon us.

Among the many things for which our American citizenship should be most grateful is its comparative freedom from abject poverty. We have the indolent, the unfortunate, the weak, and the poor, but we do not find

We may well be grateful that we are not a military nation. The continent of Europe is ever guarded by the soldier. You see him on every hand in Germany. There are many agencies to keep alive the military spirit. One feels at once in Germany that the highest idea of the nation is military. Even the spirit of the schools is military. Unless the political philosophy of Europe—that commercial and social power is determined by the strength of the army and navy—can be replaced by reason and moral law, there seems no end but destruction and ruin. While America is spending large sums on her army and navy, she is spending, in proportion to her resources, much less than Europe. I, for one, would be glad to see her take a more conservative position.

We have in the United States a feeling of patriotism and fidelity to our democratic form of government because we believe in principles of democracy and know that we have a stable government. While our own government is yet far from ideal, we may indeed be grateful that we have a stable democratic form of government in whose basic principles we believe and which it behooves us to uphold by an enlightened and courageous citizenship.

An American diplomat, who has spent many years abroad in different countries, told me he was sure that the moral sense of the American people is higher than that of any other people in the world. I heard ex-President Eliot of Harvard once say, in answer to a charge that the American people were materialistic, that he did not think so. He thought rather that they were idealistic. I believe President Eliot is right, but we are so busy most of the time that we do not give our idealism a fair chance. However this may be, it is of the profoundest moment that the backbone of our nation is composed of men and women who have considered right and duty and the welfare of humanity of first and highest importance.

This brings me to a point which it seems fitting on this occasion should be emphasized. My recent experience has made me realize more fully that the continent of Europe furnishes no parallel to the American college. All forms of higher education on the continent are professional in character. The student goes directly from the gymnasium in Germany to the university, which has no college of liberal arts. He pursues his studies in the same spirit as does the student of medicine or law.

I am persuaded that the American college fills a vital place in our American system of education. The spirit of the American college is relatively idealistic. It has for its fundamental purposes the development of mind and character. This spirit demands that education shall first mean the harmonious development of all the powers of the human personality. Contact with foreign schools has led me to cherish still more the things for which the founders of the American college stood, and for which I hope, in the providence of God, the college will always stand. Nothing else can take the place of that unswerving honesty, simplicity of life, loyal devotion

to duty, and abiding trust in the eternal verities of true religion, which was the faith and practice of the founders of our American college. These now and ever are the need of the nation, and the graduates of our colleges have a great inheritance and, therefore, special obligations.

The above are a few of the many advantages of American citizenship for which we should be profoundly grateful. That America has less poverty, larger territory, better conditions of women, larger freedom, more love of peace, larger faith in democracy, more idealism than other countries is an advantage. They have cost blood and treasure, and it is for their children to increase the inheritance which the fathers have bequeathed to them. Nothing is more shameful for a man than a claim to esteem, not on his own merits, but on the fame of his ancestors. The glory of the fathers is doubtless to their children a most precious treasure, but to enjoy it without transmission to the next generation and without additions is the extreme of ignominy.

It will be observed that these blessings which have been pointed out are chiefly spiritual ones. The higher the civilization of a people the less they value mere material things, and the more thought is given to things intellectual and idealistic.

Excluding the state and the public press, there are three great institutions for the development of citizenship—the home, the church, and the school. Our complex modern life has made the home with a large proportion of our citizenship less effective than formerly in its direct influence on the children. The church has not yet fully adapted itself to the needs of men and women in this age when theology and sectarianism are no longer potent to make men and women go to church and blindly accept its tenets and dogmas. It is hoped that both these powerful agencies will at length better fill their high place in the new order of society. However this may be, certain it is that the great fact remains that the school from the kindergarten to and including the university is growing in power and influence for good in the development of an enlightened citizenship.

If we are to have growth in citizenship from generation to generation we must have growth in culture, in the intellectual and moral training and power of the teacher.

Our public-school system not only must embrace the education of the children in the schools, but must provide for the continuous growth of every boy and girl after they leave the regular school course as now constituted to fit them for the highest usefulness as citizens in the community in which they live. This must be done by the continuation school and other agencies, which are destined to become of more vital concern in the future.

To meet this new demand of an enlarged duty of educating our citizens, we must have teachers of the highest training. They must be men and women of vision, of sound body, of trained intellects, and of exalted characters. They will continue to demand not only opportunity for a larger

training but more special knowledge in the subjects they are employed to teach.

If we are to have exalted character we must have teachers of faith and religion. When I say faith and religion, I do not mean theology and dogma, tho each individual should have his own creed and profession of faith. I mean this:

> Stripped of all forms of conventional language, laying aside the imagery and traditions which cling about the very word itself, religion presents itself to the faith of man as nothing other than the divine life in the human soul, a life which manifests itself by the growth which it brings forth, the divine flowers of the human heart, love, fearlessness, serenity, patience, service.

If this view of religion be correct, it is the chief business of men and women in the home, in the school, in the church, and in society to perform religious acts and to lead others to perform them. The religious spirit may be developed thru the teaching of music, literature, science, and, in general, thru the curriculum of the schools. The cultivation of the spirit of wonder and reverence, dependence and humility, spiritual mastery and faith is legitimate in the schools. Not much instruction, either secular or religious, can be given without a well-equipped teacher, whose personality, learning, and moral and religious life appeal to those under her care. The teacher cannot teach what she does not know and cannot give to others the religious life which she does not possess. Neither can she impart what she does know unless she has learned to teach.

The great need of citizenship in both the church and the school is a band of strong men and women who are willing to give their lives to young people, who have a profound faith in humanity, who believe that the heart of the universe is sound, who believe that we are placed in the world for a purpose, and who show by their face and feature and every act that it is a joy to give a helping hand. Fill our schools and our churches with such leaders, and we shall not need the terms "secular" and "religious education," for the term "education" will include them both.

If the schools are to have the kind of teachers suggested, there are some things which must be done to make it possible. It will always be true, as it ought to be, that the man or woman who makes teaching a life work must abandon all idea of accumulating wealth in dollars and cents. The teacher must find his or her wealth in the ability to serve. The average teacher teaches a few years as a stepping-stone to something else, for the very good and simple reason that it is only in exceptional cases that one can devote his life to teaching and still live a normal life, raise a family, and lay away enough for old age.

This is relatively unimportant from the standpoint of teachers as individuals, because they can do in the future as they have done in the past —go into some other profession or business. But it means everything from the standpoint of our civilization. There are many things which must

be done before teaching can be a profession. I will briefly name some of these:

1. The teacher must be paid a living wage. Salaries of teachers have not kept pace with increased prices, with the demands for training, for knowledge, and for culture, with the social requirements in the community, with the demands for attendance at summer schools, with needs for the purchase of professional and other literature, with the desire for travel and recreation.

2. Our states should provide a system of retiring allowances by which the teacher may live in modest comfort in old age. The good effect on the schools resulting from the teacher's ability to work with a contented mind, without nervous anxiety about the necessities of life in old age, cannot be overestimated. The school demands of the teacher larger powers and larger experience than our present starvation systems can possibly secure.

3. The teachers in our lower schools should have a sabbatical year's leave of absence for travel and study on at least half-pay, as is now the custom in many of our universities and colleges. There is no expenditure of money that brings more return to a school than the sabbatical leave of absence of one or more teachers from the school each year. Such a teacher returns with a new birth and brings a new enthusiasm and vision, not only to her own work, but to the work as well of the other teachers in the school. Incidentally it brings new hope and aspiration to the younger teachers in looking forward to the opportunity which in turn will come to them.

4. Lastly, as the great body of our teachers are women, there are things which should be done especially for them. More positions as superintendents, principals, and on boards of control should be open to women. The best person for each position should be chosen regardless of sex. There should be equal pay for equivalent services, subject, of course, to the law of supply and demand. Our young American citizenship should be trained by American citizens, and all teachers should have the rights and duties of citizenship. It is to me a self-evident truth, therefore, that all the teachers, both men and women, should have the power and duties of the ballot. No other one reform in my opinion would do more for the schools or so increase the influence and dignity of the teacher.

Given a cultivated, trained teacher of deep religious convictions, with a sound body and an impressive personality, who goes to her work every morning after a good night's rest, dressed neatly, with a cheerful face, at peace with God and man, and the public school or any other school that is vitalized by such a teacher will not be Godless, but the best place in the world for the growth of the child in practical righteousness and American citizenship.

These are some of the things which will hasten the day when men may see the vision so beautifully expressed by the late Justice Brewer:

> With the eye of faith I see unrolled on the canvas of the future a glorious picture in, which shall be seen every laborer dwelling beneath his own vine and fig tree, receiving

over a living wage for his toil, every merchant and manufacturer pursuing his business and his industry without a thought of interruption by the ravages of war, and men of science and wealth combining in the achievement of more and more gigantic results, adding not merely to the necessities, but also to the comforts and luxuries of life, taking possession of land and water and air, and all the forces to be found in them, and making them minister to human life. In the foreground will be seen that highest type of womanhood, the Madonna, and across her bosom will be these words: "Mary hath kept all these things, and hath pondered them in her heart"; while underneath will shine in letters of fadeless light, "The United States of America has fulfilled its mission."

THE RESPONSIBILITY OF AMERICAN EDUCATORS IN THE SOLUTION OF AMERICA'S ORIENTAL PROBLEM

SIDNEY LEWIS GULICK, PROFESSOR IN DOSHISHA UNIVERSITY AND LECTURER IN IMPERIAL UNIVERSITY, KYOTO, JAPAN, AND REPRESENTATIVE ON COMMISSION ON INTERNATIONAL RELATIONS OF THE FEDERAL COUNCIL OF THE CHURCHES OF CHRIST IN AMERICA

The awakening of Asia starts new problems for America. The entire white race, indeed, has already been confronted with a new situation thru the emergence of Japan into world influence. The rapid changes now taking place in China are pregnant with meaning, not only for all Asia, but for all mankind. The battles of Mukden and the Japan Sea announced to every capital in Christendom that a new era in the relations of the East and the West had begun.

Japan for 250 years feared the white man and his religion. To save herself from the white peril she closed her doors and carried out with rigor the policy of exclusion. When, in the middle of the last century, she suddenly found herself hopelessly belated and at the mercy of the powerful, aggressive white man, after two decades of inner turmoil and finally of revolution over the problem of how to deal with him, she made that momentous decision to learn from him; in a word, to master the sources of his power in order to maintain the independence of her land, the perpetuity of her imperial line, and the sovereignty of the government by the abolition of extraterritoriality. For forty years she has followed this new policy, with results which are producing a new epoch in the relations of the races.

The Russo-Japanese War brought, not only safety to Japan, but light to China. The magic word had been spoken and all Asia heard. The Manchu Dynasty has gone. The characteristic Chinese queue has largely gone. Chinese indifference to national disaster is giving place to patriotism. China has definitely entered on that momentous course of national transformation which will bring her increasingly into contact with the West. Many decades, perhaps a century or two, may be needed for her to accomplish what Japan has done in the past half-century. But as surely as the dawn follows the rising of the sun will China acquire our life, become equipped with our civilization, and utilize our methods of government,

of industry, of commerce, and of armament. She will become one of the great competing nations of the world. And all the world must reckon with the new world-situation created by the renaissance of Asia.

This means much for America. Are our relations to Asia to be hostile or friendly? Is the white man going to be an obstacle to her best development, forcing upon her his disastrous militarism? Is he going to yield to Asia only so much of privilege or justice as he is compelled to yield by her military might? For China will arm if she feels, as Japan has felt, that she can secure safety and justice only thru military power; and, in proportion as Asia arms, every white nation will fear and suspect her and develop each its own bristling armaments. Or, on the contrary, thru our sense of justice and our good will, shall America help Asia? Shall we aid her with chart and compass as she sails the storm-tossed seas on which she has now embarked? Shall we be her friend, to deal justly with her ourselves and see that justice is done her by the other nations of the world?

The attitude which the United States takes to Japan and China in this and the next few decades promises to be epochal in the history of man. And the responsibility for the attainment of the right attitude depends in no small measure on our educators and our institutions of learning. The general attitude of our people is today one that is based on profound ignorance. It expresses itself in disdain, scorn, misrepresentation. Asiatics are regarded as inferior in race, degraded in character, and unassimilable in nature. We allow no Asiatics to become citizens of America, whatever their personal qualification. This refusal of rights of naturalization is made the ground of differential race legislation by several states. Such legislation, however, is regarded by Japanese as invidious and humiliating, contrary to the treaties, and in conflict with their national dignity and self-respect.

This is the crux of the so-called Japanese question. This is what is causing the Japanese people so much pain and indignation at the recent anti-Asiatic legislation of California. Japan does not ask for an open door for labor immigration. She is widely misunderstood at this point. She does ask for a square deal on the basis of manhood equality with other races. Her people are not willing to be regarded or treated as an inferior race or as intrinsically undesirable. When China awakes to the situation, she will unquestionably develop the same feelings and make the same appeals as Japan is making today.

It is impossible, however, for America to respond to this appeal of the Asiatic for equality of treatment, good will, and friendship so long as the present conception of the Asiatic and his civilization prevails among us. To admit him to our citizenship is regarded by many as intolerable. We might as well admit baboons or chimpanzees, some are openly saying. Good American citizens, and even Christians who believe in sending missionaries to Asiatics in their own land, regard them with disdain and scorn,

holding that they are intrinsically different from us—so different that it is impossible for them ever to enter into our life, understand our civilization, or share with us in this great American experiment in democracy. Such individuals are fond of Kipling's famous ballad:

Oh, East is East and West is West
And never the twain shall meet
Till Earth and Sky stand presently
At God's great judgment seat.

That is to say, East and West are so different that, entirely regardless of the question of inferiority or superiority, these two great sections of the human race cannot possibly mix. The effort to provide for their mingling, they hold, will inevitably end in turmoil and finally in disaster. They forget, however, that Kipling did not stop with the lines they love to quote. Tho he well recognized the differences between East and West, he also saw deeper and beyond. For he added in the lines immediately following:

But there is neither East nor West
Border, nor Breed, nor Birth
When two strong men stand face to face
Tho they come from the ends of the earth.

The fact is that the unities underlying all branches of the human race are far deeper and more real than first appear. The differences are relatively superficial.

Now one of the outstanding duties of our educators is to study these pressing problems of international life and the new relations necessarily arising thru man's recent mastery of nature and the relative collapse of space. We need to know the facts. Our entire people should be educated on these matters. We must be led by a sane and kindly attitude toward those great civilizations of the Orient and their peoples, not by ignorance and race prejudice.

Our popular attitude toward Asiatics today is based on ignorance of the peoples, their history, and their attainments. It is based on a tradition that has come down from the past, a tradition, however, which better knowledge does not justify. Educators should lead in the overthrow of these race misunderstandings and prejudices which threaten to bring enormous and disastrous consequences to both the East and the West.

The popular view that Asiatics are undesirable because of their absolute non-assimilability is based on assumptions which modern biology, psychology, and sociology, as well as actual experience, show to be quite erroneous. Our institutions of learning should promptly set to work instructing our people on these matters, for they are of highest international importance. The rank and file of our people should no longer be misled by belated conceptions which, tho long regarded as scientific, are now seen to be baseless. We are in great danger lest mediaeval views of race nature and race relations shall plunge us into serious yet needless difficulties.

Modern education has overthrown, to a large degree, the mediaeval dogmas of theology, rendering thereby an inestimable service to religion. There is crying need that it render the same service to our international life by overthrowing similarly mediaeval dogmatism as to race nature and race relations.

The peace movements in the countries of Christendom are doing noble work. The wide education of youth in our schools and colleges on peace questions, the work of the American School Peace League, and the Intercollegiate Peace Association with its prize essays and orations are all promoting conviction as to the folly and wickedness of war and the need of right methods and organizations for the attainment of international justice. They are good so far as they go.

But for the promotion of right relations between the white race and the Asiatic they are doing relatively little. There is urgent need of active steps promoting respect and good will among us toward the Asiatic. The suggestion of Charles H. Levermore, in his annual report to the trustees of the World Peace Foundation in regard to peace textbooks, should be seriously considered. He says:

> We should have a textbook presenting a sympathetic analysis of the needs, duties, and ideals of the great races, proceeding to a comparison of their mutual influence in politics, religion, and the arts, and of their various associations for common action since the French Revolution, concluding with a study of the gradual emergence of various forms of world-organization, of the peace movement, and of the financial, commercial, and industrial developments that have already provided the world-organism with a single, sensitive, nervous system.

This suggestion is splendid; but let it definitely include the Asiatic, We need a series of "Race Readers" in which the millions of children and young people in our schools and colleges shall learn of the noble characteristics and achievements of the various races. They should be taught to respect foreigners of every race, for each race has its noble ancestry and its heroes.

The systematic education of our youth in oriental history and civilization, is, to my mind, an important item in the new oriental policy which must shortly arise and be widely adopted, if the relations between the white man and the Asiatic are to be right and just and mutually helpful.

Indeed, for the general elimination of race prejudice, education is needed in regard to the histories of all the peoples from whom immigrants come to our shores. Anthropological readers should be prepared, devoting one or more chapters to each race and people of whom representatives live in our land, written from an appreciative standpoint and setting forth the notable deeds of each. They should be well illustrated with fine engravings of the best representatives dressed in modern European clothing, in order to avoid those caricatures which are so common in pictures of strange peoples. Such readers would help the young to get over their spontaneous feelings of race antipathy.

The splendid deeds of heroism done by Jew and Spaniard; by Italian and Hungarian; French, German, and English; Japanese, Chinese, and Hindoo should all be set forth with appreciation. For Japan and China and India have had their illustrious histories no less than England, Germany, and France. Should not the outstanding characters and achievements of these lands be taught to our young? George Washington, Abraham Lincoln, Benjamin Franklin, and many English and European heroes of progress and high ideals are known, not only by name but also for what they did, to all in Japan who have had a secondary education, and to all the higher classes in grammar schools. How many in our land, even college graduates, could tell anything whatever of Shotoku Taishi, Kusunoki Masashige, Nichiren, Shonen, and other great leaders in Japan? It is high time that the study of oriental peoples and histories should be introduced into our public schools. It would help greatly to race reconciliation, even as impartial and appreciative histories of the Civil War have done much to reconcile the North and the South.

The time to prepare for the much-dreaded military yellow peril is before it arises. And the way to prepare for it is to develop such a widespread understanding of, and respect for, the Asiatic among our peoples at large that we shall be able to do him justice, and assure him that there is no white peril. The only possible source of a military yellow peril is the conviction among Asiatics that they cannot secure justice or decent treatment or safety at the hands of the white man except by force.

Had Russia, Germany, and France not forced Japan to return Port Arthur to China at the close of the China-Japan War, there would have been no Russo-Japan War. The injustice then inflicted on Japan, the continuous encroachments of Russia in East Asia, together with the whole attitude of Europe to Asia, was the real reason why Japan was forced to develop her armaments to a degree somewhat approaching that of a western people. If Christendom refuses to Asiatics in our midst that courtesy and justice which we accord to each other, can we condemn those great nations of Asia for resentment and indignation? And this growing feeling in Asia of a real white peril may ultimately lead to a military yellow peril.

But how is this attitude of courtesy and justice on the part of the white man to the Asiatic to be secured? It is not something that can be brought into existence by legislation. It can come only by habits of thought and feeling which are founded on knowledge and respect. This is the point of responsibility for our schools. To the young of all the many races now here, we need to teach the good and noble things for which their respective ancestors are to be honored. We need to cultivate a spirit of mutual race appreciation on the part of the numberless groups that now make up our cosmopolitan people; and in this movement of mutual respect the Asiatic must be included.

I well recognize that many practical problems confront us when we seek to reduce to practice our theories as to race equality. Would not, for instance, an open door to Asiatic immigration, as that door has been open to European immigration, involve us in intolerable difficulties? It would, without doubt. But I contend that the equal treatment of Asiatic with other races does not demand universal free immigration. The solution which I have proposed is a limited immigration for all races. But this is not the time or place for the presentation of this plan in detail. Those who are interested in the subject I may refer to my volume on the *American-Japanese Problem.*

The center of the plea which I here present is that educators have a new responsibility placed upon them by the awakening of Asia. We live in a new world. We can no longer ignore Asia, even as Asia has discovered that she can no longer ignore us. Our educators must lead the way in training our young people, so that our rapidly growing contact with Asia may be freed from the danger that confronts us and may become, on the contrary, a source of mutual advantage.

TOPIC: THE STATUS OF WOMAN

A. TRAINING WOMEN FOR SOCIAL RESPONSIBILITY

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There have been in the development of human folk since the beginning of time two tendencies—the one toward individualism, the other toward social responsibility in the largest sense. What is called the "feminist" movement is as old as women are: it is merely the new name for the old attempt at self-realization. Nor is it—this striving for the realization of one's full capacities—inherently a selfish aim.

At first blush, the second tendency—that toward social responsibility in its largest sense—would seem to be diametrically opposed to the tendency toward self-realization. One's sober second thought perceives a profound relation between the two, a relation capable of being used for the highest achievements and the noblest ends. The one should in reality accompany the other; and while women are being developed as individuals, they ought also to be trained as members of a group, as parts of a great social organism. It is the business of the family, the school, the church, the college, the university to teach a girl at an early age her responsibility, her inescapable obligation to the family, the social community, and the civic community. I must confine myself to the last of these agencies—to the training the college or the university can and must give women if they are to be fitted to assume social responsibility in intelligent and effectual fashion.

First of all, the college or university must lay the foundations in the classroom, by holding students to discipline of the mind, to bringing to a conclusion as well as they may any course which they begin, regardless of the drudgery here and there involved in completing any piece of work. Specifically, certain courses do more than others in developing what one may call the "social point of view"; courses in history, literature, and political science, with their vivid human interest; in economics, where one finds the inestimable value of training which enables one to test the practical by the theoretical, which teaches the intellect to guide the emotions, the mind to discipline the imagination. There are also courses in sociology, taken after a thoro grounding in economics, where one learns of problems of poverty, defective and delinquent classes, methods of charity work and poor relief. Turning to the realm of science, there are the great fields of preventive medicine, of public health, of psychology as a basis for social science, of chemistry for problems of nutrition, and a dozen other less obvious sciences. In these courses are afforded at once specific training and the acquisition of a point of view, and each is quite as essential as the other. No one, I think, feels that the last word has been said upon woman's education when it precisely duplicates that of a man. The tremendous possibility of university courses in home economics when they are properly grounded upon science and economics as a firm intellectual basis and discipline makes one stand aghast.

When there are in combination, as is the case in Madison, a library school and reference libraries for legislatures, municipalities, etc., an especial kind of laboratory work in social and public service is possible. Young women may not only prepare bibliographies, but may do investigational work for the departments of the state and city governments, and also may do constructive work in suggesting how conditions may be permanently ameliorated. Such studies of actual conditions, made in scholarly fashion and handled scientifically, must be invaluable in solving the problems themselves, and no one who works upon such investigations can fail to acquire an abiding sense of social responsibility.

But a warning needs here to be sounded. There is grave danger involved in pushing back too far into the college curriculum these pieces of specifically vocational work. Care must be taken that sufficient background of general mental training and of real experience of life shall have been acquired upon which may be overlaid this intensive and specialized work. Women have a natural aptitude for social service; to them municipal housekeeping is closely akin to family housekeeping, and municipal housecleaning not unlike that in which well-regulated households indulge daily and weekly. The temptation is great to mistake this natural aptitude for a trained reaction, and so to apply it beyond its capacity and before it is developed, to give to enthusiastic, immature girls problems to solve which require years of insight coupled with self-restraint. It will be

interesting to note in the next few years the comparative achievements in social service and social investigation of the graduates of colleges like Vassar, which adhere to the four years' course with no vocational training; or Simmons, with a four years' wholly vocational course; or Margaret Morrison Carnegie School in Pittsburgh, where two years of general college work is followed by two years of vocational work. We are apparently to have more differentiation of our women's colleges and to see much duplication of these three distinct types.

So much for training in definite courses. Are there other ways in which the college and university may train women for social responsibility? I believe that there are. To this end are organized self-government associations, whereby rules of conduct are made and standards maintained by the students themselves. Student opinion is, if one can get to the root of it, sound and wholesome; but it is immature, limited in its scope, and often intolerant. It is therefore impossible to give over everything concerning college life and college standards to young students without any controlling force from older and wiser heads; but what is needed is advice, not mandates.

In the University of Wisconsin, in each of our women's lodging-houses, Greek-letter society houses, and halls of residence, there is a representative of this organization who is ex officio a member of its central board. The central board has its meetings for an hour once in two weeks, and it there takes up questions of public concern for the women students—the dance question, the honor system, ways of assimilating our 45 per cent of new students into the life of the 55 per cent of old students who represent continuity of policy and some sort of tradition, and other questions. Each member of the board is responsible for her house—its conduct, its standards, its observance of the few rules we have; and it is a serious trial of her tact and power of adaptability to make of her house a unit. She calls her house together once in two weeks, and there gets a consensus of opinion on subjects to be taken up by the central board, and reports to them actions of that body.

This year our self-government organization has appointed a junior girl to be adviser to each freshman girl, and while the plan is not working out ideally, still it has sufficient success to warrant its continuance. There is a small executive committee of the Self-Government Association to deal with breaches of the rules of the organization. The whole association undertakes to provide simple means of entertainment from time to time to make possible some social life among students who otherwise have little or none. Here is a task requiring delicacy and tact; it must not be obvious, yet it must reach the so-called "unsocial" student—the most difficult of all girls to deal with, and the one who most needs to get the social point of view. We do not succeed wholly, nor—I suspect—does any other college. It is often poverty that lies back of the unsocial attitude of a girl; we hope to

help to relieve that difficulty in another year by a co-operative house, such as is operated by Wellesley, Smith, and with unusual success by Northwestern University, where each girl materially reduces her expenses by assisting, for an hour or an hour and a half a day, in the conduct and care of the house under an efficient house-mother and a competent cook. We believe that here will be a most effective means of training to a sense of social responsibility a number of girls whom it is hard to reach. None of these agencies, be it said, are or need be enormous time-consumers. It is entirely possible to take an active part in these organizations and still be a good student. By not permitting students to hold office if their scholarship record is unsatisfactory, by limiting the amount of outside activity in which any one girl may indulge, and above all by maintaining in the classroom a high standard by which work shall be judged, I believe it is possible to accomplish all the ends for which we are striving in the education of our young women before they go out into the world.

So far I have been speaking exclusively of the training of women who come to the college or university, of those whom we are able to influence and educate within our very walls. There is another class which should be even larger—the women outside the university, who by dint of age or lack of means or home obligations are unable to come to us. Is it not right that the facilities of the central institution be used for this large and eminently worth-while clientèle? It is here that the work of the extension department comes in, with definite plans and an open mind to meet this great need. There are thousands of women in small towns all over the state, absorbed in their own concerns, dissatisfied with their own mental attainments, hungry for something outside themselves that shall lead them to higher and finer things. They cannot go to college, so the college must go to them. Who can estimate the value of the child-welfare exhibit, especially when its concrete illustrations are driven home by an instructor from the home economics department of the state university, who shall speak of the rights of the child to be well born, to be well nourished, to be well clothed, to be trained physically, to be trained morally, and to be trained religiously? The exhibit itself is unique and novel to most of these women; but they have not the training to make the most of it by applying these lessons. Thru this means of instruction a woman grows, not only in a sense of responsibility regarding her own child, but in an interest in the problems of infant mortality and of child welfare everywhere. In other words, she suddenly acquires, if she did not possess it before, the social point of view. So with the tuberculosis exhibit and with many others. There are, to be sure, associations especially designed for carrying on this work, but they cannot afford to send to all these small towns, nor do the small towns know they need the exhibits. It is a part of the university's business to create the realization of what one does not know—a part which it must not and cannot ignore.

There is no movement of recent years more potent in arousing the social consciousness of women than the women's club movement. When one reads the records of their achievements as set forth in their biennial reports, one is amazed at what is being accomplished by these organizations working singly and shoulder to shoulder. But in Wisconsin they do not work alone. The state university places all its resources at their disposal if they ask for it. The home economics department, for instance, sends out programs and bibliographies for directing a year's special study, and provides speakers to take up crucial and more technical subjects. The library commission supplies working libraries for the clubs. When once a club has availed itself of these opportunities it is interesting to see that it comes again and again, year by year, for further direction. Clubs also send to the university for expert lecturers on social problems, and on that basis undertake work in civic and industrial reform. A small club in Milwaukee this year set itself the task of learning all that was possible about the *modus operandi* of the state of Wisconsin. They began with the state university, and asked for a speaker from that institution to inaugurate the course. They are now to take up the state commissions, and are again sending for an expert speaker. The members hope in another year to turn their knowledge to some useful purpose. But it is noteworthy that they are first getting accurate and wide information first hand; later they will apply it. I need only speak in passing of the correspondence-study work, since that is well known. But the work of the short course in agriculture and home economics, where for three months—from December 1 to March 1—while the work on the farm is not overwhelming, men and women come to the university to get all they can as to recent scientific aids to farming, stock-raising, house and dairy keeping, etc.—this work is invaluable. Then for two weeks in the winter, intensive work is given to those who cannot spend three months; and here all the resources of the university are brought into play to stimulate or inaugurate a new point of view. It is pathetic, as well as amusing, to see these men and women come to the women's gymnasium for the evening play-hour, where they learn games, take exercise, and, often for the first time in their lives, really learn to play. Their passion for learning is enormous, their desire for information approaches greed, and if they go home to criticize we do not care, since that very attitude indicates an awakened mind. The home economics work in the farmers' institutes is on these same lines and is designed to reach those who cannot leave home for even two weeks.

In conclusion, how shall women be trained for social responsibility? First, by the development to the fullest possible extent of all their powers, physical, intellectual, moral, and spiritual, to the end that each woman may know her powers and her limitations. In other words, train her as an individual, help her to realize herself, and lead her to a divine discontent with selfish individualism. Second, and at the same time, teach her her

inescapable obligations to the various groups into whose membership she is born—the family, the social group, the civic group. Teach her by concrete tasks, by working shoulder to shoulder with other women, that imagination and sympathy which make for the social point of view. Teach her by the attitude of the institution of higher learning to which she looks for her inspiration—whether immediately within its walls or longingly from a remote horizon—that the only social experience worth having is the sort that women like Miss Addams have, the social experience that makes every man, woman, or child at ease in her presence because of an intuitive sense that their ideals and aspirations are at one. Given such a point of view, and the tools with which to work, one need not worry about achievement, for such social responsibility is bound to find its outlet in service to the community. To provide such training and such a sense of responsibility to every woman who desires it, or, as Mr. Benson says, "who desires to desire it," such is the obligation and the possibility of every institution of higher learning.

B. SOME ASPECTS OF THE PUBLIC SCHOOL FROM A SOCIAL WORKER'S POINT OF VIEW

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To the social worker the school appears as an instrument of almost unlimited possibilities, not only for passing on to the next generation the culture and wisdom of the past, but for testing present social relationships and for securing improvements in social conditions.

Thru the requirements of our compulsory attendance laws, we see to the school assigned the duty of securing the presence of all children within certain ages, supplying to them the knowledge, discipline, and culture of which they are capable, and determining when they have reached the age at which they may lawfully enter the labor market.

The social worker marvels at the magnitude of the task and at the extent to which its importance has gripped the conscience of the community. She is often tempted to covet the millions of dollars allotted from public funds, but she covets far more eagerly the simple and natural contacts established with the homes of the community.

The social worker looks with envious eye upon the opportunity lying before the school and is supremely grateful for the contributions it makes, not only to an increasingly high level of community intelligence, but to the independence and enrichment of lives among those to whom in the past a meager share of the world's culture has been allotted. She is, therefore, the less reconciled to waste resulting from the failure on the part of the school to take advantage of its opportunities for simple and effective approach to the family groups and to the consequent loss in social well-being.

Three classes of failures come conspicuously to the attention of the social worker:

1. Those cases in which the child's school experience makes little impression because of the physical conditions prevailing in his home.

If, at a well-ordered table, the digestive machinery of a child refuses to act, the child does not eat, and the failure in the attempt to feed the child is evident. But, in the school, the mental apparatus of a child may be wholly clogged and inactive and no one know.

There are the children from homes where life is very irregular or, if regular, the routine is determined by the exigencies of the father's job and of the mother's limitations rather than by the children's needs. The rooms are crowded, the facilities for cleanliness all too scanty, the confusion great, the heating excessive, the ventilation inadequate; the food possibly insufficient in amount, hastily prepared, and irregularly served. Many homes do not measure even up to this level, for account must be taken of drunkenness with its resulting brutality, uncertainty, and irregularity, as well as of the many consequences of the lack of decent amusement, to say nothing of the notorious failure to abolish vice in districts in or near which many children live.

But the school replies, "Whose fault is this? Surely, those influences are to blame which permit to exist the causes giving rise to poverty—the complacently virtuous who allow the saloon and organized vice to exist, the corrupt city government, the venal police"; and this is all true. The school is not to blame, nor can the school undertake the task of securing adequate housing, a living wage, decent surroundings, and rational recreation. I do not ask if it has done its share—who can tell what its share is? I ask if it has done all it could—is it doing all it can? Does it report every case in which it knows that its own resources are wasted because of these conditions? Has it done all that might be done to develop devices by which it might know more fully, and to bring to bear reconstructive influences on, the situations that interfere with its efficient work? We know that shoes and other clothing are given to poor children. We hear much of school feeding, and the school lunch seems to justify itself. But obviously a child is unlikely to need clothing only, and underfed or wrongly fed children are probably underclothed and wrongly housed and need many other kinds of service besides the feeding. In many cases, what is needed is something in addition to what the school is doing, even when there is medical examination and a school nurse. And often there is needed something quite different from what the school is doing. In every case where any service to the home seems required, the determination should be made by a social worker rather than by a teacher—by a person designated by a title indicating a relationship to the school and a function other than teaching, such as "school visitor." This distinction should be made clear both for the sake of the new form of service and for the sake of the clearer

appreciation of the teacher's real task. For the teacher's real task, and it is a noble and a sufficiently difficult task, is teaching, and it is unfortunate when either the teacher or the public becomes confused on that point.

2. A second group of pupils in whose case the school fails are those whose needs the school is, as yet, unable to meet. Deficiencies have been pointed out in connection with immigrants, both children and adults, in the interesting report recently made to the legislature of Massachusetts by a state commission on immigration.

This is not the place to discuss and emphasize the recommendations intended to meet shortcomings on the part of the school system of Massachusetts. The point is that failure to understand the social relationships and economic pressure means failure to perform efficiently the educational task.

With reference to many others besides immigrant pupils, similar failures can be noted. Of these the group most appealing is composed of those children who leave school at the earliest moment allowed by the law to take up wage-paid work, to whom is given absolutely no preparation for their experience in seeking work nor for doing the tasks in the factory, shop, or office into which they go. What can or should be done for these children should of course be determined by the educationalist, who can alone decide educational questions, but the decision should be based upon information furnished by those who know out of what surroundings the children come, and into what kinds of employments they go. In other words, while he alone must decide, he cannot wisely decide alone.

3. But the striking failures are those in which the attendance of the child is either not secured at all, or is secured irregularly or inadequately. The volume of this failure is suggested by the figures of the Bureau of Education showing great discrepancies between enrolment and attendance. These figures are, however, most unsatisfactory. They give no clue to the volume of absence without cause or for inadequate cause by which the child loses in part, if not wholly, the benefit sought by the enactment of this legislation. No estimate of this waste has been made. Perhaps it cannot be made.[1] But the social worker is familiar with it and would gladly see it done away with at its source. It is freely acknowledged that when there are failures of the kind suggested, they are not to be attributed to the school alone. Other agencies may likewise fall short. They cannot succeed alone, however, and closest co-operation with all other agencies concerned with the well-being of children must therefore be developed by the school.

May, therefore, a few suggestions with reference to these groups of children be made without suspicion of carping or unjust criticism? It has been said that the social worker becomes aware of some of these

[1] A study of the social aspects of compulsory school laws based on a study of the Chicago schools will be published during the autumn of 1914 by the writer in collaboration with Edith Abbott of the Chicago School of Civics and Philanthropy.

failures. Think of the last class, namely, those whose attendance is inadequately enforced. In every large city fortunate enough to have a good charity organization society, many cases of children who obtain their working papers too soon are discovered thru relief records. When a family applies for aid, the dates of birth of all the children are entered on the case record, and it is not easy to give incorrect ages. Moreover, the younger the children, the more appealing is the distress of the applicants. Later, when the child goes to work illegally, a resourceful charity visitor may succeed in finding the evidence and return the child to school.

The point is that if one really has something to give that not only has cost very dear but that has a value beyond all measure, one does not lightly allow the beneficiary to be deprived of its enjoyment, and, knowing the attitude of many parents toward the education of their daughters, the pressure of poverty upon them to put their children at work, and all the other confusing influences retarding the appreciation of education, it would not be unreasonable to demand that confirmation of the parents' statement with reference to the entering children which is available without too much difficulty. Family emergencies of all sorts fall heavily on children in poor homes at best, and the school surely does not wish to contribute to these burdens in any way nor to fail when possible to relieve the children whose lives it tries to enrich. Often sickness in the family is the occasion of the failure. It is both mistaken kindness and neglect of legal duty to allow children to be deprived of education and health and to suffer the home to be neglected on account of sickness.

These are wastes in which the school often passively acquiesces. But there are cases, not inconsiderable in number, in which the principal actively co-operates to the child's loss. There are the excuses granted that the child may stay at home, not only because there is illness, but because there is extra work, because there is the regular work, because a job is to be sought, or because there is a case in court where the child's services as interpreter are apparently needed. All too frequently the teacher acquiesces in the sacrifice of the child to the poverty of his parents. The undoing of the poor is their poverty often here as elsewhere, and perfectly needlessly, if, in addition to the education given by the public, there may be "loaned the brains" of the school official or someone called on by him to view the situation.

From the standpoint of the charity visitor, to whom the school attendance of the children seems an important factor in successfully restoring the family under her care to independence, of the settlement worker who expects only to supplement the school in relating the family to wholesome and helpful influences, of the person concerned with improved labor conditions and a higher general level of industrial efficiency, these losses on the part of the children of the poor seem of enormous importance, and, to them, any acquiescence in considering the attendance officers as mere representa-

tives of the power of the law to make children attend seems a betrayal of the trust committed to the school. To the social worker concerned, the attendance officer appears as the messenger from a truly generous public, interpreting to those who do not know the incomparable value of the offering made the child, but likewise bringing back some estimate of what it costs the parent, and some new statement of how that cost may be shared, or perhaps shifted, as much of it should, of course, be shifted by readjustment of the wage-level. Moreover, it seems an additional waste to discipline parents or children, while leaving undisturbed the influences which lie at the root of the difficulty. This is not the place in which to suggest concrete alterations in the machinery for receiving those children who are brought voluntarily to school, or compelling the attendance of the others. That there should be changes in the directions suggested is among the ardent desires of those who come in contact with the children by the other path of approach, i.e., the need in their family group for some form of social service. If these statements are in any sense just, there is need of perfecting delicate social devices within the system and of building up more perfect co-operation with agencies without.

There are reasons for these failures which are peculiarly convincing if the evidence were really massed and honestly viewed, for in the school system is found a situation likely to result in a greater measure of failure of the kinds suggested than is at all necessary from the nature of the case. Here we have the great mass of children whose needs are under discussion coming under the observation of women teachers who might be quick to see the need and to realize the ineffectiveness of their own services to meet those needs—according to the report of the commissioner of education 79.3 per cent of the teachers in the elementary schools in 1910–11 were women—but the opportunity to make known these needs and adequately to interpret them is not given, since the great majority of the principals and practically all the school superintendents and members of school boards are men. There is no channel thru which what they learn of the needs of those they would serve can pass up to those in power; and what comes down from those in power is dead bones of routine, as any undertaking separated from the source of information, suggestion, and interpretation must be dead routine.

The waste and stupidity of such an arrangement becomes obvious when we remind ourselves of the number of women who have been teachers, whose services might be appropriated by the community. These women would be quick to see just the lack to which reference has been made. They are, in fact, engaged in urging on legislatures modifications of the law, and on school boards the development of just such co-operative social devices. But such developments urged from below, as by the women teachers in the grades, or from without, as by club women, come slowly. And, of course, neither group uses its full intelligence, not being vested

with full responsibility. Yet the problems are sufficiently complicated, the task is sufficiently difficult to command the fullest intelligence and freest endeavor of all concerned.

Moreover, with reference to many of the problems, the experience and intelligence of women would be peculiarly valuable, and in many of the tasks the services of women are practically required or at any rate are probably much more efficient than those of men. One hears much of the feminization of the schools, and the disproportionate numbers of men and women teachers are cited as evidence. The evidence is totally irrelevant. The question is not who does the task, but whose ideals prevail and who exercises the authority. The real need is a much greater feminization of the schools by applying to them the tests women apply to their own concerns—the tests of comfort, well-being, normal growth, increasing richness of life, observation of the failures, wringing from them correction of old methods and suggestions for new.

There have been many attempts at true feminization. Reference might be made to a few in illustration of this point:

Some years ago a number of the women teachers in Chicago conceived and carried into effect the feminine idea that the great corporations should be made to meet their lawful obligations. They found themselves undergoing strange experiences in strange places as they sought to obtain the enforcement of legal obligations for the education of the little children in Chicago. It was a purely feminine undertaking in its conception and in its accomplishment, for who but foolish women could think the education of the children was more important than the favor of the great corporations? Another feminine idea has been that it might be well for those in authority to know what those who were doing the work were thinking. And the organization of the teachers' councils, meeting regularly to express their views, is a step in the working-out of this idea. Again only women could fancy that the humble teachers at the bottom had counsel of value to the powerful persons at the top of the system. A third effort of a feminine character in connection with the Chicago schools was made this spring when information with reference to the issues at stake in the aldermanic campaign was allowed to be given to both teachers and children in form so simple that it might be taken into the humblest home. The resulting vote of men and women alike on complicated questions such as bond issues was intelligent to an extent gratifying to those who are interested in the improvement of city government. To women, it seemed quite proper and possible to assist those whose vote was going to be taken, whose own interests were going to be decided, whose own concerns were involved, to come to just and wise decisions.

The inequality in opportunity for promotion which is obvious, on which neither the Bureau of Education nor census reports throw light, is grounded in the same causes which give rise to the present archaic and wasteful

exclusion of women from political power, and is the source of much bitterness on the part of women and the occasion of many injustices. Reference need not be made to them, for the point is that removal of limitation about women in this profession, as in all lines of employment, could only raise the level of efficiency, and, as Nicholson, the distinguished English economist, has pointed out, the only person who would "suffer" is the marginal man, that is, the man now on the level of employment for men because that level is low who would be below that level once it is raised. That argument applies to all lines of activity upon which the school enters, but it applies peculiarly to all problems in which the social and the educational are especially interwoven.

A plea for a closer study of failures of the school in this spirit is the burden of this appeal. Where it meets with response, there will be a quickening sense of the importance of more careful scrutiny of the facts with reference to entering children, more delicate and responsive devices for dealing with non-attendance, new agents in the form of school visitors to interpret the home to the school and the school to the home, closer co-operation with other child-caring agencies, the creation of new relationships with industry in order that the child may be better prepared before leaving and more carefully guarded after having to go to work, and above all, perhaps, a breaking-down of those barriers on the upper side of which stand men with power, on the lower, women with that intelligence growing out of intimate contact with the child.

It is certain that our civilization is not of the highest type possible. In all our relations, there is too much of the primitive man's fighting instinct and technique; and it is not impossible that the participation of woman and the lower races will contribute new elements, change the stress of attention, disturb the equilibrium, and force a crisis which will result in the reconstruction of our habits on more sympathetic and equitable principles. Certain it is that no civilization can remain the highest if another civilization adds to the intelligence of its men the intelligence of its women.—[Thomas, *Sex and Society*.]

With these illuminating if threatening words Thomas closes his remarkable study of sex and society. To paraphrase, certain it is that no profession can attain the heights of efficiency it should attain, especially if its object is the service of little children, young persons, and ignorant adults, if it fails to make use in the fullest and freest way of the intelligence both of the women and of the men of the community.

C. *THE HUMANITIES, OLD AND NEW*

EMMA M. PERKINS, PROFESSOR OF LATIN, COLLEGE FOR WOMEN, WESTERN RESERVE UNIVERSITY, CLEVELAND, OHIO

When I chose my subject for tonight's discussion, I thought how insistently the early college woman had demanded a well-rounded education, differentiated in no way from a man's education. She had to prove her

right to an education, and now, with her early trial passed, care must needs be taken lest the hard-won privileges of royal training in so many of the treasure storehouses of the world be bartered for a mess of pottage or for a few paltry bits of scattered groundwork for specialization.

During the last year of Mrs. Alice Freeman Palmer's life, I said to her as she was visiting in my home: "What is to be the next testing of woman's rights to a higher education? From what direction must we be on our guard?" Her immediate answer was: "From the women themselves, in seeing how highly they value their privileges, how they carry themselves, how they rise to meet the opportunities now theirs, whether they fail to appreciate all that has been gained for them."

Another very clear thinker among the college women of our country said to me the other day: "All this specialization along various non-collegiate lines in undergraduate work for women is the last and most insidious attack yet made against the higher education of women. It is undermining the very foundation of woman's higher education." And so my subject: "The Humanities, Old and New."

A man's education has never degenerated into being merely a man's education. No more should a woman's education, for both men and women are first of all human beings. The claims of some forms of education for women today seem rather arrogant in their pretentiousness. These claims are urged upon a younger, thoughtless generation by women themselves liberally trained, by those who would not willingly part with one iota of their own liberal culture. If these claims succeed in large measure in enforcing themselves, we shall have, in a generation or two, a narrowness in the horizon of the spirit, an inertia of the intellect where real intellectual problems are concerned, that will remind one of the work that had to be wrought by the humanities in the intellectual life of Europe in the period of the Renaissance. Germany, at the close of the eighteenth century, in reconstructive work in science felt the influence of the humanities. England, in the nineteenth century, gave thru her poets the message of the humanities. Humanism, by its inspiration from the past, has quickened the life of the present. The youth of today needs humanistic ideals truly interpreted. The humanities are the priceless guardian of what is best in the world's past and the unequaled means for uplifting the individual in the present.

You may remember what Phillips Brooks has said:

> The man who has learned what made a little peninsula in the Adriatic the mistress of the world, or how Roman law has become the basis of the jurisprudence of Christendom, or how the fall of empires was foreshadowed in the *Republic* of Plato, or how the growth of a corrupt and privileged ecclesiasticism brought about the transformation of modern Europe —the time will never come when the man who has learned these things—not in a parrot-like learning, but in the length and breadth of their vast significance—will not be in every highest sense the master of him who has not.

We are interested in this subject tonight, as I said earlier, lest woman's educational advantages be frittered away, lest leadership possibly hers, along lines where her assistance is needed, fail because of lack of knowledge.

At a commencement address given at our university in Cleveland in June, Katherine B. Davis, commissioner of corrections in New York, told us how continually the very best education is needed in all forms of work carried on in any large way for the amelioration and alleviation of humanity. The very best in education is needed in helping to solve the great problems that confront us daily in our great cities. She cited amusing instances of how many women, lacking in knowledge and experience, ask for work. When she inquires for what work they are fitted they say: "Oh, I thought I could inspect something." "Inspect what?" she says; and they answer: "Oh, something, I don't know what, but I thought I could surely inspect or investigate something."

Having heard Miss Davis' arraignment of lack of preparation for work, I read with interest Mayor Mitchel's report on Miss Davis' first six months of service. He spoke especially of the savings in administration, and of the improvement in the prisoners' diet and in sanitation, in spite of these savings. More important still was his comment on the new spirit brought into the department, a spirit which makes it a department of correction instead of a department of jails, a department where there is a consistent regard for the prisoners as human beings instead of mere world's waste.

When we realize how much accuracy and care are needed in any important inspection, investigation, or organization, we can realize the force of all earnest pleas for a well-rounded, liberal education. According to Charles W. Eliot the four educational processes of the trained mind are: accurate observation; the correct record of things observed; the faculty of drawing correct inferences from recorded observations; the power of expressing one's thoughts clearly, concisely, and cogently. These are exactly the results most easily attained by means of a liberal education along humanistic lines.

Do we need to have pointed out to us the remarkable results that might be possible if all the children in all the primary schools in this great land of ours were in the hands of liberally educated women, of women versed in language, history, philosophy, science, and art? Many problems now ours would not be ours if our primary children, at their most formative period, had been taught by those who by education, and so by knowledge, by suggestion, inspiration, and example, could have really given them some conception of the privileges of citizenship in a democratic government. Instead, you and I know that these young people at their most impressionable age are under the care of those whose training has been meager, who are careless in speech, who with their own backgrounds lacking in ideals can go no farther than the limit of the daily round, whose interests are somewhat trivial. The richest background of training is none too rich for the molding of every primary child in all the length and breadth of our country.

This training would simply give a necessary equipment for proper efficiency later in educational, philanthropic, and professional work.

It has been well said that the difficulty of a democracy is in how to find and keep high ideals. Such ideals are needed at every step of educational work whether that work be primary, secondary, collegiate, university, or graduate. Such high ideals ought to be so diffused that they may really become the national standard; for nations are great only as their people serve an ideal greater than that of any one person, individually considered. The old Greek proverb "Know thyself" has the greatest power when joined with the knowledge of the world in the realization of the possibilities of the human spirit. The English universities of Cambridge and Oxford have given leaders in statesmanship, in law, in war, in diplomacy, and in executive and administrative work. Training in letters has there given leaders who have put their stamp on what we may call the national character. The leaders among us, whether men or women, should be those most broadly trained on idealistic as well as practical lines. It has been well said that a nation may be independent, may be energetic and successful, but that a people cannot be a great nation without reason and culture.

A correct interpretation of the present as the successor of the past, as the forerunner and molder of the future, seems to my mind always more easily possible to a person trained in a knowledge of the literature, art, philosophy, law, and government of the nations who gave us the classical languages. The attitudes of mind of various groups of college students from year to year as they work in my department strengthen this impression. Their estimate of life seems to grow with their appreciation and realization of the privileges afforded all human beings as heirs of the ages.

People of my generation twenty-five years ago would have said that the life of today is complex, not simple. But to my mind our complexities are simple to what the lives of the women of twenty-five or fifty years from now will be. A liberal education gives poise, common-sense, well-balanced judgment, open-mindedness, generosity, independence in thought with sympathetic appreciation. And why is this important to us for women?

We have running thru our national life four distinct and clear purposes. These are defined as freedom in religious worship, popular government, a popular system of education, and a feeling of trusteeship or guardianship of the future.

We all know that whether we consider one type of early colonist or another, the spirit of freedom in religious worship was an animating principle. Humanism had exerted itself to that extent. This principle is in and out and above, beneath and around every moment of our nation's existence. It is a close bond in time of national peril—a bond indissoluble, permanent, abiding.

Popular government demands as its corollary popular education, and who more than the educated women are the firm supporters, aiders, and

abettors of all these three purposes of our national life; who need more than they a full training in the richest treasures of the past for a correct interpretation of the present's needs? No partial, specialized training can approach such a broad preparation as these purposes demand. And, when I touch upon that fourth purpose of trusteeship of the future, I need only point you to the place of our country in the world's policies of today to show you the importance of a liberal, not a narrow, training from a cultural point of view for the women of our country.

This government of ours was fortunate in having liberally trained men for its framers. It is needing more and more every day liberally trained citizens for the interpretation of its best possibilities. It requires in all clearness of vision, strength of imagination—such strength of imagination as that of the great poet with his message for his period; the strength of imagination of the historian able to people past centuries; of the inventor fashioning new instruments for humanity's daily use; the imagination of the architect which sees in the mind's eye the outlines of future stately buildings and great cities—such thought as has covered the land with bands of steel and the sea with ships, the strength of will that can stand four square to every wind that blows and the nobility of purpose that we phrase in *noblesse oblige.*

As I came down the foothills of the Alps into the old city of Genoa and saw the city's walls of defense running well up into the mountains, I said to myself, "We do better in America: we build our public schoolhouses as our strongholds, our citadels of defense." For we all know that if the great public-school buildings in many of our cities were closed for one generation we should have not American but foreign cities. One never sees fifty or seventy-five thousand foreigners marching in procession thru our city streets without realizing the importance of the educational training that makes them into American citizens. The old Latin word *disciplina* tells the story of what we do in education for the maintenance of a safe society and government.

Humanism means for the future as for the past a progress on ever higher and higher national lines, because it means for the individual an appeal to the world of the imagination and the spirit by its message of invincibility.

The Roman poet of old wrote "*Tendimus ad Latium*"—"We steer to the land of hope." All education should be fashioned on broad enough lines to steer to the land of hope—even if it requires at times the courage of the hero, the strength of the martyr, the piety of the saint to hold the helm in sailing. In times as practical as these, the dominant call seems to be the voice from the market place. But market places change; verities do not. The one who knows this in all its full significance is educated and can train others. Life needs always a sovereign grace and a sovereign charm. The real gains it does not lose, because it may be an ideal made real. Surely, in America, if anywhere, we have seen, we are to see, the dream come true

of the ideal made real in making the best gifts of all the ages the free and generous possession of the lowliest among us, because we give all and withhold nothing in education's history. Because humanity is priceless, we claim humanity's training for humanity.

Mr. Hamilton Mabie has said that Americans will continue to strive to achieve a solution, not only of the political problem, which Matthew Arnold declared they had solved, but of the human problem, which is infinitely more complex and difficult and for which no race or nation has yet found a final solution.

As the Greeks of old loved beauty, the Romans loved duty—duty that gave them in character constancy, dignity, magnanimity, probity, and fidelity. We need more than ever today the love of both, that with these and the teaching of Christianity we may fashion a national character "kindred with the great of old."

D. PREPARATION OF WOMEN FOR TWENTIETH-CENTURY LIFE

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That education should prepare for life is not a new dictum, a recently discovered truth. But when we say that education should prepare for twentieth-century life, we are looking at an old truth from a new angle.

President Jordan, of Leland Stanford Junior University, in an address to his students near the opening of the century, said:

> Compared with the centuries that are past, the twentieth century, in its broad outlines, will be like the rest. It will be selfish, generous, careless, devoted, fatuous, efficient. But three of its traits must stand out above all others, each raised to a higher degree than any other century has known. The twentieth century, above all others, will be strenuous, complex, and democratic.

The characterization of the century applies not only to men; it is equally true for women. The mere statement that an age is strenuous, complex, and democratic, interpreting democracy as that which "exalts the individual," values "men as men" and women as women, gives an insight into the kind of preparation necessary in order to live its life strongly and well. In a certain sense, the consideration must be a restricted one, for, under our present social order, not every woman can have preparation for the life of the century in which she lives, and that restriction in itself puts an added responsibility upon the shoulders of the women who do have the opportunity. The earnest woman of today does not look upon education as a personal acquisition, without bearing upon the common welfare, nor consider that schools and colleges exist in order that she may be "highly accomplished," stamped with the hallmark of culture. It is well to remember that the century calls for many kinds of service, from women as well as

from men. It needs the service of the homemaker; but for the woman of the twentieth century the question of homemaking must broaden into a conception not to be confined within the walls of her own dwelling. The responsibility includes as well the home of the other woman.

In other ways, the "homemaker" of the twentieth century has a very much wider responsibility than her grandmother—a responsibility for the industries taken out of the home and intrusted to bakeries and restaurants, laundries and soap factories, canneries and dairies, mills and tailoring establishments; a responsibility for pure food and clean streets, hygienic schoolrooms and healthful amusements, for the prevention of contagious diseases of the body, and the elimination of drunkenness and the social evil, the contagious diseases of the soul. Above all, upon her rests the responsibility for the child life of the nation, that it may not be defrauded of the child's right to play and happiness, education and good influence. From the home, as the center of the century's life, radiate lines of activity for women of which our grandmothers little dreamed.

To have a part in the world's work is not simply or chiefly to discover new applications of natural forces, to promote industry, to develop material resources; it is concerned also with the discovery of intellectual and spiritual forces and their application to daily living, with the promotion of earnest purposes and high ideals, with the development of the resources of the mind and of the heart. The really vital things come within the teacher's province. Society can exist without great wealth, enlarged industries, invention, discovery; it cannot long stand without integrity, honor, truth, purity, idealism.

In considering the subject of work for women, one truth is very often overlooked, and that is that they must be considered as individuals and not exclusively as members of a sex. We consider that the individual man has a right to determine the career, the manner of life, for which he is best fitted and which circumstances make most feasible for him. Perhaps the greatest change which the education of women has brought about is just in this direction. The opponents of higher education are right in their fear that it means something more than the opportunity to study calculus or to read the Greek dramatists in the original. It has introduced into many a household the startling and novel question: "If John Jones has the right to become a dressmaker because he prefers it, why should not Jane Jones become a doctor, if she prefers that?"

In the light of the pronounced interest in vocational training, it is perhaps not amiss to remind ourselves that the first essential to efficiency in any vocation is that which is essential to the stability of a building—namely, a good foundation. A strenuous, complex, and democratic century calls for a well-equipped human being. Fifty-four years ago, before the outbreak of the Civil War, our New England seer said, in his essay on "Power":

> For performance of great mark, it needs extraordinary health. If Eric is in robust health, and has slept well, and is at the top of his condition, and thirty years old, at his

departure from Greenland he will steer west, and his ships will reach Newfoundland. But take out Eric and put in a stronger and bolder man Biorn, or Thorfin, and the ships will, with just as much ease, sail six hundred, one thousand, fifteen hundred miles farther, and reach Labrador and New England. There is no chance in results. With adults, as with children, one class enter cordially into the game and whirl with the whirling world; the others have cold hands and remain bystanders; or are only dragged in by the humor and vivacity of those who can carry a dead weight. The first wealth is health. Sickness is poor-spirited, and cannot serve anyone; it must husband its resources to live. But health or fulness answers its own ends and has to spare, runs over, and inundates the neighborhoods and creeks of other men's necessities.

It is true that some fine tasks have been performed for the world by those who were physically handicapped, but that does not invalidate the statement that physical unfitness is a handicap. The day is past when the sensible woman "enjoys poor health" or considers illness a "dispensation of Providence." She realizes that health is an essential factor in her life-work. "It is always a misfortune to be ill, frequently it is a disgrace," said a wise teacher. A sane, wholesome, clean life, free from stimulants, nourished by pure food, strengthened by exercise, sleep, water, fresh air—and, may I add, cheerfulness—this is not too much to expect from a rational human being in this hygienically enlightened age.

I should like to add, as one of the values that come naturally from physical vitality, altho fortunately not absolutely dependent upon that, a certain joyousness in living, the ability to "take the old world by the hand and frolic with it," to quote from Stevenson; "to keep the eyes open, the heart warm, and the pulses swift, as we move across the field of life," finding that "half the joy of life is in little things taken on the run"—in Dr. Jordan's suggestive words. To live earnestly but not take one's self too seriously is a lesson that is well worth the learning.

It may not be out of place, since this is an educational assembly, to suggest the training of the intellect as a preparation for effective living even in the twentieth century. In our institutions of learning, we fall into a rather apologetic attitude in these days when we can think of no reason why a subject is retained in the curriculum except that it is useful in training the mind. And yet since the world began there has never been a time when progress was not dependent primarily upon the mind directing the work, upon the thinker behind the thing accomplished. And the demand comes home to women, certainly as directly as to men.

Last month in the commencement address at Mount Holyoke, the district attorney of New York said:

> Can there be any question that for practically every advance or gain in the physical and material things of life, in the improvement of conditions under which men and women live and work and play, in the vast changes of the century past, which have made better homes for all, better food for all, better clothing for all, preservation of health, facilities for fighting disease, safe and speedy transportation and communication, we are indebted to the silent men at work in our colleges and universities, and to the vast army of men and women who have been trained in them to correct thinking and accurate work, and who are inspired as well to the highest endeavor of which the human mind is capable?

The alert mind is not the only desideratum. An illuminating article entitled "To Virtue Knowledge," written by an alumna of Smith College, reminds us that altho it is important to act promptly and accurately, it is still more important to be able to restrain action, to see things as they are in themselves, apart from utilitarian interest; that the former furnishes the brain with useful paths of habit, the latter develops its deepest resources. We often complain of the superficiality of the manual work of today, but that criticism cannot be confined to the work of the hands. To develop the deepest resources of the brain—is that not a function of education? Such development does not come along the lines of least resistance; it is akin to the moral and spiritual wrestling which is the price paid for character, as this is the price paid for mentality. The acquirement of information or knowledge and this power are not necessarily synonymous. There are many subjects valuable in their content which do not develop it.

There is no waste time spent in work which demands and develops the power of gripping a subject, grappling with difficulties, and so strengthening the mental muscle, the muscle that the modern world needs for the solving of its problems. I hope we shall never weaken the influence of the college by eliminating from our curricula the studies which call for the severest concentration and progress only along the lines of least resistance.

There is a quaint description in the Book of Judges concerning one of the tribes of Israel. "For the divisions of Reuben there were great searchings of heart." In the twentieth century there will be, there already are, "great searchings of heart," new ethical standards, higher business and political and personal morality, a purer civic life.

> Crime is not necessarily incident to crowded centers of population [is Mr. Whitman's statement]. Drunkenness is not an unavoidable element in civilization, and the evil that is so prevalent, so horribly degrading, and so awful in its effects upon the human race—commonly known as the social evil—is no more necessarily incident to the life of our American people than are the plagues known in history and now checked by scientific pioneers. The time is going to come in this land when the evils which are so prevalent today, the temptation to which young men and young women are subjected, will be regarded with incredulity and with horror. The world is not waiting for the college-bred man and woman as such, but the great field of human endeavor is open to any and to all who are willing and able to make an honest contribution to the sum of human knowledge.

This great field of human endeavor is not the exclusive responsibility of either men or women—it belongs to both, one of the unanswerable arguments for equal suffrage. Revelations of political corruption come as a shock to the high-minded woman as to the high-minded man; revelations of civic corruption expressed in the social evil seem to her to touch the very depths of degradation. The supreme need of the century is for clean hands and pure hearts, and our schools and colleges must recognize and attempt to meet this need, not only for the sake of the individuals who are directly affected, but for the sake of the common welfare. The strength which is as the strength of ten because the heart is pure was never more needed than

in this modern day of ours with its insistent demands, its perplexing problems, and its heavy responsibilities.

On Copley square in Boston, at the side of Trinity Church, there is the bronze figure of a bishop who was in a peculiar sense the bishop of New England, a personality too great and inspiring to be limited to any church. One of his messages to the men of the nineteenth century we may well take as a message to the women of the twentieth:

> Oh, do not pray for easy lives. Pray to be stronger women! Do not pray for tasks equal to your powers. Pray for powers equal to your tasks! Then the doing of your work shall be no miracle. But you shall be a miracle. Every day you shall wonder at yourself, at the richness of life, which has come in you by the grace of God.

TOPIC: TEACHERS' SALARIES AND PENSIONS

A. THE COLLEGE PROFESSOR AND THE NATION

CHARLES WILLIAM DABNEY, PRESIDENT, UNIVERSITY OF CINCINNATI, CINCINNATI, OHIO

The importance of college teaching as compared with other professional work is greatly underestimated by the average American. The ordinary citizen selects a college for sectarian, social, or local reasons or, at best, with reference to the calling which his son intends to enter. He pays some regard, perhaps, to the general reputation of the institution, but he scarcely thinks of the professors and their ability and scholarship. The rich man, who employs a twenty-thousand-dollar lawyer or a ten-thousand-dollar physician, regards a fifteen-hundred-dollar college professor as good enough to train his son.

The indifference of the public to all intellectual and moral values is the discouraging characteristic of our times. Money-making, politics, sports, and picture shows are the only things that seem really to interest it. The investigator or teacher is to the ordinary man a mere bookworm or a crank.

Various attempts have been made to call the attention of the people to their duty to the college teacher, but these efforts have accomplished little. Following the publication six years ago of the report of the Carnegie Foundation for the Advancement of Teaching on the financial status of the professor in Germany and America, there was a general discussion of this subject in the press. That report showed that the social position of the college teacher was constantly being lowered by the increasing pressure of the cost of living without the accompanying increase in his salary. One of the most striking points brought out was that the professor reaches his maximum salary at an average age of thirty-four, when other professional men are just upon the threshold of their careers and are beginning to realize adequate returns on their heavy investment of special study and training. Says the report:

While his intellectual brother-in-law in medicine and in scientific occupations rises steadily in the large cities to ten, twenty, or thirty thousand dollars a year, and in smaller towns to incomes not so large actually but relatively large in proportion to the scale of living there, the professor, in a vast majority of cases, stands from that time on at the average salary of $2,500.

This condition not only reduces the efficiency of the teacher by decreasing the output of scholarly work, but proves detrimental to the profession of teaching by not offering sufficient inducement to secure and retain men of marked ability. Such conditions are driving intellectual young men with social instincts away from this most important profession. To quote again from the report:

In other callings great ability brings a proportionate reward; the exceptional man may expect from twenty to forty times the reward of the average man. In industry and business the best man may expect from two hundred to four hundred times the reward of the average man. But in teaching and scholarship the best man cannot, under present conditions, expect much more than from two to four times the reward of the average man. No matter how great the ability of the college professor as a teacher or scholar there is no probability that he will ever be paid more than the minor officer of a railroad or industrial company. It is not strange, therefore, that the possibility of teaching seldom presents itself nowadays to the best students in a large graduating class. . . . . The fiscal arrangements of the profession of college teaching are just such as would attract a mediocre man who did not expect that in any other activity the world held out to him very much. The need for larger prizes is pressing.

This conclusion was universally accepted six years ago as correct and caused some institutions to inaugurate efforts to better the conditions of their professors. To what extent then has the condition of the professor been improved? How does the matter stand for him at the present time?

To answer this question, I have sought official facts with regard to the salaries of professors, assistant professors, and instructors during the last college year. The United States Bureau of Education has kindly placed at my disposal the advance sheets of a bulletin[1] containing data collected recently about salaries in three classes of institutions. In the first class are the state-aided universities and colleges; in the second class are those having more than a million dollars of endowment (not state aided); and in the third class are certain universities and colleges having less than a million dollars of endowment (not state aided). These data are found in Tables 38, 39, and 40 of the bulletin referred to above.

From the Bureau's tables I have selected the data for certain representative positions and have compiled separately the salaries paid in each class of institution. The professorships selected were those of Latin, German, English, history, economics, philosophy, education, mathematics, civil engineering, geology, chemistry, botany, and agriculture. The highest, the lowest, and the average salary of full professors, assistant professors, and instructors in the institutions of each class were collated and the averages taken.

[1] Since published as *Bulletin No. 16*, 1914.

There are no Bureau figures for 1908 exactly comparable with these collected in 1914. The nearest to them are the figures in the Carnegie report of 1908 for "institutions in the United States and Canada appropriating $45,000 or over for the total payment of salaries," referred to above. This corresponds fairly with Class II of the Bureau. This year the Carnegie report also gives the salaries paid in institutions expending from $10,000 to $45,000 for salaries, which corresponds approximately to the Bureau's Class III. We have, also, in the reports of the Bureau of Education for 1911, salary data collected and classified in the same manner, presumably, as those collected this year. The averages reported for this year are for the academic professorships, not including those of the professional schools, and were calculated by me from the data given by the Bureau in *Bulletin No. 16*, 1914.

If we put the figures gathered from these reports into a table, they stand as follows:

SALARIES OF COLLEGE TEACHERS, 1908–14, AVERAGES

	Universities and Colleges Having $1,000,000 or More Endowment and Spending $45,000 and Over for Salaries			State-aided Colleges			Universities and Colleges with Less Than $1,000,000 Endowment and Spending Less Than $45,000 for Salaries		
	Professors	Assistant Professors	Instructors	Professors	Assistant Professors	Instructors	Professors	Assistant Professors	Instructors
Carnegie report of 1908	$2,500	$1,600	$1,000	.....	.....	.....	$1,800	$1,200	$ 800
Bureau report of 1911	.....	.....	.....	$2,186	$1,427	$1,028	.....	.....	.....
Bureau report of 1914	3,326	1,596	1,199	2,569	1,741	1,091	1,768	1,388	1,066

It will be seen from this that while there has been a tendency to increase salaries as the cost of living has gone up, the increase has not been uniform in all classes and is still totally inadequate for every class of college teacher. In the institutions having $1,000,000 endowment or over, most of them in eastern cities, the salaries of the professors have been increased since 1908 about 33 per cent, and of the instructors about 20 per cent, while the salaries of the assistant professors have remained stationary. In the state-aided universities and colleges, the salaries of professors have been increased, since 1911, about 17 per cent, of assistant professors about 22 per cent, and of instructors about 6 per cent. In the universities and colleges having less than $1,000,000 endowment, the professors have lost a little salary since 1908, while the salaries of assistant professors have increased about 15 per cent, and of instructors about 33 per cent.

We know, however, that since 1908 the cost of living has increased at least 40 per cent and the demands made upon the professor, which we may

call the cost of higher living, have certainly increased 10 per cent. The professors in the smaller colleges—and they represent the largest class in our country—report that their salaries now have only one-half the purchasing power they had in 1904.

The condition of the professor in the state-aided institution has improved the most. His present salary, however, buys 25 or 30 per cent less than did the salary of ten years ago. The assistant professor in the state-aided institution stands relatively in the same condition; while the assistant professor in both the heavily endowed university and in the small college finds himself in a more wretched financial condition than formerly.

The maximum salaries as well as the averages reported by the Bureau of Education also furnish food for thought. The highest-salaried professors are found in institutions in the eastern states having $1,000,000 endowment or more. The largest salary paid in them is $7,500, which is received by five professors of law and one of commerce. The next highest salary is $7,000, and this is received by one professor in each of the following departments: Latin, political economy, sociology, philosophy, physics, and medicine. These salaries are not found among the other classes of institutions. Omitting the professors of law, commerce, and medicine, there are this year only five academic professors in all the classes who draw salaries as large as $7,000. I call attention to the fact that it is those who have prepared themselves for other than academic professions who command the largest salaries paid by our universities. The man who has spent all his time and energy in qualifying himself for the academic career has to be content with the smaller salary. We may gain a general idea of the inadequate salaries paid even by the wealthiest institutions from the statement that out of 1,067 full college professors only 127 receive a yearly compensation of $5,000 or more.

An examination of the salaries paid in the other two classes of institutions—those aided by the state and those having less than $1,000,000 endowment—reveals conditions even less encouraging. The state-aided institutions have no professors paid above $5,000 and show only thirty-three of these, twenty of whom are engaged in work outside of the academic departments. The colleges and universities having less than $1,000,000 endowment have, of course, still fewer highly paid professors. Out of 1,060 only three get $6,000 and three $5,000. Counting all the teachers at present employed in all the institutions in the three classes we find that only one in seventy-four has a chance of ever attaining to a salary of $5,000.

What are the maximums for the assistant professors? Only 725, or 30 per cent, out of the 2,434 assistant professors in all these American colleges draw salaries of $2,000 or more, and the majority of these are found in the $1,000,000 institutions in eastern cities, where this salary amounts to

very little. In other words, only one-third of our assistant professors are receiving what may fairly be considered a living salary.

Having examined the highest salaries paid in these different classes of institutions, let us now turn to a consideration of the minimum amounts received by men supposed to be doing the same work as the highest-salaried professors just considered. These small salaries give us a clearer conception of the situation for our American college teachers than even the consideration of the averages.

The bricklayer who has steady work in any of our western cities now earns $1,500 in ten months. Taking this amount as the standard of comparison, we find that only 781, or one-fifth, of all the full professors in all three classes of institutions draw a salary ranging between $1,000 and $2,000, and averaging that of the bricklayer. This, however, is by no means the minimum for the salary of the full professor; for, in the state-aided colleges and the less heavily endowed institutions, it falls as low as $750, and in the case of five persons as low as $400. Nine men who gave their full time to the college this year received $750. We touch bottom when we record that there are in these United States 146 men called full professors who are giving their entire time and energy to college teaching for the meager stipend of $85 and less a month. With regard to the estate of the assistant professor and the instructor, it suffices to say that in all the universities and colleges reporting to the Bureau this year, there are 533 assistant professors who receive less than $1,500, and 1,108 instructors who receive less than $1,000 a year.

A few comparisons between the salaries of the college teachers and the earnings of men in other professions may be made. We have found that the average college professor, at the age of thirty-four, reaches his maximum salary of $1,768 in institutions having less than $1,000,000 endowment; of $2,569 in state-aided institutions; of $3,326 in institutions having endowments of over $1,000,000. The lawyer or engineer of equal education after being out of school eight or ten years will be earning at least $5,000 or $6,000, and a physician perhaps somewhat more. The average college professor at thirty-four is certainly receiving from $1,000 to $2,000 less a year for his services than his contemporaries in other professions and he has reached his limit.

How do college men compare with high-school teachers? In one large city in the near East where the high-school teacher receives from $2,000 to $2,500, the professors in the university receive salaries of from $1,200 to $1,800. The salaries of assistant professors rarely equal those of high-school teachers.

A lieutenant just appointed in the army receives a total of $1,800 in salary and allowances, but the average salary of the assistant professor, who is usually older and has invested more money and time in preparing himself for his work, is only $1,741 in state-aided institutions, $1,596 in

$1,000,000 institutions, and $1,388 in the universities and colleges having less than $1,000,000.

If we consider the instructors whose average salary in all classes is about $1,100, we find that this is exceeded by bricklayers and plasterers in our middle-western cities and about equaled by the journeymen plumbers and the policemen.

It is evident that the material rewards for the college teacher are wretchedly inadequate. Is he such a wretched fellow, then, as these salaries would seem to suggest? By no means.

What then leads able men to adopt the professor's calling? I think it is fair to say that the chief attraction is the responsibility and influence which the professor has as a servant of society. A second motive with all true men is the love of study and the life of the scholar. The scholar evidently considers slightly the financial returns of his profession. He knows when he chooses his life's work how little his own teachers received and how simply their families had to live. He, therefore, enters the profession with his eyes open to its privations and sacrifices. In other words, he makes a deliberate sacrifice of material things in order to get the opportunity to serve his generation as a scholar and to become a member of what Mr. Lowell calls the "only aristocracy in America."

The third great attraction, of course, is the opportunity for research. Every true scholar must take a part in the work of extending our knowledge as well as in teaching. The professor feels it his duty not only to keep abreast of the new knowledge in his subject, but to add to it at every opportunity. He knows that to grow he must be productive. In such work he finds great reward not only in the satisfaction he feels, but in the respect of his fellows. It is a sad fact, but true, that research carried on by the university men of this country leads to almost no such material returns as it does in Germany and other countries. His only reward is the honor and respect of scholars like himself, who take up and use his work. Boards of management should remember then that the opportunity to do research work is a very important part of the reward of the college professor. Deprive him of this and you take from him that which every growing professor must consider as his most precious privilege. We should rejoice that this high and responsible service and these opportunities to study still have strong attractions for the right men. If they did not, there would be no worthy men or scholars in the college faculties, for the other rewards are pitifully small. But it still remains true that the public must give the college professor a decent salary, one sufficient to enable him to have and bring up a family in a suitable way, or it will drive the best men away from this most important profession. The reduction of the net salary of the college teacher cannot go on longer without great injury to our college work. The American people cannot afford to sweat the college professors for two reasons: First, the teacher is the maker of men. As the

teacher of all other teachers, the college professor is the most important man in the nation. For the grade of work he does, he is the worst paid. And, secondly, he is the discoverer of new knowledge. It is the duty of every nation to do its share to advance science, to develop the powers of man, and to widen his vision in all directions. Thru science, we gain a greater knowledge of the world in which we live, a greater power over nature, a greater efficiency in invention, and better prevention and treatment of disease. Science is, thus, our first industry. As the engineer directs the work of the contractor, so science directs every human enterprise. To the college professor, we must look to discover all this new knowledge and to train all our inventors. Where the lawyer, politician, business man, and physician do good service to a few people, the discoverer confers benefits upon the whole world, not for the present age only, but for all time. Surely, then, society should properly support its ablest men in this service of discovering new knowledge and making men.

B. SALARIES BASED ON THE POSITION AND NOT ON THE SEX OF INCUMBENT

GRACE C. STRACHAN, DISTRICT SUPERINTENDENT OF SCHOOLS, BROOKLYN, N.Y.

At a dinner in Brooklyn recently Rev. Dr. Hillis said: "There can be no political or social equality so long as there is industrial inequality thru class legislation. There is but one solution of the social problem and that is the application of the Golden Rule to the laws of the street."

I am going to try to tell you in twenty minutes some of the reasons why teachers in the city of New York feel so strongly about the subject of sex in salary. I have here a book containing nearly six hundred pages which tells part of the story of the struggle made by the Interborough Association of Women Teachers of the city of New York for "equal pay for equal work," which lasted from April, 1906, to January 1, 1912, at which time a law went into effect providing that there should not be discrimination in salary on account of the sex of the teacher, and adding $3,800,000 to the total annual salaries of the women teachers of New York City.

I feel that, to begin with, I must tell you that I myself have never suffered any discrimination in salary on account of sex. I began teaching in Buffalo, N.Y., where salaries are paid according to the position, and I continued my teaching in Brooklyn where salaries were likewise paid according to the position; and before the consolidation of Brooklyn with other municipalities into "Greater New York," I was elected a superintendent, and as such for the past fourteen years I have received the salary of that position.

When the various salary conditions existing in the different school systems at the time of consolidation were, in April, 1900, crystallized into a state

law as part of the charter of the new city, the women teachers found themselves in a situation which probably the teachers in no other part of the country except the East can fully appreciate. They found that this law fixed certain minimum salaries and fixed them for "male" and "female" teachers. The words quoted were those used in the law. It was provided that the salary of a "female teacher" should not be less than $600 a year and that of a "male teacher" should not be less than $900 a year, and that the annual increment for a "female teacher" should not be less than $40, nor less than $105 for a "male teacher." This meant, for example, that my brother, tho he and I might have graduated at the same time from exactly the same course, and might have begun teaching on the same date in exactly the same grade, and tho he might have been a very much poorer teacher than I—as would probably be the case if we were teaching in the lower grades—would begin at a salary $300 a year greater than mine, and at the end of the year—tho I might be marked "A" and he a bare "B"—would be rewarded with an increase of $105, as against my increase of $40. With this rate of increase, I would be receiving $1,080 at the end of twelve years, and he would be receiving $2,160—exactly twice as much. His salary would remain at $2,160, unless he got into the higher grades where the maximum was fixed at $2,400. The maximum for "female" teachers in the grades of the first six years was $1,240, and in the grades of the seventh and eighth years was $1,320 and $1,440, with a bonus of $60 for "boys" and "mixed" classes. In the position of assistant to principal, the women received $1,600 and the men $2,400; and in that of principals the women reached $2,500 and the men $3,500. Women high-school teachers had $1,900 and men $2,400. The first assistants or heads of departments in high schools had $2,500 and $3,000 respectively. This basing salary on the accident of sex without regard to other conditions made such absurd situations as the following possible: A woman principal of a school having 67 classes—4,000 boys and girls—in all grades from kindergarten to graduating class, was receiving $2,500, while another principal, who happened to be a "male principal" but who had only 12 classes—400 pupils—was receiving $3,500. Another striking illustration of the "gross injustices" and "glaring inequalities" (the words quoted are from Governor Hughes's veto message on our bill in 1907) existing under the law we were seeking to amend was that of the teacher of a class of 28 girls who received $2,400 because he was "male," while near by was a class of 48 boys whose teacher being "female" received $1,500.

The men of the legislature and of various associations to whom we presented these facts readily saw the injustice of such discrimination.

When you consider these conditions you will not be surprised that, after accepting them without formal protest for several years, the women united in an association, including all grades from kindergarten to district superintendent, for the purpose of correcting them. This organization soon grew

to be very powerful, with a membership of over twelve thousand; yet it took this immense body of teachers six years to secure a law which eliminated the words "male" and "female" from our charter, and provided certain minimum salaries fixed according to position. This law added $3,800,000 to the salary budget of New York City. About $150,000 went to men teachers in the high and training schools, the maximum for assistant teachers in such schools being raised from $2,400 to $2,650. This caused an increase for the women in high and training schools of $750 a year. The women principals were given the $3,500 and the women assistant principals the $2,400 formerly paid to men only. In the grades of the elementary schools, the salaries of the women teachers were not raised to the salaries that had been paid to the men—a compromise between the former maximums of the men and the women being proposed by the Board of Education and accepted by our association. The maximum for the kindergarten and grades of the first six years was made $1,500, and for the grades of the seventh and eighth years, $1,820. Some people wonder why this was done. The answer is simple. It would have cost the city over ten millions of dollars to pay the twelve thousand women in the grades of the elementary schools the $2,160 and $2,400 maximums that were being paid to the twelve hundred men in said grades; and every man and woman here knows that to expect any city to add ten millions to its budget to increase teachers' salaries for one year would be futile. The minimum salary of the women in the elementary schools was raised from $600 to $720 and the maximums were increased from $1,240 to $1,500 and from $1,320 and $1,440 to $1,820. The total increase to the women in the grades was nearly $3,000,000.

Some of the arguments that were used by our opponents will, I think, be of interest. Our chief opponents were our fellow-teachers, who under the law were classed as "male." As our fight progressed we discriminated among them, and called those who supported our cause "men teachers" and the others "male teachers." One of the favorite arguments was that a man had, or expected to have, a family to support. Now, we all know that many of us women also have families to support; and our families are not the kind of family a man has to support. A man's family is usually made up of children who will later support him if necessary, while a woman teacher's family is almost always composed of those who die ere the teachers themselves have grown old. But even if there were some force in that argument, its application was absurd; since a married man with seven children and a mother-in-law to support was not paid any more than a rich bachelor, nor than a man who had married a wealthy woman who could easily have supported him. The "family" argument was met by one of our speakers by the suggestion that the salary be fixed according to the position and then that a bonus be allowed for each child or dependent relative; but that suggestion did not meet with favor, as most of the men who opposed us were young bachelors.

The argument of supply and demand and the scarcity of men teachers was sometimes raised; but we were fortunate in that right in the midst of our fight the eligible list of women teachers in New York City was exhausted and the Board of Education had to advertise in educational papers and magazines for women teachers. At the same time there was organized an "Association of Unappointed Men Teachers." This organization was frequently called "The Association of Disappointed Men Teachers." What was the reason for this apparently anomalous situation? Simply that the authorities believed that many classes are better taught by women than by men. Notwithstanding the above facts, I know I am right in saying that in the elementary schools of New York City there are more male teachers than in those of any other public-school system in the country. At the time of our fight, the proportion was about one man to twelve women, and now the proportion of men is greater.

There are certain conditions in which we believe it is proper to consider sex in connection with the salaries of teachers. Here in the West, at least in the elementary schools, all your classes are mixed classes; but in the city of New York, we have boys' classes and girls' classes, and, in many instances, schools composed wholly of boys, and others composed entirely of girls. Now we all know that it is easier to find a successful teacher of girls than it it is to secure a successful teacher of boys. Here, therefore, the question of supply and demand properly enters. Since the supply of teachers who can successfully teach girls is greater than that of those who can successfully teach boys, we believe that the salaries of teachers whose pupils are all boys should be greater than those of teachers whose pupils are all girls.

As to the scarcity of teachers in the future, I predict that it is not going to be limited to men teachers. There is already a scarcity of the best women teachers; and as the years go by and more fields of work with better salaries and more social freedom are opened to women, the girls are going to take up teaching in ever-decreasing numbers. I am told by the assistant principal in one of our best high schools that the brightest and best girls in the school are not going to the Training School for Teachers. That is something boards of education should consider. A member of our Board of Education told me recently that a woman in his employ had left him to sign a contract with another firm for $20,000 a year, and two or three trips to Europe annually at the firm's expense. There is no department of education that is offering any such inducement.

Another favorite argument was that women feminize boys. I should like the men in this audience to speak up and state how many of them remember the influence of their mothers, and then to testify whether it made them weaklings. I know there are many here who teach in school systems where there are no men teachers in grades below the high schools. I think I am right in saying that in Indianapolis there are no men in the elementary schools, and I am sure that the boys who graduate from the schools of

Indianapolis are not lacking in courage, initiative, and other sterling qualities. The influence of the teacher depends not on sex but on personality; and a fine character enshrouded in the form of a woman is just as likely to bring out the best there is in the boy as is a fine character enshrouded in the form of a man. The fetish of feminization is exploded by such authorities as Professor Dewey and Professor Thorndike of Columbia. It is upheld only by foreigners unacquainted with us, our customs, and our schools, and by a few misguided followers of such foreigners.

There are always some who say that women cannot do the same work as men. When I hear that opinion expressed, I always tell this story: A wealthy society woman had been appointed a member of the Board of Education and I had secured an interview with her in the hope of enlisting her sympathy for our cause. I was very pleasantly received in her beautiful home and for nearly two hours I presented facts and arguments and tried to make her understand why over twelve thousand of the teachers now under her care were practically on strike. As I rose to leave, this woman commissioner of the Board of Education said:

> I thank you for coming, Miss Strachan. I have been very much interested. But I am not sure women can do the same work as men. Now I'm very much interested in birds—in fact, I have an aviary on the top floor of this house—and I've been watching the birds, and I find that the work of the female bird is very different from the work of the male bird.

Some say: No two people can do equal work. Probably not. Compare the work of Roosevelt as president and the work of Wilson as president. Who can say they are equal? Yet the salary does not vary, nor does anyone figure out how many children President Wilson has as compared with President Arthur, nor does he try to estimate how much greater are the expenses of President Wilson, a man with three daughters, than those of President Taft, with one son and one daughter. No, there is a salary fixed for the position and the person who is put into that position draws that salary. That is as it should be.

Discriminating against women teachers in the matter of salary is as bad for the man as for the woman. Paying a man more money for teaching a class than is paid a woman for teaching the same class breeds two serious evils for the man teacher. The lesser of these is the lessening of his chance of appointment. By far the greater evil is the degeneraton of his fine sense of truth, of honor, and of justice. This placing of a false and inflated value on his services causes him to imagine he is something he is not. It is as if a four-foot man propped upon stilts should think he was actually a six-foot man. It is inevitable that the male teacher, put by the state in a special and privileged class based simply on the accident of sex, should come to think himself some strange and unusual creature that must be pampered and decorated and even fed and clothed at the expense directly of his sister-workers and indirectly of the community which supports him.

Is there not great danger that the person who, simply because he happens to be of the male sex, receives twice as big a salary as another person in an identical position who happens to be of the female sex, will gradually become an undesirable citizen? Is he not taking unto himself things that are not rightfully his? And must it not follow, as the night the day, that his sense of truth is warped; his sense of justice, untrustworthy; his sense of right, generally, unbalanced? All intelligent people must acknowledge that injustice is immoral. All must agree that to practice or uphold injustice is dangerous to the individual, the corporation, the municipality, the state, the nation.

C. TEACHERS' RETIREMENT ALLOWANCES

WALTER I. HAMILTON, AGENT, MASSACHUSETTS BOARD OF EDUCATION, BOSTON, MASS.

Seven years ago two states were paying to teachers pensions from state funds. Now twelve have made more or less satisfactory provisions for such pensions. These states contain over 25 per cent of the population of the country. In several states, laws have been enacted authorizing any school district to pay retirement allowances. In a number of others, special acts have been passed, establishing retirement funds for teachers in designated communities. In all, twenty-three states have enacted laws of varying scope regarding teachers' retirement allowances, with the result that nearly, if not quite, one-third of the teaching force of the public schools of the United States now has the protection afforded by some sort of pension fund.

CHANGING CONCEPTIONS OF RETIREMENT SYSTEMS

Twenty to fifteen years ago, retirement funds as a phase of social welfare legislation had scant attention in this country. Today, workingmen's compensation, widows' pensions, industrial insurance are subjects for an ever-increasing amount of legislation thruout our country as well as the whole civilized world. Reinforcing public interest in, and demand for, such protection at public expense is the rapid extension of old age and disability retirement plans operated by great industrial organizations. More than one hundred large corporations now have retirement systems for their employees. Add to these the workers protected by such compulsory insurance laws as are in operation in Massachusetts and New York, and we have evidence of an awakened public conscience as regards the duty of society to its aged and disabled members and a new insight into the economic significance of old age, sickness, and accidents. We have reached the time when we are beginning to apply this conscience and this insight to the economic and educational problems presented by the group of workers to whom society has intrusted the training of youth.

Twenty to fifteen years ago, people thought in smaller units; then plans for teachers' pensions rarely contemplated including more than the teachers of certain cities. Pension systems were, naturally, first inaugurated in the larger and populous centers, as the need there was greatest, attracting and holding, as they did, many teachers who became superannuated in the service. Today, the situation is changed. We are in a period of merging previously established local pension systems into complete state systems, and of the establishing of state systems in areas where few, if any, local pensions are paid. The merging process is illustrated in such states as New York, Massachusetts, and California, while Maine is an example of a state inaugurating a state system where no local pensions have heretofore been paid.

UNSOUND RETIREMENT SYSTEMS

If there is one characteristic of our American people that stands out more conspicuously than another, it is our capacity for faith, and our optimism in substituting faith for real knowledge. As a people, we have "guessed" that bridges and embankments have been strong enough until a catastrophe has shocked but hardly changed us. We have "guessed" and taken on faith alluring statements regarding insurance of a tontine variety; we have embraced the dazzling promises of the promoter to whom we would not personally lend five dollars. Characteristically, we have also built up teachers' retirement funds on a scarcely more substantial financial basis than sympathy and a somewhat vague faith that income would be greater than outgo. Regretfully, we have to admit that various teachers' retirement plans have been formulated by amateurs without, and sometimes in spite of, competent actuarial advice and have been enacted into law by legislators open to sympathetic appeal. When the funds break down—and there is evidence that several inevitably must—the teacher facing retirement will doubtless have an inexhaustible fund of sympathy to draw upon for support and comfort.

For the virtue of sympathy, we can have only the strongest praise, but for sympathy as a substitute for real knowledge of what is sound and safe in the administration of funds collected from the meager salaries of teachers and taxes collected from a public, on the whole favorably disposed to teachers as individuals and as an organization, we can have only the strongest condemnation.

CONTRIBUTORY OR NON-CONTRIBUTORY RETIREMENT SYSTEMS

The time has passed for discussing the justice and the practical benefits accruing to the teacher and to the public from a sound system of retirement. The question for discussion today is what kind of a system. Two plans for teachers' retirement funds have had extensive development thus far: (*a*) the simple non-contributory straight pension system; (*b*) the relatively

complex contributory system supported by contributions from the public treasury and by deductions from teachers' salaries.

There is no general agreement among teachers at present as to which plan is more satisfactory or equitable to them and to the taxpayers. Two monographs published within a twelvemonth support opposite conclusions on this point. In an address before this Association in 1907, Dr. Keyes commended the Rhode Island non-contributory plan, but of nine states that have since established state systems only one—Maine—has followed that plan. Arizona has a plan permitting the state board of education to pension certain teachers, but this cannot be regarded as a complete or equitable method of retirement. The other state systems require contributions from the teachers. The tendency of the times is clearly toward contributory systems, and this is in line with experience with pensions for other large groups of workers at both public and corporate expense. It is also in line with social insurance plans developed in Germany and New Zealand.

Opponents of contributory systems have recently pointed out that the only teachers' retirement systems now in financial straits are those based upon the contributory plan, and argue that this is sufficient reason for regarding such plans with suspicion. They allege such plans to be complex, difficult of comprehension, wasteful because involving somewhat expensive machinery for the collection of assessments due, and that the exact amount payable to any teacher at the time of retirement is rarely stated in terms of dollars and cents. These objections seem to them unanswerable arguments in favor of a gratuity from the state or municipality, and some contend for a fixed level pension for all grades of teachers.

To some of us these contentions do not seem to be well grounded. We would claim the only satisfactory pension system to be one that promotes the welfare of the worker, safeguards the efficiency of the teaching profession, and protects society from poverty and dependence. We believe that any industry furnishing product or service, if it uses up human life and energy, should pay its due share of the cost. Such payments are reasonable overhead charges on the industry, be it railroading or school-teaching, but we would further claim that since old age, sickness, and accidents are inevitable risks of human life, due attention to provision for, and protection against, these risks tends to forethought, frugality, economy, and self-help—all of which are fundamental virtues in a sturdy citizenship, not to be transferred lightly to the benevolence or generosity of the public.

The state is fully as much concerned with building up a thrifty citizenship as with relieving the schools of a relatively small number of teachers who, because of advanced age or disability, are no longer efficient. A gratuitous pension does not encourage thrift; a contributory system demands it. Admittedly, several contributory systems are facing bankruptcy because too much has been promised and the rate of contribution

has not been fixed sufficiently high to cover the risks assumed. A number of plans have tried to insure against old age, and disability at any age due to sickness or accident, all being risks that can be calculated against, but fundamentally they are as separate as fire insurance and life insurance. We should probably regard with suspicion the agent who offered to insure our homes and lives at the rate prevailing for fire insurance. In several states agents offering such an inducement would be transported to jail or outside the state limits. Yet that is essentially what we have done when we guarantee fixed retirement allowances based upon years of service rather than a fixed age; when we pay life annuities for disability based on service rather than age; in short, when we utterly ignore insurance experience and statistics as a basis for computing financial protection against old age, accident, and sickness. Repeatedly, we have "guessed" that if we retain one-fourth or one-half of the contributions of those who remain in service for a short time, add to that the dog tax or a certain part of an excise tax, also the amount deducted for absence, together with the payments of those who remain in the service, we could build up a fund sufficient to compensate for numerous unascertained risks. Our faith has hardly been justified by our works, but citing the breakdown of such a "cat-and-dog" fund as evidence against the soundness of the contributory principle does no credit to our intelligence.

A STATEMENT OF PRINCIPLES

Current knowledge of teachers' retirement funds makes possible an assertion of principles now apparent to fair-minded students of the problem. Among them may be enumerated the following:

1. The straight, or gratuitous, pension as applied to teachers does not, and, probably on account of its expense to the public, as well as the question of public policy, never will, meet the needs of the public-school service. On the part of the public there is a growing hostility to such payments, but an increasing willingness to participate in helping those who help themselves.

2. The cost of a contributory system to teachers will to a degree be shifted over to the public in the form of higher salaries, particularly in the case of the lowest-paid teachers, but even so the by-product of such a system, the habit of regularly saving a part of one's income, is of no small value, considering the number of people involved.

3. The custody of the accumulated savings by the state or municipality, forced savings tho they may be, guarantees safe investment for a group of people not heretofore conspicuously successful in their investments.

4. The return of the total amount of all savings with compound interest to the teacher who withdraws from service before being retired should be guaranteed in every retirement system hereafter established. Retaining any portion of these savings is absolutely unjustifiable so long as teaching

remains a short-lived profession. Under existing conditions the average teaching life of all who enter teaching is less than eight years. On the basis of such statistics as we have, not over 10 per cent of those who teach ever reach the age, or term of service, required for retirement on a pension. Taxing the 90 per cent for the benefit of the 10 is not defensible.

5. The justification heretofore alleged for retaining a portion of a withdrawing teacher's contributions has been the promise of payment of allowances for disability after a fixed term of service, if disability should occur. This promise is the feature in which most retirement systems depart from insurance actualities, and enter the realm of speculation, as will be discussed later. A fund so accumulated will prove sufficiently, not mathematically, demonstrable, and such a scheme should be abandoned for a better.

6. Fixed annuities payable thruout the remaining life of the beneficiaries should be paid only on the basis of age. This is sound insurance. The premium charged for such insurance should be adequate, and is ascertainable. If it be alleged that such a charge is a severe burden upon the poorly paid teacher, and that California, for example, offers its teachers equal protection at a flat rate of $12, while Massachusetts charges a minimum of $35, we can only say that the latter rate is sound. New York experience justifies the prediction that in a decade or less California teachers will be seeking amendments to the law. We can further point out that Massachusetts refunds total contributions with interest to teachers withdrawing from service, and California does not. If a sound premium rate proves an unbearable burden, be assured salaries will go up, for there is no reason for believing that the public will, in the long run, stand for the poorer teaching that would follow a permanent reduction in salaries.

7. If disability is to be included as a cause for retirement only two safe methods are open. One, advocated by the Carnegie Foundation in its Seventh Annual Report, is to pay the annuity purchasable by the teacher's contributions at the age of retirement and supplement this by an equal amount from the state fund when the years of service exceed a fixed number. While this method may be financially sound it is hopelessly inadequate. An annuity of $100 or less will not remove from the service the unfortunate sufferer from chronic dyspepsia, neuritis, or other physical disorders to which teachers are heirs, and which render their presence in the schoolroom a positive injury to the children in their care, but will continue their presence because of the sharp necessity of earning a living until they collapse. The other method has not as yet been tried in this country, but it promises the only rational solution of an urgent problem. We should establish a disability fund, probably on a mutual insurance basis, and certainly charge a sufficient premium to guarantee decent retirement allowances. At present, we are unable to do this because we know little or nothing about the occupational risk of teaching; we have no complete or reliable statistics

upon which to base either rates or equitable annuities. We have not these figures because thus far we have preferred to "guess" rather than investigate, but the time is now ripe for an investigation that will result in real knowledge. May we soon have it, and be freed from "the trial and error" substitution for mathematical formulae!

THE PRESENT SITUATION

When I compare the successive laws regarding teachers' pensions enacted in the several states, I am reminded of Herbert Spencer's formidable definition, in which he says, "Evolution is a change from an incoherent homogeneity to a coherent heterogeneity, accompanying the dissipation of motion and integration of matter."

In the evolution of teachers' retirement systems, our homogeneity seems to consist in trying to meet an obvious need in our public-school service. That our manner of doing it is incoherent is clearly shown by the hundreds of differences in existing laws. That we are dissipating motion is shown in half a dozen states where projected pension plans repeat the errors of previous legislation. That we are integrating by ascertaining and building on sound principles of social insurance in the several states where teachers' pension laws are under consideration, I am not sure. That a coherent heterogeneity may be the goal, I am prepared to admit. Iowa's problem may not be identical with Connecticut's; their constitutional provisions may be different, their teaching conditions may be different, their sources of revenue may be different, there may be a thousand differences, but their problems are identical in this: their teachers grow old, they become incapacitated for service thru disease and accident, and the welfare of society demands vigorous, healthy teachers, free from financial or other worry. We can never attain coherency until we recognize these factors in our problem and make equitable provisions therefor, on a financial basis at once adequate and mathematically sound.

We should learn by experience. We should urge no teachers' retirement legislation in the several remaining states until we have familiarized ourselves with all available knowledge on the subject. The questions involved are too complicated to be settled on a priori grounds. We have in a large measure created "the public sentiment" pleaded for by Dr. Keyes. In fact it is an open question if we have not too much sentiment and not enough facts, but we have not, to any great extent, disseminated "information" of the sort that will bear analysis.

In any campaign for teachers' retirement laws, we need three kinds of expert service. We need the insurance expert—the actuary—the educational expert, and the legal expert. Rarely are they combined in one person, and still more rarely can the services of any number of amateurs in these fields be accepted as equivalent. For satisfactory and permanent plans, we should utilize the mathematical knowledge of the expert in social

insurance, the skill of the lawyer trained in writing legislation, reinforced by the social vision of the educator.

THE PRESENT NEED

A movement that has gained such impetus in a comparatively few years will not end until all public-school teachers are included in its scope. To guarantee movement in the right direction, we need more than anything else a scientific investigation into the occupational risk of teaching. This is a study simple enough in the main, but of such a nature that no one person can afford to undertake it. The results would be of great value, but since an adequate study would demand the efforts of half a dozen people for a year, it is a project requiring subsidy from some source. No state association of teachers can undertake it, and no state commission is likely to. Some philanthropist interested in social welfare legislation might find here a useful piece of work; so might such an organization as the Sage Foundation; possibly a national organization representing the people most affected might well turn some of its resources in this direction. I submit this for your consideration.

THE FUTURE

Seventeen states have had laws permitting towns and cities, or school districts, to pension teachers. In some states under these laws vested rights have accrued and complicated the problem of establishing state systems. In fact some local systems have been so well organized that they have checked or prevented complete state systems. It can never be demonstrated that local pension systems raise the general level of teaching and public-school efficiency thruout a state. Indeed it would seem that in so far as a pension system makes the work more attractive, cities paying pensions would attract an undue proportion of the more highly skilled teachers, leaving behind the less skilful. A certain mobility in the teaching force of a state is desirable, but in the long run cannot be maintained unless accrued rights in a retirement fund can be transferred from one locality to another. In view of these considerations and a variety of others, there is grave doubt whether any teachers should seek further extension of local pension systems, unless constitutional restrictions make state systems impossible. As I have previously stated, pensions for teachers naturally come first in cities, but in the states where no pensions are yet provided, city teachers should join with their fellows in rural areas and work for the common good. In such states, and in the states where local systems will be merged into state systems, the degree to which the city teachers rise above local and personal considerations, and whole-heartedly support a plan tending to promote the welfare of all teachers, at the same time protecting the educational interests of the entire state, will indicate the degree of professional consciousness to which they have attained.

CONCLUSION

Because of the acute need of revising some of our retirement laws and the consequent publicity, teachers in some states fear that the movement has been retarded so that attention to their needs will be long deferred. In a cause involving social justice, educational benefit, and sound finance, there need be no fear. The lesson of the twentieth century in our Republic will be the more equitable and scientific distribution of the fruits of labor. In this reorganized distribution social welfare plans will have a conspicuous part. By basing our efforts on the accomplishment of the past ten years, thru our national organization and our state associations, we can, if we will, exercise a leadership worthy of imitation by other groups of workers. A statesmanlike task! May we have the vision to see our duty.

THE PUBLIC-SCHOOL TEACHER AND THE STANDARD OF LIVING[1]

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FOREWORD

It is essential that the salaries paid by the public to its school-teachers should be sufficient in amount to enable them to live according to the accepted standard of the community in which they teach. Recent years have witnessed a very rapid and general increase in the cost of living, as Robert C. Brooks has amply demonstrated in the *Report of the Committee on Teachers' Salaries and Cost of Living* of the National Education Association. Apparently the time has come when, in any city or town in the United States, public opinion must ask this question: "Are the salaries now paid in this place sufficient to allow the teachers receiving them to live at the standard of living generally accepted as adequate in this locality and among the group of people with whom as teachers they are called upon to associate?" To such a question there is, of course, no universal answer. It must be answered specifically by each locality.

While there is no universal answer to a question respecting the adequacy of salaries to maintain a given standard of living, there may well be a universal method of procedure by means of which each community can secure the answer for itself. There is no universal answer to the classification of new botanical specimens. There is, however, a universally accepted method of determining their classification. So, in the face of the standard-of-living problem, each community is an individual case, but the system of metrics by which each standard may be measured is of general application. It is the purpose of this report to indicate the lines of procedure that have been generally adopted by social scientists in their efforts to measure the ade-

[1] Presented as part of the *Report of the Committee on Teachers' Salaries and Cost of Living.*

quacy of a standard of living, and to show in what respect such methods may be adapted to the work of analyzing the standard of living among public-school teachers. The aim thruout has been for a simplicity and a brevity that would at the same time furnish a working basis for a standard-of-living investigation in any interested community.

1. *What do we mean by a standard of living?*—Every self-supporting person is constantly brought face to face with three of that species of stubborn life-facts which are technically called "economic." These three facts, underlying, as they do, all possibilities of self-support, are of such significance that a brief statement of their character must precede an intelligible consideration of the standard of living.

First of all, man has certain wants or desires for things and for help in living. The things which he wants—food, clothing, shelter, sidewalks, stores, and wagons—are called "goods." The help which he receives in living from doctors, kitchen maids, and grocers is called "services." Goods and services supply wants. If wants are well supplied, a person is said to be contented or happy. If the wants are inadequately supplied, a person is discontented or miserable. Thus, in so far as happiness and misery come from the possession or non-possession of goods and services, these two things determine the economic atmosphere of a person's life, and, since wants and strivings after want satisfactions appear in every phase of man's contact with the economic world, the problems arising out of want satisfaction are among the most important that men and women face.

Under the conditions of modern civilization, goods and services must be paid for by the use of a standard medium called "money." The amount of pay is called the "price," or perhaps a person says: "This hat costs so much." In any case, the thing wanted has a market value, which must be given in exchange before the thing can be secured. Thus wants and desires lead to exchanges and purchases. Want is the first economic fact; price is the second.

Then, in the third place, since goods and services must be had in order to supply wants, and since these goods and services have a price or cost, the person wanting goods, in order to pay the price for them, must have some means of earning or securing money, some source of income. The price for foods and services can be paid only by people who have some means of income.

The whole matter may be briefly summed up by saying that the combination of goods and services which a person enjoys constitutes a standard of living; that this standard of living is obtained at a purchase price known as the cost of living, and that the money with which the cost of living is met is derived from a wage or salary. A contrast is thus made between the standard of living, the cost of living, and income.

The fact seems almost too obvious for emphasis, yet it is sometimes forgotten that all people, unless they are to live a Crusoe existence, are more

or less dependent on goods and services for their existence. This is true because all people have at least a minimum number of wants which must be met if life is to continue.

The wants of the people may be divided into two classes—primary or natural wants, and secondary or acquired wants. The primary wants are the wants which men have in common with other similarly constituted animals. Such, for example, are the wants for shelter in inclement weather, and for food at all seasons. Unless these natural wants are provided, men cannot continue to maintain life.

A comparatively small part of the wants of men and women falls in the class of natural wants. Indeed many of the wants even of savages are acquired, while in modern society almost all of the goods and services rendered to people are wanted because an elaborate system of education has cultivated human desires far beyond their natural bounds. The want for a hat in summer; for white kid gloves at a dance; for purely decorative jewelry; for shoes with patent leather on the outside; for education; for books and magazines; and for all of the innumerable other things which modern industry provides were, most of them, unknown a thousand years ago. Yet they have come to constitute so real an element in our lives that unless we are able to obtain them we feel profoundly miserable.

The goods and services which provide for both natural and acquired wants make up the standard of living—a phrase which conveys as many variations of thought as the word "stone" or "wagon." Just as there is a multitude of different varieties of stones, and a multitude of different kinds of wagons, so there is a multitude of different standards of living.

Each group of people has its own standard of living, a standard that is based almost wholly upon the things to which those particular people have been used during the greater part of their lives. For example, the frontiersman wants, among other things, plenty of room, a gun, good hunting and fishing, a life fraught with incident and excitement; the ranch owner wants to ride a broncho; the city dweller is entirely satisfied with close neighbors and a trolley car. Surrounding conditions, plus education, determine largely the things that people shall want; but, within a given group, no single person can live at ease unless he is able to provide himself with the amount of goods and services ordinarily obtained by persons within that group. Living in a certain class of society, you must have a new gown for each social event; living in another class, you must have at least one new gown a year. The demands in one case are equally as absolute as the demands in the other.

Thus each "set" of society determines the standards of living. Then, standards having become firmly established, it follows that all of the persons living within the group who are unable to afford the standard must either leave the group or be miserable.

School-teachers belong in a rather well-defined community. As a rule their parents are neither very poor nor very wealthy. In the city, where comparatively high teaching standards are demanded, teachers come from among what is sometimes called "the middle class." In small towns and country districts they are recruited from families which are sufficiently well-to-do to be able to afford a long period of schooling. In either case, teachers, after entering the profession, are expected to live up to a rather exacting standard of dress and social position. A study of the standard of living among public-school teachers becomes valuable if it can show (1) what the teacher's standard of living is, or should be; (2) what such a standard costs; and (3) whether her salary enables her to buy that standard.

2. *The study of the standard of living.*—Social science has proceeded far enough to make some rather definite statements regarding the standard of living. The matter is no longer open to dogmatic misrepresentation; it is one that must be dealt with thru the medium of scientific analysis and exposition. The facts must be secured, and upon them alone sound conclusions may be based.

The standard of living may be studied in one of several ways. There is an old, and in many ways an unsatisfactory way, which until very recently was generally accepted as the proper means of making a standard study. Scientists, following this method, analyzed the actual amount of goods and services secured by specific families. Such studies are important because they give an accurate picture of the economic conditions existing in the families under consideration, and because they may be so readily compared with an ideal standard of living. The actual amounts of food, clothing, shelter, and the like secured by the family are set out in great detail; income is also ascertained and contrasted with expenditure; some such studies contain careful descriptions of the family surroundings and the family life. Altho the method of making these individual studies varies, the result is the same—a picture of the economic conditions existing in the family under consideration. Persons desiring to make a detailed study of this subject will find valuable illustrations in the *Report on Condition of Woman and Child Wage-Earners in the United States*, "Family Budgets of Typical Cotton-Mill Workers" (Washington: Government Printing Office, 1911), XVI, 46 and 99; and in L. B. More, *Wage-Earners' Budgets*, p. 167.

Such detailed family studies are still made—indeed they form the basis of standard-of-living investigations—but they become really valuable for scientific conclusions only in cases where they are made in sufficient numbers to justify general conclusions and only in cases where there has been previously established some model standard with which they may be contrasted. Studies of the economic conditions in individual families are important because of their fidelity to the actual situation. Their defect lies in the failure to determine whether or not the conditions which they reveal are adequate to maintain home life or human efficiency.

In the past few years this has led to a new type of standard-of-living study, which aims to determine the amount of goods and services which a person or family needs to maintain either bodily existence or efficiency. The former is called a standard of "minimum subsistence"; the latter is called a "fair," "normal," or "efficiency" standard.

The fair standard of living is now generally accepted as the social ideal. It was formerly taken for granted that if a family was provided with a mere subsistence, everything necessary had been done. During recent years, however, particularly in Germany, great emphasis has been laid on the maintenance of efficiency, as well as of mere physical existence. Starting as an industrial concept aimed at the preservation of the workers for industrial or even military purposes, the efficiency idea has spread into social fields, until there is a general recognition of the desirability of maintaining an efficiency standard in every walk of life. Nowhere, perhaps, is the need for efficiency greater than among the teachers who are called upon to shape the lives of America's future citizens.

In the case of the teaching profession, mere subsistence means little or nothing. The teacher must be able to maintain not only physical and mental efficiency, but likewise a certain professional proficiency which can come only thru leisure time spent in reading the right books, in pursuing advanced studies either under direct instruction or by correspondence, in travel and observation of places and methods, and in any other legitimate pursuits which enable her to keep abreast of the times.

3. *The standard of living and the teaching profession.*—The teachers of any locality, where a standard-of-living study is attempted, fall naturally into three well-defined groups. In the first group there are the teachers who are living at home and do not absolutely need the income which they earn as teachers. For them teaching is either a pastime or a means of securing additional income. With them this study has really nothing to do because their standard of living is set by forces entirely apart from the salary received in the teaching profession. They may be, therefore, dismissed from consideration at once. This decision seems more justifiable in view of the fact that such teachers probably constitute a small minority in the teaching profession.

In the second place, there are teachers who must be largely, or wholly, self-supporting. If they live at home they are expected to make a contribution to the maintenance of the family; if they live away from home, they are of course subject to all of the expense involved in individual up-keep.

The third group of teachers is made up of those who must support families—the women who have dependent parents, children, or other relatives; the very few married women who teach, thereby adding to family income; and the married men who secure a living for their families thru the teaching profession. The exact proportion in which their various groups make up the profession is suggested by the figures of the United States

Bureau of Education and the United States Census Bureau. Any other study of the standard of living among teachers must of necessity take into account the very different situation of the girl of twenty-five who has only herself to look out for and who expects in any case to marry and be supported by her husband, and that of the man of twenty-five who hopes to marry and support a family on the salary which he secures as a teacher. Nevertheless, the same questions can be asked about each of these classes, tho the answer will differ materially in the two cases. Among school-teachers, a standard-of-living study involves, first of all, a determination of the amount of goods and services which will be required to maintain teaching efficiency or which would be considered a "fair" standard for teachers. After this standard is set, two facts must be determined: (1) What will these goods and services cost? (2) Is the salary paid to school-teachers sufficient to enable them to pay the price of a fair standard of living?

4. *Measuring the standard of living.*—Teachers in each community must solve their own standard-of-living problem; first, because the standards of living vary with each community; second, because the cost of goods and services varies with each community; and third, because salaries vary with each community. Altho the specific work of determining efficiency living standards must be done by the local teachers' association, there are certain general principles which may be followed in that work.

The first step in a standard-of-living investigation involves the determination of what should be included in a standard of living. Altho it is difficult to decide upon a classification of things that will fit all needs, the following headings cover most of the things needed by the ordinary teacher:

1. Food.
2. Housing.
3. Clothing.
4. Fuel and light.
5. Carfare.
6. Health.
7. Insurance.
8. Recreation.
9. Sundry minor items.

It is easy to go into greater detail,[1] but sufficient accuracy for all practical purposes may be secured by using the simple schedule outlined above.

The actual collection of facts should be in charge of a committee. In ordinary standard investigations, paid agents would fill schedules, going from family to family for the purpose; but, in the case of teachers, the filling of schedules can be intrusted to the teachers themselves, since they are sufficiently acquainted with such detail to be able to answer the questions satisfactorily.

The facts must be uniform in order that they may be comparable and definite. Such uniformity is insured by the preparation of a schedule. The committee should prepare a schedule in some simple form, asking only those questions to which answers are absolutely essential. The schedule

[1] Arthur Shadwell, *Industrial Efficiency*, pp. 224–25.

should be so printed that the teachers furnishing answers to questions may write on the schedule blank. The schedule should be printed on paper heavy enough to stand in an upright file, or else it should be filed in an envelope which should contain all the data about the same family. In small towns most of the teachers may be included in the investigation. In larger places, however, the work is necessarily restricted to a small group of teachers. If the results of the investigation are to be accepted, the group of teachers or of families about which facts are to be secured must be representative of the whole body of teachers in the locality under investigation. A hundred cases in any group are adequate to any ordinary study, but a committee will do well to start with at least a hundred and fifty, because of the inevitable dropping-out of some of them. The hundred cases should be so picked that they are typical of the entire group for which they are selected. Furthermore, the records about the cases should be complete; no data should be missing. Records are not really complete unless they are kept for an entire year; but as this is usually impracticable, they are considered sufficient if kept for one, three, or six months—the longer the better. Most of the standard investigations have been made in records of from one to six months.

The determination of the standard of living, in the case of single teachers, is greatly simplified. Items 1, 2, and 4 in the standard classification (food, housing, fuel and light) may be lumped together under the one item, "board." The price at which good board can be obtained may be accepted as a fair standard and the money equivalent of these three items at once secured.

These items, in the case of teachers with families, present a much more complicated problem, of which the measurement of the amount of food necessary to maintain a standard of living is by far the easiest part. Food requirements are usually measured in calories of energy, and, in order to secure uniformity, they are stated in terms of the requirements of an adult man. The United States Department of Agriculture, which has made some valuable experiments on food values, states that a man in the full vigor of life, doing moderate muscular work, requires each day a quantity of food containing, as it is purchased, 3,800 calories of energy. By the time this food is eaten, it will contain but 3,500 calories, from which quantity the digestive system extracts 3,200 calories of energy.[1] After an analysis of the available data, Rowntree concludes that Atwater's estimate of 3,500 calories for a man doing "moderate muscular work" must be interpreted in terms of very moderate work if it is to be adequate.[2] Generally, however, it is conceded that from 3,200 to 3,900 calories of energy, depending upon the intensity and character of the work done, must be supplied to the body each day.

[1] *Yearbook* of the U.S. Dept. of Agriculture, 1907, p. 371. Article by C. F. Langworthy.

[2] B. S. Rowntree, *Poverty*, pp. 91–97.

The actual amounts of food consumed vary considerably from this standard. Atwater has compiled an extensive table, in which he sets down the results of "comparing the dietaries of persons with different occupations and incomes and performing different amounts of muscular work." The energy supplied by the rowing clubs in New England, for instance, is 3,955 calories; by football teams in Connecticut and California, 6,590 calories; by farmers' families in eastern United States, 3,415 calories; by professional men, 3,200 calories; by poor families in New York City, 2,845 calories; and by negro families in Alabama and Virginia, 3,395 calories.[1] Since the dietaries of different groups of people differ as radically in their content as do the various foods in their energy-yielding power, the computation of the dietary value of any group is a purely individual affair.

In order to analyze on a scientifically comparable basis the diet of a number of families, Atwater prepared a system of comparison between men, women, and children, showing the relative amount of food consumed by each.

An adult woman requires	.8	as much as an adult man
A boy of 15 to 16	.9	" " " " " "
A boy of 13 to 14	.8	" " " " " "
A boy of 12	.7	" " " " " "
A boy of 10 to 11	.6	" " " " " "
A girl of 15 to 16	.8	" " " " " "
A girl of 13 to 14	.7	" " " " " "
A girl of 10 to 12	.6	" " " " " "
A child from 6 to 9	.5	" " " " " "
A child from 2 to 5	.4	" " " " " "
A child under 2	.3	" " " " " "

These estimates by Atwater may be accepted, since they correspond rather closely to similar tables prepared by other experts. Their value lies in the fact that, by means of them, the food consumption of families may always be reduced to a common denomination—the requirements of a man.

The method of applying this formula is stated very well by Chapin. "Suppose that a family consists of father, mother, a girl of 4 years, a boy of 3, and a baby under 2. The father buys lunch six days in a week. The calculation therefore runs:"[2]

1 man	15 meals per week		15.0
1 woman	21 meals, equivalent for man to	21×0.8 meals per week	16.8
1 boy	21 " " " " "	21×0.4 " " "	8.4
1 girl	21 " " " " "	21×0.4 " " "	8.4
1 child	21 " " " " "	21×0.3 " " "	6.3
	Total number of meals, on basis of consumption of adult man		54.9

The family under consideration is, therefore, consuming weekly the equivalent of 54.9 meals for one adult man. Any other family, or any

[1] W. O. Atwater, *Principles of Nutrition* (Washington: Government Printing Office, 1910), pp. 34 and 35.

[2] R. C. Chapin, *The Standard of Living among Workingmen's Families in New York City*, pp. 126 and 127.

number of families, may, in this manner, have their dietaries reduced to a common denomination for the purpose of comparison.

There are two ways in which this standardized method may be used to measure the status of a particular family. The family dietary having been secured and analyzed, an expert may say whether or not the amount of food consumed provides adequate nutrition; or else some given dietary may be fixed upon as standard and the dietaries of individual families compared with it.

The simplest way for a local committee to proceed is to take a dietary such as that adopted in the federal investigation already referred to and, accepting that as a standard, to compare with it the dietaries of the families under consideration.

The authors of the federal investigation began their food study with an analysis of the very carefully prepared dietary of the federal prison in Atlanta. This dietary was then compared with those of families which were living fairly well. The comparison shows that

> for breakfast and dinner the quantity of food of the family living fairly well is not far different from the prison diet; they have a little more variety, perhaps. For supper, however, the prison diet falls short of what the people demand as a fair standard for food. Bread, butter, and coffee are not regarded as a satisfactory meal after a long day's work. It is clear from the menus of those who are living fairly well that a fair standard must allow either a meat or a vegetable for supper. Again, the prison diet is a little low in the quantity of protein it furnishes. The addition of a meat or vegetable for supper would, perhaps, bring it nearer the requirements.[1]

In order to make the matter entirely concrete, the menu of one family, which was living well but not extravagantly and which represented in its diet a varied and a complete supply of nutrition, was adopted as representing a fair standard. In this family, the average value of food consumed per man per week for the year was $1.67. The menu for the week ending January 3, 1909, was:[2]

MONDAY

Breakfast: Ham, sausage, biscuit, coffee, sugar, butter, syrup.
Dinner: Baked sweet potatoes, stewed Irish potatoes, collards with bacon, corn bread, biscuit, coffee.
Supper: Ham, Irish potatoes, biscuit, coffee, butter, syrup.

TUESDAY

Breakfast: Fried pork (fresh), biscuit, butter, syrup, coffee, sugar.
Dinner: Peas and bacon, butter beans, sweet potatoes, Irish potatoes, buttermilk, corn bread, biscuit, coffee.
Supper: Beefsteak, Irish potatoes, biscuit, butter, coffee, sugar, syrup.

WEDNESDAY

Breakfast: Fried pork, ham, butter, cheese, biscuit, coffee, sugar.
Dinner: Cabbage with bacon, Irish potatoes, sweet potatoes, corn bread, biscuit, coffee, sugar.
Supper: Steak, rice, biscuit, butter, syrup, coffee, sugar.

[1] *Report on Condition of Woman and Child Wage-Earners in the United States*, "Family Budgets of Typica Cotton-Mill Workers," XVI, 143.

[2] *Ibid.*, pp. 40–41.

THURSDAY

Breakfast: Pork, sausage, biscuit, butter, syrup, coffee, sugar.
Dinner: Collards and bacon, Irish potatoes, sweet potatoes, corn bread, biscuit, butter, buttermilk.
Supper: Beefsteak, rice, biscuit, coffee, syrup, sugar.

FRIDAY

Breakfast: Pork, rice, biscuit, butter, coffee, sugar.
Dinner: Peas, bacon, butter beans, sweet potatoes, fried pork, onions, pickles, corn bread, biscuit, coffee, sugar.
Supper: Ham, cheese, biscuit, butter, coffee, syrup, sugar.

SATURDAY

Breakfast: Pork and rice, biscuit, butter, syrup, coffee, sugar.
Dinner: Collards, bacon, Irish potatoes, sweet potatoes, corn bread, bread, biscuit, coffee, sugar.
Supper: Oyster stew, fried pork, biscuit, butter, syrup, coffee, sugar.

SUNDAY

Breakfast: Pork, oyster stew, biscuit, butter, coffee, sugar.
Dinner: Beans, Irish potatoes, sweet potatoes, pork, biscuit, corn bread, coffee, sugar.
Supper: Ham, biscuit, butter, syrup, coffee, sugar.

An itemized statement of the cost of the food entering into this menu follows the menu.[1]

The character of the food dietary in each community necessarily varies. For a given locality, however, a diet can be outlined which will contain all of the necessary food ingredients and will at the same time be considered fair by the community.

The standard for housing is fixed more arbitrarily. Most studies have assumed that decency requires a proportion of at least three rooms for five people (a man, wife, and three young children). Four rooms for five people, not including the bathroom, would be a much fairer estimate. They have likewise insisted on the sanitary conveniences, including a bathroom and toilet, as essential to a fair standard. A little inquiry will show the amount of rent for which such a house can be secured.

Fuel and light necessarily vary with the size of the house and the locality. Again the decision must be arbitrary. The number of tons of coal, feet of gas, and gallons of kerosene required by a careful housewife for a five- or six-room house must be accepted as the measure of a fair standard of living. Their cost can readily be computed by an appeal to local prices. The items of board for single teachers, and of food, housing, and fuel and light for teachers with families, include the major part of the expenditures. Probably two-thirds of the money spent by families earning less than $3,000 will go for these items.[2] There are other things which figure naturally in the expenditure list, however.

[1] *Ibid.*, p. 41.
[2] R. C. Chapin, *op. cit.*, p. 70.

The clothing is by far the most difficult item because of the immense difference in cost between ready-made and made-at-home clothes. Professor Chapin solved the problem by making an arbitrary list of clothing.[1] The federal study, proceeding in a much fairer way, based its calculations on the clothing of families which were well dressed.[2] A similar method must be resorted to in the case of teachers or of teachers' families. The clothing items of a careful, well-dressed teacher or teachers' family must be taken as a standard, and the cost of a fair standard of clothing based on them. A particularly clever woman can make clothes and trim hats in a way that will make a thoroly presentable appearance. Nevertheless, the average woman cannot be expected to possess such accomplishments. Ready-made clothes are always an element in the budget of the average family. The woman can be expected to patch and make over, but not to create.

Carfare (item 5) either is or is not an item, depending entirely on the distance the teacher lives from the school, since carfare expenditures for recreational purposes are charged under recreation. If only a small percentage of teachers live beyond easy walking distance from school, carfare cannot be regarded as an item in a fair standard of living. If, on the other hand, frequent transfers of teachers to distant parts of a large city make walking impossible, carfare will be an item.

The standards for health, insurance, and recreation are purely arbitrary and vary extremely with the community and the individual. For a man with a young family, doctors' bills are inevitable and insurance is a necessity. In the small town, recreation is inexpensive. In the city, pleasure trips, music, and drama all are important items in a fair standard of living.

5. *Estimating the cost of a fair standard of living.*—When the facts regarding each item in the standard of living have been secured, the cost of a standard of living may be determined. The method of doing this is well illustrated in the federal study, where the items are divided into those which vary with the size of the family and those which do not so vary. A table is thus prepared, showing both groups of facts.[3] It is to be noted that the proportion of income spent for various items varies considerably with the size of income.[4] Still for a given standard of life, the relation is very similar.

The cost of a standard having been estimated, but one thing remains—the comparison of the cost of a standard of living and the income of the teachers under consideration. This comparison will show that the teachers either are or are not receiving salaries sufficient in amount to provide a fair standard of living. A conclusion reached in this manner is sufficiently scientific to be well-nigh unanswerable. It will show whether the teachers

[1] *Ibid.*, p. 166.

[2] *Report on Condition of Woman and Child Wage-Earners in the United States*, XVI, 144–46.

[3] *Ibid.*, pp. 149–53. [4] R. C. Chapin, *loc. cit.*

are adequately paid, and, if not, the investigation will place in the hands of the committee conclusive evidence on the basis of which a campaign for higher salaries may be fairly inaugurated.

6. *The economic dilemma of the public-school teacher.*—The time may not yet have arrived when the public-school teacher is willing to recognize that she has social rights and to assert them publicly. At no very distant date, however, economic pressure will compel teachers to secure a new relation between salaries and the cost of living, or else to lower the standard upon which they have been accustomed to live. There is no longer any doubt that living costs have risen faster than teachers' salaries. Figures show that very plainly. There might be a reasonable doubt about the adequacy of the teacher's salary to buy a fair standard of living were it not for the unanimity with which teachers assert the contrary.

The inquirer is astounded by the frankness and sincerity with which teachers state their economic position.[1] No less surprising is the apparent inadequacy of the salaries generally received to meet the ordinary expense requirements of the profession. There is, to be sure, no question of securing the bare necessaries of living. The difficulties which confront the teacher are concerned with the maintenance of that standard of comforts and of luxuries which is generally expected of those in the teaching profession.

Teachers report peculiar difficulties in living up to the standard of their group. During recent years, these standards have advanced with alarming rapidity, and the salary schedule, trailing far in the rear, makes no provision whatever for the increased budget which the teacher is forced to carry. The same standard of life is expected of her in spite of the failure of standards and salaries to rise in like ratio.

Teachers encounter peculiar difficulties in continuing those forms of professional work which are indispensable to good teaching. The educational journals, some of the latest and best books, observation of schools in neighboring towns, and travel all absorb time, energy, and money. All are necessary to good work, yet most of these expenditures place a tax upon the salary which the ordinary teacher is unable to afford. Despite the oft-repeated warnings of superintendents, principals, and institute lecturers, the public-school teacher is failing to follow out a course of study that would mean increased teaching efficiency. The failure is often due to financial stringency, not to choice.

Teachers are unable to make provision for exigencies. Their salaries are not sufficient to enable them to save adequate sums against ill health and old age. Be it said, by way of explanation, that ill health is alarmingly prevalent among school-teachers. The teacher who is confronted with the necessity of caring for a dependent relative finds her salary utterly insufficient to meet such a demand. Moving from one town to another eats up a

[1] *Report of the Committee on Teachers' Salaries and Cost of Living*, pp. 217–44.

year's savings. Salaries do not allow of surplus. They buy only the day-to-day necessaries.

There is probably no group of the population which is harder pressed by the necessary cost of living than are the school-teachers. Their standards have risen with the rapidly rising standard of life among the well-to-do portion of the population. The prices of the things which they buy have increased during the past two decades at a phenomenal rate. Meanwhile salaries have lagged woefully behind or have stood stock-still. Between their Scylla of higher living costs and their Charybdis of stationary income, the public-school teacher finds herself hard put to it. The time has evidently come when teachers as a body must face the issues squarely, discover the cost of a fair standard of living, and insist that the teaching profession receive salaries high enough to enable them to pay for that standard.

A LIST OF THE MOST IMPORTANT BOOKS DEALING WITH THE STANDARD OF LIVING

Booth, Charles: Life and Labor of the People in London. London, 1889–92.
Vol. I, Parts V and VI. Vol. IX, Part III, chap. xiii. The budgets of thirty families are given in Vol. I, pp. 136–39.

Bosanquet, Mrs. Bernard (Helen Dandy): The Standard of Life and Other Studies. London, 1898.
A discussion of the conception of the standard of living and its relation to wages.

Boykin, James C., and King, Roberta: The Tangible Rewards of Teaching, 1914.
A 465-page monograph issued under the direction of the National Education Association Committee on Teachers' Salaries and Cost of Living, and published by the United States Bureau of Education as Bulletin No. 16, 1914.

Bruere, M. D. and R. W.: Increasing Home Efficiency. New York: Macmillan Company, 1912.
A suggestive and very popular study of standards of living among people earning $1,200 to $1,800 a year.

Chapin, Robert Coit: The Standard of Living among Workingmen's Families in New York City. New York, 1909.
The most elaborate of any of the recent studies. Goes into very great detail regarding the family expenditures of 391 New York families.

Devine, Edward T.: Principles of Relief. New York, 1905.
Chap. iii, "The Standard of Living."

Foreman, S. E.: Conditions of Living among the Poor. Bulletin of the United States Bureau of Labor, No. 64, May, 1906.
Expenditures in detail for five weeks for nineteen families in the District of Columbia.

Gould, E. R. L.: Social Condition of Labor. Johns Hopkins University Studies, Vol. XI, No. 1. Baltimore, 1893.
A comparison of family budgets of workers in coal, iron, and steel in the United States and in Europe, based on the sixth and seventh annual reports of the United States Bureau of Labor.

Great Britain, Board of Trade: British and Foreign Trade and Industry, 1903, Series 1, 209–58. Consumption of Food and Cost of Living.
Contains (1) estimates regarding quantity and cost of food for a typical family; (2) itemized returns of expenditures for food from 286 urban families.

Great Britain, Board of Trade: Cost of Living of the Working Classes. Report of an inquiry into working-class rents, housing, and retail prices, with the standard rates of wages in the principal industrial towns of the United Kingdom. London, 1908.

Compares by index-numbers rents in eighty-nine towns with rents in London, with data regarding cost of food and fuel.

Great Britain, Board of Trade: Cost of Living in German Towns. London, 1908.

A comparison of housing and retail prices of food and fuel in thirty-three German towns with conditions in the United Kingdom. The total number of family reports obtained is 5,046.

Great Britain, Board of Trade: Memoranda on British and Foreign Trade and Industrial Conditions, 1904, Series 2.

Embraces deductions from reports received from 1,800 families with reference to weekly expenditures for food and for housing together with calculations of the variations in cost of all the principal items of household expense since 1880.

Herzfeld, Elsa G.: Family Monographs. New York, 1905.

Twenty-four families on the West Side of New York City are studied, primarily from the sociological rather than the economic point of view.

Kenngott, George F.: The Records of a City. A Social Survey of Lowell, Mass. New York: Macmillan Company, 1912.

Chap. v deals generally with the standard-of-living problem.

Lovejoy, Owen R.: Social Standards in Industry. A Platform by the Committee on Standards of Living and Labor. National Association of Charities and Correction, Cleveland, Ohio, June, 1912.

A brief and notable summary of the work to 1912.

More, Louise Bolard: Wage-Earners' Budgets. A Study of Standards and Cost of Living in New York City. New York, 1907.

A study of 200 family budgets, obtained in the southwestern section of New York.

Nearing, Scott: Financing the Wage-Earner's Family. New York: B. W. Huebsch, 1913.

A comparison of standards and wages, employing the latest data available in 1912–13.

Patten, S. N.: The New Basis of Civilization. New York, 1907.

A suggestive interpretation of the meaning of an ample standard of living in its effect upon the welfare of mankind.

Richards, Ellen H.: The Cost of Living. New York, 1899.

Suggestions as to economy in expenditures, especially for families with incomes between $1,500 and $2,500.

Rowntree, B. Seebohm: Poverty, a Study of Town Life. London, 1901.

A study of the city of York. Chap. iii deals with the standard of life of various income-classes; chap. vi with housing; chap. vii with health; chap. viii contains analyses of eighteen family budgets with discussion of dietary standard.

Ryan, John A.: A Living Wage: Its Ethical and Economic Aspects. New York, 1906.

A vindication of the right to a living wage, with an estimate of its actual content.

Shadwell, Arthur: Industrial Efficiency: a Comparative Study of Industrial Life in England, Germany, and America. London, 1906.

In Vol. II, chap. xi treats of housing; xii, of cost of living; xiii, of social conditions.

Streightoff, Frank H.: The Standard of Living among the Industrial People of America. Boston: Houghton Mifflin Company, 1911.

A very well-made book. It approaches the standard-of-living problem from the theoretical side, citing many original sources.

United States Commissioner of Labor: Eighteenth Annual Report. Cost of Living and Retail Prices of Food. Washington, 1904.

A very discursive report on 25,000 workingmen's families in thirty-three different states.

Worcester, W. F. and D. W.: Woman and Child Wage-Earners in the United States. Vol. XVI. Family Budget of Typical Cotton-Mill Workers. Washington: Government Printing Office, 1911.

An intensive study of the standards among cotton-mill families in Fall River, Mass., and in certain southern mill towns.

DISCUSSION

JOHN W. CARR, superintendent of schools, Bayonne, N.J.—We have discussed the question of teachers' salaries and rediscussed it, again and again. We have collected data and written reports and published them. The public realizes that in most places teachers' salaries are inadequate. The real question at this time is, "What are we going to do about it?" I offer the following as a brief synopsis of what seems to me to be a practical program:

1. Keep down other expenses so that there may be funds for increasing teachers' salaries. In making up the school budget, it usually happens that everything else is provided for before any provision is made for increasing teachers' salaries. The result is that other school expenses are increasing far more rapidly than the advance in teachers' salaries. Let us keep down the "miscellaneous expenses" and we shall have more money for teachers' salaries.

2. Standardize expenses, and in many localities there will be sufficient funds to pay reasonable salaries to teachers without increasing the burdens of taxation at all. By standardization of expenses, I mean the paying of a reasonable price for all commodities and service which are really needed, but no more. I give a few examples by way of illustration. In 1903, there were more than four hundred country schools in Indiana each with an enrolment of fewer than five pupils, and more than eleven hundred such schools with an enrolment of fewer than ten pupils. By consolidation, these schools could have been taught with one-third the number of teachers. In a small city, the amount expended for books and educational supplies exceeded $17,000 per year. A careful estimate of the supplies actually needed was made and money appropriated accordingly. The result was that altho the attendance had increased more than a thousand, yet the annual decrease in expenditures for supplies was more than $2,000. By many small savings, the amount available for teachers' salaries may be materially increased.

3. Utilize the various teachers' organizations for the study of tax laws and the laws and practices for collecting and distributing school funds. Appoint active executive committees whose duties it shall be to see to it that the funds which are voted are really available for school purposes. In many localities if the tax dodgers and dead heads were made to pay up, there would be adequate funds for teachers' salaries.

4. Organize and maintain educational publicity committees—local, state, and national. The people want to know what the great body of teachers really need in the way of support in order that they, the teachers, may do their work most effectively. In most communities that is all that is required to secure the necessary legislation to provide minimum salary laws, permanent tenure, and adequate pensions. The great report of this Association on "Teachers' Salaries and Cost of Living" has done and is doing much to acquaint the people with real conditions, but such work needs to be supplemented by permanent committees whose duties are to keep the public informed.

5. Lastly, let us go to our homes, formulate a reasonable salary schedule for the particular locality in which we live, and then see if we cannot get it adopted. In my humble opinion the most difficult problem we shall have will be to agree among ourselves as to what is a reasonable schedule. Let teachers agree among themselves on a schedule which is reasonable, and in most communities the schedule will be adopted. Nothing is dearer to the hearts of the American people than their public schools, and in the end they will see to it that their teachers receive reasonable compensation for their services.

L. E. WOLFE, San Antonio, Tex.—The physical, intellectual, and moral powers of the twenty million children of this country are active for good or evil, during twelve months of each year. Likewise, the needs of the teacher for food, clothing, and shelter continue for twelve months of each year. In other words, neither the teachers nor pupils belong to the class of hibernating animals. On account of the foregoing, our schools should be in session, in cities, towns, and villages, practically the year round; and in order that the

work might not unduly fatigue teacher or pupil, it should consist of a judicious combination of books, industrial training, and play. The general practice in other lines of employment is twelve months' service with two weeks' vacation. The work of the schoolteacher is more fatiguing than some other kinds of employment because, in our almost exclusive book course of study, we attempt the unnatural and irrational.

This lengthening of the school term would incidentally give teachers a larger salary, but not in proportion to the lengthened term, for the salary now paid teachers for six to ten months' service is practically a yearly salary, since teachers seldom earn anything from outside service. While I believe at least an eleven months' term is sooner or later inevitable, in most communities this term will be reached gradually. With the lengthened term and the book-industrial-play course of study will doubtless come the lengthened school day, especially during the longer days of the year. Think of a half-million teachers, in a nation-wide chorus, lamenting the want of time to teach the modern, many-sided course of study, when they are not using more than half the time already available.

In view of the continuously diminishing purchasing power of money since 1897, and the ever-increasing investment by teachers in professional improvement, thru summer schools, correspondence, and other non-residence courses, the able report of our committee on teachers' salaries and pensions together with this and other discussions is very timely. In order that this report may bear fruit thruout the country, a synopsis of it should, from time to time, be sent to school board members, the press, and state teachers' associations with the request that the subject be given a half-day on the program.

But such salary agitation has its dangers, already apparent in many quarters; namely, that praiseworthy movements for increase of salary may degenerate into a scramble for higher salaries that will overshadow efforts for the professional improvement of the teachers. Greatly increased emphasis should be given to the improvement of teachers in service. Superintendents in counties, and superintendents, supervisors, principals, and superior teachers in cities and towns should be organized for the professional improvement of the teaching corps, with a graded course of study definitely related to schoolroom efficiency, and with credits leading to higher certificates, and higher salaries. There is a tremendous waste in our present poorly organized teachers' meetings.

Not only do the interests of the children demand that professional growth and efficiency be prime considerations, but that efficiency be made a chief factor in determining advance of salary. I am reliably informed that in some cities, a rule conditioning advance in salary upon attaining a high rank in efficiency is nullified by an organized pressure, inside and outside of the teaching force, resulting in according this high rank to practically the entire corps.

The signs of the times indicate that there is an irrepressible conflict between the members of the board, superintendent, and members of the teaching corps who believe that efficiency should be a prime factor in determining salaries and promotions, and those who believe that length of service alone should determine salary.

The making of efficiency a prime factor in salary schedules is in the interest of the children, is in line with the practice in the business and industrial world, and ought ultimately to prevail thruout the country. With the universal adoption of this principle will come more definite standards and tests of efficiency, greater reliance upon the supervising corps in determining the promotion of pupils, and possibly the more general practice of promoting teachers with their pupils.

Again, the world-wide movement for efficiency in both public and private expenditure should react powerfully to stimulate efficiency in educational expenditure. Public service is notoriously inefficient and wasteful; and we must not deceive ourselves by supposing that public-school service is an exception to the rule. There are probably few school systems in this country in which an able superintendent (held to definite results by an independent committee), if given an absolutely free hand in selecting, promoting, training, and dismissing teachers, could not add 20 per cent to the efficiency of the system. It

seems harsh to speak of dismissing teachers for inefficiency, yet it is not nearly so bad as depriving helpless children of their only opportunity to prepare for their life-work. Besides, a vigorous policy of appointment, promotion, training, and dismissal would save to the school system in efficiency many times what it would cost to pension the teachers who are inefficient on account of age.

Again, the fact that, in common with the other civilized nations of the world, we are rapidly approaching a tax burden that will be confiscatory, re-emphasizes the necessity of permitting neither whim nor false sentiment to prevent the adoption of every available element that makes for efficiency.

DAVID B. JOHNSON, president, Winthrop Normal and Industrial College, Rock Hill, S.C.—No achievement of the National Education Association could be of more vital importance to the welfare of the country than to secure for the teachers' calling dignity, security, independence, proper financial and social rewards, and certainty of support in old age or in case of disability.

The present inadequate salaries and insecurity of position are keeping many of our best men and women out of the teachers' calling, which should command the services of the best brain and character of our land. The good school is the hope of the country, and the good teacher is the hope of the school. What a prosperous, well-governed, law-abiding, progressive, enlightened country, flowing with milk and honey, we would have in a few years if we had in each schoolroom a devoted, skilful, intelligent teacher, imbued with the spirit of civic service and having scholarship and patriotism and social leadership and the freedom and independence resulting from adequate salaries, permanency of position, and security as to the future! Then, indeed, would appear the Golden Age.

The salaries of teachers were low enough ten or fifteen years ago, but since that time the cost of living has been steadily increasing, so that the purchasing power of a dollar now is only about 70 per cent of what it was then. As a result, it is not to be wondered at that so many teachers drop out of the work every year. In some of the states of the south more than one-fourth of the teachers drop out annually.

The exhaustive discussion of pension systems, by President Henry S. Pritchett, in the 1913 report of the Carnegie Foundation for the Advancement of Teaching, is worthy the study of anyone interested in this subject. Dr. Pritchett strongly favors pensions for teachers of the public schools, but urges a careful study of the whole question before any plan is adopted. He shows that pensions are justified upon the grounds of a larger social justice and as a necessary condition to an efficient school system.

TOPIC: PRINCIPLES AND AIMS OF EDUCATION

A. COMMON-SENSE AND BEYOND

WILLIAM L. BRYAN, PRESIDENT, INDIANA UNIVERSITY, BLOOMINGTON, IND.

In our time a multitude is bent upon establishing a new education in which children shall be taught to earn their bread. Meanwhile a stout minority is afraid that this new industrialism will sacrifice the essential interests of the spirit. It has been suggested to me that I should speak on some phase of the profound conflict between these two points of view. I shall try to suggest in a few words my view of the underlying philosophy of that conflict.

In a word I may say that I do not agree with either side in this conflict when it is opposed to the other. I do indeed believe that an industrialism

which excludes or slights any accent of the spiritual life is perilous to the individual and to society. But I also believe that an idealism which ignores or slights the spiritual values of the industrial life is equally perilous to the individual and to society. I agree with the idealist Bergson that the intellect itself was very largely developed on this planet by the making of things with the hands. And I agree with the idealist John Dewey that the college professor who chastely withdraws from concern with the economic life and who imagines that he is the special conservator of the higher culture is the victim of an illusion and is, in fact, a tame parasite. The spirit in which I believe is the spirit incarnate. I wish at this time, however, to dwell especially upon one side of this question and to affirm the practical reality of the forces which transcend the immediate vision of common-sense.

We must all live in the world of common-sense, with its familiar things, tasks, and ways of doing. The laws of that world are harsh, and are enforced by penalties such as failure, hunger, misery, and death. The best thing which the world of common-sense does is to make us work at sensible tasks. This is the best safeguard against insanity and the best means of developing practical judgment and efficiency. The worst thing which the world of common-sense does is to make us blind—is to make us believe that there is nothing beyond itself, nothing but superstitions, speculations, theories, dreams.

Physical science has done much to correct this false belief. When, in the fall of 1752, Franklin sent a kite up into a thundergust in order to catch lightning in a bottle, his kite went clear and clean out of the world of common-sense into another world of which common-sense by itself knows nothing at all. The lower end of that kite-string was held by the man who wrote *Poor Richard's Almanac*. He wrote of thrift: "An empty bag cannot stand alone." "Diligence is the mother of good luck." He wrote of prudence: "An egg today is better than a hen tomorrow." He wrote of pretended wit and learning: "The most exquisite folly is made of wisdom spun too fine." "There are many witty men whose brains cannot fill their bellies." It was this supreme genius of common-sense who went out in a rising storm to find a new world, not like Columbus with ships, but with a kite and a bottle. And he found it. He and others of his kind found a world incalculably more vast and rich than the America of Columbus. They found the world of force, within whose infinite ranges our world of common-sense floats like a bubble. It is the special business of science to send up kites of every sort in every direction. A university is a station for the flying of kites. The fire that comes back along their strings we must have. It bakes our bread. And the same fire, blazing high, lights up for us the immeasurable world of force invisible to common-sense.

Exactly the same connection exists between common-sense in its application to the conduct of life and the higher spiritual laws by which we are

begirt. The everyday rules of thumb for the conduct of life are essential. They teach us, as children, the first necessary lessons of obedience. They teach us common ideals and ways of doing, so that we can live together in families and as neighbors and citizens. To paraphrase St. Paul, common-sense is our schoolmaster, to bring us to the truth. But common-sense never teaches us the whole truth. It does a man fatal harm to believe that it can. It does a man fatal harm to believe that he can choose for himself a little world with little purposes, little standards of success, and little rules of cunning, and there can shut himself in safe from the living God.

There has lately appeared the biography of a man who thought he could do this, tho, like many of his kind, he believed in a sort of absentee God who might make trouble after death and who might be appeased by the founding of a theological seminary. Fifty years ago this man was one of the richest in America. Like Rousseau, Benvenuto Cellini, and others, he wrote with naked frankness the inside facts of his life. He wanted one thing—money. He believed really in nothing else. What would bring money was practical and good. Whatever stood in the way must be brushed aside. He brushed aside considerations of friendship and loyalty. Again and again he tells of betraying and ruining his own partners. "Business is business," he said. He tells of organizing the farmers of Putnam County, New York, into a protective league against Vanderbilt's Hudson River steamboat monopoly, and then selling out the farmers to Vanderbilt. "The dog that snaps quickest gets the bone," he said. He tells of arranging to get his partners into his debt so as to have them in his power. "You own your debtor," he says, "body and breeches. You are the cat; he is the mouse." He brushes aside considerations of patriotism. "Such far-off things as wars in Mexico, Missouri Compromises, slave wars in Kansas could not be allowed to come in and take my thoughts away from business." Again: "I saw very quickly that the War of the Rebellion was going to be a money-maker for me." "It's good fishing in troubled waters." He tells of corrupting officials of the government in the interest of stock manipulations, but adds: "We didn't dare to make offers of the kind to Old Abe. Lincoln was an impractical man as far as money went. All he thought of was saving the Union." Finally, he brushed aside considerations of loyalty to his family. In his last days his greed for money on any terms so possessed him that he proved an unsafe trustee of the estates of his grandchildren, and he was dismissed from his trusteeship by the court. By an accident of fortune which does not always happen, the millionaire lost all his money and died in poverty and solitude.

His philosophy of life is expressed in a paragraph by Balzac: "The more cold-blooded your purpose," says a worldly countess to her young relative, "the surer you will be of success. Strike without pity, and the world will fear you. Treat men and women as post-horses. Ride them

and leave them foundered at each relay, if you would attain the goal of your desires."

From this terrible picture turn to the President whom the millionaire called impractical. In truth, Lincoln was the very genius of practical sense. No other man of his century knew so well as he the range of forces by which men are actually moved. He knew, among other things, the powers of money. He knew that there must be soldiers and cannon and mules and corn and bacon, and money to pay for all. He knew that the Union must be saved by good financing as well as by hard fighting. He knew thoroly well that the world of money has laws from which neither men nor nations can escape. Lincoln was asked once how long a man's legs should be. He replied, "A man's legs should be long enough to reach the ground." His feet were planted on the ground as solidly as Franklin's. But, like Franklin, in the extremity of need he stretched forth his hand to the impractical heavens. And there he found forces mightier than lightning. If you ask where in literal fact he found the spiritual forces which saved the Union, I cannot tell, except in part. I know in part. It came from millions of common men, such as you and I, who a little while before had been all worldly prudence and cowardice and compromise. And then, somehow, in millions of common men, such as you and I, something burst up from within which burned up their prudence and their fear, and sent them marching on to death in the service of the Spirit.

Dante believed that there are above the earth many heavens, one circling above another. This is to us a myth. In substance it is the truth.

There is what Dante might have called a heaven of physical force, invisible to common-sense, slowly revealed thru men of science, still largely unknown. But we know its reality because every day and more and more we make it do our work.

There is a heaven of art. It seems quite unreal—nothing but play, romance, song, dreams. But in truth these have proved their reality in the works and battles of men as surely as any force which engineers can measure. Every great work begins in dream and rises in song, and often when the work perishes the dream and the song survive.

Finally, above all others, there is the heaven of charity. You may not believe in it. You may try to escape it. You may barter your one chance of life for a mean wage. You may work with might and cunning for your low desire, careless how your work affects others, and, at the worst, using men and women as post-horses to be ridden and left perishing by the way. But the hardest man is still a child of the Infinite Life. In the thick of your battle, in the moment of your meanest victory, you may be seized and shaken by the ultimate need of man—to give and receive unselfish friendship. In that moment the dollar and the bank and the factory and the whole hard, practical world turn to ashes and you are caught up before the judgment seat whose law is the terrible charity of God. In like manner

you may try to found your home life upon motives of shrewd worldly policy, or upon baser motives, and, at the worst, you may thus descend into horror and darkness. But, in truth, you and your mate are children of the Infinite Life. The hour may come when you shall realize that. In that hour the voices of worldly prudence and evil passion shall be still. In the heart of your mate you shall see something infinitely sacred, something that shall smite you into unspeakable reverence. You shall stand together in your home and know that you are also standing, like Dante and Beatrice at the last, in the most holy heaven.

The Lord of that heaven was not of those idealists who despise the earth and earthly labor. He was himself a carpenter and a physician. He said, "Raise the stone and thou shall find Me. Cleave the wood and there am I." And His supreme idea for Himself and for us, for our politics, our industry, our education, is found in the phrase, "The Word was made Flesh and dwelt among us full of grace and truth."

B. THE PURPOSE OF ELEMENTARY AND HIGH-SCHOOL EDUCATION

NATHAN C. SCHAEFFER, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, HARRISBURG, PA.

Many of our so-called educational reformers give the teacher a bad conscience with reference to her school, and, before a teacher whose conscience has been thus disturbed can again be happy in her work, it is necessary to clarify her mind on the purpose of elementary and high-school education. (It goes without saying that every school in our day aims and should aim to conserve the health of its pupils. If the laws of health and sanitation are to be obeyed, they must be known; if they are to be known, they must be taught—taught both by example and by precept.) From this point of view I do not regret woman's invasion of the high school. A girl can go thru college without contracting the cigaret habit. She can teach half a day without taking whiffs of tobacco between successive recitations, thus neutralizing by her example what she is trying to teach by precept. We may lay it down as a universally accepted proposition that from the kindergarten to the university it should be the aim of the school to conserve the health of the pupil and to develop his powers of body and mind into health, strength, and maturity.

But the preservation of health was not the purpose for which the school was originally established. It will throw light upon our problem if we look at a few facts culled from the history of education. According to John Fiske, Lewis Morgan, and other high authorities, the human race passed thru several stages before the school and the vocation of the schoolmaster were called into existence. At first man lived on nuts and berries and the fruits of the earth, then he learned how to catch fish, how to build a fire and

to prepare food by means of fire, and later he domesticated the dog and learned to hunt game with bow and arrow. But neither fishing, nor hunting, nor the building of a fire called the school into existence.

The next great step upward was due to a discovery made by woman. Is it not strange that when the average girl begins to study history she soon wishes she had been born a boy? Why? Because the histories are written and the subject is taught as if everything great and heroic belonged to the other sex. (At a New England dinner, they were glorifying the pilgrim fathers, telling what hardships they had to endure. Some one proposed a toast to the pilgrim mothers who endured all the hardships the pilgrim fathers endured and then had to endure the pilgrim fathers besides.) It is a function of the school to teach the girl that what makes life worth living is not found in carrying a gun and spilling blood, nor even in science and literature, but in the personal relations which the human being sustains to his fellows and to his God and Maker—a domain in which woman reigns supreme. As soon as the girl learns that lesson she no longer wishes she had been born a boy.

Here is a woman who, in order to retain the juices of the game which her proud lord has brought from the hunt, thatches the basket in which the meat is to be cooked, and by the time the meal is prepared the clay is baked and the secret of the art of pottery has been discovered. This discovery improved food conditions to such an extent that man left his savage state—a state in which he does not feel the need of a school and a schoolmaster.

In the making of pottery, one finds secrets which the pupil can learn from a master. Pottery is a trade, but the original school was not a trade school.

Upon the new plane, life is at first nomadic. Wealth consisted in cattle grazing upon a thousand hills and valleys. If you are introduced to a cattle king who can write his check for thousands of dollars, do not blush because you are a teacher; your vocation sprang up later and ranks higher.

Next, man learned to irrigate the soil and to practice the arts of husbandry. When people talk as if the primary purpose of the school were to make farmers, I enter my protest as a student of the history of education. Without question a good school makes the farmer a better farmer, just as it makes the man a better workman and the workman a better man. The little woman who cultivates the immortal minds of a score of children does a higher work than the man who raises for the market thousands of cabbage heads and vegetables and other eatables.

Man took another important step before the advent of the professional schoolmaster. In his upward progress he gradually learned how to smelt ores and to work in iron. Work in metals did not call the vocation of the schoolmaster into existence. He came later than the ironmaster and did a more important work for civilization.

What caused the dawn of civilization? According to John Fiske and other historians, civilization dawned when man learned how to record his

thoughts and achievements and how to transmit the knowledge of the same to distant peoples and to future generations. It was the need of written language that called the school and the vocation of the schoolmaster into existence. Volumes of history are crystalized in the letters of the alphabet. In other words, it is the primary purpose of the school to banish illiteracy and to make ignorance impossible. Without a knowledge of reading, writing, and reckoning, no one is adjusted to the demands of American life. To read English, to write English, and to understand English is the primary aim of the evening schools which Pennsylvania has established for the foreigners who work in our mines and shops. As soon as they know English, the number of accidents is greatly diminished. A knowledge of the three R's, of drawing, and of geography is still the most essential part of the preparation for vocational life. From the viewpoint of the industrial school, there is little justification for placing history in the school curriculum. From the viewpoint of preparation for citizenship, a knowledge of the genesis and history of our free institutions is of inestimable importance. To teach our native and foreign-born boys our patriotic songs is to beget in them love of the flag and of all that for which the flag stands.

Moreover, while the pupil is learning the things in the traditional school curriculum, he should be acquiring certain habits without which he cannot hold a job or fill a position in the industrial world. From the very routine of a good school, the pupil develops habits of punctuality and regularity, of accuracy, veracity, and obedience, of politeness, self-restraint, and self-control—habits which, when the will enters into them, become the school virtues, and lay the foundation of industrial, commercial, and professional success. It is not surprising that the boy who has been faithful at school is preferred above the boy who has formed the habit of playing truant.

I find that the ambitious parent considers a trade school a good school for his neighbor's son, but for his own son he prefers, at least if the boy will take to it, the training of the traditional high school. There is a subconscious motive for this preference, which deserves to be lifted into the light of consciousness. There are today about forty vocations which have in them the best-paid workers and which the boy cannot enter if he quits school before the completion of four years of training in a standard high school. About five millions of our people are engaged in these vocations, every one of which has a basis in the scientific knowledge of this age. In the elementary school we must often be satisfied if pupils learn to go thru the motions, if they grasp the surface relations of things. In the high school the pupil should be taught to penetrate beneath the surface to the relations that are scientific. What is science? Science is the knowledge of things in their causes and essential relations. It is the function of the high-school teacher to get the pupil's mind to move from cause to effect, from reason to consequence, from law to its application. The twentieth century will be an age of science and scientific applications.

It is a source of surprise that American superintendents can visit the schools of Germany without discovering the radical difference between the European school and the American school. The European schools are organized to perpetuate the distinction between the masses and the classes. In the United States—to use Huxley's phrase—we have constructed an educational ladder, stretching from the humblest walks thru the free high school into the college and the university—a ladder on which any boy, if he has the strength to climb, can rise into one of the forty vocations which have in them the leaders of our civilization.

The workman will sooner or later win an eight-hour working day. It devolves upon the school to determine whether the eight-hour day shall be a curse or a blessing. If the hours which are not needed for bread-winning are spent in dissipation and riotous living, the eight-hour day will prove a curse instead of a blessing. On the other hand, if the school will teach the rising generation to enjoy good music and a good book, if the school will teach its pupils to relish high thinking and plain living, the eight-hour day will prove a source of uplift and progress.

If I were called upon to put above the door of the schoolhouse one word expressive of the aim of elementary- and high-school education, I would put there in electric light the word "truth." Truth is more than knowledge altho the latter is the broader term. Knowledge may abide as a mere matter of intellect, but truth touches the heart out of which are the issues of life. If truth passes into speech, it becomes truthfulness or veracity. If it passes into life, it gives us true men and true women. It is true men and true women that our nation needs everywhere. Pythagoras had so high an estimate of truth that he said if the deity should make himself visible to man, he would choose light for his body and truth for his soul. Give us true men and true women as teachers in our public schools—teachers in whom the truth has become incarnate as it was in the Great Teacher, who said of himself, "I am the way, the truth, and the life"—and we shall realize the highest aim of elementary- and high-school education by giving back to the nation, thru the silent influence of example and the potent word of instruction, true men and true women. By way of admonition and guidance to the teacher, I close in the words of another:

Thou must thyself be true
If thou the truth wouldst teach;
Thy soul must overflow
If thou a soul wouldst reach;
It takes the heart's o'erflow
To give the lips full speech.

Think truly and thy thought
Shall the world's famine feed;
Speak truly and every word
Shall be a fruitful seed;
Live truly and thy life
Shall be a noble creed.

C. THE PURPOSE OF THE LIBERAL COLLEGE

ALEXANDER MEIKLEJOHN, PRESIDENT, AMHERST COLLEGE, AMHERST, MASS.

There are many different interpretations of the purpose of the liberal college. They are all partially true but most of them are false as accounts of the primary aim of liberal education. The liberal college is not simply a quiet retreat shut off from the conflicts of real life. Such men as Kant and Darwin, in the quiet of the study and the laboratory, were molding and shaping the entire social scheme of the nineteenth and twentieth centuries. The warfare of ideas may be quiet, but it is not shut off from the affairs of life; it is fundamental to them all. The liberal college is not a place where boys may seek "culture" in some sense which shall make them consciously superior to their fellows. Genuine culture is always a by-product. It comes not by seeking, but by doing something worth while. The liberal college is not concerned merely with the classics, if by that is meant a study of the past. No people were ever more modern in spirit than the Greeks. Their language and literature, their art and philosophy are well worthy of our study. But perhaps the best lesson they have to give us is that of the vital necessity of knowledge of our own time and our own people. The liberal college is not an institution which has lost its mission. It is sometimes said that since the college was founded to train ministers and since that work is now done by the theological schools, it has no longer any justification for existence. But the old college had something to give, not only to ministers, but also to doctors, lawyers, teachers, and business men. And the new liberal college has the same mission for men whatever their calling is to be. It is sometimes said that the task of the liberal college is simply to train boys to think, to give them intellectual method, and that hence it makes very little difference what they think about, what courses they take, during the college years. But if thinking is worth doing, those four years should not be wasted. There are certain essential and fundamental interests to which any liberally educated man should give attention; and no man is liberally educated unless he has in some way or other dealt with them in his own experience. Finally, the liberal college is not merely an institution for training "scholars," men who are to be by profession "investigators" in some field of learning. In a democratic society the liberal college is seeking, not merely the intellectual boy, but also the average American boy, and it proposes to train him for life whatever his profession or calling may be.

The fundamental principle of the liberal college, like that of all advanced education, technical or professional, rests on the opposition of action by custom and action by intelligence. All schools alike believe that activities guided by ideas are, in the long run, more successful than activities determined by habit and hearsay. The liberal college has, therefore, selected one group of activities for study. Just as the bridge builder studies mathe-

matics and applied mechanics, just as the physician studies chemistry and biology, so the teacher in the liberal college studies those activities which are common to all men. We believe that human living can be made more successful if men understand it. We set our boys, or should set them, to the study of the religious life, the moral problems, the social and economic institutions, the world of physical and natural phenomena, the records of literature and history. Here are features of human living common to all men. To understand them, to be acquainted with them, is to be liberally educated.

There are men who would prefer that their sons be not educated with regard to religion, morals, social and economic problems. These men want all the new appliances in farming, all the newest devices and inventions in transportation and engineering, but they would prefer that the fundamental things of life be left to habit, tradition, and instinct. As against such men the liberal college is up in arms. There never was a time when men needed light on the great human affairs, the things we have in common, more than we need it now. Intelligence has improved our roads and bridges; it will improve ourselves, our living. The task of the liberal college is just as definite as that of any technical school. Its day is not ending; it is just beginning to dawn.

TOPIC: EDUCATION IN A DEMOCRACY

A. EDUCATION FOR SOCIAL SERVICE

EDWARD A. ROSS, PROFESSOR OF SOCIOLOGY, UNIVERSITY OF WISCONSIN, MADISON, WIS.

Within the last twenty years many of our colleges and universities have caught something of the social view of things. But in the schools naïve commercial ideas prevail. Our more promising youth still issue from the classroom into practical life with glowing visions of a personal and private success. They have been told of the wonderful chances to rise and have been stimulated with the assurance that the harder they studied the sooner they would get up in life. "Out in the world," we tell them, "there is the great game, and there are the great prizes. Go in and win." Upon many of us it has not dawned that one aim of our public schools should be to make it impossible for the boys to accept the game as they find it.

Into the public mind have filtered during the last twenty years many of the newer ideas about the meaning of industry and trade. But, on the other hand, business men have been drawing together into associations and hearkening to the utterances of their big dominating personalities. While the social view has been making headway in the general public, the contrary manner of thinking has been hardening and defining itself within the business world. Commercialism has become self-conscious and aggressive. It insists that business is an arena in which the strong hearted and the

capable contend with one another for the Supremely Desirable, i.e., money. In this battle, strength has a place and cunning has a place. The "tricks of the trade" are to be tolerated as we tolerate the feints and ruses of the prize ring. Obviously, the rules of the fight should not be changed while the fight is going on, and, of course, the fight is going on all the time. To tie down the combatants with rules limiting the use of their superior strength, adroitness, or cunning spoils sport and is unfair to the "better man."

In these commercial battles, natural resources, and workingmen, and child toilers come to be looked upon as mere raw material to be moved about, husbanded, or sacrificed, as the exigencies of the fight may demand. As to the consuming public—for the sake of which, in sooth, all such enterprises exist—it lies vague in the dim background with no interest in the fight save as humble and admiring spectators. The hampering of the contending business men with pure-food laws, sanitary requirements, safety regulations, anti-combination acts, and, finally, the meddling of a trade commission on the alleged behalf of the consuming public, is an intrusion and an impertinence inflicted on "legitimate business" by the demagogy of "politicians."

In some of the professions likewise the combat idea is well established. The typical newspaper man is by no means apologetic of the sensationalism, red-ink, fakes, deceitful headlines, and spiced news, by which he has beaten his rival in circulation. All is fair in circulation-getting, and the other fellow would have done the same if he had been smart enough. *He* has no kick coming. The public? Oh, they are there to be gulled, and besides they like it. We are simply "giving the public what it wants."

Most of the lawyers are warm defenders of the time-hallowed contentious procedure by which our courts ascertain the right and wrong of disputes, despite the obvious consideration that the stronger side ought to win the case, not the side with the means to retain the stronger champion. As a whole the legal profession looks askance at the new matter-of-fact procedure, followed by the new administrative boards and commissions, which sends impartial experts to search out the matter in dispute or adjourns to the laboratory instead of listening to contending hired advocates.

In spite of the impression social ideas have made on the worker and the producer, commercialism has gone on developing within its sphere until it is becoming a religion. Boards of trade and chambers of commerce are its temples. The business interests are its priests; its holy days are Monday to Saturday. Its promise is prosperity. Its first great commandment is "Let us alone." Its plea is "Suffer little children to come unto me and forbid them not." Its beatitude is "Blessed is the employee who demands nothing and expects nothing, for verily he shall not be disappointed." Its favorite parable is of the man who burned down his barn to get rid of the rats.

This whole conception of business as a jungle fight with its implied admiration of the money-maker as a wonderfully clever fellow; its thinly veiled contempt for the man who wins only a livelihood; its cool ignoring of the public for whose sake business exists belongs in a class with trial by ordeal and judicial combat. Slowly there is rising in the popular mind the idea that businesses and professions are not owned by the men who, for the moment, are engaged in them, that they are but instrumentalities for meeting the wants of the public, not roped rings for the conduct of a prize fight; that while oceans of legal verbiage are poured forth on the question whether or not this or that business is "affected with a public interest," there is, in fact, no legitimate business or profession that is not affected with a public interest, and should not be required to square itself with the ascertained social welfare.

Rebellion is spreading against manufacturers gradually converting children into worn-out paupers which the public is to support, against industry's needless production of cripples for the public almshouse to shelter, against engineered scarcity of the necessities of life, against brought-on panics, against the ruthless maneuvers of big business, trampling us down as if we were caught in the midst of a herd of maddened elephants.

The social service that is supreme is not some bit of charitable work, but the following of one's calling as a service, not as an exploit. Education for social service is to open the eyes of the young to the social nature of their work in life, to purge their minds of the current false notion that to enter one's life-work is to take a hand in a poker game or put on the gloves for a prize fight. It is to persuade them that it is wisdom to spend wealth for more welfare, but folly to spend welfare—even somebody else's welfare—for the sake of more wealth, that industries should be run to yield dividends rather than profits, that a "living wage" must come before a "living dividend," that commercialized sports, commercialized amusements, commercialized newspapers, and commercialized vice are tumors, not flesh, that "prosperity" in the business man's sense is but one element in social well-being and not always the greatest.

The next social service is to fight the anti-social tendency of the combat régime. Education for social service ought not to dampen the primal impulses of moral indignation. Five-sixths of American teachers are women, and there is danger lest they, with their ladylike ideas of conduct, quench the natural pugnacity of our boys below the point of even chivalrous spunk. Certainly, a woman-taught generation is showing an alarming willingness to take oppression and robbery lying down. The good-government movement, I notice, attracts many mild-mannered gentlemanly citizens who are quite bluffed by ward-heeler's invitations to the use of the natural weapons. I fear our schools are turning out too many sissies, and that the rough, greedy element are taking advantage of it. I, for one, deplore the ladylike citizen. Social service implies not only a willingness

to be spent for the common good, but, as well, a capacity for ire and hard-hitting.

One way to divert the people from fundamentals is to get them hurrahing for petty betterments. I sometimes suspect that trivial social service is employed to sidetrack people from economic reform. The kept newspaper is strong for "swat the fly," anti-roller-towel, and "clean-up" movements. Likewise, it seems as if little charities for newsboys or tenement babies or hospitals prosper greatly just because they raise no embarrassing questions and leave the public with a soothing illusion that something is being done.

It seems to me sometimes as if the springing-up of a great variety of petty charities which annoy nobody, antagonize nobody, and produce but trifling results is to be interpreted as an endeavor to switch the public mind from big reforms involving questions of fares, prices, wages, hours, and conditions of work, which antagonize prominent people, but which also hold forth the possibility of raising the plane upon which great groups of us live. Not that there is a purpose behind it all; but those who start innocent charities get support and put them thru; while those who promote movements that lessen somebody's profits or dividends or rentals get the cold shoulder and fail. So that the promoters of social service learn the lesson: "Ask for reading-rooms, or fresh air, or teddy-bears; don't ask for less risk, or less hours, or for more pay, or more rights."

A democracy, then, will use its schools to counteract the anti-social spirit that too often radiates from the big masterful figures of commercial life. It will rear its youth in the ethics of brotherhood, teamwork, and responsibility. In educating for social service, its aim is at something greater than lessons in kindness and consideration. It presents life from a new angle. It employs ideas, not appeals and exhortations. It meets current notions of success and reward with more exacting ideals growing out of a new vision of social welfare. It aims to turn out youth ready, not only to make their calling a service, but to grapple with the old egotistic carnivorous type and eject him from places of influence where he can be a sinister pattern and pace-setter for the next generation.

B. EDUCATION FOR POLITICAL AND MORAL SERVICE

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The modern idea of democracy implies a state where all citizens are interested in, and perform the duties of, citizenship. This involves for successful administration a clear vision of the functions of government, the willing and cheerful paying of taxes, a hearty response to public service, and a service of integrity and honesty on the part of those who represent the

people in public office. Briefly stated there are two great issues in a democracy—one is the integrity of the citizen, the other is the integrity of his representative in office. These two being realized, most other problems fall into proper perspective and await an easy solution.

The familiar phrase "of the people, by the people, and for the people" suggests the three fundamental things, namely, the source of all authority, the people; the agency springing from the people in the form of duly accredited representatives; and third, the object of the government, the welfare of the people—that is to say, where all the people operate thru the people, in the interest of all the people. It need not be more than remarked that this ideal of democracy is realized only in part.

The topic now under consideration raises the general issue as to the function of education in a democracy in the preparation of citizens for political and moral service. I know not the distinction in the minds of those who selected this topic, as between the terms "political" and "moral." In these days the term "political" suggests the office, the holder of the office, and all the means and organizations necessary to the operation and maintenance of government. The word "political" is, therefore, of narrower horizon than the word "moral." The political to which reference is made is therefore but one phase of citizenship for which education should prepare us. The moral service involves all our personal, social, financial, political, private, and public relations growing out of our experiences as productive and constructive factors in society.

There are certain fundamental qualities and attitudes necessary in everyone who would render important service. First of all is that of intelligence. In the matter of political service our preparation has been limited in the elementary and secondary schools to a brief study of civics and American history. This study has been confined chiefly to the forms of government and the great movements in history. We have studied the forms of a state government, we have committed to memory the names of the offices, but this has been often futile for the very reason that the forms of local government have been frequently changed so that educated people are often limited in their intelligence upon details. The duties of officeholders and the requirements necessary for filling an office satisfactorily receive superficial treatment. In the colleges where advanced courses in political science are offered the theory of the state receives the major portion of time and study. Recently a tendency has developed to make a practical study of actual conditions within limited areas, but it remains true that few professors of political science, to say nothing of the college graduates, would pretend to anything more than a superficial knowledge as to the duties incumbent upon officeholders. Unhappily most of the education in this field has been gained from the instruction of the practical politician who has not always been inspired by the purest motives for the public welfare. The evils of patronage have proved

a serious handicap in the matter of presenting the truth concerning political office.

The second consideration is that a genuine sympathy with the purpose of popular government is essential for any progress in political or moral service. Here the school may render a large service in stimulating popular sentiment. A genuine patriotism develops as we come to see the vital things for which government stands. It should be drilled into the consciousness of the American people that government stands for service. It is the organized agency of the people thru their representatives to do what the individual cannot do, and to do in better form some things that groups of individuals might undertake, and in general to respond to the intelligent demands of the people. Too often the agencies of the people are construed as opportunities for private profit to the individuals who succeed in winning the agencies.

This enlarged conception of the state, together with a very decided tendency to utilize the state's power not only for protection but for promotion of the interests of the people, calls for a wider patriotism and a corresponding sympathy with the purpose of all government. The old police theory of the government made it a power to be feared. The modern theory that the state is the organization of all the people for public welfare makes it a thing to be loved and patriotically served.

It is fundamental, therefore, that in our system of education the youth of the land should be brought to understand the importance of the individual in a democracy and to appreciate his place and function. He should be brought to understand that citizenship carries with it duties and obligations. If the government stands for the rights of the individual it must also insist that he recognize his correlative duties. The moral obligation to fulfil one's duties as a citizen in a free government cannot well be overstated. The school should recognize its freedom to insist, as one of the agents of society for the education of the people, upon the moral obligation resting upon every youth educated at public expense to meet his duties with a resolute will. This injunction as to moral responsibility with reference to citizenship is more vital than much of the detail now presented for consideration. The spectacle presented in many of our commonwealths in recent years where fully one-third of those entitled to vote failed to exercise their franchise, and thus perform a duty, should soon be an experience of the past. An educated democracy cannot tolerate a condition where a large minority of the people are indifferent to political duty.

A third consideration is that all education should bring attention to, and emphasis upon, the fact that at some time and to some degree all citizens are leaders. It is an interesting observation that all active citizens sooner or later attain an unexpected prominence or a degree of influence wholly unlooked for. There is a large amount of leadership unrecognized even in politics. Many men whose names are not heralded are the deter-

mining factors in local elections and government. Education should, therefore, bring to view the moral qualities necessary for all leadership if government is to be safe, beneficent, and patriotic. No leadership, even in the smallest circles, can long be trusted where integrity is lacking. Permanent leadership among an educated people is synonymous with abiding integrity in the leaders. An educated democracy will learn more and more to rely upon such leadership. We must, therefore, develop a keener sense of trusteeship in public affairs. Grover Cleveland has been credited with the wise remark that public office is a public trust. We need now to develop a keener moral sense upon this idea of trusteeship.

In the ordinary experiences of life, trusteeships have been held sacred, illustrating the most honorable relations among men. Witness the high character of service rendered by the trustees of the great endowments for education. Witness the conscientious devotion of trustees of religious funds, both for education and for missionary service. Only a little lower ranks the service of trusteeships in estates where family interests are at stake. To be sure the courts with a high sense of honor have enforced these ideals. Apart, however, from the attitude of the court, men have usually recognized with singular fidelity the honor of trusteeships. There is no higher trusteeship than to have committed to one's hands the interests of all the people in a local community, a commonwealth, or in the nation. In the great crises of history, men have recognized this high obligation. I am making the appeal, however, that the school shall insist upon it that public office of whatever rank is a public trust to be defended as valiantly as one's personal honor.

In concluding upon the phase of education for political service, let me suggest that such a career, if properly presented, could be made attractive to the best youth of the land. In my opinion it should be so presented. A proper public sentiment would prevent a low-minded or selfish grasping individual from asking to be made trustee of public affairs. The upgrowing generation might well be taught that the highest forms of human service call for the best talent, the truest heart, and the most courageous of character. Under this high idealism, political service, which is only another name for public service, offers opportunity for the development of the highest type of character and makes appeal to the best of motives. The schools can render a great and notable service by setting out the moral qualities needed for public service and the open opportunity for noble development in rendering the service. There has been enough of this unselfish devotion to the public welfare among public officeholders to warrant a recasting of much of the material of American history with a view to putting a new emphasis in a new place.

Passing now to the broader conception of education for moral service, one can readily see that any principles announced as applicable to political service would be alike applicable for any service a citizen might render.

Distinctively Christian service makes this appeal in the interests of humanity. Philanthropic service falls within the same general category. The familiar and somewhat overemphasized social service of recent years is based upon the reorganized conception of modern political economy and sociology. Indeed, the strictly financial circles of the world are coming to recognize that the financial operations of great banks and business enterprises are in the last analysis moral issues. American experience with the New Haven Railroad is not exceptional, but only the last pronouncement upon the fact that the moral issues are the supreme issues even in the management of a railroad. The producers of great wealth are coming to understand that it is easier to build a great fortune than to maintain it with integrity. Since the day when Admiral Dewey sailed into Manila Bay, the moral quality of American citizenship has had a deeper significance than ever before. Every new advance that the world makes in its own progress and development brings a wider vision and a heavier obligation both upon the individual and upon society. If our education may be expected to prepare citizens for complete living, it is evident that the schools must interpret citizenship in larger terms than heretofore. The mere ability to read a section of the Constitution of the United States is no preparation for American citizenship. If, as we have fondly hoped all these years, our country is steadily to take its place in the council of nations and to meet the obligations resting upon a great country rich in resources of materials and of men, then it is evident that the supreme issues of the future will include the moral integrity of American citizenship. The schools must, therefore, come to the rescue with no uncertain sound as to fundamental morality as related to the perpetuity and character of the nation. This morality must be something more than mere expediency. It must be an inherent principle that makes men fear to do wrong and love to do the right. In my opinion there will be religious sanctions for the abiding morality of the future. Such principles as reverence for God and reverence for manhood and womanhood underlie the moral commands protecting the sacredness of human life and human property. No doctrine of mere expediency will ever protect a nation's or an individual's honor. It is not necessary that any objectionable religious doctrines be injected into our system of public education in order to maintain the religious sanctions of morality. A generation taught that honesty is the best policy should never be deceived into thinking that honesty is merely a matter of policy. The incidental results of a great truth should never be substituted for the truth itself. There is a long-standing academic and philosophic interest in the origin of ethics. Men love to speculate upon these things. The common judgment of the multitudes, however, which is usually a correct test upon elementary things, is that the abiding sense of moral obligation is proof of man's intimate relation with God under whose moral government he lives. It takes a highly specialized course of university thinking to get a country boy far

enough away from his conception of morality to enable him to live a standard life on mere expediency. I am disposed to believe, therefore, and because I believe I therefore declare, that the nation at large will never lose its moral quality until it loses its vision of God. This vision will interpret all questions of human duty and measure all bounds of obligations.

Our moral ideas will in the end determine our own estimate of service. People with a fine moral sentiment are capable of the highest service. Wherever this sentiment is lacking, brutality and crime steadily make their entrance. The human family, which is the finest flower of a Christian civilization, reaches its most beautiful expression under the Christian idealism underpinning our moral conduct. The American home, commonly cited as the bulwark of the American nation, has been essentially a Christian home from the beginning. Every lapse of moral integrity in the home may be traced to a loosening of the religious sanctions underlying American morality. This problem is sufficiently serious to command the attention and interests of our most thoughtful citizens. While not receding a single inch from the obligation of the church or the family, or the obligation of the individual citizen to propagate the truth, it is yet evident that education need not assume any of these obligations in order to have a distinct duty in preparing citizens for moral service. Service is the highest expression of character. There will be no beautiful moral service in a generation lacking in moral character. The American school system, from the kindergarten to the university, should, in my judgment, recognize not only its opportunity but its duty to organize education in the interest of character and the service that only character can render. This problem of education for moral service is intensely practical. There could be no condition of society in which the practical phases would not develop. The condition in the American population, however, is such as to intensify the problem. We are rapidly changing our locations, and thus citizens from one community carry to their new locations the ideals of the community from which they migrate. The centralization of large populations in our cities, and the removal of the family from the ordinary influences affecting morals, put upon the school the special burden of instilling the right moral ideals into the lives of school children. The steady stream of immigration from European countries brings a population unfamiliar with the customs of America and oftentimes unprepared to adjust promptly to the new American life. In this early experience prejudices are often engendered requiring a generation to eradicate. Meantime the children of these immigrants, if Americanized, absorb most readily the undesirable features in American customs, while tardily acquiring the moral ideals that constitute the safeguard of American citizenship. No blind optimism should ignore the facts in the case. The problem of education in moral ideals is beset with a good many difficulties, but a determined patriotism should turn aside from all petty strifes about words and face the problem with that moral earnestness

which grows out of a clear vision of the needs of American citizenship. It is gratifying to know that in educational circles, at least, there has been a keen appreciation of the importance of the ethical foundation in our systems of education. There has been no disposition to forsake or deny the fundamental tenets of morality, but the awakening of the last two decades has shown a remarkable lack of the application of these truths to practical living. The demand now is that men square their conduct with their consciences. Men are now appreciating the embarrassment of holding to a theory while denying its application. Conduct must be illuminated with our ideals. Truth which does not express itself in human life and conduct fails to interest us. This evidence of progress only emphasizes the necessity of bringing the new generation and the acquired generation into conformity with the best ideals of our time.

It may be urged that the opportunity of the school is either indirect or remote. I doubt whether this is as true as it seems. The organizing agencies of the school and the living teacher can never be wholly divorced from the practical life of the school. In some way the school reflects the idealism both of the community and of the teacher. There is a mutual reaction with the teacher distinctly in the lead. It is therefore most vital that the teachers of America should catch the spirit of American education in its relation to the service which the product of the public school is expected to render. In my opinion, most teachers, if asked to analyze the present situation and to account for the undesirable features in student life, would point us immediately to the counteracting influences that drift in upon young life from irresponsible sources. There is no direct or positive charge against the home for false teaching, but somehow teachers feel the lack of support together with the demoralizing effect of social life. The teacher is the chief expression of society's organization for constructive morals, and realizes that the efforts of the school should at least be parallel with social organization, formed for the purpose of aiding the school in protecting the youth against the assaults of degenerative influences, while instilling into them the truth which develops and builds character.

In conclusion let me suggest that the highest type of political or moral service will always require that he who renders it shall reinforce his message or his service with his own personal character. Character must somehow express itself in action. The law of "like teacher like pupil" will have increasing force as we understand that service is the highest expression of character and that character is the true measure of men and of nations.

TOPIC: THE NEEDS OF THE PUBLIC SCHOOLS

A. PROFESSIONALLY PREPARED TEACHERS

JOHN W. COOK, PRESIDENT, STATE NORMAL SCHOOL, DE KALB, ILL.

Last year there were enrolled in the public schools of this nation more than eighteen million children. This army is officered by nearly five hundred fifty thousand teachers and is maintained at an annual expense of almost a half billion of dollars. It must also be remembered that this vast expenditure does not include interest on an investment of approximately a billion and a half.

Notwithstanding this enormous enrolment and this vast expenditure of money, the nation has far from ideal results. One-fourth of the pupils enrolled were absent every day. The enrolment, large as it is, includes but little more than half of the population between the ages of five and eighteen. So far as the public schools are concerned, the average child of school age is receiving but ninety days of schooling each year. If this is the record shown by the average child for the thirteen years lying between five and eighteen, it would mean that the completion of the sixth grade of the elementary school is what we are to rely upon in the way of a common scholarship in perpetuating the institutions of which we are so proud and which have been established by so immense an expenditure of blood and treasure and toil.

I do not forget that I am dealing with that anomalous creature that never had a concrete existence—the average child. Nor do I forget the incalculable value of an educated leadership which will continue to emerge from our higher institutions of learning. But I insist that there is another thing that should not be forgotten, and that is the theory of the nature and destiny of man upon which our system of government is broadly grounded. This is not a theory of the average man but of the individual man, and what we are learning about the average man in these startling statistics points to the more startling fact that as there are vast numbers above the average, so there are vaster numbers below the average, because of the small contribution of their limited education. Moreover, these statistics do not seem disposed to change. It is evident that these conditions must change and change radically or we must rely upon some other agency than popular education for the perpetuity of our civilization.

But this is not all that lies on the shadow side of the picture. There are indeed five hundred thousand teachers, which will afford one to every twenty-four of the children that are at school every day. If they were all thoroly skilled in their task, the favored twenty-four would be well cared for during the brief time of their attendance at school. Certainly, since the children are to be there for so short a period, every consideration would seem to demand that the teachers should possess the highest attainable

capacity so that no part of this precious fragment of opportunity should run to waste. Conservation of resources is the watchword of our modern industrial life. Save everything that will yield a profitable atom is the essence of our economic theory. The pride of the manufacturer bears an inverse ratio to the size of his scrap-heap. But what of this human scrap-heap and what it suggests of all the other consequent scrap-heaps if the teaching shall lack in effectiveness because of the poor qualifications of the teachers? "As is the teacher so is the school" is as trite as the multiplication table and also as true. If there shall be a negligible scrap-heap at the factory, it will mean that thoroly trained operatives are doing the work. In some way they have learned the technic of their calling. There should not be even a negligible scrap-heap at the school; every worker should be a master of technic in the multiform relations of a teacher to a child.

Where does the capable worker in the great factory get his skill? He acquires it thru a carefully guarded apprenticeship. He is not permitted to spoil material in learning how to produce a product. He must begin with the elements of his art and proceed by slow stages to independent construction. We have all seen him at his work when his only task was to hand the required tool to the master. However apt he may be by nature, years must elapse before he can presume to claim recognition as a master workman or even as a journeyman. Yet he would be the last to designate his calling as a profession. He calls it an art, an occupation learned by imitation and practice, a dealing with inert matter, with no extended study of historical background, of fundamental principles, of wide knowledges, of the relation of what he is doing to the existence of those institutions that determine the course of civilization and hence of human destiny, that give the ultimate explanation, indeed, of what he is spending his life upon in his daily calling.

Turn from the capable artisan to the teacher and what do we find? Society dignifies his occupation by including him within the professional class, a class that is supposed to be differentiated from other workers by a clear consciousness of the scientific principles which determine its procedure. It goes without saying that in every profession there is an art side, possibly an artisan side, but no calling has warrant to be designated as a profession if it lack this regulative scientific knowledge. Teaching is unquestionably an art, but if it is not more then it must be denied the privilege of ranking with the professions. All of us have seen the "natural" teacher with her wonderful "knack," doing wretchedly bad things in a wonderfully skilful way. She was left to her own devices. She learned as the apprentice would learn if he had no master. As he would consign spoiled material to the scrap-heap by his educational blunders, so she will consign precious material to the spiritual scrap-heap as the price of her education.

And what shall we say of our five hundred thousand teachers? I shall certainly be among the last to deny the existence of a class of workers in

this vast organization who are as clearly entitled to professional honors as any men and women in the great complex of our civilization. They have reached their eminence by the traditional method of producing a professional class—thru a thorogoing study of the underlying scientific principles and their rational application in practice. Unfortunately the greater part may not thus be regarded. Success has come to them thru a wasteful experience; thru a violation of this principle of conservation that is the battle-cry of the time; thru the sacrifice of the richest resource of any people.

Allowing six years for the average life of a teacher, and the estimate is liberal, more than eighty thousand new teachers annually find employment in the elementary grades of the public schools. The public normal schools graduate some twenty thousand; sixty thousand untrained teachers annually begin to find their way to skill by their experiments with the defenseless children; sixty thousand more have been struggling with their problem for a year; and another sixty thousand are beginning to feel somewhat comfortably at home after an experience of two years, if they have been so favorably conditioned as to be under intelligent supervision. If they have not, the chances are that their latter state is as bad as their first and possibly worse.

The case is clear. The supreme need of the school is a body of carefully trained teachers. To this end the professional schools for their preparation must be multiplied until there shall be a real profession of teaching and no one shall be admitted within its portals who lacks the password.

B. THE KINGDOM OF LITTLE THINGS

JAMES M. GREENWOOD, ADVISORY SUPERINTENDENT OF SCHOOLS, KANSAS CITY, MO.

"Wisdom and knowledge shall be the stability of thy times. Get wisdom, get understanding, and forget it not."—This injunction does not exist for the educational triflers in "The Kingdom of Little Things." Let us go back to fundamental truths before we have cast aside all charts, compasses, logbooks, instruments, mental and mechanical, to take observations with on this unexplored sea we are endeavoring to navigate. Is it not the part of wisdom to take an inventory of the merchantable educational stock we already have before throwing it into the junk pile? There are many who think so. Many new assets are worthless in any market; in fact, most of them have no quotable value in any educational stock exchange. Let it be granted that educators ought to judge of means, agencies, and achievements from the nearness as well as the remoteness of things. Very close to each one are growing and changing boys and girls, and each one is composed of thousands of traits, tendencies, and variations inherited from a long line of ancestors, modified by environment of former

ages reaching down to the present. The homely but true adage that "you must earn for yourself before you can call it yours" is a discarded balance in many of our modernized methods of forming independent, self-centered, and self-controlled men and women.

Attention has been so focused upon the lame, the halt, the dullards, and the feeble-minded that the "ninety and nine" have been lost to view or relegated into the lot back of the barn, and no shepherd has been detailed to look after them. It is a glorious thing to take care of the dependent weaklings and no heart goes out to them with a deeper fervor than mine, but it is for the great mass that I plead. Has it not been true for years that at all educational meetings and social improvement congresses emphasis has been placed on the little things adapted to the weak and helpless, while those children of average ability and those of superior mental endowment have virtually been reduced in their studies and powers to a common denominator with the slow, the lazy, the dullards, verging down nearly to the scale of imbecility? Courses of study, textbooks, application, habits of steady industry, power of concentration are all on the low line of a mediocrity that is an insult to the children themselves as well as to their parents. Once it was the rankest heresy to bribe children to make them work either in school or at home. Children did their work because it was the right thing for them to do, and it gave them a stability and firmness of character for doing best their fractional part of the world's work. When the shoddy stuff of doing small chores about the house, in the garden or orchard, or on the farm is to be given so many credits in this branch or that one, are not school engineers nearing the danger line of mental unsoundness? Healthy children ought to work and on the same principle of self-improvement that they should obey their parents, respect those in authority, be polite, cleanly in speech and thought, and fear to do wrong. I thank heaven and my parents that I was taught to work at home, and that I was sent to school to obey the teacher, get my lessons, play at the proper time, and when school closed to walk home and do my assigned part of the chores both night and morning. The only motive held up before me was that an education was a better thing to have than money, in fact the very best thing in the world except a good name meritoriously deserved. Hiring children to do their duty should be placed as a statutory offense against the peace and dignity of the state. Our truancy laws, juvenile courts, houses of correction, detention homes are so many evidences of the spread of this contagion in American homes. It is high time that we stop, each one, and question ourselves on the output of results—the harvest of "the crop of little things."

Pedantic school superintendents in too many instances are fertile in novelties that catch the eye for a moment and then vanish forever. Humanity has traveled a long and weary road, and it has learned that nearly all the world must learn and work. The common-sense of mankind

affirms in no uncertain sound that a system of education that puts children to work at home after the necessary lessons and play have been had each day is the best nurture for the healthy, growing child, and it will be better off mentally and physically.

It is not a matter of surprise that our best educational thinkers are criticizing our schools on the very points that I have mentioned, and telling the American people that our boys and girls are two or three years behind the boys and girls in their studies in the corresponding European schools, and that too among nations who do not rush thru life at the same speed as we are accustomed to go. Our children in completing the elementary course of study can do one or more years' work beyond what they now do if they were put at it in earnest. School frivolities, ignorance, laziness, stupidity in high places, slow-going processes, and thinly gruelled textbooks have so entrenched themselves behind innumerable hoards of supervising bandits that the teachers have no time to do the real, essential work of the schools. There are so many efficiency engineers running hand cars thru the schoolhouses in most large cities that the grade teachers can hardly turn around in their rooms without butting into two or three of them. Under such conditions real progress in the things the children ought to learn is impossible. If some device could be contrived by which the "snapshot" schoolmaster and the "snapshot" school could be sent to the shades below for a season, the order of banishment should be issued at once. How much we can stand of brainless theories, aimless studies, mindless methods, without providing an asylum for dangerous leaders running at large, no one can predict. There is an encouraging feature, notwithstanding that so much educational thinking is running at a very low ebb; there are streams of educational intelligence that issue from pure fountains which are displacing mere animal existence and the savage virtues by searching for the purpose and reason for things. Education on a low plane is not a good collective result for community interests; it does not form men and women to pursue each his own individual ends with enlightenment and intelligence, and to make the most of his powers for benefiting the world. Struggle counts and one should never play football with his convictions. If one does, his underpinning has a bad attack of wobbles. It is bad taste to mock at painful impotence or bodily or mental deformity, but when supposed grave educators set about seriously making mental cripples of well-born children, it is such a wretched spectacle as would make Jupiter Olympus weep. All the keen edge of interest has been blunted off the child's mind, because he has not been trained in the elementary school to cut to the heart of any subject; no memory trained, enriched, and reliable; no imagination heightened and chastened; no judgment balanced by frequent trials on intricate points; no habits of remorseless application acquired and nobly exercised. He may have much bluff, but no power; he may be to discipline a stranger, and to definite principles in any branch of learning a

barbarian and outcast. He has been distracted, amused, nauseated, but not educated in the fundamentals in any study.

It is a serious question as to whether those who advocate many things in "The Kingdom of Little Things" have a well-assorted stock of educational ideas of their own. Are they not judging the size of things by their nearness or remoteness without considering their eternal and unchanging value? A single horseweed may blot out the most beautiful landscape and keep the eyes from seeing it. We need to widen the intellectual horizon of our boys and girls rather than to fit them into little narrow holes of living and box up their thoughts. Our people need capacity to look at the world from many angles. Thru the aid of expert advice, the mother can do nothing but look at her little one and love him. Yet her inner sense tells her that she can do much more and many things that no other one can do for him. She knows that self-reliance, thoughtfulness, and thoroness should all be inculcated.

For efficiency it is necessary to know thoroly the skeleton of each subject studied. Every day in school should be the equipment of the child for larger and more complicated knowledge. Teaching is to be judged by the condition of mind it produces in the learner. If it produces a devouring eagerness, independent judgment, accuracy, and rapidity in doing the work, and a becoming modesty, it is good teaching, however done.

The interest in school work should be steady and quiet, and there is no use in trying to make good school work soft and mushy, but there is much need of making it serious and cultivating the habit of steady pulling against a cold collar. Live children like to be fed from a full educational manger, not from a soup bowl. A subject should still continue to be a matter of interest after it has ceased to be a study, and one needs frequently to go back and visit with it, unless the intention is to make the child a mental vagrant. After the child begins his formal education, there ought to be a constant desire for knowing the things that are far away and high—longing to know more. "The Kingdom of Little Things" is making a scattering scramble of smatterings. Children, like grown people, delight in the victories of effort and purpose. Sound knowledge pays the largest and surest dividends. To educate a useful human being there should be a good beginning, a strong middle, and a glorious ending. Raise up a child in the way he should go, and keep him going on that way as long as he says father and mother, if he is to lead a healthy, rational, and full life to save him from "The Kingdom of Little Things."

C. SYSTEMATIC EDUCATION FOR THOSE PUPILS LEAVING SCHOOL TOO SOON

LORENZO D. HARVEY, PRESIDENT, STOUT INSTITUTE, MENOMONIE, WIS.

Two-thirds of the children who enter the elementary schools in the United States drop out of them and end their school work before or by the time they have reached fourteen years of age. The best statistics available indicate that at least two-thirds of this number leave school, not from pressure of necessity but from choice, and, of those who leave school from choice, by far the greater number choose to leave because the elementary school as now organized does not give the kind of work which appeals to them or to their parents as being worth while.

The whole theory upon which our educational system has been developed is an argument for pupils remaining in school beyond the age of fourteen, and that argument is reinforced by every consideration of the unproductive character of the work open to the fourteen-year-old child as regards his best development for future usefulness.

Laws have already been passed by some states, and other states are considering the advisability of passing laws, for the establishment of a system of continuation schools to give systematic instruction to those children who have been compelled to leave school and go to work. The establishment of the continuation school is a prime necessity for this class of children. It may not give adequate opportunity for education, but it gives all that can be given and all of which the individual may be able to avail himself. The continuation school is for the one-third who drop out of school too early from necessity; it is not what is needed for the two-thirds who drop out from choice. For them the reorganization of the curriculum of the elementary school, providing the kind of work that will appeal to them as having a value in increasing their wage-earning power, is a necessity.

This, then, brings me directly to the problem of what shall be done in our public school to make its appeal more effective than it now is to the two-thirds of that large number of children who leave school each year at fourteen years of age—those who leave from choice and not from necessity.

In determining what readjustment of the public-school courses of study should be made, it is essential to consider first what modification must be made to make the appeal of the schools so strong as to hold in school longer the class of pupils of which I am speaking. It is clear that the requisite readjustment will not result from a mere change of textbooks or of subjects taught thru the textbooks. There are two reasons for this: One is that for the larger number of these pupils who leave school from choice at the age of fourteen years the mental stimulus of the printed page is not sufficient to secure an effective response from them; and since it is not stimulus that educates, but effective response to stimulus, it follows that if there

is no such effective response the pupil is not being educated, his interest is lost, he leaves school, or, if he remains, the school becomes of little value to him. The second reason is that even where there is an effective response to the stimulus of the printed page, the pupil does not see its value and for that reason his interest lessens and the school loses its appeal to him. We must recognize that from this class of pupils the demand is for some kind of work that will increase their earning capacity, and that not far in the future. If courses of study can be so readjusted as to meet this need, the school will become attractive to a very large number of the class of pupils under consideration, and the parents of these children will see a value in it that they have not seen before. The combined interest of pupil and parent will result in the child's remaining longer in school.

By far the larger number of these pupils will after leaving school be employed in occupations requiring handwork of some sort. Mental training is essential in any education, but, when the work of life demands skill of hand, the mental training should to a considerable extent be directly related to motor training, and one must supplement the other. We must recognize that for the broadest training the stimuli for mental training must come, not from a single source, but from many sources; and for the mental training that is to develop power in the control and guidance of motor activity to productive ends, the stimulus must come thru an appreciation of a given end to be realized and thru the materials, tools, processes, and means employed to reach that end.

If this statement is correct, there is ample justification for the introduction of instruction in the manual arts into our courses of study, and that entirely irrespective of whether the manual arts are taught with a direct vocational end in view or not.

The boy who has had good training in the use of even a limited number of tools where close observation of materials and processes was necessary, who has had a clear understanding of what was to be done and then has made a definite effort to do it, who has compared the results of his doing with other similar work of high standard, and who has made a renewed effort to improve the quality of his own work has taken on quality of mind and gained a control of his motor activities thru the action of the mind that will make it easier for him to master the use of any other set of tools in working with any other kind of material. If we broaden his training so that he shall be trained to use a great variety of tools and work with a corresponding variety of materials, with correlative demands upon his mental and motor processes, he will find it much easier either to develop a high skill in the use of any one of these varieties of tools or to master a new and different kind. It has been discovered that boys in the seventh and eighth grades may be trained to do many kinds of work requiring motor activity which it has heretofore hardly been thought practicable to give even in the high school.

To me it is entirely clear that the mental training resulting from properly organized instruction in the manual arts is of great value to the child whose subsequent vocation makes little demand for manual dexterity, and that it is indispensable for the child whose subsequent vocation does require manual dexterity, provided his education is to aid him directly in earning a livelihood.

The readjustment of the courses of study may not mean that every child is to be trained in the public schools to the point of developing the grade of manual dexterity required in the labor market; but it does mean that the child will have as a result a somewhat developed industrial intelligence, a wide acquaintance with materials and processes employed in the industries, and such training of the hand in a wide variety of processes with tools and materials as will enable him to form some intelligent judgment of the kind of work for which he is adapted and will give him at least the beginnings of industrial efficiency. He may not travel very far upon that road, but, whatever the distance, he has shortened by that much the route to be traversed. He can turn himself to a great variety of work, not at the wages of the skilled workman, but at better wages than he could possibly secure without this training, and with the certainty of advancing more rapidly than he otherwise could to the ranks of the skilled workman.

It is not my purpose to enumerate in detail the different kinds of work in the manual arts nor the scope of that work which I deem essential in this readjustment of the courses of study, but simply to indicate on broad general lines the principles upon which such readjustment should be made. To do the former would be to rewrite the courses of study in detail, and that is too large a task for any single individual.

This readjustment may be made in two ways. It may be made by organizing the kind of work I have indicated as a part of the course of study for all pupils in the public schools; or it may be made by differentiating the work of the pupils at about the fifth grade so that a pupil may have an option of a course of instruction which does not involve motor training for vocational ends, or of a course of instruction which does involve such training and requires less of the textbook work than is required in the other course. If either plan is adopted, much more time must be given to this portion of the course of study than has been given in most of the elementary schools in the past. Good teachers are required for good work with any course of study. With a traditional textbook course, an inferior teacher may make a showing thru rote and memoriter work out of all proportion to the benefits derived. Such a teacher cannot make any such showing in that portion of the course of study devoted to instruction in the manual arts. The pupil's work is not measured in words, but in things that he has wrought with his hands, which things bear permanent witness to the character of his thinking and to his skill in expressing that thought thru the work of his hands. This work in the manual arts must be begun early.

It would be justified in the lower grades for the relief it brings to the monotony of textbook work if for no other reason, but it has other value. It begins earlier to present this new kind of stimulus (new in the schools) which demands and controls motor expression. A properly organized course of study in this field will present varied and progressive stimuli for mental activity which the textbook course presents in a much more limited way.

The essential things demanded, then, in this readjustment of the course of study so that it shall present an effective appeal to the thousands leaving school from choice at fourteen years of age are a wide range of instruction in manual arts, with adequate time and equipment and teaching force; an elimination of the nonessentials and the less essential things in the existing course of study; and a co-ordination of what remains, after these eliminations are made, with the work in the manual arts. That portion of the course of instruction devoted to the manual arts must be carefully organized with a view to presenting that which has the largest value and the strongest appeal to pupils. It must not be organized with the idea that this work is simply preparatory to work in a more advanced school. It must be organized primarily with the idea of holding a pupil if possible until he is sixteen years of age, with the certainty that large numbers who remain for these two years will have developed an interest and an ambition that will carry them on into some higher school for a longer or shorter time.

D. PROGRESS OF THE RURAL SCHOOLS

EDWARD T. FAIRCHILD, PRESIDENT, NEW HAMPSHIRE COLLEGE, DURHAM, N.H.

The growing interest in our rural schools is most encouraging. In every state the effort to develop and to modernize the school for the boy and girl in the country is bearing fruit, while the gap between the city school and the country school is sensibly lessening. The public is beginning to understand that the one half of our school population must have educational facilities equal to that of the other half. Evidence of this somewhat belated consciousness of the rural youth is not wanting.

The national Bureau of Education has set forth in plain but vigorous language the weakness and the needs of the rural schools; the press has commented on these facts; and the people are realizing the situation. State superintendents of public instruction see that in the country school lie their greatest problems, while increasing numbers of lesser school officers and many thoughtful citizens are displaying a commendable interest in the educational welfare of the rural child. Surveys, state and local, are adding to our knowledge of country-life conditions and to our sense of individual and collective responsibility.

Other signs of rural progress thruout the nation are:

1. The unprecedented interest in all rural-life problems thruout the country—including the rural school, the rural home, the country church, scientific agriculture,

and industrial education. The rural-school and rural-life conferences that have been held during the past and in recent years have had these subjects as the principal topics on their programs. The publicity given these discussions by the public press has been far-reaching in its effect and has brought about signal progress in rural education.

2. The departments of rural education, rural economics, and sociology in all of the leading state normal schools of the United States, and home economics and manual training in our colleges of agriculture and mechanic arts, with their extension courses and rural leaders; the great campaign for rural-life betterment provided for in the Smith-Lever Bill, thru the agency of our land-grant colleges and the thousands of rural leaders to be sent out under this act.

3. The rural educational rallies and all associations held thruout the country during the past and recent years; the boys' and girls' industrial clubs, educational exhibits, etc.

4. The provisions made for effective supervision of rural schools by the various states. The first national conference of state supervisors and inspectors of rural schools was held at Louisville, Ky., in April, 1914, thirty-seven states being represented in that conference. The proceedings of this conference will give a nation-wide interest in the work of more effective supervision of the rural schools.

5. The agricultural departments established in hundreds of our best high schools in rural communities; the establishment of county agricultural high schools and consolidated rural schools.

6. The professional zeal of rural teachers in taking advantage of the extension courses as offered by the universities, colleges, and normal schools; and the thousands of rural teachers now in attendance at summer schools in a study of rural education.

7. The teacher-training courses for rural teaching as established in the Central West, New York, Vermont, Maryland, and Virginia on the Atlantic Coast, and in California, Oregon, and Washington on the Pacific Coast. Sixteen states are now providing such courses in high schools. This year in one state alone twenty-eight hundred graduates of four-year high schools took the state examination for normal-training work, having devoted more than a year to the study of rural-school problems. The qualifications of rural teachers have been raised in many of the states; in some none is eligible unless a graduate of a four-year high school. The requirements of rural teachers have been raised in 50 per cent of the counties of the western coast states during the past three years.

A LARGER UNIT OF SCHOOL ORGANIZATION

I quote the resolutions adopted yesterday by this Association:

> The Association indorses and approves the plan of a larger unit in school organization and administration. It believes that the logic of events, as well as considerations of economy and efficiency, will displace the small district and recognize the county as the natural unit of administration—supervising the township, groups of townships, or such other geographical divisions as would be suggested by community convenience.

It is significant that in thirteen states the county is now the school unit, five of which states are west of the Mississippi. Campaigns are on in several states for the county as the unit. Thirty states are now supplied with rural-school inspectors, while the number of assistant rural supervisors is constantly increasing. Full of promise is the growing sentiment to take the office of state and county superintendence out of politics. The day is here when the child can no longer be bartered for political gain. Consolidation of weak districts into strong central divisions is constantly growing. Mr. Monahan, of the Bureau of Education, says that more

inquiries about consolidation are received than upon any other subject in relation to the rural schools.

More commodious and more sanitary rural buildings are the order of the day. In the state of Washington, teachers' cottages are provided, especially in Spokane County, and hot lunches are served. Play sheds in Washington, Oregon, and northern California have been provided that children may play in inclement weather. New Mexico has given more than fifty thousand dollars this year to weak districts that better school buildings may be erected for rural children.

To all this we may add the fact that courses of study are being liberalized and made to articulate with the environment of the country child. More money is provided for the maintenance of the school and the payment of better salaries.

And yet, it is but the morning of a better day. When we realize how great a number of the three hundred thousand rural teachers have inadequate training, many whose education does not extend beyond that of the grades; when we think of the short terms of schools in many parts of our country; when we realize that the majority of the rural schools still lack proper supervision, we find that the battle is just begun. Of the army of twenty-seven million of educable youth, more than sixteen million receive their elementary training in the rural schools. All of these schools urgently need men and women of fine professional training, deep social insight, large executive skill, and personal power as supervisors. There is also needed a type of teacher who understands and is interested in rural service.

There are those who say that these betterments cannot be secured until the country people themselves demand them. In the light of other rural problems this is not true. The agricultural colleges have shown the way to rural progress. By carrying the college to the people they have secured their confidence and hearty co-operation. By similar means the people may be won to a true conception of the need of twentieth-century schools.

It is said there is no demand for normal-trained teachers in country schools. If this be true, the state can easily secure a demand by providing a small bonus to every school employing a properly prepared teacher. The rural-school problem, tied up as it is with the whole rural-life problem, has now become too complex to be solved by local effort. The state must realize that its prosperity is the prosperity of all the people. State aid must be given as generously as it is now extended to state institutions of higher learning.

Adopting this policy, practically all of the ills of the country school can be overcome. Money from the state, even in small amounts, will hasten consolidation where physically possible. It will open the way to township high schools, thus solving the problem of secondary education for the country child, and will furnish a powerful incentive to the pupil

to remain thru the grades. And by the same simple process we may crystallize into fact many of our hopes for the rural school. We think in millions as to higher institutions, in thousands as to elementary schools; no man should find it necessary to remove from the farm to educate his children. Our people are coming to realize the truthfulness of this principle.

E. LET BOTH GROW TOGETHER UNTIL THE HARVEST

CARROLL G. PEARSE, PRESIDENT, STATE NORMAL SCHOOL, MILWAUKEE, WIS.

Our social structure and the educational system we have built up within it for our children are based upon the theory of equal social and educational opportunities for all. Our common schools are meant to give the son of the mill worker and the son of the mill owner alike training for good citizenship, and to open to each alike the doors of opportunity to whatever extension of education and whatever future economic and social status he may have aspiration and ability to attain.

To this end we have generally arranged the studies in our elementary schools so that children of ordinary ability devote to them eight years, from their sixth thru their fourteenth, and not before the fourteenth birthday are they brought face to face with the necessity of deciding whether they wish to and can go on thru the high school, and perhaps beyond, or whether they must or wish to seek work as wage-earners or begin the preparation for some particular craft or vocation.

We have become conscious of late that the course of study which we have framed for these elementary schools, especially that for the grammar grades, is not so well adapted to the needs and the interests of the growing and developing boy and girl as is desirable; we have been compelled to notice that large numbers of them are leaving the schools at the end of the fifth or sixth or seventh grade to begin work. Making due allowance for those who are compelled by their own or the family circumstances to become earners, and for that equally large number for whom earning is not necessary, but who, to please greedy parents or to gratify their own desire for spending, early leave the school, there still remains too large a number who go because they are not interested and do not care to stay.

Some employers who use child labor complain that the children sent out of our schools are not well fitted to take up the special work in their establishments; these employers desire from the schools a product more immediately profitable to the mill owner. Some persons concerned with education have the opinion, which is doubtless correct, that children can learn French and Latin and allied subjects more easily and thoroly if they are able to devote six years to the study of those subjects, beginning them at the end of the twelfth, rather than at the end of the fourteenth, year; and these persons wish to move downward two years the division line that

separates the elementary from the secondary school—a plan which is intended to result in separating from their companions at the end of the twelfth year those children whose parents have destined them for higher studies and liberal culture, while less favored pupils are to be put into separate classes or separate schools, there to receive training for the employment and the station in life to which they have been "devoted."

Thus, curiously enough, we have the mill owner, who wishes a more immediately profitable quality of child labor, the avaricious parent, who perhaps plans to live in idleness on his children's earnings, the educational person, who wishes French and Latin to be better learned and who wishes to bring about an earlier separation of those children who are destined for a liberal education and a higher station in life, and, not infrequently, the worried schoolmaster, who sees too great a number of his charges slipping out of the school one, two, or three years before they are fit to go, all uniting in advocacy of what is probably the most dangerous proposal made in many years for modification of our public educational system.

It makes little difference whether this proposal comes in the guise of the junior high school, which is to take boys and girls at the end of the sixth grade and retain them for six years (if possible), such a school, by the very fact of its organization, presupposing a separation of its pupils into groups or classes in accordance with the careers for which their parents or their teachers have destined (or doomed) them; or whether it comes in the form of a frank demand for the selection at the end of the sixth grade and the training, in "industrial" or "commercial" or "pre-vocational" classes or schools, of those children who are to be "devoted to labor," thus sending them to their prospective employers with some preliminary training in the work of the shop or other establishment, and rendering it less necessary for the employer to waste time in training childish hands; the effect of any such plan will be, in general, to shorten by two years the elementary-school period, to fix two years earlier than now that point in the school life of our children where they will feel—and in thousands of cases their parents will feel—that the elementary-school course having been finished the child may with propriety leave school and take up the sterner duties of life. Any such plan will force most of our children, two years earlier than now, to the iron gates of decision. Those who leave school at that time will by that fact have decided; those who remain must also decide, and, all raw and immature and unconscious of their powers and the possibilities which the future holds for them, choose the way to liberal culture or to this vocation and station or that. Whatever may be the thought of those who advocate this redivision of time between the elementary and secondary schools, and whether or not it is their wish to do so (and it seems to be the wish of many of them), we may be sure there can be but one result—for tens of thousands of our children school life will be shortened by two years, and thousands of those who do not leave will be forced, two years earlier than

now, to decide their future career or the direction which the remainder of their education shall take. The fact that in some European countries the plan proposed is in operation, and children are forced to this decision, or others decide for them, at their twelfth year, need have no weight with us. Among us, the citizen does not exist for the state, the state exists for the citizen. The purpose of our educational system is not to make mechanics, or commercial experts, or doctors of philosophy; it is to make citizens and men and women who know their duty to their state and do it, but who are free and untrammeled in their right of choice as to a career, and to whom no door of opportunity, educational or vocational or social, is closed provided they have the desire and the courage and the ability to enter and occupy.

The American schoolmaster, worried by the premature withdrawal of so many grammar-school boys and girls, need not feel driven to the adoption of this plan for a six-year elementary school, copied from foreign lands, where different industrial and social conditions and different ideals of life and opportunity prevail. Other remedies lie ready to his hand.

The present grammar-school course is not sacred; liberties may safely be taken with an arrangement which is a survival of conditions, industrial and social, that no longer exist. This course should make good citizens, intelligent, well disposed, fairly well equipped for the duties which all citizens may be expected to perform, and with some basis for wise choices in citizenship and in vocation or career. There is no reason why each grammar-school girl should not get a good elementary knowledge of the duties and occupations of a house-mother and some training in their performance, since probably nineteen out of twenty women sooner or later come into their kingdom at the head of their own household. There seems no good reason why each boy should not have such training in the use of the elementary hand tools as will make him decently useful about his own house when he comes to have one, and shall put him in such touch with industrial employments that he will be able to judge whether he has any liking and ability for them, and toward which one, if any, he is attracted. There seems no valid reason why both boys and girls should not have such chance to acquire certain of the knowledge useful in business offices as will enable them to decide whether they have some aptitude in this direction, and how and where best to continue their studies to fit themselves for such employment if they wish, and, incidentally, to acquire a knowledge of business methods and correspondence and record-keeping which will be of use to them in their own affairs, no matter what their future employment may be.

For those children who are tempted by the promise of a small wage which they wish for spending-money, but who do not need to leave school, the school may make some systematic arrangement, either for small employment out of school hours or for the turning of some of the knowledge

learned at school to practical account thru the sale of articles which the children can make or service which they can render.

For those cases where the necessity to earn is real, the part-time plan can be brought into requisition. It should be possible for employers to realize both their duty and their advantage and to co-operate with the school in arranging so that children who need to do so may work half time and attend school half time, thus enabling children to prolong their time in school and insuring to the employers in the future far more intelligent and effective help.

If it is thought necessary that certain pupils have an opportunity at the end of the sixth grade to begin French or Latin, it need not be impracticable for such classes to be formed as extras, open to those who desire them, either as additional work or in lieu of some other of the less vital portions of the curriculum.

The preservation of democracy among us and the prevention of stratification and the growth of classes in our society are difficult enough at present without introducing a plan which would in effect cut off two years from the elementary school—that school in which all our citizens should be trained—and which would in effect begin at the twelfth year, instead of at the fourteenth, to separate the sheep from the goats, the wheat from the tares, those children who are to enjoy the benefits of the higher education from those who are not. Those charged with responsibility for our schools should be on their guard against such suggestions from those who look upon foreign systems as necessarily better than our own and those who want a more immediately profitable grade of labor from children's hands. There are enough other ways to meet the real problem and minister to the need of our youth.

The school people should be the last to assist in crowding downward the harvest-time for our children—the time when they finish the elementary school and come to the time of decision and separation, according to the choice made of a future career or occupation. They need each other's society and companionship, the continuance of common studies and interests and comradeship, at least as long as they have it now—thru the fourteenth year. Lengthen then the time rather than shorten it. Shun any practice which will tend toward untimely separation and make stratification easier. Make later, rather than earlier, the harvest. And, in the words of the Great Teacher: "Let both grow together until the harvest."

F. THE ADAPTATION OF THE WORK OF THE SCHOOL TO THE NEEDS OF THE PEOPLE

JAMES Y. JOYNER, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, RALEIGH, N.C.

STATEMENT OF THE PRINCIPLE AND ITS BASIS

Perhaps the most remarkable educational movement of the past quarter of a century has been the rapid democratization of educational ideals and methods. Perhaps the greatest educational need of the hour and of the future in this democracy of ours is the further democratization of these until there shall be the closest adaptation of the work of the schools of all grades to the needs of the people of the states and communities that they serve and by whom they are supported.

In a democracy, equality of educational opportunity can mean nothing less than the opportunity to each man to develop to the fullest such ability as he has in a school adapted to his ability and needs and to the needs of the community in which he lives and serves. Lowell's definition of a university as a "place where nothing useful is taught" illustrates the old ideal of the university and almost of the college and the secondary school, but it is out of date in this age. The modern university is a place where everything useful is taught to everybody, and the modern college and secondary school are rapidly becoming just such places.

DIFFICULTY OF APPLICATION OF THIS PRINCIPLE

The application of this principle of adaptation of the work of the school to the needs of the community is one of the most difficult problems in modern education. The difficulty of the problem in a country like the United States will be readily suggested by the mere contemplation of the diversity of environment and conditions—natural, industrial, social, rural, and urban —the diversity of the population, the diversity of individual and racial capacity—mental, moral, physical, and sexual—the corresponding diversity of needs arising out of these, and of schools and courses of study required to meet such diversified needs. Except in certain essentials tested by the ages and found to be adapted to certain common needs of humanity, there can be no static uniformity in the courses of study.

The principle of adaptation of the work of the school to the diversified needs of diversified communities has had but tardy recognition in the United States except in the larger cities, but during this decade it has made rapid headway, and it promises to become the dominant factor in determining the types of schools of the future and the courses of study in them.

QUESTIONS SUGGESTIVE OF NECESSARY READJUSTMENTS

Lest I appear dogmatic upon a subject which is still in a stage of interesting experimentation, let me conclude this paper with a few questions

suggestive of some of the readjustments that will be involved in the application of this principle of adaptation.

Must not intelligent direction of the work of the community school be preceded by careful diagnosis of the conditions and needs of the community? Except in the essentials for meeting the fundamental common needs of humanity, should not the rural school be essentially different in type and in course of study from the urban school? If 90 per cent of the population of the United States is industrial and only 10 per cent professional, should not the work of the schools, urban and rural, be readjusted to minister more to the needs of the industrial classes in city and country respectively? Is there not some radical defect in our educational system when there is an oversupply of professional workers and many misfits and an undersupply of industrial workers and many inefficient and few skilled artisans?

According to the report of the United States Bureau of Education, 92 per cent of the children of school age are enrolled in the elementary schools, only about 5 per cent in the secondary schools, and only about 2 per cent in the higher institutions; at least one-half of these children leave school before finishing the sixth grade, and only about one-third ever enter the eighth grade. Do not these facts call for a readjustment of the work of the elementary schools to correlate primarily with the life and the everyday needs of the two-thirds rather than with the curricula of the high schools and colleges, and to assist them in preparing for life's problems and duties? Only a small percentage of high-school students complete the four-year courses—perhaps not more than 10 per cent; only a very small part of these enter any higher institution; a very large percentage of these high-school students leave school at the end of the first year; and a still larger percentage at the end of the second year. Do not these facts demand a readjustment of the work and a reorganization of the courses of study of the secondary schools in city and country so as to correlate with the life and minister to the needs of the large majority as well as of the few, and thereby retain a larger number till graduation, and better fit all for more efficient, happy, and contented living in their environment? Do not these facts also call for complete short courses of study for the large number of short-term students in these secondary schools? Is one-fourth, one-third, one-half of a four-year course as good as a complete one-, two-, or three-year course? Are there differences in sex needs, tastes, and duties that should be given more recognition in the work and courses of study for boys and girls respectively in the secondary schools?

Finally, should not the determining question in the method of teaching any subject and in the selection of the subject to be taught to any child in any school be: "Does it function with life in his environment?" If efficiency and utility are the ultimate ends of all education, is not adapta-

bility of the work of the people's school to individual capacity and individual and community needs and environment the only means of attaining these?

In the readjustments that must follow the inevitable wider application of this principle of adaptation to the work and curricula of our public schools, must not some subjects, hoary with age and sacred from long use, be eliminated to give time for others more needful? Must not shorter courses and briefer and fewer textbooks in some subjects be arranged to make time for the study of some new subjects and for longer courses in other old but more important subjects? Must there not be less of grind on senseless facts and more of study of vital forces—more of practice and less of theory?

In the delicate and difficult adjustment necessitated by the intelligent application of this principle of adaptation to the diversified needs of diversified communities, are not well-trained, well-paid, well-housed, long-tenured, professional teachers absolutely necessary?

CONCLUSION

We teachers must seek and find a way to secure unity without uniformity, flexibility without chaos, variety without loss of accuracy and thoroness, utility and practicability without sacrifice of culture and ideality.

DEPARTMENT OF SUPERINTENDENCE

RICHMOND MEETING, FEBRUARY 23–28, 1914

SECRETARY'S MINUTES

FIRST DAY

EVENING SESSION—TUESDAY, FEBRUARY 24, 1914

The Department of Superintendence of the National Education Association met in the City Auditorium, Richmond, Va., at 8:00 P.M., President Ben Blewett, superintendent of instruction, public schools, St. Louis, Mo., presiding.

The session opened with an invocation by Rev. H. D. C. Maclachlan, of the Seventh Street Christian Church.

Addresses of welcome were given by George Ainslee, mayor of Richmond, and J. A. C. Chandler, superintendent of schools, Richmond, Va., to which response was made by James M. Green, principal, State Normal School, Trenton, N.J.

Edward T. Devine, director, New York School of Philanthropy, New York, N.Y., presented a paper entitled "Education and Social Economy."

A joint resolution from the General Assembly of Virginia welcoming the National Education Association, and inviting its members to visit the legislative halls at any time they desired, was read and unanimously accepted. The privileges of the Y.M.C.A. building were also proffered. Thanks were extended by the department for these invitations.

President Blewett appointed the following committees:

COMMITTEE ON NOMINATIONS

George I. Aldrich, superintendent of schools, Brookline, Mass.
Joseph M. Gwinn, superintendent of schools, New Orleans, La.
Fred L. Keeler, superintendent of public instruction, Lansing, Mich.
Archibald A. McDonald, superintendent of schools, Sioux Falls, S.D.
Bettie A. Dutton, principal, Kentucky Street School, Cleveland, Ohio.

COMMITTEE ON RESOLUTIONS

John A. Whiteford, superintendent of schools, St. Joseph, Mo.
Charles D. Lowry, district superintendent of schools, Chicago, Ill.
Paul W. Horn, superintendent of schools, Houston, Tex.
H. Whitford Maxson, supervising principal of schools, West New York, N.J.
Josephine C. Preston, state superintendent of public instruction, Olympia, Wash.

SECOND DAY

MORNING SESSION—WEDNESDAY, FEBRUARY 25, 1914

The meeting was called to order by President Blewett at 9:30 A.M. in the Auditorium of the John Marshall High School. After music by the John Marshall High School Chorus the following program was presented:

"Fundamental Distinctions between Liberal and Vocational Education"—David Snedden, commissioner of education for Massachusetts, Boston, Mass.; and William C. Bagley, professor of education, University of Illinois, Urbana, Ill.

Governor Stuart, of the Commonwealth of Virginia, welcomed the Department of Superintendence to Richmond. In response, President Blewett voiced the appreciation of the audience for the honor of this greeting.

On motion, the discussion of the morning's topic was elaborated by Commissioner Snedden and Professor Bagley. This was further discussed by the following persons: Arthur D. Dean, chief, Division of Vocational Schools, State Education Department, Albany, N.Y.; Henry Suzzallo, professor of philosophy of education, Teachers College, Columbia University, New York, N.Y.; William W. Black, dean, School of Education, Indiana University, Bloomington, Ind.; C. P. Cary, state superintendent of public instruction, Madison, Wis.; George H. Bremhall, president, Brigham Young University, Provo, Utah; Edwin Hebden, director, Bureau of Statistics and Research, Department of Education, Baltimore, Md.

AFTERNOON SESSION

The meeting was called to order at 2:00 P.M. in the High School Auditorium, with Vice-President Walter E. Ranger, state commissioner of public schools, Providence, R.I., in the chair.

The following program was presented:

1. "School and Shop—Work and Study"—Randall J. Condon, superintendent of schools, Cincinnati, Ohio.
2. "The Apprentice Schools of the Santa Fe Railway System"—F. W. Thomas, supervisor of apprentices, Topeka, Kans.
3. "Trade Schools"—Lewis Gustafson, superintendent of David Ranken Jr. School of Mechanical Trades, St. Louis, Mo. This paper was read by Clifford B. Connelley, dean of School of Applied Industries, Carnegie Institute of Technology, Pittsburgh, Pa.

A discussion followed in which Mrs. Milton Higgins, Worcester, Mass., and Paul Kreuzpointner, chairman, Committee on Industrial Education, American Foundrymen's Association, Altoona, Pa., took part.

George Platt Knox, assistant superintendent of instruction, public schools, St. Louis, Mo., announced the aims and purposes of the new National Vocational Guidance Association.

EVENING SESSION

After the singing of many southern airs by the negro singers from the Whitlock Tobacco Factory, the meeting was called to order at 8:00 P.M., in the City Auditorium by President Blewett.

The following program was presented:

1. "Hopeful Experiments":
   a) "Mississippi Canning Clubs"—Susie V. Powell, state agent, Girl's Clubs, United States Bureau of Plant Industry, Jackson, Miss.
   b) "Some Conditions in Rural Schools and Their Improvement"—Josephine C. Preston, state superintendent of public instruction, Olympia, Wash.
   c) "The Moonlight Schools of Kentucky"—Cora Wilson Stewart, president, Kentucky Illiteracy Commission, Frankfort, Ky.
2. "Some Conditions in Rural Schools and Suggestions for Their Improvement"—P. P. Claxton, United States Commissioner of Education, Washington, D.C.

THIRD DAY

MORNING SESSION—THURSDAY, FEBRUARY 26, 1914

After music by the pupils of the high school, the meeting was called to order by President Blewett in the Auditorium of the John Marshall High School at 9:30 A.M.

President Blewett announced the following committee to act with Commissioner Claxton to secure adequate support for the United States Bureau of Education:

Francis G. Blair, of Illinois
John H. Finley, of New York
James E. Russell, of New York
Martin G. Brumbaugh, of Pennsylvania
M. L. Brittain, of Georgia
W. S. Sutton, of Texas
W. K. Tate, of South Carolina
William P. Evans, of Missouri
Edward Hyatt, of California
C. N. Kendall, of New Jersey
Robert L. Jones, of Tennessee
C. G. Schulz, of Minnesota

The following program was presented:

1. "The Foundations of Educational Achievement"—Edward L. Thorndike, professor of educational psychology, Teachers College, Columbia University, New York, N.Y.

2. "Report of Committee on Economy of Time in Education"—Harry B. Wilson, superintendent of schools, Topeka, Kans.; James F. Hosic, head of the English department, Chicago Normal College, Chicago, Ill.; and W. A. Jessup, director, School of Education, State University of Iowa, Iowa City, Iowa.

3. "Report of Committee on Uniform Nomenclature in English Grammar"—C. R. Rounds, head of department of English, West Division High School, Milwaukee, Wis.

The annual business meeting followed the program.

At this time, Superintendent C. E. Chadsey, of Detroit, Mich., made the following motion:

I move that the Department of Superintendence receive the Report of the Committee on Economy of Time in Education as a preliminary report; that this committee be continued; that the president of the Department of Superintendence be authorized to appoint two additional members to the committee; and that the National Council of Education be requested to recommend to the Committee on Appropriations an appropriation of five hundred dollars to meet the necessary expenses to be incurred by the committee.

This motion was adopted after being amended as follows by Superintendent Frank B. Cooper, of Seattle, Wash.:

If it appear that the appropriation requested is not forthcoming from the National Education Association it is moved that a special finance committee be appointed for the purpose of raising funds from the members of the department for the use of the committee.

President Blewett then called for the report of the Committee on Nominations, which was as follows:

For *President*—Henry Snyder, superintendent of schools, Jersey City, N.J.
For *First Vice-President*—Paul W. Horn, superintendent of schools, Houston, Tex.
For *Second Vice-President*—E. C. Warriner, superintendent of schools, Saginaw, Mich.
For *Secretary*—Mrs. Ellor C. Ripley, assistant superintendent of schools, Boston, Mass.

On motion, the report of the committee was adopted and the secretary was instructed to cast the vote of the department for the persons named for the various positions. This being done, the persons named were declared duly elected.

The following report of the Committee on Resolutions was presented by Superintendent John A. Whiteford, of St. Joseph, Mo., chairman of the committee:

We, your Committee on Resolutions, beg to submit the following report:

1. *Resolved*, That we recognize in the public schools the foundation of our form of government, the bulwark of democracy, and we believe that they are the surest means of solving our social and civic problems and of fixing correct American ideals in the youth of our country. No investment does so much to promote the general welfare as taxation for education and no public service is of more consequence than that rendered by teachers and school officials. We invite constructive criticism from those who have the welfare of the schools at heart and we deplore any attempt to exploit the schools for personal or partisan gain.

2. *Resolved*, That we indorse the movement to establish and support vocational schools for pupils over fourteen years of age; that we urge the special preparation of teachers for this vocational work; that we encourage the establishment of continuation schools for boys and girls between the ages of fourteen and eighteen years who have entered vocational life; that we recommend that the attendance upon these continuation schools be made compulsory for such boys and girls between the ages of fourteen and sixteen.

3. *Resolved*, That every rural school should provide a home including a small farm for the teacher. This teacher will be one trained for rural schools, will know the child and his needs, will cease to be a tramp teacher, will be able to correlate school life with life in the country, and will be a leader of men. That we favor a county or a larger administrative district unit for rural school work, thus providing equality of educational privileges, equalization of taxes, adaptation to the growing needs, and efficient supervision.

4. *Resolved*, That we indorse the work being done by our national Commissioner of Education; and that we particularly appreciate that phase of his work which consists of sending out letters whereby helpful experiments along educational lines in various parts of the Union are called to the attention of city and county superintendents. *Resolved*, furthermore, That we believe that the national Bureau of Education should be provided with financial support, buildings, and equipment in keeping with its importance.

5. *Resolved*, That we recognize fully the importance of the proper teaching of sex hygiene, but that we believe the ideal place for giving such instruction to be the home; that we believe the school should be willing and anxious to help the home in this matter as best it can. If instruction in sex hygiene is to be given in school at all it should be given not to classes but to individuals, and by teachers specially qualified for such work.

6. WHEREAS, The Educational Committee of the House of Representatives has granted a hearing on the bill now pending to establish a national university, to which hearing the standing committee of the National Education Association has been invited, therefore be it

Resolved, That we reaffirm the declaration favoring a national university made by the National Education Association in 1912, and recommend that the president of this department appoint a committee to attend said hearing in co-operation with the standing committee of the National Education Association.

7. *Resolved*, That the thanks of this department be given President Blewett and his committees for the strong program that has been presented for our consideration and especially for that part which provides ample opportunity for discussion from the floor.

8. *Resolved*, That we express our appreciation of the consideration shown us by the railroad associations in extending to us an open rate for this meeting. We express the hope that this plan may be continued for succeeding meetings.

9. *Resolved*, That our sincere thanks be given to the Governor and the legislature of Virginia for the courtesies extended to us; to Superintendent Chandler and the local committees and citizens for the generous hospitality shown us, and especially to Mrs. A. J. Montague and her committee of ladies for the warm-hearted courtesies shown the ladies of this convention.

10. *Resolved*, That in the recognition of the power of the press in molding public opinion, our thanks be given to the local papers for the publicity they have given our meetings and for the reports of our proceedings that they have published.

11. *Resolved*, That it is a matter of pleasure and pride to this organization that one who has for the greater part of his life been a professional school man should have possessed the confidence of the American people to such an extent as to be elected by them for the highest position within their gift, and that in the performance of his duties in this position he should have proven that a man may be both a "schoolmaster and a statesman."

Resolved, furthermore, That we find in this instance merely another refutation of the idea sometimes advanced that school men are not capable of the administration of practical affairs of great difficulty and importance.

Respectfully submitted,

JOHN A. WHITEFORD, of Missouri
CHARLES D. LOWRY, of Illinois
PAUL W. HORN, of Texas
H. WHITFORD MAXSON, of New Jersey
JOSEPHINE C. PRESTON, of Washington
Committee

Superintendent J. M. Gwinn, of New Orleans, La., moved that the report be accepted as a whole.

Objections were raised to Section 5, by Ella Flagg Young, superintendent of schools, Chicago, Ill., and discussed further by Charles McKenny, president, State Normal College, Ypsilanti, Mich., Carroll G. Pearse, president, State Normal School, Milwaukee, Wis., and J. J. Keyes, superintendent of schools, Nashville, Tenn.; and to Section 11, by A. S. Downing, assistant commissioner of education, Albany, N.Y.

A substitute motion was then made by Superintendent Keyes to adopt all of the report except Sections 5 and 11, reserving those for further discussion. This was adopted.

Superintendent Young, of Chicago, Ill., then moved that the last sentence in Section 5 be made to read as follows: "If instruction in sex hygiene is to be given in the schools, it should be given by teachers specially qualified for the work." The original section, thus amended, was adopted.

Section 11 was adopted as amended by A. S. Downing, assistant commissioner of education, Albany, N.Y., striking out the clause beginning, "Resolved, furthermore."

President Blewett expressed his appreciation of the kindness of Superintendent Chandler and his local committee as shown in handling business matters, in the courtesies extended and help given, and in the service rendered by the young men ushers.

The alphabetical roll call of the states by President Blewett brought invitations from three cities to hold the meeting of the department for the year 1915. Superintendent Young presented the claims of Chicago but subsequently withdrew them; Superintendent Condon, those of Cincinnati; and Superintendent Chadsey, those of Detroit. The vote being favorable to Cincinnati, Superintendent Chadsey withdrew the name of Detroit and moved that Cincinnati be declared unanimously the meeting-place for 1915. This was so adopted.

AFTERNOON SESSION

The afternoon session was given to round-table conferences, as follows:

(A) ROUND TABLE OF STATE AND COUNTY SUPERINTENDENTS

Chairman—Augustus L. Downing, assistant commissioner of education, Albany, N.Y.

1. "Problems That Confront the State Superintendent in His Relation to the Rural Schools"—George B. Cook, state superintendent of public instruction, Little Rock, Ark.; and Frank W. Miller, state commissioner of schools, Columbus, Ohio.

General discussion.

2. "Problems That Confront the County Superintendent in His Relation to the Rural Schools"—Albert S. Cook, superintendent of Baltimore County Schools, Towson, Md.

General discussion.

3. "Dangers of Overorganization of the Rural Schools"—Payson Smith, state superintendent of public schools, Augusta, Me.

General discussion.

4. "Interrelation of the Office of State Superintendent and That of County Superintendent"—Francis G. Blair, state superintendent of public instruction, Springfield, Ill.; Oliver J. Morelock, superintendent of Essex County Schools, Newark, N.J.

General discussion.

(B) ROUND TABLE OF SUPERINTENDENTS IN CITIES OF OVER 300,000 POPULATION

Chairman—Martin G. Brumbaugh, superintendent of schools, Philadelphia, Pa.

Topic: The Function of the School to the Community It Serves

1. "Its Scholastic Function"—J. M. Gwinn, superintendent of schools, New Orleans, La.
2. "Its Economic Function"—F. B. Dyer, superintendent of schools, Boston, Mass.
3. "Its Social Function"—J. M. Greenwood, advisory superintendent of schools, Kansas City, Mo.

(C) ROUND TABLE OF SUPERINTENDENTS IN CITIES WITH 25,000 TO 300,000 POPULATION

Chairman—Ernest O. Holland, superintendent of schools, Louisville, Ky.

Topic: Differentiation in Course of Study in the Upper Grades

1. "Shortening the Course"—Henry Suzzallo, professor of philosophy of education, Teachers College, Columbia University, New York, N.Y.; H. S. Weet, superintendent of schools, Rochester, N.Y.
2. "Substitution of Work of Vocational or Prevocational Character"—William A. Greeson, superintendent of schools, Grand Rapids, Mich.; Ira I. Cammack, superintendent of schools, Kansas City, Mo.

General discussion: Lloyd E. Wolfe, San Antonio, Tex.; David Snedden, commissioner of education for Massachusetts, Boston, Mass.; Leonard P. Ayres, director, Division of Education, Russell Sage Foundation, New York, N.Y.; W. L. Ettinger, associate city superintendent of schools, New York, N.Y.; John H. Haaren, associate city superintendent of schools, New York, N.Y.; and M. H. Stuart, principal Manual Training High School, Indianapolis, Ind.

(D) ROUND TABLE OF SUPERINTENDENTS IN CITIES UNDER 25,000 POPULATION

Chairman—E. E. Bass, superintendent of schools, Greenville, Miss.

1. "How Shall the Superintendent Measure His Own Efficiency?"—William McK. Vance, superintendent of schools, Delaware, Ohio.
2. "Testing Grade Teachers for Efficiency"—Edwin D. Pusey, superintendent of schools, Durham, N.C.
3. "How Secure More Effective Supervision?"—Reed B. Teitrick, deputy superintendent of public instruction, Harrisburg, Pa.
4. "Pre-delinquent Boys"—C. E. Joiner, superintendent of schools, Monmouth, Ill.

EVENING SESSION

The meeting was called to order by President Blewett at 8:00 P.M. in the City Auditorium.

After music by a quartet of negroes from the Whitlock Tobacco Factory, the following program was given:

1. "The Determinants of the Course of Study"—A. Duncan Yocum, professor of educational research and practice, University of Pennsylvania, Philadelphia, Pa.
2. "How the Course of Study Should Be Determined"—John W. Withers, president, Harris Teachers College, St. Louis, Mo.

FOURTH DAY

MORNING SESSION—FRIDAY, FEBRUARY 27, 1914

After music by the High School Chorus, the meeting was called to order at 9:30 A.M., in the High School Auditorium, with President Blewett in the chair. The following program was presented:

1. "The Work of the General Education Board"—Wallace Buttrick, secretary, General Education Board, New York, N.Y.; and Abraham Flexner, assistant secretary, General Education Board, New York, N.Y.
2. "Rural-School Administration"—A collaborated paper by Ellwood P. Cubberley, professor of education, Leland Stanford Junior University, Stanford University, Cal.; and Edward C. Elliott, director, course for the training of teachers, University of Wisconsin, Madison, Wis. (This paper was read by Edward C. Elliott.)

President Blewett added to the Committee on Economy of Time in Education the names of John F. Bobbitt, assistant professor of school administration, University of Chicago, Chicago, Ill., and Vivian A. C. Henmon, assistant professor of education, University of Wisconsin, Madison, Wis.

President Blewett then asked Superintendent Chadsey, of Detroit, Mich., to conduct President-elect Henry Snyder to the platform, after which the new officer was presented to the department with high words of appreciation, to which Superintendent Snyder responded, thanking the department for its confidence and pledging himself to the office.

The meeting then adjourned.

ANNA ELIZABETH LOGAN, *Secretary*

PAPERS AND DISCUSSIONS

ADDRESS OF WELCOME

J. A. C. CHANDLER, SUPERINTENDENT OF SCHOOLS, RICHMOND, VA.

It is a pleasure for me, as superintendent of the schools of Richmond, to welcome the visitors of the Department of Superintendence of the National Education Association to the city of Richmond. The chief executive of our city, Mayor George Ainslie, has, for the city government and the citizens of Richmond as a whole, assured you of the delight that he feels at your gathering in such large numbers in our historic city. Many citizens by their presence here tonight assure you of their welcome. But it is not for our city fathers, nor for the united body of citizens, but for school officials, teachers, and pupils that I wish to speak. From all of these I bring you greetings and give you a most cordial welcome to our city and our schools.

We are glad to welcome you as visitors to our schools. We trust that in our exhibits and in our classrooms you may find some things to delight, others to help, and some to stimulate. We know you will be a help and inspiration to us. Our educational system is young. Previous to the war between the states, many children were educated at the expense of the state, aided by small appropriations from the literary fund; but, on the whole, every man paid the tuition of his own children. Therefore, we say that the free-school system for all the children began in 1870, since which time our growth has been rapid.

With your permission, I shall for a few moments indulge in a few figures and a little past history with regard to Richmond.

Just twenty years ago, the Department of Superintendence of the National Education Association met in Richmond. You found at that time a city with a population of 81,000, and a school population of 24,000, with a school enrolment of 12,000. Today you find a city of 127,000 population, a school population of 29,000, and a school enrolment of 21,000 pupils. The total number of teachers twenty years ago was 244. Today, including night-school teachers and supervisors, we have 635. Twenty years ago the expenditure for the entire school system was $151,000. Last session our expenditures were $707,000.

Twenty-two years ago the superintendent of Richmond urged the introduction of manual training in a very able report on that subject. His ideas were regarded as absolutely ridiculous and nothing was really accomplished in carrying out his admirable suggestions. Twenty years ago there were no fads in our school system—no music, no manual training, no medical inspection, and no domestic science, except a class in cooking at the high school, which class was soon discontinued. According to some reports, this class was discontinued because it was thought that French was more

important. Today you will find that we have many fads, which we regard, however, as essentials; such, for example, as medical inspection, music, domestic science (in both high and elementary schools), woodworking centers, manual-training courses in the high schools, and drawing and physical education thruout the system.

Today, moreover, the citizens and school board of Richmond believe that the proper type of education is that which will adjust the child to the community in which he is to live, and more and more the needs of Richmond are being studied, and we are trying to give the children of our city such educational facilities as will be most helpful to them in the vocations that they will have to follow. This effort to adjust our education to the needs of the community has made possible a most rapid development in the night schools, and at present we have an enrolment of over 3,000, an increase of more than 130 per cent over last year.

The members of this Association will be more particularly interested, however, in our dual system. We have a well-developed system of education for white pupils, in which we try to meet the needs of 14,000 pupils; then we have another equally distinct system of education in which we try to meet the needs of 7,000 colored pupils. I am happy to say that in the adjustment of this dual system we have no friction.

We shall be glad for you to visit all of our schools, good or bad, for white or colored pupils. The doors are open to you. We invited you to come to our city in order that we might learn from you, but we hope also that there are some things in Richmond which may be helpful to you.

Therefore, in the name of the school board, teachers, and pupils, and in the hope that this meeting may be helpful, not only to our city but to our visitors, we welcome you. We urge of you to make yourselves at home. The mayor has thrown open to you the city; the schools are open to you; go wherever you desire. May your visit here be so pleasant that you will come again to see us. For retired capitalists and indigent school-teachers, Richmond is a pleasant home. In any event, come to see us often.

RESPONSE TO ADDRESS OF WELCOME

JAMES M. GREEN, PRINCIPAL, STATE NORMAL SCHOOL, TRENTON, N.J.

It was very gracious in the people of Richmond to invite the Department of Superintendence of our National Education Association to be their guests at this time. A guest is honored in proportion as the host is distinguished. When we recall the illustrious records of your citizens on the pages of our country's history our appreciation of the honor you have conferred upon us is secure.

There are reasons other than those of historic associations why we have looked forward to this meeting with more than ordinary interest.

This seems to be a period of general unrest in our country. We hear much of tariff, revenue, and currency reforms; much of the regulation of our business corporations and our public utilities; much of industrial and social reforms; much of the reform of our judicial system, our army, and our police; much of the reform of the ballot, of municipal government; much of the application of literary tests and other restrictive influences to immigration.

It is but a natural consequence that this spirit of unrest should reflect itself in our educational institutions. Our national education has in it much that is good. It has enabled us to accomplish great things. We have been able to receive great tides of immigration, largely from the least educated of other nations, and assimilate them, make them law-abiding and helpful. We have been able to carry on great enterprises in engineering, in railway and canal construction; we have erected great buildings and made many inventions, and we have produced men of science and letters who are respected by the civilized world, and yet the most enthusiastic of us will admit that our national educational system is in a certain sense a patchwork.

It would be too ambitious to undertake to point out the way to an easy solution of our national educational problems, but it will be within the bounds of modesty to suggest that we carefully take our soundings, that we examine our chart, and, in the light of the great men whose spirits surround us here, find our bearings.

The limitations of my time prevent my reviewing the thoughts of any number of those who have figured here in the annals of education, such as Washington and Lee and Madison, but I may briefly refer to the educational chart of the one who was most conspicuous in your roll of educators, the great Jefferson.

It is very encouraging to teachers generally that one who wrote the Declaration of Independence and served as President of the United States should choose as the crowning work of his life the founding of an educational system for his state. His range began with the primary and included the university. His expressed purposes were:

1. To give every citizen the information he needs for the transaction of his own business;

2. To enable him to calculate for himself, and to express and preserve his ideas, his contracts and accounts, in writing;

3. To improve, by reading, his morals and faculties;

4. To understand his duties to his neighbors and country, and to discharge with competence the functions confided to him by either;

5. To know his rights; to exercise with order and justice those he retains; to choose with discretion the fiduciary of those he delegates; and to notice their conduct with diligence, with candor and judgment;

6. And in general, to observe with intelligence and faithfulness all the social relations under which he shall be placed.

He favored practical learning. His chemistry, natural history, anatomy, medicine, law, modern languages, fine arts, principles of justice and

international relations came direct from the laboratory of daily contact and experience. The community was his educational unit. He saw at that early day that it is the community that largely defines our education, that indeed outside the community there is little need of education. The state was his organic community.

The program that has been prepared for us offers a variety of topics and yet they all relate themselves to the liberal and the practical, the economic and the social. To consider these great fundamentals in a setting where the spirits of the historic great look down upon us and to be welcomed to institutions and homes by a worthy lineage is an opportunity that calls for our best effort and our sincerest gratitude.

EDUCATION AND SOCIAL ECONOMY

EDWARD T. DEVINE, DIRECTOR, NEW YORK SCHOOL OF PHILANTHROPY, NEW YORK, N.Y.

The persistent problems of social economy are poverty, disease, and crime, for which the conventional remedies have been respectively relief, medicine, and jails. The social economist discovers by experience that relief is no cure for the first, nor medicine for the second, nor jails for the third. Relief, medicine, and jails are no doubt needed, for our sins, until we learn how to apply real remedies, until we have social programs adequate to our problems, but conceived as remedies they are all alike futile, inadequate, obsolete, undemocratic, uneconomic—that is to say wasteful—and uneducational—that is to say stupid.

In these extremely unsympathetic characterizations I am, of course, but plagiarizing from eminent authorities in the three special fields to which the three particular problems belong. What is now proposed in regard to poverty is not to relieve it but to abolish it: to abolish it by the education of the individual and by economic and social changes. We recognize that society now has potentially at its disposal, in our American communities at any rate, resources sufficient to enable a decent standard of living to be maintained in every class. If this seems to involve various kinds of social action, such as shortening the hours of labor, fixing a minimum wage, preventing the exploitation of women and child workers—extending women's work in directions which are not injurious, and restricting children's work in directions which are—taking the mentally defective under more complete social protection, organizing employment exchanges for the better distribution of labor, shifting the geographical location of industries, aiding the immigrant to find the place where there is a legitimate demand for his labor, providing for social insurance against dependence from death, protracted illness, and even unemployment, and above all modifying our elementary educational system in such a way as to increase substantially the efficiency,

the earning capacity, of those who yearly enter and have entered industry, commerce, or agriculture, then we are ready to consider any and all such measures, if for no other reason because they are necessary steps, altho by no means the only steps, in the abolition of poverty.

What is true of poverty is also true of disease. The members of the medical profession are the officers and leaders of the campaign for the prevention of disease. What they can do which the rest of us cannot is to treat disease; and the treatment of disease is no more to be identified with its prevention than the relief of distress is to be identified with the prevention of poverty. The monopoly of responsibility ceases when it becomes a problem of reducing the death-rate, of lengthening the working life, of eradicating preventable, what Metchnikoff calls "violent," deaths, i.e., deaths from any other cause than old age, the yielding in the fulness of time to that instinct for death which is perhaps as natural and as little to be deplored when the time for it comes as the instinct for life, for generation, and for immortality.

It is a commonplace, again, among students of social work that the criminal courts, the policemen, and the keepers of prisons are no longer our main reliance for the prevention of crime. Judges and reformers who look an inch beyond their immediate tasks are continually appealing for public co-operation, not only in prevention, but in reformation and correction. The probation system which has developed in the courts as a substitute for imprisonment is avowedly an educational and not a penal measure.

If we agree that neither public relief nor voluntary charity, however necessary and valuable they are, has any potency in itself for the abolition of poverty, we are driven a step farther to an analysis of its causes, to the discovery of its tap-root cause, if we can find that, if there is any such thing. Socialists find it in exploitation. Anti-socialists, when they have a clear-cut philosophy on the subject, are likely to find it in economic inefficiency. Being neither a socialist nor an anti-socialist but an impartial student of social economy—as of course many socialists and anti-socialists are also—I am constrained to combine the two partial explanations into one which I think really does explain the larger part of our poverty. It is in fact the exploitation of the exploitable; the underpay of those who can be underpaid; the overwork of those who do not know how to secure leisure; the lack of protection of the subnormal; the cultivation for commercial profit of vicious habits, of depraved appetites, of human weaknesses; the play of unrestrained greed upon individuals who do not have resisting power as individuals and whose combined latent resisting power, in the form of social control, has never been brought into effective counterplay.

Disease results when there is an unhappy coincidence of an infecting agent with a receptive condition in the human body, just as an explosion, to use an old illustration, results when a lighted match comes into contact with dry gunpowder. We may prevent the explosion by extinguishing the

match or by dampening the powder. We may prevent disease by destroying the bacilli or by increasing resisting power.

Crime, likewise, is to be attributed neither to natural depravity or degeneracy alone, on the one hand, nor to social and economic influences on the other, but to accidental and preventable combinations of these two half-causes. This is especially true of the so-called petty crimes—the very crimes which have the most serious social consequences. Do not believe it if they tell you that treason, murder, arson, and the like are the serious crimes. On the contrary, the serious crimes are truancy, vagrancy, drunkenness, prostitution, commercialized vice, desertion and neglect of family, thieving, quarreling, and disorderly conduct. If we look out for misdemeanors felonies will take care of themselves. Penal reforms will help. Better industrial and living conditions, altho this is not their motive, will help more. Better homes and schools, altho this is not at all their prime function, will help most. Penal reforms are negative, removing the reproach that society actually manufactures criminals in its bungling attempts to punish crime. Economic and social reforms are positive, but external, in that they lessen temptation, occasion, and opportunity; but the radical advances in the conquest of crime are not to be negative or external. They can be made only where habits are formed, where the will is trained, where the permanent foundations of character are laid in infancy, childhood, and adolescence; where motives are differentiated, clarified, and strengthened; where individuals are individualized, and personal difficulties, however exceptional, are discovered and removed.

The moral of the statement which I have tried to make of the persistent problems of social economy is obvious. The omnipresent local social economist is the school. For what do we mean by social economy but the logical projection in many directions of the influences which center or should center in the school? Social economy as I understand it is community housekeeping. It is not a distinct branch of human knowledge, like astronomy, but something far more ambitious, viz., the organization of knowledge for the common good. Its end is practical, viz., the utilization of whatever is usable in that which the student gets from history and literature and science, from disciplinary studies and from cultural studies, to enrich his civic life, to insure his becoming a contributor to social welfare instead of its debtor, to make him less a parasite and more a creator of social values.

The problems of education have been variously formulated, sometimes in terms of culture or of character, sometimes in terms of productive efficiency. I am informed that the tendency now most in favor among progressive school men is to emphasize the very principle for which social economy stands, that education is to be tested neither by culture in the abstract nor by utility in the concrete—but by the extent to which any slight knowledge and any manual dexterity and any useful tricks of spelling,

counting, and the rest are assimilated into the organic complex of personal character.

The assumption of social responsibility for poverty, disease, and crime clearly involves the transformation of the school into the foremost instrument of social economy. This is not merely to tack a new label on an institution already sufficiently belabeled. On the contrary, it means something. And what it means is: First, a different training of teachers; second, a new curriculum; and third, more vital and diversified contacts between the school and the adult community.

The first demand then is that teachers, who are the most numerous of all the regiments of social workers and in the vanguard, shall become more effective as social workers, more conscious of this their high calling, better prepared for this, the greatest, as I believe, of their great opportunities. Teachers are teachable; but they have approached their tasks from the public-school system direct or from the normal school, and have not yet fully caught the new social spirit which is in the air. They have thought that they are to prepare pupils to pass into the next grade, into the high school or the college, and so they are, among other things.

If the larger social task of the teacher could be more clearly formulated, if before coming into the schoolroom the teacher were to learn some of the elementary facts about social conditions, about the death-rate and what the things are that raise and lower it, about juvenile and adult crime and what the underlying causes of it are, about poverty, industrial inefficiency, casual labor and unemployment and their causes, the relation of physical defects to mentality, and of undernourishment to physical defect, about the principles and methods of family rehabilitation and child welfare, if in short they could take an extended course in one of the schools of philanthropy, then we might hold them to a more useful service on this side of their work. The more practicable means, I presume, to this end is the introduction of brief courses in social work in the high school, college, and normal school. Teachers cannot cultivate the civic spirit, economic efficiency, and physical well-being unless they know what they are, unless they have a genuine interest in them and an enthusiasm for imparting that interest and knowledge, unless they are in effect social workers and citizens. I cannot help thinking that the acquisition of the franchise, however it may work in general, will put the women who are training citizens in the schools in a stronger and more logical position in this field.

The preparation of non-technical, pedagogically well-arranged and typographically attractive textbooks, leaflets, outlines, and other available printed material would no doubt be an aid in instruction of this kind. But training in the study and interpretation of social conditions can never be obtained from books. Perhaps it is an advantage to our generation that, for lack of textbooks, we are compelled to look at realities instead of symbols. In this field it is our high privilege to help our students to create a literature,

perhaps to the bedevilment of future generations but certainly to the emancipation of our own.

The second demand relates to the school curriculum. The social economist holds that the prevention of poverty, disease, and crime is the first, elementary, fundamental obligation of a public-school system. His demand for a re-examination of the curriculum in the light of this primary obligation is radical and insistent. It is not to be put off by any plea of a crowded course of study or conflicting demands from other quarters. It is not a class demand, nor a fad and fancy, nor an external pressure such as might come from a university or from commerce or industry. It is simply a formulation of a universal social need, of a vital condition of social health and progress, nay, in the last analysis, of social existence. If the three R's, or history, geography, and pure science, interfere with accomplishing the end we are here considering, then they must be cut out or circumscribed as cheerfully as we would spare the latest novelty of them all. But the fact is that the disciplinary studies and human-interest studies are useful in developing an appreciation of economic values, which is the cure for poverty; respect for the rights of others, which is the cure for crime; and respect for one's own health, the cure for disease. The acceptance of the point of view of social work, the realization of the obligation on the part of the schools for the prevention of crime, disease, and poverty, may or may not involve a change in the subjects nominally pursued. That is for the experts to say. It does involve, I think, a re-examination of the order of studies from this point of view. It does put the burden of proof on those who champion any existing curriculum to show that it does contain the elements which the vital interests of society so imperatively demand, and equally upon those who propose changes to show that they are in harmony with these purposes. My own belief is that no curriculum in any school should be allowed to stand from year to year without frequent and drastic overhauling, or, at any rate, unprejudiced reconsideration.

The abstract studies which may be said roughly to correspond to the three particular fields of which I have been speaking are, I suppose, economics, civics, and hygiene. But the purpose which we have in view is not the mastery of any three abstract disciplines. There is no necessary connection between a knowledge of economics on the one hand and economic efficiency on the other; between a knowledge of civics and law-abidingness; between a knowledge of hygiene and its practice. Natural relations there are, but natural relations are sometimes poor relations. It is efficiency and not theories about efficiency; respect for the rights of others and not a classification of rights or familiarity with the mechanism for enforcing rights; clean and wholesome living and not acquaintance with the facts of physiology and anatomy, that are required. The knowledge which is power, the knowledge which leads to virtue, the knowledge which illumines the understanding, is the knowledge to be sought.

What John MacGunn, of Liverpool, calls the nurture of the civic spirit and by analogy the nurture of economic efficiency and the nurture of the healthy body are the ends in view. It should be possible to ascertain precisely what studies will have these effects; what exercises and activities; what plays and what tasks; what personal counsels; what warnings or other disciplines; what opportunities; what rewards and punishments; what influences extending from the school into the home or elsewhere. Certainly the one great thing which it does mean is a complete scheme of vocational education: industrial, commercial, and agricultural. I have heard threats —serious and significant threats—that the educational experts are about to be relieved of the responsibility for devising and directing vocational teaching and especially for the system of continuation schools. I have been assured vehemently that nothing of practical value can be expected from the inside; that Caiaphas could have been expected to found Christianity or Tetzel to abolish indulgences as soon as school superintendents to bring the schools into vital relation with industry on a democratic basis, on any basis which workingmen who know their own interests can rightly accept. No doubt that is a libel, and perhaps the best way of proving it to be so is for the experts voluntarily to bring representative employers and representative wage-earners into consultation, into continuing co-operative relations in working out such a basis. My own belief, which I shall not elaborate, is that only teachers with the teacher's instincts, teachers with sympathy, who know, not so much by the accretions of much pedagogical instruction, as by the power of wise discrimination and exclusion, what the essential elements of an elementary education are, teachers who do individualize their pupils and are really fit to teach may be intrusted with vocational studies and that all others would better stick to the old subjects, to the old textbooks, to the old and still current, even if undermined, traditions.

Our third demand is for more varied and more vital contacts between the school and the community; and while this may take many forms, such as the use of the school plant for civic purposes and the development of vocational guidance as a part of the school system, what I have chiefly in mind is the personal leadership of the superintendent of schools in specific social movements, such as those for improved housing and for the prevention of disease, for rational recreation of young men and women and adults, for the enforcement of child-labor laws, for measures for the protection of women in industry, and for the more rational treatment of criminals. In every town and every countryside there is need for organized social work, and the most natural initiator, counselor, and promoter of such social work I believe to be the official head of the school system.

It is desirable that all such social measures shall be in fundamental harmony with the aims and purposes of the school systems. It is desirable that the abounding evidence of the need for such work which the experiences

of the schoolroom present shall be made available. It is desirable that such movements shall be—like the schools—non-partisan, non-sectional, above all suspicion of any other motive than the public good. Some communities boast leading citizens who by various routes attain the eminence which gives such guarantee to any cause to which they give their names, but speaking generally the citizen who is intrusted with the conduct of the public schools should be such a citizen ex officio. His position gives him the facts needed, or at least the possibility of securing the facts; gives him the public ear for a sympathetic hearing of the facts and the remedies; gives him easy command of allies such as scarcely any other citizen has so readily at his disposal. It will take time—perhaps time that seems needed for the day's work—but within reasonable limits it will be a good investment of time. For there is no more economical method of getting that kind of vision without which the schools will indeed perish.

So if there is any bad social condition—such as an alley problem, a high infant death-rate, congestion of population, immoral and notoriously dangerous places of amusement, a corrupt and inefficient civil service, an unspeakable jail or workhouse, or above all men or women unemployed because they are inefficient, the superintendent or principal of schools has no right to an easy conscience. From the very nature of the case the leader of the schools has no private life. His personal conscience has perforce become a social conscience. With the welfare of the children on his conscience by contract, he carries there also, by implicit understanding, the conditions which affect that welfare. Both working conditions and living conditions do vitally affect the present welfare of school children, and inversely the value of the education which the children receive is tested by the extent to which those conditions are improved as the children take their place in active life in successive years. Is the standard of living steadily rising, the death-rate falling, the working life lengthening, then the presumption is that the schools are not wholly ineffective. Are the homes more sanitary, the food more wholesome and better prepared, the standards of taste in art, literature, furniture, and dress, etc., improving, then the education of the children must have some, at least, of the elements that are required. If there is to be this close relation between the school and the community, the one who leads the school, who has the guiding voice in shaping the curriculum, in establishing the educational standards, must be a leader also in the community, helping there effectively to shape the larger curriculum of the school of life, to establish social standards, to learn at first hand what are the real problems of the city and of the nation.

It has occurred to me that it would be an excellent thing for every superintendent of schools to be tempted at least once in his life to become a thorogoing radical revolutionist. I do not know that I should want him to yield to the temptation. If he can summon forces of equilibrium, reassurances that conservative progress is possible, so much the better;

but no man who has ever faced squarely the evidences to the contrary, who has felt the sickening, unhuman misery which disease, unemployment, or even mere inefficiency bring in their train, felt them until his soul revolts angrily against the civilization of which they are the seamy side, will fail to understand the plea for such further transformation of the schools as will make them mighty engines of social improvement.

Shake the schools from their still too complacent lethargy, my brethren; bring them into line with the insurgency against social injustice, social neglect, social ignorance, social exploitation, social impotence. Give us a race of men who are sound in body, who cannot be exploited, who will know how to combine in the common interest, not class conscious but community conscious, spurning from their midst the conditions which break down health and the conditions which break down character, watching with tender solicitude every influence which heals and strengthens and enriches the common life. You have made the schools democratic, now make them positively and constructively social. You have made them free, now make them from the social point of view more valuable. You have put psychology and nature study into them, now put social economy and civic nurture into them. You have taught the facts about alcohol and tobacco, now teach more thoroly and drive home to the understanding the facts about intemperance in food, overeating, and undernourishment. You have brought people to the point at which they are willing to be counted once in ten years in the census. Now bring them to the point at which they will not balk at registering continuously births, deaths, marriages, diseases, residence, and occupation. I wonder whether even in this audience there would not be a substantial minority who would fail to see the necessity for a complete, continuously corrected registration of the entire population. And yet there is no simpler test of whether the inoculation of the socializing process has really taken.

I may seem to have spoken as if the school were the only agency of social welfare; as if the whole responsibility for the prevention of poverty, disease, crime, and other social ills unnamed devolves upon the school. But I do not forget that the family exists; that churches exist; that industry itself has certain responsibilities; that the state has created and will gradually bring to greater independent usefulness such agencies of social welfare as the public-health service, industrial commissions, and a factory-inspection service; that numerous voluntary social agencies such as settlements with their clubs, philanthropic societies with their varied preventive and educational programs have their part to play; and that it is high time for us to consider anew the relation of all these agencies to one another.

The public school has undoubtedly suffered from the tendency to impose upon it too many tasks even if it were well suited for each of them severally, which it is not. I am no friend of the pack-mule theory of education even if the "donkey" were more patient. It is true that almost any

group of enthusiastic well-organized fanatics have found the schools an easy victim of their propagating zeal. It is not surprising if after many experiences school men become a trifle cautious about admitting new claimants, even if they come in the name of progress. What is most of all needed is an understanding, a differentiation of functions, a co-ordination of social agencies, a survey of overlapping fields.

Recognizing that under existing conditions the family rather than the school is responsible for health, so far, at least, as it relates to original physical constitution and resistance, and that the home and that composite of influences which for convenience we may call the street have perhaps more than the school to do with determining whether a boy is to be law-abiding, the third of our big responsibilities, protection from poverty and failure in life by the development of efficiency, certainly remains largely if not primarily on the school. It is fortunate that our generation is inclining to formulate the task of education largely in economic terms, in terms of earning and spending, of productive efficiency and standards of living. Those are no ignoble or materialistic terms. It is a misinterpretation of this tendency to say that it is for the advantage of industry.

The demand for economic efficiency is made, not in the interests of industry, but in the name and in the interests of education. If we can increase by 50 per cent the earning capacity of the boy who enters industry, we shall make him relatively independent of his employer at the same time that we bind them closer together in mutual interest. If he becomes worth nine dollars a week at the start instead of six to industry, he becomes by the same educational process worth more than that to himself. I am far from suggesting that earning capacity at the moment of leaving school is the only or even the best test of the efficiency of the schools, but it is a very definite test and one from which the exponents of modern ideas in education dare not shrink. Men and women who are fit to do the work of the world and keen to appreciate in due proportions the fruits of labor, capable workers, and discriminating ultimate consumers and producers of wealth—these are the goal of education as the social economist would formulate it, asking from the schools not everything, but a generous slice of that large everything of which social welfare consists.

FUNDAMENTAL DISTINCTIONS BETWEEN LIBERAL AND VOCATIONAL EDUCATION

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For many years, even centuries, secondary schools, colleges, and elementary schools have existed for the purpose of giving to young people, and especially to those of greatest promise, what we call general, or liberal, education. Every civilization has had its schools, wherein have been taught

the vernacular and other languages, philosophy, science, art, literature, and history. Many and varied have been the alleged objects of this general education. At times, peoples have sought thru it to increase and diffuse the social inheritance of culture which they had evolved largely from within themselves. In other eras, peoples have sought thru their schools primarily to make available the liberal learning of other peoples and sometimes of other ages.

So long have schools for the giving of general culture existed that their methods and processes have become fixed and stereotyped—those that are wasteful and ill adapted hardly less than those that are fruitful and demonstrably efficient. These methods and processes, like those found in the pre-scientific stages in almost all other lines of human endeavor, have been formed thru ages of selection, have become crystallized as customs, and are approved and defended usually with all the fervor that attaches to the historic faiths.

But in education the ages of faith are coming to an end and the age of science is drawing on. Education henceforth can rest on a basis of custom and dogma hardly more than can medicine, engineering, agriculture, and war. The public is forcing the demand for a more purposeful, a more scientific, and a more efficient liberal education in the schools. This demand is not always articulate and always lacks definition, but it is real, nevertheless.

It is the public, likewise, that is back of the present demand for schools for vocational education. Vocational education has hitherto been carried on in civilized society largely by agencies other than schools, among which the shop and the home have been the most conspicuous. Schools have, indeed, long existed wherein have been trained physicians, engineers, teachers, accountants, military leaders, and the like. These schools have come to be recognized as the chief agencies in training for the professions; but for other callings, not professions—such as those followed by the carpenter, the machinist, the weaver, the farmer, the cook, the stone-cutter, and the thousand other specialized workers in modern society—few schools have yet been organized or even projected.

Now comes the twentieth century, with its demands on America, as on other civilized countries, that opportunities for vocational training in schools shall be made available for any and all of those desirous of entering the great variety of pursuits wherein men and women contribute useful service to the world. It is a matter of easy demonstration that the workshop, the home, and other non-school agencies are unable, under modern conditions, to meet the demand for an efficient vocational education. History is here repeating itself, since schools of general learning were established when the home, the church, and the forum proved unequal to the task of providing liberal education in needed amounts.

Statesmen and educators are now confronted by the gigantic work of organizing vocational schools in great variety and in large number to

supplement schools of general education. Society is demanding that these schools provide training for the agricultural, commercial, industrial, and homemaking occupations and is insistent that such schools shall not disregard the needs and capacities of any young people over fourteen years of age, as these are confronted by the necessities of entering upon profitable occupations.

The difficulties to be encountered in establishing vocational schools are great and almost endless in number. Few satisfactory precedents for systematic vocational education for occupations other than the professions exist. Professional schools offer but limited suggestion as to successful forms of vocational education for agricultural, industrial, and other non-professional pursuits.

It is very necessary that, before we begin to organize vocational schools, to formulate courses of instruction, and to train teachers for vocational education, we should endeavor to state, as clearly and definitely as possible, our theories as to effective aims and methods for this form of education. The public will charge us, and rightly so, with gross inefficiency if we undertake to spend the public money in creating new types of education before we have clearly defined our aims and plans for its profitable administration. We occupy the position of educational architects. It is to us that the public looks, first, for our sketched plans of the structures that it is proposed to erect, and, later, for detailed plans and specifications.

The questions first encountered are as to how far vocational education resembles, in its underlying principles, desirable methods and serviceable practices, the forms of historic school education with which we have already become familiar. What are the essential likenesses and differences between vocational education and the general, or liberal, education which now for many centuries we have seen carried on in school and college? How can we expect to utilize our experience in connection with general or liberal education as a basis in devising a suitable practice in vocational schools? To what extent can the two forms of education be carried on side by side, or merged, in actual practice, and to what extent must they be kept distinct and perhaps, in a measure, opposed to each other? How far will it be practicable to utilize existing administrative machinery, including such factors as school boards, superintendents of schools, school principals, school buildings, and the various material appurtenances of education, to accomplish the ends both of liberal and of vocational education? To what extent can teachers trained for the one form be utilized in the other? Obviously, these questions are of fundamental importance, in view of the prevalent tendency to demand that the existing school organization shall be expanded so as to include the new forms of education.

It is the primary thesis of this paper that vocational education differs from general, or liberal, education fundamentally as regards its essential aims, and that, therefore, it will differ also, fundamentally, as regards the

means and methods of instruction, as well as the administrative agencies which are intimately related to means and methods of instruction. It is further contended that vocational education and liberal education cannot be effectively carried on, so far as regards a given group of pupils, in a way which permits of a considerable blending of the unlike types of instruction. To attempt this is to defeat the aims both of liberal and of vocational training. One of the essential conditions of genuine efficiency in either liberal or vocational education is a considerable degree of concentration on the part of the pupil on the one type or the other, so far as regards the expenditure of his time and energy in any given time.

The chief difficulties encountered in the effort to make the foregoing thesis comprehensible arise from the fact that, as respects many phases of education and especially that of secondary grade, we have as yet no clearly defined aims which are of demonstrable validity. A large part of the effort which we expend on general education is directed by aims which are the outgrowth of custom, crude psychological analysis, and vague aspirations after culture and social efficiency. These aims do not yet stand the tests of efficiency as should aims that are scientifically derived and purposefully pursued.

Clearly, there is as yet comparatively little definiteness to be found in our formulations of the aims of any of the forms of education. Indeed, we educators seem to be reluctant to define our aims in ways that are concrete and specific. It is a reproach to education that this should be so. With the exception of a few of the subjects taught in the primary grades, it seems clear that we have quite failed so to define our educational purposes as to demonstrate, on the one hand, their worth or validity, and, on the other hand, to make such purposes serve both as the guide and as the measure of the results which we attain thru the practices that we employ.

A few illustrations may serve to make this statement clearer. In the primary school, among other ends held in view, is that of teaching children to write—that is, of giving them mastery of the art and skill designated as penmanship. The educational value of this subject is one about which there can be comparatively little dispute. We have not, perhaps, as yet defined our standards of attainment quite clearly. Nevertheless, we all appreciate that the ability to write constitutes a distinct social asset for every individual, both in his vocational and in his cultural relationships toward life, and that effort expended in giving the pupil mastery of this art is well worth while. Efforts are now being made to define more precisely the standards of legibility, speed, and form which should determine our aims in the various grades.

When we come to know with a reasonable degree of certitude the purposes which should control in the teaching of penmanship, we can turn to a discussion of the most suitable means and methods of realizing these aims. We are able to test, comparatively, various methods of teaching. In the

course of time we shall undoubtedly find ourselves able to test the efficiency of teachers, as well as their methods, in terms of the product of their teaching.

A similar condition exists as regards formal reading and spelling as subjects of elementary education where aims are quite satisfactorily defined. But outside of these limited fields, we possess no satisfactory definitions of valid aims such as a well-developed educational scheme obviously requires.

We have, for example, been urging for many years the introduction into the elementary school of rudimentary science teaching, variously characterized as "nature study," "elementary science," and "general science." But we have never yet developed a generally acceptable formulation as to the aims which should control in teaching this subject. We have argued in many tongues as to its educational value. We have set up for it, indeed, a variety of aims, of a more or less mystical nature, usually expressed by such general phrases as "love of nature," "general information," and "scientific spirit." None of these formulations of aim have stood the test of time in the sense that they serve to define and test methods of teaching. A partial consequence of this situation is that means and methods of teaching nature study, as well as the organization of the subject itself, have been without guiding purpose, and have therefore remained chaotic, vague, and futile.

Similar criticisms can be applied to much of the other work in elementary schools. The situation in secondary education is worse. We surely have, for example, no clearly defined purposes to control in the teaching of mathematics in high schools—purposes, that is, of a demonstrable validity. Two purposes now are supposed to guide our efforts in this field—one that of fitting pupils for examination and the other that of giving general mental training. Neither of these objects, however, can be called educationally valid. The first is surely not an end, but a means, while the latter possesses no necessary connection with the steps which are now taken in mathematical teaching. In other words, tho we may intend that mental training shall result from the teaching of mathematics, we have no assurance that it does so result, nor is this end yet so clearly defined as to have a bearing upon the means and methods of instruction which we employ.

It would appear that we should be capable of giving more clear definitions to vocational, than to liberal, education, because in its simplest and most significant sense vocational education is some form of education designed to equip a young person for a recognized calling. In endeavoring to define vocational education, we have already, indeed, created many unnecessary obstacles. It should surely be possible for us, by studying the requirements of recognized callings, such as medicine, teaching, bookkeeping, carpentering, printing, tailoring, cooking, and the like, to derive from each one and to define those specific re-

quirements as to skill, technical knowledge, and ideals which persons trained for that vocation should possess. Having thus defined the ends which we are to achieve, the procedure of seeking appropriate means and methods of realizing these aims should not be difficult.

We have undoubtedly been confused as regards vocational education, on the one hand, by our efforts to link such education up with the practices of general, or of liberal, education. We have also obscured the situation by our unwillingness to undertake in our schools more than a part of the vocational training actually required to produce efficiency in a calling.

In most normal schools at the present time, for example, the ostensible aim is to train teachers for elementary schools; but usually no clear distinction or difference exists between that training which is truly vocational in its nature and that other training which is designed to give culture and general intelligence to students in normal schools. The effort to make such a distinction is often resented, as tho it would result in an impairment of the efficiency of instruction instead of greatly increasing such efficiency.

Again, engineering schools, while having made great progress in defining the professional ends which they seek to achieve, have, nevertheless, also constantly laid stress on certain general studies, especially mathematics and science, which are supposed in some way to furnish a background of professional competency. Similarly, in schools designed to train mechanics, especially where such schools have been influenced by the demand for technical instruction as it manifests itself in evening schools, there has been a reluctance to make clear-cut distinctions between the kind of specific training that the successful mechanic requires in any particular field and the general education which might be useful to him as a man, but which has little or no direct bearing on his efficiency as a mechanic. The failure to make those distinctions is largely due to the persistence of the academic tradition in all public education.

Again, while it is generally recognized that completely to equip a person for any given calling requires not only a greater or less amount of instruction in technical subjects related to that calling, but also a considerable amount of actual practice in the calling itself, under carefully controlled conditions, with a view to giving skill and the other habit-products of prolonged participation in actual work, it is obviously difficult for schools to provide this latter element in vocational training. In the early stages of the development of vocational education in schools, whether on the professional or other levels, the problem of giving such training has been evaded.

It has been said above that the aims of liberal, or general, education, as now carried on, are not clearly defined. Some of the alleged aims controlling in the choice of ways and means of liberal education are directed toward what are, in reality, means only, as when a school seeks to make the mastery of Latin, or of algebra, or of ancient history a goal of its efforts.

Other aims, often held forth in glowing terms, but which are rarely analyzed and defined, are vague and mystical, lacking definite connection with the educational processes as actually administered. Such are the ends described by the mystical phrases "culture," "character," "mental discipline," "self-realization," "capacity for self-direction," "social efficiency," and many others of similar nature.

But in the best of contemporary practice where the liberal education of youth from fourteen to twenty years of age is concerned, three types of aims may be distinguished, each of which possesses obvious validity, altho the actual "functioning" of the means employed to attain them is often questionable.

In the first place, the attempt is made to have the youth master the use of certain intellectual tools which are assumed to be capable of general application in the pursuit of vocational, as well as in the pursuit of cultural, ends. The most perfect example of these intellectual tools is that of English expression, while modern languages and mathematics probably rank next in importance.

In the second place, contemporary secondary and college education seeks to have the youth become master of certain more general intellectual processes of work, such as scientific methods of inquiry, the use of logical methods of reasoning, ready abilities to employ reference materials, and the like. This is not a well-defined aim yet.

In the third place, the endeavor is made to have the youth gain in appreciation of some of those forms of art, literature, science, and other divisions of the social inheritance, the general or universal possession of which is esteemed a thing of value.

The three foregoing classes of educational aims as found in liberal education are all, without doubt, valid in a degree. The criticism that may be made of the educational practice by which we seek to realize them is that we yet possess no definite means of ascertaining to what extent the practice based upon these aims actually produces the results sought.

It is probable that a more fundamental analysis of the aims of liberal education will be necessary before the contrasts which undoubtedly exist between it and vocational education can be clearly defined. It is also probable that, to a certain extent, contemporary so-called "liberal education" is actually confused by the attempt to realize certain quasi-vocational aims. For example, it may be doubted whether algebra, as the subject is commonly taught, contributes in any way to culture or liberal learning, whereas for some students it possesses undoubted usefulness as a vocational tool. The attempt to teach it in conjunction with liberal studies, however, leads to confusion, because the methods of approach and the character of study suited to algebra as a vocational tool do not suit such studies as English literature, history, and others of a more purely liberal nature.

It is the writer's conviction that the most useful definition of liberal education now available is that which defines it primarily in terms of education toward higher utilization. Man stands, to the world about him, in a twofold relationship. He is a producer of utilities on the one hand, and on the other, for his own growth and development, he must utilize utilities. That education which trains him to be a producer is vocational education. That education which trains him to be a good utilizer, in the social sense of that term, is liberal education.

Men specialize their efforts greatly in producing utilities. Men become respectively teachers, farmers, machinists, novelists, scientific investigators, engineers, sailors, in their endeavors to find fields of service adapted to their powers, the products of which are in social demand.

On the other hand, men as consumers, or utilizers, do not specialize. Owing to ignorance, undeveloped interests, and poverty, their standards of living may be low or deformed. But given sufficient leisure and economic resources, each one of us seeks to utilize literature, art, music, history, science, newspapers, the drama, and the various forms of service rendered by those who minister to us in providing medical knowledge, means of travel, foodstuffs, clothing, shelter, and protection. In each of these directions, capacities for right utilization can be refined, elevated, and socialized.

An education that seeks to make a man vocationally efficient must first find a calling in which a given combination of inherited talents most adequately fits, after which systematic training toward efficiency in that calling can be made a dominant purpose. A system of education which trains men as utilizers must touch the world at many points, often superficially, and with due regard to inherited tastes and interests. The pedagogical methods of approach to the two types of education must be fundamentally unlike each other.

Liberal education embraces, however, something more than the development of appreciation and the ability to make valuable choices among the various utilities offered for man's utilization. It may include, as noted above, in contemporary practice certain definite forms of training in the use of intellectual tools, such as reading a foreign language, and the like, and also probably certain definite intellectual powers or habits which are capable of quite general application, such as appreciation of scientific method.

If the foregoing analysis possesses validity, it indicates quite clearly certain distinctions that will follow in the organization and conduct of liberal education, on the one hand, and vocational education, on the other.

Vocational education will not be begun until the youth has reached an age suitable for active and concentrated participation in vocational activities with the vocational end in view. During all the period of childhood, a comprehensive system of education will give the child and youth abundant opportunity to participate in a great variety of the practical affairs of life, but not on the vocational basis. He will participate in them in play and

in the spirit of the amateur. He will gain in experience, enlarging his world.

Both nature and custom, however, seem to indicate that for a large majority of people vocational capacities as well as genuine vocational interests develop between the ages of fourteen and twenty. During this time the youth should have the opportunity to concentrate his endeavors for long periods in acquiring vocational competency. This is not a time for allowing liberal education to monopolize his attention. Liberal education may, indeed, be still carried on as a minor—that is, occupying leisure hours in evenings and holidays.

It may be expected that a vast deal will have been done for the youth, in the way of liberal education, long before he reaches fourteen years of age. For those who have the time and the inclination, the period from fourteen to twenty may also be taken for liberal education, with the understanding that during this period every attempt will be made to raise the standards of utilization manifested by the individual. Ideals, finer sentiments, appreciation of those products of civilization which are accessible with difficulty should be cultivated. It is in this field that the higher reaches of art, literature, science as a culture, the application of art to surroundings are to be made much of.

It is still questionable as to how far, during the adolescent period, any youth may devote himself primarily to obtaining an extended liberal education. It is certainly possible that further inquiry will show us that for all youths a certain amount of devotion to vocational education, from the age of fourteen onward, will prove wholesome and valuable. This vocational training, however, must be so adjusted as regards time and concentration as not to produce in the youth the spirit of the dilettante. Long periods must be devoted to it, and the product must be of a definitely valuable nature. It is easy to give excessive attention to the abstract elements of vocational training at this time—a process which is probably psychologically unwise.

As a basis for future discussion as to the distinctions between liberal and vocational education, the following theses, or conclusions, are submitted:

1. The permanently valid ends of liberal, or general, education are as yet shrouded in the clouds of mysticism. Proximate or immediate ends, as expressed in terms of the mastery of subject-matter, are, of course, not genuine ends, but in reality are means only. Remote and general ends as held forth by secondary schools and colleges, such as "mental discipline," "culture," "social efficiency," are too vague, intangible, and unrelated to the means actually employed in education to be of value in scientific analysis of educational means and methods.

2. Until recently, vocational education as defined by school men has been, to a large extent, also confused by an element of mysticism. Educators have fallen victims to the popular belief that some form of manual-

training or textbook instruction in various of the practical arts would contribute in marked degree to vocational efficiency. This uncertainty is now passing away, and, where sincere and positive thinking prevails, vocational education is capable of being defined quite clearly as to the aims which should control its processes, thus clearing the ground for a discussion of the most effective ways and means by which it is to be realized.

3. From the standpoint of a sound social economy, there can be no doubt that society is developing a constantly increasing need of a more general and a more "functioning" liberal education, especially for young people from twelve to eighteen or twenty years of age.

4. Also, from the standpoint of a sound social economy, the demand of society that effective vocational education shall be available in vocational schools is sound and normal, this demand, in fact, growing out of the fact that non-school agencies of vocational education have largely ceased to be effective in the face of modern demands.

5. There is ample evidence that vocational education, carried on in schools especially designed to meet the needs of some one calling, can be made effective. Schools of medicine, engineering, pharmacy, stenography, machine-shop practice, bricklaying, sign-painting, plumbing, and farming have already demonstrated that a school organized primarily to train a young person to proficiency in a calling which he has determined to enter upon can be made effective.

6. There is no satisfactory evidence that vocational education has been achieved to any satisfactory and economic degree in schools where such education is blended with the traditional processes of liberal education. In general, the commercial school that makes specific commercial training only a feature, and perhaps a minor feature, in a program of general education, while it may give good general education, does not produce any conspicuous degree of vocational power. Selected graduates of such schools will undoubtedly succeed in the occupations toward which the general atmosphere of the school has directed their attention; but this is no proof that vocational efficiency has been produced by the alleged vocational courses offered in such schools. Similarly, most existing secondary schools of agriculture do not actually produce competent ability in their students as farmers.

7. Available evidence points to the conclusion that any school designed to give successful vocational education must make possible a large amount of concentration in the practical even more than in the theoretical phases of such education. An evening school can be vocationally effective only if its instruction is intimately correlated to the wage-earning work done by its students during the eight or more hours of a working-day.

A short course of instruction in an agricultural college can become effectively vocational for young farmers who have already faced, in a practical way, the problems of agriculture. Other so-called "part-time"

courses designed for people who have had practical experience can be made effective in this way.

But, for young people who have not already a learning basis in practical experience, a vocational school must, to a large extent, reproduce practical processes, must give the pupil many hours of each working day in actual, practical work, and must closely correlate theoretical instruction to this practical work. To meet these requirements, therefore, it is required that when the pupil enters a vocational school he should be able to give at least six or eight hours per day of undivided attention to the ends of vocational education. Under these conditions, liberal education must be regarded, for such a pupil at this time, as a minor issue. Some liberal education will result, as a by-product, from a sound program of vocational education; but it is quite unwise to plan for any extended amount of liberal education in this way.

8. It is desirable that boys and girls shall be encouraged to remain in schools of general or liberal learning as long as their economic resources and position justify. For some, the proper time for leaving the general school may be fourteen years of age, for others sixteen, for others eighteen, and for others twenty-two. When, however, the time comes to turn to the vocational school, concentration of effort should be required for the latter purpose.

9. In much of liberal education the controlling purpose, pedagogically, is not to produce skill or highly organized and definite knowledge, but rather to expand intellectual experience, to provide for deeper appreciation of those things of the social inheritance that are most worth while, and to refine tastes and create intellectual interests of various kinds. To this end, the most effective pedagogical methods must be quite unlike those which will give best results in vocational education.

10. The controlling purpose in vocational education being to produce certain fairly definite forms of skill and power which shall enable the learner to become a successful producer of valuable service, the pedagogical methods to be employed must be those involving concentration, painstaking application to detail, and continuity of purpose. These pedagogical methods will be quite unlike those suited, in the main, to general or liberal education.

11. Available experience points, therefore, to the conclusion that vocational and liberal schools should possess separate organization and administration, in order that there may not be fatal confusion of aims and processes employed. The vocational school must be in a position to go constantly to the world of economic activity, in order to derive clear knowledge of the purposes which should control it. It should be governed by or possess an advisory committee containing men who are intimately identified with the occupation for which it trains, both as employers and employees. The vocational school should divest itself as completely as possible of the academic atmosphere, and should reproduce as fully as possible the atmosphere of economic endeavor in the field for which it trains.

12. The school of liberal learning, whether secondary or collegiate, should increasingly bring its students into contact with the wide and varied forms of the social inheritance of our day, in order that they may gain in powers of appreciation and of effective response to it. The liberal school, aiming to produce good "utilizers," must develop a wide and very flexible program. The school of liberal learning may well include so-called practical arts—manual training, household arts, commercial subjects, and agriculture—as phases of liberal learning whereby pupils, thru participation in practical activities in the spirit of the amateur, shall gain an appreciation of the economic activities of life. Such practical training is not to be regarded as vocational, since it does not bear profitable fruits in this direction. It may be so adjusted as to contribute valuable results to vocation finding—that is, it may be pre-vocational training, in the true sense of that word.

13. While vocational and liberal schools must be organized apart from each other, and on independent foundations, nevertheless the control of the two types should somewhere be unified, in order that a proper co-ordination of activities may result. In a city, it might be well for the superintendent to have under him an assistant superintendent giving his entire time to vocational schools, the superintendent and the board of education being the unifying force. In states and communities not yet clear as to the purposes of the two forms of education, it is probable that the separate organization of both a local and a state machinery of control for vocational education would expedite the development of right ideals and standards of such education. It will be many years before the schoolmaster, as such, will fully appreciate either the social significance or the pedagogic requirements of genuine vocational education.

II. W. C. BAGLEY, PROFESSOR OF EDUCATION, UNIVERSITY OF ILLINOIS, URBANA, ILL.

It is possible to contrast vocational education with cultural education from a number of different points of view. The contrast that appeals to me as most fundamental and thorogoing is based upon the necessity of providing thru vocational education for *specialized efficiency* in some one occupation and of providing thru liberal education for *adaptability* to changing conditions.

If we grant this as at least one important difference between the two types, we have a possible explanation of the relative obscurity of aim which is charged so frequently against what we call liberal education. Vocational education deals with a specific and tangible problem; liberal education with a very complex problem—and a problem that is highly resistant to helpful analysis. The grave danger lies in our tendency to infer from this difficulty of analysis that the problem is not really very

important or that we can dispense with its solution. The great difficulty lies not in the fact that the aims of liberal education are inherently obscure but rather in the fact that they are inherently remote and inherently broad and comprehensive. Because "social efficiency," for example, or "adaptability," or "morality" are so broad as to make analysis difficult, it does not follow that they are unimportant or that we can replace them by narrower aims. What we must do is to analyze them and find what intermediate ends must be interpolated, so to speak, between our practical work-aday teaching task and the remote end that we seek.

In certain respects, liberal education has accomplished this task. It has recognized the importance of mastering certain units of knowledge which represent certain large and admittedly important phases of human experience. This has been a definite aim looking toward a more remote goal; and while the exact connection between the immediate aim of getting lessons and passing examinations on the one hand and the remote aim of becoming socially efficient on the other hand has often been lost to view, the solid fact remains that getting lessons and passing examinations has done something to secure the desired results. We are hearing so often today these charges that the traditional methods and processes of teaching have been utterly futile that we are coming to take the statement as a fact without asking for the evidence. The evidence for these sweeping indictments has, so far as I know, never been presented. There is abundant evidence that we fail with certain individuals and that we fail to realize all of the possibilities with all individuals. But, after all has been said, that policy which emphasizes the systematic mastery of race experience as the basic condition of human welfare and human progress is clearly established. It remains for us to improve and refine the methods and processes thru which we seek to attain our ends. We need certainly to be clearer upon the precise nature and function of these interpolated aims, and for this reason we should be grateful for the suggestions which Dr. Snedden makes in this interesting distinction between the productive activities and the consumptive activities.

He would define vocational education as that which aims to develop the productive capacities; he would define liberal or cultural education as that which aims to develop capacities "for utilizing the products of others upon a broad and social scale." The distinction is only partially new, for it represents—altho upon a broader plane—the older distinction between an education which prepared for work and an education which prepared for leisure. The older distinction harks back to the time when leisure and labor were sharply differentiated by the all but impassible chasm of social caste. The gentleman was the man of leisure, and essentially the consumer; the working-man was essentially the producer, and the man of toil. The trend of social organization and development today is to combine these two functions in one and the same individual, to insist that every

man produce at least in proportion to his consumption, and to insist that every man consume with reference, not to his own selfish gratification, but to his efficiency as a producer and to the service that he should render society.

While I should agree with Dr. Snedden that an important task of liberal education is to train the consumer to utilize intelligently and upon a broad social plane the products of others, I cannot agree with him that this constitutes an ultimate or even an exclusive function of this type of education. I believe, furthermore, that an attempt to distinguish between the two types of education on this basis, while it will clarify certain aims of liberal education, will obscure and often entirely hide others that are much more important. My objections to the production-consumption theory may be summed up under the following heads:

1. In the first place, production and consumption are convenient abstractions made by the economist for the same purpose that other abstractions are made by other sciences—the purpose, namely, of promoting clear thinking with reference to a specific problem. The economist's task is to define wealth and to describe the processes by which wealth is created and consumed. Now, by extending the idea of wealth to include all possible goods of life—immaterial goods as well as material goods, anything that satisfies human desires of any kind—it is quite clear that production and consumption may be made to cover a large number of life's activities. It would be quite possible to conclude with Professor Weeks that these economic terms comprise and include all of one's relationships; for, from this point of view, one is always either satisfying one's needs or producing satisfiers for the needs of one's self and others. It is, I repeat, quite possible to reach this conclusion and to base a theory of educational values upon this distinction. But, granting the possibility, does it help us in solving our problem? Are not these two terms, like all the technical terms used by special sciences, really abstractions devised for the purpose of solving special problems? And is there not always a danger in applying these abstractions to processes that they were not intended primarily to cover—a danger of narrowing our point of view and of overlooking important values simply because it is difficult to fit them into our special categories?

Now the processes of life can be comprehended under an infinite variety of separate abstractions—abstractions that can be easily made to comprise the whole gamut of experience just as comprehensively as do production and consumption. "Matter" and "motion," for example, can be made to cover the universe. Organic life can be reduced to "nutrition" and "reproduction"; and I have no doubt that an enthusiastic biologist could construct a plausible theory of educational values based upon these two abstractions. "Normal" and "abnormal," "healthful" and "pathological," "sane" and "insane"—each of these pairs of terms can be used to separate the human species into two great varieties. And each of these

pairs of technical abstractions is useful and valuable in respect of the specific problem for the solution of which it was devised. We may apply them beyond the limits of these specific problems, but in so doing we are incurring risks of which we should at least be cognizant before we invade other fields.

The field of education has always been peculiarly open to this type of exploitation at the hands of doctrinaires. Twenty years ago, when I began the study of education, I was convinced that its problems could be adequately described, formulated, and solved in terms of nerve cells and nerve fibers. These concepts of physiological psychology had their brief day and added their small mite to educational theory—a day much briefer and a mite much smaller than I dreamed of at that time. A little later, experimental psychology, with its distinction between the motor-minded and the eye-minded and the ear-minded, held the field. Then genetic psychology, with its culture-epoch-parallelism, came and went in its turn, leaving behind it a host of disappointed hopes and a few grains of precious truth. And today a veritable host of abstractions are clamoring for educational content to give them meat and substance—Madame Montessori with her borrowings from the Italian anthropologists and the French alienists, to say nothing of her Mediterranean theory of morality and her rejection of sacrifice and duty as second-rate virtues; the statisticians with their modes and their medians, their traits and abilities; the behaviorists with their puzzle-boxes; the physical educationists with their glorification of muscle and brawn; the pragmatists with their contempt for the absolute; and a host of others.

As has been suggested, each of these partial points of view has its own advantages and its own mite to contribute toward the solution of our problem. We should not have it thought that we do not welcome them. Education has never failed to welcome them. We are anxious for all the light that our sister sciences can bring to illuminate our task. But no single norm, borrowed from a science which must, by the very nature of science, be an abstraction from the total of human experience, should be accepted as a criterion for educational values. Education, too, has its own specific field and its own specific problem; and it must insist upon its right to formulate its own standards and to define its own task.

2. But all this represents a theoretical objection to Dr. Snedden's proposals. Let us pass to the practical difficulties which beset the application of his doctrine. In the first place, it is clear that there is no sharp distinction between a man as a producer and as a consumer. A man does not produce during so many hours of the day and then consume or utilize during the remainder of his time. As a producer, he is also a consumer. In his vocational life, he is utilizing the skill that he has learned from others or developed for himself; he is utilizing the tools that others have invented; he is utilizing the principles and rules of procedure that have come to him from the past experience of his fellow-workers; he is utilizing the ideals,

the standards, and the tastes that the race has wrought out of its long experience. What phase of education is to be responsible for the inculcation of these skills, tools, principles, ideals, standards, and tastes which he utilizes as a producer? Obviously both his vocational education and his so-called liberal education will contribute each its own share. Is a man who is consuming literature and art adding to his vocational efficiency? Certainly if he is not gaining new strength, new standards, new enthusiasms for his daily work, his recreative activities are a pretty costly luxury.

Again, there are certain fundamental activities of life which I defy anyone to classify satisfactorily as either predominantly productive or predominantly consumptive. Take, for example, two activities of life with which education, by common consent, must be intimately concerned—the activities involved in citizenship and the activities involved in the home relations. When a man is a good citizen, is he a producer or a consumer or both or neither? Certainly one might say that he is producing good government—in which case training for citizenship is vocational training. Consequently training for good citizenship belongs in a separate vocational school where it will not be confused and rendered ineffective by the processes that are preparing pupils to be consumers—that is, if the producer-consumer theory means anything. This, of course, is akin to word-quibbling; but it simply illustrates the absurdity of applying economic concepts to a field that they do not include and with which their relationships, while important, are upon an entirely different level than that contemplated in the application. The same strictures could be passed upon the attempt to cover home activities by these concepts. They simply will not fit. They confuse rather than help. The housewife is both a producer and a consumer, and the activities are so intimately interwoven that any attempt to separate them leads to hopeless confusion. Even if we take the mere matter of aesthetic adornment, while we may say that a woman consumes the artistic products of others, she is producing or trying to produce attractiveness—something, let us say, for others to look upon and admire—that is, to consume.

Again, let us test the production-consumption theory by application to certain accepted subjects in the elementary and secondary programs. We shall all agree, I take it, that every individual should know that the earth is round. Is this fact productive or consumptive in its tendencies? Obviously, neither; and yet it is a basic fact with which everyone must be familiar. A theory of educational values must make some provision for that type of value which is purely conventional; for it is a very real type that we should neglect with certain disaster. Shall we teach literature in order primarily to give the pupil a taste for good literature and so enable him to consume literature more effectively and helpfully, or shall we also try to make literature the vehicle of great ideals and standards of conduct crystallized in fundamental types of character? If we do the latter as

well as the former, we are influencing every phase of life—productive as well as consumptive. Shall we teach physics as a liberal study in order simply and solely to make the pupil a better consumer? A consumer of what? Electric lights? Automobiles? Pumps? Literature on physics? But would these useful consumptive capacities be at all inconsistent with giving the pupil some comprehension of the method of science, some appreciation of what mechanical progress has cost? And would this not affect his productive life just as much as his consumptive life—and a form of life most of all that is neither productive nor consumptive, but more important than either?

3. One further objection, however, I should urge against this distinction; and that is that it perpetuates an older prejudice under which the so-called liberal education already suffers too much. I refer to the notion that the liberal education is in some way opposed to the practical things of life. It is natural that this notion should have held sway at the time when liberal education was the prerogative of the leisure class; but even then it did not always or perhaps often mean impracticality. It meant efficiency of a different sort than that which we should include under the head of technical skill. It meant often productive efficiency of a high order, and not alone capacity for utilizing the products of others. It often meant, as it often means today, constructive leadership, the highest kind of productive efficiency.

But the old distrust of liberal education still clings, in spite of the fact that human freedom owes to liberal education its existence today; in spite of the fact that the surest measure of a nation's station in the scale of civilization is most clearly indicated by the extent to which liberal education is diffused among its masses. Our public schools are branded today as a failure by the more radical advocates of the very plan that Dr. Snedden is proposing. Yet with a predominantly liberal program—characterized by all the vagueness that Dr. Snedden has described—these schools have succeeded in saving us from the fate of Mexico and Bulgaria and Spain and Russia. Never was anything more unjust than this persistence of the notion that liberal education is impractical. And one reason why I dislike this producer-consumer theory is that it still represents that unjust and worn-out prejudice. Dub a program of studies as designed to produce efficient consumers, and you give it a black eye from the start. The consumer is not a popular idol. Even the cartoonist takes a shot at him, delineating him as a diminutive, weak-jawed, bespectacled individual who is continually being ground down by the tariff-protected producer. There is no particular credit in the popular mind in being a consumer; it is something that one just has to be. Think what a time the consumer has had in this country in getting a slight recognition of his rights! I fear that with this theory in full swing he would have an equally hard struggle in education.

4. Toward constructive differentiation of the two terms under discussion, I should offer the following suggestions:

First: That the distinction between vocational and liberal education which is now current in our discussions be replaced by a distinction between specific education on the one hand and general education on the other hand. Here the differentiating principle would be extremely simple: Educational materials and processes which are of chief or exclusive value in training for *specialized* occupations or modes of life will comprise the materials and processes of specific education. Those materials and processes which will be of probable value to every individual, whatever his specific occupation or mode of life may be, will constitute the content of general education. If desired, specific education may be divided into subordinate types, of which vocational education, as we now understand the term, may be one. General education may also be subdivided into at least three well-recognized types. The first of these is most clearly represented by the typical elementary program of studies. It comprises those habits, skills, knowledges, and ideals which must be made the common property of all: (1) the arts of speaking, writing, and reading; the fundamental arts of computation; (2) the specific habits that make up the universal social amenities—good behavior, deference to age and womanhood, respect for the authority of the law as representing the collective will of society, and social service; (3) the habits and ideals that make for personal and social health; (4) the habits and the information representing the fundamentals of good citizenship; (5) the basic facts of geography and of national history; and (6) those methods of work that are applicable to all types of human endeavor so far as these can be made the common property of all. This type of general education should have a name which I am not ready to propose, but I shall call it for the sake of convenience *fundamental* education.

A second type of general education I shall call *liberal* education. Its primary aim will be to make the individual *adaptable* to changing situations. It will equip him, not so much with specific skill in the narrower sense, for this is the function of fundamental and vocational education which prepares for situations that can be predicted with reasonable certainty. Liberal education will deal rather with explanatory principles which will give him the possibility of a rational control over new situations which we cannot foresee, but which we are morally certain will arise in his life. It will aim to make the world just as meaningful to him as possible. It will aim to give him the power to detect new situations and to devise methods, implements, and devices for their solution. It will furnish him with standards of value, thru which he can view his problems in their proper proportions—not distorted by local, selfish, sectional, or partisan points of view. It will rid his mind of the fallacy of the immediate; thru the study of history, it will give him a time-perspective upon his own life and upon the issues of his own generation which he must help to meet. Thru science,

it will rid his mind of superstition and fraud and error—those soul-destroying and energy-destroying forces that reduce strong men to the helplessness of infancy. Thru literature and art, it will reveal the finer and more subtle forces which dominate human motives and so often determine human conduct—forces so subtle that only the masters can detect them and interpret them—but which, once caught and crystallized, are available to all who can appreciate and understand.

How much of this liberalizing or "liberating" education we can give to every individual will depend upon a variety of factors: how long we can keep him in school; how clearly we can connect these materials and processes with the motives and interests that dominate him at the time; how skilfully we can stimulate effort to the systematic mastery of recorded knowledge; with what economy we can meet the demands of fundamental education on the one hand and of vocational education on the other hand. My contention in the present connection is that we have here a type of training, coeval in its importance with fundamental education and vocational education. From the point of view of a national policy of education, this type needs perhaps the greatest emphasis—for it is the liberal education, interpreted in this way, and made universal among the people, that makes a nation truly great. It is because an education of this sort inevitably leaves its stamp upon every act of a man's life—it is for this reason that I protest against identifying liberal education exclusively with the training of the consumptive or utilizing capacities. I protest, too, against the theory that this type of education is merely for adornment or for enjoyment. It lies at the very basis of progress. It furnishes very frequently the compelling motive of toil and sacrifice and effortful achievement. It is fighting today the world's great battles—it is in the very van of the struggle against corruption and evil and exploitation and injustice. It is not alone unfair to liberal education to give it (in the eyes of the young and the untutored) a subordinate position; it is a sin against the children of the land, and it is a crime against posterity.

As I have suggested, there is here a large need for a much more adequate analysis of functions and values than has hitherto been attempted. We must learn to think clearly from the details of subjects, methods, and requirements to the ultimate goal that we have in view. The steps must be worked out just as carefully as possible, and what each step may bring with it must be determined. But this is far from saying that everything that we teach will inevitably fulfil the function that we have in mind. In the very nature of liberal education, something—perhaps much—that is taught will fail to influence life. For here we must imitate Nature, we must be prodigal. The organs of the body are commonly larger and stronger than the normal demands require. Of the forty thousand or more sensations which can bring us information about our environment, we commonly use but a small fraction. Nature thruout her realm has been

prodigal, for Nature must provide against crises; and we also in education must provide against crises. And that, I believe, is the peculiar function of liberal education as contrasted with the other types.

A third subtype of general education I should call *cultural*, and while the distinction between the liberal education and the cultural education should not be sharply drawn, I should think of the latter as essentially the education that prepares for leisure. Literature and art and music and healthful sport all have a function here, altho each may also have a function under one or another of the heads already discussed. This is the type of education that does train the consumer in the sense in which Dr. Snedden and Dr. Weeks use this term. It is important and must not be neglected; but again it is a mistake to think that all education which cannot be justified upon the basis of its specific vocational value must either seek justification as a preparation for leisure or surrender its claim to a place in our schools.

And now a final word with regard to the bearing of these distinctions upon the problem of educational administration. Dr. Snedden argued from the distinction between productive and consumptive activities to the conclusion that vocational and general education are essentially different in aim, content, and method, and therefore demand separate schools and, some would add, separate administration. If my own analysis is correct, all forms of education are most intimately connected and correlated. Nay, more than this, every curriculum proposed for a boy or a girl should represent in a fair proportion each of these distinctive types of training. We shall grant the necessity for intense specialization in vocational subjects; we should not grant for a moment the wisdom of making any vocational curriculum so intense that the liberal or the cultural should be neglected.

The arguments for separate vocational schools are commonly arguments from expediency. Dr. Snedden's plea is more fundamental than this, for he urges these basic differences between the two types of education to support his contention. The aims are different, he says, and the methods must consequently differ. But, as I have attempted to point out, the aims differ only in degree and not in kind. With the more adequate analysis of the remote aims of liberal education, we shall have these interpolated aims approaching in definiteness the aims of vocational education. And one reason why I should protest against the proposed division lies in the fact that competition with the definite and tangible vocational subjects will hasten this analysis and compel the formulation of these interpolated aims. This process is already going on in some schools, and one of the most successful attempts that has thus far been made to formulate concrete values for a traditional subject has been in connection with that bugbear of the secondary program, Latin. If I mistake not, it was this very competition that worked this desirable miracle.

Nor should we overlook the influence which concrete vocational interests may have in making meaningful and vital the more general and abstract

principles and processes with which liberal education deals. That correlations between vocational and liberal subjects may be worked out with great profit to both and without destroying the integrity of either I have no doubt. I know that it has been effectively accomplished in certain cases.

Against the danger of social stratification that are inherent in separate vocational schools, even upon the secondary level, warnings innumerable have been voiced; and so far as I know they have never been answered except by the question-begging statement that such stratification already exists. Even granting its existence, we can see no good reason for extending it or for making it still more rigid. A stratified society and a permanent proletariat are undoubtedly the prime conditions of a certain type of national efficiency. But wherever our people have been intelligently informed regarding what this type of efficiency costs, they have been fairly unanimous in declaring that the price is too high. As a people we are pretty clearly committed to the theory that talent is distributed fairly evenly among the masses and that it is the special prerogative of no especial class or group. As a people, we are fairly firm in our faith that this latent talent may be trained to high efficiency in practically every case. We mean to keep open the door of opportunity at every level of the educational ladder. It is a costly process, but so are most other things that are precious and worth while.

DISCUSSION

EDWIN HEBDEN, director, Bureau of Statistics and Research, Department of Education, Baltimore, Md.—Permit me for a moment to present one or two points in this discussion from the viewpoint of the student of statistics. Recently, at the request of the Board of School Commissioners, I sent a questionnaire to a number of cities in this country, seeking for information as to what was being done along vocational lines. The replies showed that almost every subject in the curriculum was, in one place or another, considered as entering into vocational education. One can see the confusion that must necessarily result. My point is that there should be agreed upon a terminology that would be interpretable by all alike. In this way the experience of all would become available without misinterpretation. It seems to me that thus at the threshold of this comparatively new branch of educational activity such an agreement might be reached by a properly constituted committee of this Association.

At the same time, and as a result of the questionnaire above referred to, there was shown the greatest need for scientific basis and organization of the course of study for the vocational work. In this subject educators are not enthralled by tradition and inheritance as they have always been in the course of study for the regular academic branches. Here again there should be worked out a course of study based upon scientific data and in terms that would be uniformly understood thruout the country.

SCHOOL AND SHOP—WORK AND STUDY

RANDALL J. CONDON, SUPERINTENDENT OF SCHOOLS, CINCINNATI, OHIO

In an old Cincinnati directory which has recently come into my hands, I read these words: "Attached to the institution is a farm of one hundred and ten acres; and the students are required to labor either on the farm or at some mechanical business three hours a day." The principal of the school is given as Rev. Lyman Beecher, D.D.; the institution, Lane Theological Seminary; the date of the old directory is 1836.

In the same directory I read that the Woodward High School

> offers the means of education for all pursuits. The parent who designs his son for the bar, the medical profession, or for the sacred desk may find for him [in this school] as thoro a classical and philosophical training as can be obtained in any other [institution] in the West. And those intended for mercantile pursuits, civil engineering, or any other of the departments of business life may enjoy [in the high school] all those advantages for the acquisition of the preparatory education which is so essential to their future respectability and success.

Here, then, is the "Cincinnati idea" of 1836: Shop and school; work and study combined—education for different vocations with differentiated courses of study: classical and philosophical training for the law, for medicine, and for the ministry; industrial training for mercantile pursuits, engineering, and other departments of business life; and vocational guidance—those "designed" by their parents for the professions and those "intended" for industrial pursuits; and the end or purpose of education, "future respectability and success."

We haven't been able to improve much on that program in eighty years. It all has a very familiar sound; it might have been written in 1914 instead of in 1836 as an expression of what Cincinnati and many other cities are trying to do in adapting education to the needs of individual pupils, helping them to prepare for the occupations of their choice—doing it that they may be respectable and successful, and hoping to accomplish this thru a union of mental and manual activity.

This "Cincinnati idea" is further emphasized by one of the symbolic windows in the city hall, before which I often pause as I mount the stairs to my office. It bears these significant words: "Labor and Education." But in spite of this constant reminder that the two must be united, in spite of the fact that they had been combined in actual practice in the early days, they had been divorced in Cincinnati, as well as elsewhere, until Dean Schneider, of the University of Cincinnati, again brought them together in 1906 in his co-operative courses in the college of engineering, by which the students were to spend alternate weeks working in the shops or out on the road with the construction crew. And he added this one new and important principle: The work was to be not merely work, but work that was an application of the study; and the study not merely study, but

an interpretation of the work. This principle once having been recognized and applied, its extension and adaptation to different phases of education have been comparatively easy and rapid.

In Cincinnati, its first application was in the continuation school for apprentices in 1909, to which the apprentices from some twenty machine shops are sent for a half-day a week, receiving pay for the time so spent, to obtain instruction in mathematics, blue-print reading, mechanical and freehand drawing, English, economics, and civics—all bearing more or less directly upon their present and future work as machinists and their relation to the community as good citizens. A similar plan of co-operation and instruction for the printer's apprentices followed a little later. These classes were all composed of pupils who had left school, generally at the end of the fourth or fifth grade, to go to work. The school reached out and invited them to come back for a half-day a week, and asked the employers to permit them to attend without loss of pay. It would be more correct to say that the offer came from the employers themselves. For under date of May 21, 1909, six of the largest machine manufacturers addressed a communication to Superintendent Dyer asking for such a school and saying:

> The manufacturers consider this training of such importance that they have agreed on their part that if you will establish these classes they guarantee to furnish enough boys for at least one teacher, and to send their boys to school one-half day each week; and, as an inducement to attend the school, they will agree to pay the apprentices regular wages during the period of instruction.

Its next application appeared the following year, 1910, in the organization of the high-school co-operative courses for both boys and girls, in the two largest high schools, Hughes and Woodward. During the last two years of these courses, the boys are spending alternate weeks in various industrial establishments, while the girls are alternating between school and dressmaking, millinery establishments, and department stores. This year, for the first time, we have extended the plan to the Seniors in the commercial department, whereby they have the opportunity to apply in the office and counting-rooms of the commercial establishments the book-keeping and stenography which they are taught in the high school.

The third application of the principle appeared in the organization of the compulsory continuation classes in 1911, whereby all pupils under sixteen, who had left school before the completion of the eighth grade, were required to attend school for not less than four hours a week. This particular phase of the work will largely disappear next year, under the enactment of the Children's Code at the last session of the legislature, requiring all girls to remain in school until they are sixteen and boys until they are fifteen; girls must also have completed the seventh grade and boys the sixth grade before they are permitted to work. So the only group for the elementary continuation schools will be boys between fifteen and sixteen years of age who

go to work before they have completed the eighth grade—a comparatively small number.

We are hoping, however, to secure at the next session of the legislature the enactment of a law with reference to co-operative courses for pupils between fourteen and seventeen or eighteen years of age, under which they may be employed for half-time as a part of such courses.

All of these developments are only applications of the principle of related work and study, each reinforcing and giving content to the other; for it is not enough that the two should go on side by side in school and shop. They must be essential parts of one comprehensive plan, under the control of the educational authorities. To better realize this, a teacher who had had large shop experience was appointed in September of 1913 who gives nearly all of his time to the supervision of the work of the high-school boys—doing only such teaching as will enable him to establish helpful relations on the school side, applying from his shop experience certain lessons which he is best prepared to teach. A similar appointment was made for the girls' co-operative work—a teacher who by experience and inclination is able to direct their work along educational lines and who comes into close touch with each girl during her working assignments.

It is not essential that the periods of alternate study and work should be the same for all industries; they may be varied to meet varied conditions. In the commercial work, we have started with biweekly alternations; in the machine shops, the length of the period is one week; in millinery and some other occupations, it is seasonal; in others it may be a half-day of study and a half-day of work.

However, it is essential that the plan should be worked out upon a co-operative basis, not simply that the pupils should be permitted to work for a part of their time, but the arrangement should be undertaken with a conscious purpose to make the work educational. And it should be in accordance with a definite agreement between the school authorities and the employer, specifying the hours of work, the rate of pay, and permitting employment only when the conditions as to safety, sanitation, and morals make it desirable for the pupils to undertake such work.

When these conditions are met, I am in favor of permitting pupils to work between the ages of fourteen and sixteen years for not more than one-half of each biweekly period, considering the work and study, whether in school or shop, as a distinct part of their education, to be carefully directed by school officials with that end in view. The agreement should also specifically require employers to provide such opportunities for work and instruction in the same as will afford the pupils so employed the largest possible opportunity for learning as a whole the occupations in which they are engaged, and will also afford opportunity for promotion to the more desirable positions within the establishment. It should be the business of the educational authorities to see that there is no attempt at exploitation,

thru the development of productive skill, at the expense of a more general knowledge of, and education in, the occupation as a whole. They should reserve the right to decide many of these questions and should withdraw from the agreement whenever it appears that the employer is not endeavoring in good faith to meet his part of the contract. Pupils should be permitted to work only in establishments which have been carefully inspected and approved.

I believe, too, that we should extend our educational control to all minors under eighteen years of age, providing co-operative courses connecting with all the leading industries; and that we should be ready to organize any such course, when not less than twenty pupils desire the same.

The principle should be clearly established that we are approaching the problem from the educational end, retaining pupils under school control until they are eighteen, but permitting them to work for a part of the time between fourteen and eighteen as an essential feature of their education.

And this must be compulsory education: compulsory on the child to attend; on the parent to send the child to school; on the community to provide the right kind of education; and on the employer, not only to permit the child to attend school, but, under certain conditions, to provide such opportunities in his establishment as will make education possible thru work connected with study.

Pestalozzi said: "The end of instruction is making ideas clear," and "Impressions and expressions united lead to clear ideas." If this is so, then the best way to produce clear ideas is not by applying the instruction at some subsequent period, but in connection with the teaching. The learning process, considering both the teacher and the pupil, seems to follow somewhat this order: explanation; demonstration or illustration; application; repetition; with a judicious mingling of these elements of teaching and learning. The school is the place where the teacher explains and demonstrates; the shop, store, and home the place where the pupil applies and repeats the process, until he has learned that which the teacher taught. Back and forth from the school to the shop and store; from the store and shop to the school, the teaching and the learning go on side by side—explanation and application; theory and practice; study and work—until by sufficient repetition the process has been learned and the teaching has been forgotten.

But we must not forget that it is to be educational work—not so much work for work's sake, but work for the worker's sake—so organized and directed as to give a maximum of educational value, a value which will be measured largely by the joy of accomplishment—the consciousness of difficulties overcome and made the stepping-stones to higher accomplishments. And to this end the industries, as well as the schools, must be organized with reference to vocational education that is liberal and fundamentally sound; for I believe we may obtain the elements of a liberal

education from work-study, when rightly organized, quite as much as from word-study.

Culture comes not from the particular form of study, but rather from the spirit awakened by study. For one the approach to the spirit and the opportunity for self-expression will be found in art; for another, in music; for another, in literature; for another, in nature; for others, it will be found at the forge, the anvil, the carpenter's bench; in the machine shop and the counting-room; or in farm and household occupations. Culture is the ripening of life, the inner self-enlargement; and the daily toil and the daily rest must supply the opportunity and the incentive for this enrichment of life. If it is not found here it will not be found anywhere. There must be less study for study's sake and more study that expresses itself in terms of work; learning that becomes knowledge thru its application and wisdom thru its expression in terms of unselfish service. It is only in its outgo that the soul is enlarged. It is the things that we love deeply that influence our lives in large measure.

In developing our plans for industrial education, and other forms of education as well, we need to be on our guard that we do not imprison the soul. The routine and the mechanical must be so taught and learned and practiced that there will still be opportunity for the cultivation of those soul-qualities that give joy to work and that find in the humblest tasks opportunities for expanding self-expression.

These are some of the fundamental principles that have controlled and will guide in the development of the work-study program in the Cincinnati schools.

THE APPRENTICE SCHOOLS OF THE SANTA FE RAILWAY SYSTEM

F. W. THOMAS, SUPERVISOR OF APPRENTICES, TOPEKA, KANS.

The Santa Fe is a railway running from Chicago on the lakes to San Francisco and Los Angeles on the Pacific, reaching the Gulf of Mexico at several places in the Lone Star State and touching the Mexican frontier at El Paso and San Diego; gridironing the state of Kansas with nearly as many miles of road as are within the state of Virginia; five times crossing the Rocky Mountains and the Sierras or their spurs at an elevation above seven thousand feet; with nearly a thousand miles of road in the arid or desert section upon which not enough business originates to pay the cost of maintaining the roadway; with a number of division terminals located in the desert where water must at times be hauled one hundred miles or more, not only for drinking purposes but for its locomotives.

I have used this introduction to show the conditions under which this artery of commerce operates, in order that some of the tenderfooters this

afternoon may appreciate fully some statements I shall make later on in this paper.

There is no road in the country that requires any more exacting service of its employees, and there is no road in the country that has done more for the comfort and happiness and welfare of its employees than the Santa Fe. Thru its pension system it provides liberally against old age; thru its magnificent hospital system it furnishes succor to the sick and injured; thru its recreation halls and clubhouses it furnishes wholesome amusements free to all its employees even in the remote desert terminals; and, lastly, thru its educational department it furnishes a place and means where children of its employees and the boys living adjacent to its lines may learn a vocation, receive a training for life's work under a system which we think is the best that money and means and brains can devise.

The apprentice system is as old as time—as far back as we have any authentic history, scriptural or profane, we read of boys learning trades, boys being bound out to serve a master. Thousands of years ago God's chosen people had an adage: "He who teaches his son no trade teaches him to be a thief." Not only was the son of the poor taught a trade but all classes had to learn a trade. Saul of Tarsus, tho born of well-to-do parents, an aristocrat by birth, who studied at the feet of Gamaliel, the greatest teacher of that age, was still taught the trade of tent-making. Who knows but that the lessons learned thru association and contact while serving that humble apprenticeship gave him that insight into human nature which so brilliantly illuminates the pages and sermons of that great missionary to the Gentiles?

In 1907, the Santa Fe, like all the great employers of labor, during that year of flood-tide business, suffered from the lack of competent and skilled workmen. Good wages, pleasant surroundings, splendid treatment, and an indulgent corporation, all these could not bring them for the reason that there were none to come. Our management said that if we couldn't find and hire them we would make them. So in August, 1907, a committee with orders visited a great many manufacturing plants and railroad shops, looking into those having an apprentice system. A report was made as to what should be done. Orders came back to organize and put it into effect within three weeks. Railroad orders are orders to be obeyed. Nothing was said as to preparation, as to expense, as to the personnel of the organization—only to start things by September 15. A place in an already crowded shop had to be found for a schoolroom, furniture had to be made, lessons and problems had to be written, drawing instruments, etc., purchased, and instructors selected; but three weeks later, September 15, the machinery was set in motion, some of it crudely designed, some roughly thrown together, but we had an abundance of lubrication in the shape of official backing, a hearty co-operation, intense interest, and enthusiasm. Our first school at Topeka being fairly installed, two months later we started

another in California, two weeks after California we jumped to Texas, then to Kansas again, to Colorado, New Mexico, Iowa, etc.—all within six months. Under our present organization of minute detail operation, I wonder how we accomplished so much within that six months. Today we have twenty-nine apprentice schools with thirty-eight instructors and over eight hundred apprentices.

THE ATCHISON, TOPEKA & SANTA FE RAILWAY SYSTEM

REPORT OF APPRENTICE DEPARTMENT

Showing Growth in Number of Apprentices in Each Trade from September 30, 1907, to January 31, 1914

	Machinists and Brass Finishers	Boilermakers	Blacksmiths	Cabinet-Makers and Coach Carpenters	Tinners, Coppersmiths, and Pipe Fitters	Pattern Makers	Painters	Upholsterers	Electricians	Special	Total	Total Number Graduates since October 1, 1907
September 30, 1907	231	35	15	19	20	5	15	1	0	4	345	0
September 30, 1908	302	44	18	30	23	6	20	3	0	3	449	64
September 30, 1909	326	49	14	32	28	4	20	3	1	10	487	126
September 30, 1910	409	52	15	37	29	4	20	3	3	8	580	178
September 30, 1911	472	73	24	43	36	3	18	3	2	8	682	248
September 30, 1912	518	69	22	42	34	2	18	3	4	11	723	343
September 30, 1913	570	96	21	45	39	1	20	3	8	12	815	457
Total January 31, 1914 ...	570	96	20	42	37	1	17	4	6	10	803	490

Don't confound the Santa Fe apprentice system with any public institution nor think of it as a school. It is simply an advanced method of training and educating boys to fill the places made vacant by retirement and to take care of the increased number of positions due to the road's expansion and growth—a recruiting system.

At each mechanical division point, we have a room or building set aside and dedicated to the cause of education and known as the Apprentice School. This room is furnished with desks, drawing-tables, models, cabinets, etc. A man both theoretically and practically educated presides here. The apprentices are required to attend a stipulated number of hours a week during daylight or regular working hours and are paid while in school the same as if they were at work in the shop. The schoolrooms in the beginning were modest in appearance, painfully plain. We did not have time to build a house; we simply picked out the most suitable unused room or building near the shop and began business. Today we have modern schoolrooms, splendidly equipped, specially constructed for our needs, these being conveniently located in the midst of the other shop buildings.

We teach these boys spelling, writing, arithmetic, shop mathematics, some of the simpler elements of mechanics, sketching, mechanical and

freehand drawing, and also give them a short treatise on their trade and the materials with which they work. We originally intended teaching them only mechanical and freehand drawing, but we found that the majority of boys of sixteen years of age coming to us were so practically deficient in the first-mentioned subjects that we added spelling, writing, and arithmetic, three branches above all others which our public schools should teach and teach thoroly.

In the shops where the boy must learn the real work, we have a shop instructor for every twenty-five boys—a man skilled in his particular trade, a man of pleasing personality and engaging manners, a boy-loving man, whose sole duty is to instruct the boys under his charge. He is not responsible for the output of the shop, not responsible for the management of the shop, not concerned as to the cost of the products, but his only duty is to take the raw material in hand and make a mechanic. The boy upon entering the shop finds a new world, a sea of whirling machinery, a bedlam of strange noises, a thousand new faces, a thousand eyes gazing at him; he feels lonely, frightened, fearful of his personal safety, fearful of some misstep. He longs for home and friends; but here he finds a warm hand, a kind heart, a friendly face, a man who takes him by the hand and guides and directs him step by step, day by day, from machine to machine. For four years he is drilling, teaching, and instructing that boy, molding a mechanic from that young, green, embarrassed boy of four years ago. The boy soon realizes when he enters the shop that he is making something. There is no experimenting. The first job he does is making something to be used, something useful. He soon, and probably for the first time in his life, learns the value of time. A job in a railroad shop to be finished at eleven o'clock means eleven o'clock; not five minutes past eleven, or twelve o'clock, but eleven o'clock. He soon learns the absolute meaning of obedience and subordination. He soon finds out that the two unpardonable sins in railroading are disobedience and insubordination.

In the selection of apprentices, we are not so very strict or particular. If a boy can read intelligently, write legibly, and perform accurately the four fundamentals of arithmetic—addition, subtraction, multiplication, and division—we will take him. He must be physically sound, free from any serious organic troubles or chronic ailment. We don't care so much about his father, so long as the boy is honest and industrious. He fills out an application blank which gives his name, age, nationality of parents, his height and weight, and schooling, and which states why he left school and what work he has ever done. We do not care for character letters as they are about the most worthless things in existence. We question him closely as to his domestic affairs, his playmates, recreation, sweetheart, etc. We aim to find out from him as much about himself as possible. We want to know as much as we can gather as it will help us in our dealing with, and treatment of, the boy during his apprenticeship. These little

personal examinations bring out some strange stories, some sad tales, some of the real, uncolored romances of everyday life. There is nothing which touches me so much as the story of real hardships of a boy. There is nothing which has softened my heart so much as the story of a boy prematurely grown old thru neglect, thru mistreatment—a life robbed of all the boy's joys and the pleasures of the 'teens, a life with little or none of the sun's rays of hope and happiness.

While we desire a boy with a grammar-school education, we do not tie ourselves down to any ironclad rule. Of the boy of unlimited opportunities, we require much upon admittance; with the boy with few opportunities, we are exceedingly charitable.

Four years ago one hot August day, a boy, very small for his sixteen years, stood in the doorway of my office. In his hand was a personal letter, an autograph one, addressed to me, from the superintendent of shops, requesting me to examine the bearer for the position of painter apprentice. He was very small, poorly dressed, illy fed and nurtured, extremely bashful, and nervous.

Giving him a glass of ice water and a seat in front of a cooling fan, with a few words to allay his feelings, we began to draw out his life's story. We found that his father was a worthless, brutal man, a drunkard who had left home. The boy had been so unmercifully beaten by an inhuman father that his very being and nature were cowed. His mother, who could not stand without the aid of crutches, was doing her best to eke out a living for herself and brood by taking in washing. Yes, he said, there were some more, some "leetle" ones at home. I knew then the superintendent of shops knew the story. My first and natural impulse was to turn him down, but I could not do it. We did not have the heart to do so, tho I knew he was the least promising boy that ever came into my office. Three months later, the shop instructors reported that he was only fair, was away below the standard, below the average. The school instructor was using a great deal of that characteristic which made Job famous. The boy could read simple words, knew nothing of arithmetic, could spell a few of the simpler words. One day the instructor accidentally ran upon something. The boy had made, on the under side of the piece of paper on which he was supposed to be writing, an Old English letter "A," shading and illuminating it in a manner that would have been a credit to one who had been trained in such work. Next day he uncovered the head of an Indian chief, gloriously decorated with feathery headgear. We did not scold him. That poor boy was never scolded by us. We gave him more of that very kind of work each day. His interest was aroused, his tongue was loosened, his mind so long cramped and unused began to expand. Last week we graduated him as a journeyman painter, capable of doing any work in painting and decorating our passenger cars or office furniture. He has not entirely outgrown the cowed, subdued spirit inflicted by his brutal father

and he never will, but he has grown in body, in mind, in intelligence, and has been a blessing and comfort to his mother and the little fellows. He has been faithful during his apprenticeship and I have no doubt but that he will give many years of faithful service to us as a man. We have issued him a diploma which will be the open sesame to a job anywhere they may need painters. But he prefers to stay with the Santa Fe, and will do so at the full rate of pay paid journeymen. In reward for his faithfulness as an apprentice, we have given him $135 in cash. This will go toward building a home upon some land already purchased with money saved from his apprentice wages.

About the first thing we noticed upon opening the school phase of our apprentice system was the absence of suitable textbooks. There were none in print. We had to get busy at once, writing our own books. We chose a loose-leaf lesson system, and having our own printer and press we change these leaflets any time we see fit. The success of the schoolroom work has been due first to the men we selected as instructors, men practically and theoretically educated, intensely enthusiastic over their work, and, above all, thoroly in accord with the head of the department and most unselfishly loyal. Next I attribute it to the individuality of our instruction. While the boys come to this apprentice schoolroom at the same time, each is a class unto himself. There is no massing of boys of unequal age, unequal talent. Each progresses just as fast as he masters the subject. Next I attribute our success to the adaptability of our lesson sheets. We make them simple, very plain, each having a direct bearing on the boy's trade, each drawing lesson, each problem relating directly to some engine, car, shop tool, or feature of the railroad. This fixes in his mind some definite goal, and the course leads directly to that goal. No side trip, no excursion in foreign fields, no rambling in strange lands. He stays at one station of the work, but is brightened by the light or scene of the station just ahead. The reason, the purpose, the cause are plainly apparent to him.

Another factor which has made our apprentice system so successful is our determined effort to find out the fitness of the boy after he enters. The first six months is a probationary period, and when a new boy enters upon his apprenticeship we send a notice every thirty days to his general foreman, department and gang foremen, his shop and school instructors, advising them of the fact that he is a new boy and requesting them to pay considerable attention to him so as to be able to intelligently act at the end of his first six months, or probationary period. The above-named shop officials compose what we call the Apprentice Board. They compose a jury which at any time during the apprenticeship may make recommendations as to a boy's unfitness for the trade he is indentured to learn. This board is bound by no laws but their own opinions; each has as much power as the other, each member must handle the boy during his apprenticeship, and some afterward. At the end of the first six months, or probationary

period, they meet in a serious session to finally say what the future of the boy must be. If the boy is adapted to the trade, we keep him, if not, we transfer him to other work or dismiss him. There never was a jury or court any more anxious to deal out real justice than these apprentice boards of the Santa Fe Railway. They may dismiss a boy, but they do not do it because he is simply a boy, or because he is a boy without influential friends and without a pull, or because he may be poor, or because they may not personally like him. They meet in solemn session to aid that boy in his life's work and their action is the result of this conference.

We are firm believers that God has endowed each with some peculiar or dominant talent and we endeavor to locate or find it. A great deal of the misery of life and distaste for work is caused by the unsuitableness of the talent for the task, or, in other words, because of misfits. We all like to do those things which we can do well. We do those things well or better which utilize our dominating talent—a boy with constructive talent loves to build things, loves to use the hammer and saw; a girl who has talent for embroidery loves to make things requiring fine needlework; a boy with agricultural taste and talent wants to plant, to cultivate, and reap; one who has mechanical talent is never so happy as when working with machinery. To require any boy to learn the blacksmith trade when all his talents are for medicine or surgery, to require any boy to learn the trade of machinist or telegrapher when his heart yearns for the farm, is doing him an unpardonable injury. You are overturning the will of the Creator. You are committing a crime against his young life and against society.

Right here is where our public schools are lame, where our colleges are weak. There is seemingly no effort upon their part to locate the talent of the boy—no defined effort to ascertain the dominating talent or pronounced tendency of the brains of the boy. The average teacher cannot understand why a boy may be dull in grammar and a prodigy in arithmetic, why he may be a dunce in history and a genius with carpenter's tools. This scheme of locating the boy is to be one feature of our new schools and colleges. The public-school teacher of the future will find out and say or at least advise as to the future of her boys. She will say when the boy ought to leave school and go to work; she will advise him whether to go on thru high school and on to college. There is no duty save motherhood so supremely great as that which aids a young boy in determining his future, his life's work. The home training for a life's work has long since left the home and gone to the factory. We no longer spin and weave our cloth at home; we no longer forge the farm implements, for we can buy these cheaper and better than we can make them at home. Who is to say what the child must do for a life's work? You take the child away from its mother's arms, fresh from the hands of the Maker, and from six to sixteen he is yours to make and shape his plastic young soul. Is it not your duty to study the boy, in order that you may recognize the mold that his Creator

has built for him to occupy, and so to drill, so to teach, so to develop the boy that he shall fill the mold to the uttermost and that the cast shall not be faulty from your neglect?

The idea or scheme of the elementary schools is to prepare the child for high school, and the idea of the high school is to prepare for college. The whole curriculum, the whole training, is for that one idea or end. Not all go to college; not all can go. Seventy-five per cent have no need for it; 50 per cent will be severly handicapped by having a college education; some do not have the means. The great majority have to leave school at the age of fifteen to go to work. The necessities of life, of family, make many a child of sixteen a bread-earner. What have you done to prepare him for this serious reality? It is soon to be the problem for you to map out your course to suit the needs of the child—not what those who have gone before have thought, not what you may deem the proper thing, but what the boy needs. The time is coming when you will be called upon to provide clerks for the stores, stenographers for the offices, and apprentices for our shops, and the public will demand that you be able to do it. This may interfere with that which you call culture and it may change the idea or meaning of so-called cultural education.

People are rapidly learning that a college or university diploma does not necessarily spell culture. We are too prone to call cultured the agriculturalist whose hands have never touched the plowshare, but whose knowledge has come from books, papers, and colleges; too prone to call cultured the surgeon whose knowledge is deep only from long years of study and reading, yet whose hands have never wielded the knife in removing or correcting some disorganized portion of our anatomy. That culture which has zeal without practical knowledge, and enthusiasm without sanity, should no longer sit with the mighty. We admire and love real culture, that culture which brings peace, happiness, and contentment to the community, which builds homes, rears families, gives them the conveniences of life and some of the luxuries, which makes one honor and love his neighbor, and makes one interested in the affairs of the town, the state, and the nation—a culture whose mission is objective and not always subjective. The prevalent idea that a college or university education is synonymous with culture, coupled with the idea that culture and work are foreign to each other, is one reason why we have so many young men in college and coming from college with no fixed idea of the future, no sane view or thought of life's work, with faculties practically wild and undisciplined, without willingness to do as they are told, and without that disciplined faculty of concentrating their attention on unpleasant work or necessary tasks. The term "cultural" is too closely allied to a life of ease and luxury, and this so-called cultural education fits him for such a life and not for a life of work, not for a life which finds real happiness in work and in life's material things.

Our public educational system, in all its teaching and textbooks, selects a few characters of history as examples of emulation—those who grew great in wars and bloodshed, Alexander, Caesar, Napoleon, Grant, and Lee. Mere mention is made of the inventor of the printing press; I do not see anything in our modern histories of George M. Pullman, of Matthew Baldwin, of Edison, of Marconi, or of Luther Burbank, and any one of these has done more for the commercial world, and for our own comfort and happiness, than all the generals and heroes of war and bloodshed of all times.

No wonder our business men decry the failure of our college men when you are making them dreamers and criticize even our high schools when indirectly you are teaching social ostracism against him who by the sweat of his brow earns his living; against the mechanic of today, whose genius may startle us ten years hence; teaching education and culture and not work, not the love of work, nor the true greatness and nobleness of work.

We teach our apprentices that the trade they have indentured themselves to learn is the best possible vocation for them; we teach them that not all the great brainy men of the country are practicing law, practicing medicine, making laws in Congress, or engaged in professorial work; that there are just as many and great brains in agricultural work as in law, just as wonderful minds in engineering as in medicine, just as ponderous thinking in financial fields as in the professor's chair; we teach them that the plumber or machinist is of as much value and use to the community as the lawyer or banker, that a good carpenter or a good tinner is far more valuable to the town and community than a poor doctor or a poor banker; we teach them that the average earnings of our graduate machinist apprentices now working in our shops are greater than the average earnings of the lawyers or doctors of Kansas, of Virginia, or of any other state; we teach them the great value of clean living, of clean thinking, and of good citizenship. We have our rules and regulations governing the employment and training of apprentices, but only two "don'ts" appear therein. We say: "You must not drink intoxicants or smoke cigarettes," and we enforce it. We say: "You must work and not loaf." The worker is rewarded, the loafer is disciplined. The other regulations were made to safeguard the boys' interests.

The railroad company realizes fully that this system of training boys is a recruiting scheme and shall not be used as a matter of convenience. While the system is in fact a great convenience, the Santa Fe Railway System has taken a broad view of things, which is a wise course in preparing for the future.

It is not all work with our apprentices. The system is not a merciless machine moving in one fixed path, for it is humane in the extreme. Fields are provided for athletic contests in baseball, football, and basket-ball

between apprentice schools of the various localities, and some athletic teams are allowed to go from five hundred to a thousand miles for such contests. The boys have their clubs and social organizations. Brass bands of from twenty to forty pieces, orchestras, and glee clubs may be found at several places. All of this that indulgent corporation encourages and fosters.

While discipline is strong and determined, it is tempered with mercy. We no longer send a boy home or suspend him for any infraction of our rules and regulations. We do not let him loaf in the streets subject to all kinds of temptations, which a suspension would offer. We penalize him on his agreement by making him serve a little longer. For every day which we would have suspended him, we add that much to his regular apprentice time. The rule works both ways. Afterward, by close application to business for a stipulated period, he may have part or all of his penalty removed.

We keep a real record of all the apprentices. We know the boy before he enters the service, and the records in my office will tell me what he has done each day during his four years' apprenticeship, his good deeds and his bad ones. We do not stop here. Our records show that we follow up that young man. If he moves to any shop on the system our record follows him, sometimes precedes him. If he leaves the road and goes elsewhere we know and keep up with him; know what he is doing, how he is doing it, and the wages he is getting. Seventy per cent of all the mechanics we have graduated the past six years are with us today. Twelve per cent are occupying official positions.

In the year just passed, 1913, the Santa Fe Railway System, which reaches thirteen states, paid into the treasury of the state of Kansas alone $420,000 in taxes for the support of her schools. No wonder Kansas has fewer illiterates than any other state in the Union. We have never used this to bring about a curriculum that will fit the boys particularly for our service, but we do hope that it may be used to the better advantage of the thousands of boys and girls who must leave school at sixteen and go out into the world to earn their daily bread. It is up to you superintendents. I pray you may look at it in its right light and not deaden your ears to their appealing cry.

DISCUSSION

PAUL KREUZPOINTNER, chairman, Committee on Industrial Education, American Foundrymen's Association, Altoona, Pa.—It is very gratifying to know of the progress being made along lines of trade and shop school training as outlined so ably by Mr. Thomas and Mr. Gustafson. We are fully aware of the value of such schools, and it is highly creditable for us to have as many of them with as many students as has Germany.

We have now 144 railroad shop schools with some 6,000 apprentices, and some forty private corporation schools with about 3,000 apprentices, but when we realize what the ndustries of our country need along lines of skill and general intelligence in order to carry

on their work successfully, and when we further contemplate that there are some eight millions of industrial workers of all kinds, who, in one way or another, have to contribute their share, however little it may be, to material prosperity and the general mental and moral welfare of the country, then all the shop and trade schools help us but very little to meet the educational problems of the industrial masses. Out of every hundred railroad shop workers, there are but two or three in shop schools, and out of every hundred workers in the shops, only four or five of the kind of graduates the Ranken and similar schools turn out are needed.

According to the latest statistics from the Bureau of Education at Washington, there are about 60,000 students in all of our shop schools, trade schools, and technical high schools, and of all these only about five or six out of every hundred are eventually found in shops as mechanics or at the lathe or bench. Upon the other hand, history tells us in unmistakable terms, and those who have their eyes open can see it plainly enough now, that in the end the masses always will rule and if they do not rule by intelligence they will rule by brute force. Hence it is not the two or three out of every hundred found in the shop school as described by Mr. Thomas, or the four or five out of every hundred industrial workers turned out by the Ranken and other technical schools, who will eventually rule this country, but it is the seven or eight millions for whom we have made no provisions, and who, as industrial and economic conditions now are, must get their industrial and civic training in part-time and continuation schools. Therefore since part-time schools of the Fitchburg kind will not attract many, it will be left to continuation schools to prepare the great mass of our industrial workers in shop, store, and office for their vocational and civic duties. This will be all the more necessary because we have to meet the competition of the 800,000 German industrial workers who have been and are being trained in the continuation schools of Germany, and who, with the exception of the unskilled laborers and mine workers, get, in many cases, better industrial and civic education than we give our young people in our shop and trade schools. And not only Germany but all other industrial countries are making strenuous efforts to train effectively their industrial workers.

From all my experience and observations of the workings of large shops, mills, and factories, during more than a generation, industrial and economic success depends not so much upon the specific trade training of the highly skilled few, but it depends in the last analysis upon a comparatively high degree of general intelligence of the masses of the industrial workers in shop, store, and office. With the decrease of quality or quantity of our natural resources, when the waste of material and time multiplied by millions of hands daily amount to enormous quantities annually, it is not the high skill of the few, but the general intelligence of the many which must secure for us, not only material success in our industries, but also that intellectual and moral standard in the community whereby peace and order and general good will are vouchsafed for our country. Since it is manifestly impossible to diffuse this education for the masses, as far as the school can do it, thru our high schools, we must do it with the help of continuation schools and a compulsory law.

TOPIC: HOPEFUL EXPERIMENTS

A. MISSISSIPPI CANNING CLUBS

SUSIE V. POWELL, STATE AGENT, GIRLS' CLUBS, UNITED STATES BUREAU OF PLANT INDUSTRY, JACKSON, MISS.

In February, 1911, under instructions from Seaman A. Knapp, cooperating with the State Department of Education, the Canning and Poultry Clubs were first organized in Mississippi. This first year the work was

confined to two adjoining counties, with an enrolment of one hundred and fifty members. In 1912, the clubs were organized in twelve counties, most of these being in the southern part of the state where the ravages of the boll-weevil were most felt. In 1913, twenty-three counties were organized, including several northern counties. Already, for 1914, thirty-two counties have been organized with a membership that will probably reach five thousand. The state agent of Girls' Clubs is also supervisor of school improvement and has promoted the club work thru the state and county school improvement associations. One of the requirements for organizing a club in any county is that the county superintendent and his teachers shall pledge their co-operation as follows:

1. By organizing local clubs in their school communities.

2. By sending the names and addresses of members to the county agent.

3. By arranging for club meetings at which the county agent may instruct the club members.

4. By correlating the common-school studies with the club work as a center of interest.

The second requirement is that sufficient funds be raised to pay the salary of a woman to supervise the club work for at least two months. As long as the appropriation from the General Education Board lasts this amount is supplemented. The average term of service in 1914 will be about five months. The local funds are given by business men, club women, boards of trade, and boards of supervisors. It is due these women who are acting as county agents that it be said that while they receive pay for their services for a few months in the year, they have worked at the organization of the club work for ten or twelve months in each year.

The local clubs elect the usual officers and meet every two weeks to study the bulletins and letters of instruction and to report on their work. Programs for these local clubs are furnished from the State Department of Education, and all the material for these programs may be found in the textbooks on agriculture and the bulletins issued from the Bureau of Plant Industry. These programs consist of lessons on the hotbed, cold frame, preparation and cultivation of the soil, staking, pruning, spraying, and the canning processes. At these meetings the girls learn club songs and yells that embody the very spirit of co-operation. They learn to make their uniform cap and apron, which teach by their daintiness the lesson that household work and neatness of dress should go hand in hand.

The purposes of the club for girls are:

1. To make living conditions in the home cheaper and better by conserving the vegetables and fruits that would otherwise go to waste and having these in a permanent form for the family table, instead of having a superabundance for a few months and living on meat and bread the rest of the year.

2. To afford the girls an opportunity to make some money without leaving the protection of their homes. This is done by canning the surplus vegetables and fruits scientifically and selling them largely to the local dealers and housekeepers.

3. To supplement the instruction given in the rural school and to vitalize the common-school studies by correlating them with the club work as centers of interest. The measuring and laying-off of the plot illustrates lessons in mensuration. Keeping accounts of proceeds and expenditures, estimating profit or loss, ordering canning supplies, all embody vital problems in arithmetic. The depositing of money earned in a bank and learning to draw a cheque on it are both cultural and comfortable. The canning process calls for a knowledge of bacteria and spores. The use of the vegetables serves to provide a balanced ration for the family, which is practical physiology. Combining muriatic and zinc to make a soldering fluid, and having the sealing irons in a mixture of sal ammoniac and solder are both chemical processes. The cultivation of the plot puts into practice the lessons from the textbooks on agriculture, geography, and nature study. Giving reports of the club work affords opportunities for both oral and written composition, and when a girl writes the history of her club work she puts into effect all the lessons she has been taught in composition, including spelling, capitalization, punctuation, paragraphing, and right use of words. In fact, every subject taught in the rural schools is enforced thru the club activities.

The state board of examiners has decided that the examinations for teachers should embody the affairs in which they are required to show an interest, therefore for the last year at every examination held from one to three questions concerning industrial clubs for boys and girls have appeared. These easily fall under the heads of arithmetic, physiology, geography, composition, agriculture.

Lessons in correlation are given to the teachers at the summer normals, and suggestions are given in the official school journal. Exhibits of booklets illustrating schemes for such correlation are shown at the county and state fairs and the state teachers' association.

In 1913, 375 girls packed 210,000 pounds of tomatoes and 6,000 gallons of other vegetables. At least a dozen girls spent a whole term in college as a direct result of their club work. Two girls made more than $200 while ten made more than $100 from their club work. The average profit was about $50 for each member. The earning of this money and its careful expenditure have taught the girls valuable and much-needed business lessons. Most of these girls never had $5 to spend as they pleased before, and, if a few spent their money or part of it unwisely and for what some might call foolishness, let the one of us who has not spent one dollar foolishly in the last week cast the first stone of reproach at these girls, some of whom learned by actual experience for the first time the purchasing power of money of their very own.

The club work trains the head, hand, and heart, and conserves health. Opportunities for social service arise constantly in the work. Ethical lessons are abundant. The girl whose plot is grassy and cloddy and whose goods are carelessly packed and labeled is the girl who does slipshod work in school, while the one who studies carefully the instructions and puts these into practice is the girl who carefully prepares her lessons for the schoolroom. The club member who makes false reports to win a prize is the same student who will cheat on examination and forge the answer to a problem. The club girl who puts on the market goods that are light weight, poor quality, and otherwise under the standard is very apt to give the wrong answer to school problems and in fact to the problems of life.

In organizing the clubs, we are confronted at present with two problems upon the solution of which depends the success of the work. First: We must provide funds for paying competent women to supervise the work. Second: We must have competent, educated women to do this work of supervision. At present, our county boards of supervisors may pay a county agent to teach the farmer and his son how to make the soil more productive, to house his Percheron horses, his Jersey cattle, and his Berkshire pigs in sanitary and hygienic manner, and to feed them a balanced ration; but under a strict interpretation of the law they cannot pay one dollar as salary to a woman to instruct the farmer's wife and daughters how to conduct home affairs with efficiency and economy, how to make the home healthful, comfortable, and beautiful, and how to supply the family table with proper food.

Human beings are fully as important as live stock, and as much attention, at least, should be given to the proper housing and balanced rations for the one as for the other.

Our legislature is being asked to enact a law that will enable boards of supervisors to pay a county agent of home economics to supervise industrial clubs for girls and women and other organizations for home improvement. Close personal supervision is necessary to bring out steady, honest work rather than extravagant claims. The offer of large prizes without this supervision has given rise in a few instances at least to extravagant reports without the substantial bases of steady, honest, thoro work.

Dr. Knapp very wisely said that the supervision of the plot gives the agents entrance to the home garden, and supervision of the canning gives them entrance to the kitchen, which is the heart of the home. When these county agents have got this far, their opportunities for service to the mother and daughter are measured only by their tact, judgment, good common-sense, and training. Therefore it is vitally important that we have superior women thoroly trained for this work and we cannot expect to hold such women unless we can give them a reasonable remuneration.

B. SOME CONDITIONS IN RURAL SCHOOLS AND THEIR IMPROVEMENT

JOSEPHINE C. PRESTON, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, OLYMPIA, WASH.

The need of constructive work in rural schools and rural life is everywhere recognized. We have a new vision of the socialized community life in our rural neighborhoods. The rural-school problem is the country-life problem. The rural school represents the community life. If the community is progressive, that atmosphere permeates the rural school; but if the community is indifferent, has low ideals, or is prejudiced toward all change, then even the most capable teacher finds it impossible to make much headway.

The three things which I have in mind to present to you tonight as a partial solution of the rural-school problem are: First, community centers; second, boys' and girls' contest work; and third, cottages for rural teachers.

Washington has a law for consolidation of schools and many consolidations have been effected which have materially bettered the rural schools and, at the same time, have maintained a rural atmosphere.

The difficulty with the consolidation plan is that it operates too slowly. The people many times must come to consolidation only thru the process of education after prejudice, neighborhood contention, and selfish interests are overcome. Experience has shown that consolidation, if attempted before the community mind is prepared for it, is invariably accomplished by contention and strife that engender much bitterness of feeling which operates against the desired ends. The purpose of consolidation is wise, but practice has demonstrated that if we wait for the consolidation plan to solve the problem of the rural school, we shall wait until human nature is greatly modified.

In my work in Washington, I felt unwilling to wait for consolidation to solve the rural-school problem; I felt that we must move faster. Yet I realized that the state was not ready for a complete reorganization of its present district boundary plan which would give us larger, stronger, and more economic educational units. So I gave consideration to the plan of stimulating community interests and vitalizing community life by making a social center of the rural school.

The legislature of the state of Washington in 1913 provided by statute for the "Wider Use of the School Plant" in these words:

> The school board in each district of the second class and third class may provide for the free, comfortable, and convenient use of the school property to promote and facilitate frequent meetings and association of the people in discussion, study, improvement, recreation, and other community purposes, and may acquire, assemble, and house material for the dissemination of information of use and interest to the farm, the home, and the community, and facilitate for experiment and study, especially in matters pertaining to the growth of crops, the improvement and handling of live stock, the marketing

of farm products, the planning and construction of farm buildings, the subjects of household economics, home industries, good roads, and community vocations and industries; and may call meetings for the consideration and discussion of any such matters, employ a special supervisor, or leader, if need be, and provide suitable dwellings and accommodation for teachers, supervisors, and necessary assistants.

Because of the increasingly larger land holdings and the consequent depopulation of rural districts, it was not possible to fully socialize all individual districts, so I went a step farther and asked each county superintendent to divide his county into natural neighborhood centers, usually composed of the graded school at a trading center and the rural schools naturally tributary to it. In each community group, the principal of the graded school usually acted as supervising principal and was the social engineer. While the supervising principal was not a supervisor in the ordinary acceptance of the term, he organized the social activities of his supervisory district. This plan carried with it a series of school contests in spelling, declamation, cooking, sewing, manual training, gardening, and stock judging. Two general contests and one large representative community gathering were attempted at each community center during the year. At the general meeting outside speakers were usually provided by the county superintendent. Sometimes we found that a district was sufficiently able within itself to carry out social-center work. In such instances, the district could carry on independent community activities, unless some neighboring district needed its help.

Because the country-life problem is primarily one of community organization, and because the great rural need is a plan of organization that will include the whole interest and enlist the united energy of the people, we have urged that the "community center" be large enough to form an efficient social and economic group with common interests.

Thus we now have the basis for districting the county into natural supervisory districts with the leader provided for. Our hope is to secure legislation that will make it possible to legalize this reorganization of the county into larger educational units and thus give efficient supervision and leadership in all rural districts. Rural neighborhoods are realizing the need of teamwork, and the desire for organized effort is constantly growing. We are attempting to show them the superior advantages of equalization of educational privileges, equalization of burdens of taxation, general elevation of standards of efficiency, more complete unification, thoro supervision of all schools, better adaptation to growing needs, broadening the scope of usefulness, economy in administration, improvements in sanitation, and justice to the pupils.

This year the State Department of Education launched a state-wide plan for boys' and girls' agricultural and industrial contests. These contests were attempted in the community centers, winners of events went to the county fairs, and, as a climax, a state children's contest was held. The

movement was enthusiastically supported by the bankers, the farmers, the women's clubs, and the other educational agencies, and the 1913 state legislature gave a liberal financial support to be handled thru the state office. We started a unique plan of working contests. Each of the larger high schools sent a team of three picked students to our state contest—one in sewing, one in cooking, and one in manual training. In a series of uniform booths these teams went to work at the sound of a referee's whistle and stopped at a similar signal. Six working periods during the three days constituted the time limit of the contest. During that time the sewing girls each worked on a plain dress, the cooking girls on preparing and serving special dishes, and each boy on a bookrack for a desk. At the close of the contest, the teams were each given a total rank, the winning team getting for its school a handsome silver cup donated by the governor. We are going to extend and enlarge upon these working contests, adding such features as potato or apple paring, typewriting, stock judging, etc. But as important as the state contest may be, the real value of the contest work lies in the local or community exhibitions where each and every boy and girl comes and sees his products matched with those of his neighbors. While the benefits of these local contests may be hard to put into figures or tables, they are not hard to see and feel when we go into these communities and note the greater mental activity and self-confidence of the children who have actually achieved something in tangible, practical work. When we get our club system organized upon the broad foundation laid by general exhibit work, we shall be able to show increased land yields, boys who have bought and paid for property while going to school, and girls who have become proficient homemakers during spare hours of their school years. It is now our plan to articulate this contest work with the boys' and girls' club work managed by the federal department of agriculture. When the plans for this contest work are fully carried out, we shall have a means of disseminating scientific information and giving a system on many problems confronting the rural worker in the field of agriculture and household economics.

In my experience as a county superintendent in the state of Washington, I found increasing difficulty in properly housing the teacher. Better accommodations were needed in many parts of the country. In most cases, the desirable homes were closed to the teacher-boarder, while, in some instances, the undesirable home, for purely mercenary reasons, opened its doors. I found, also, that any change made by the teacher in her boarding-place in a rural neighborhood, unless approved by the whole community, involved the teacher in neighborhood dissensions and sometimes meant dismissal.

I well remember my experience one fall when a young girl came across the state to teach in one of our wealthiest districts. The family that always boarded the teacher had moved to the county seat for high-school advantages. Every door in the neighborhood was closed to the teacher-boarder.

The farmers' wives claimed that they had too much to do in summer to be confined to their homes in winter because of a boarder. The winter was their opportunity to get away for social purposes. One farmer said that he did not want a stranger at his fireside all during the winter months. In answer to my proposal that he give the teacher a stove in her own room so that she might not have to intrude her presence upon the family life, he indignantly exclaimed: "If I found a teacher who thought herself too good to sit with my family circle in the evening, she could not stay a minute in my home." I insisted that that district should provide the teacher with a comfortable boarding-place or I should transfer her to another district. A happy idea came to the teacher and the clerk, that of using a portable house in the farmyard directly opposite the school for a dwelling-place for the teacher. It was moved into the school yard, banked up, and for nine months the teacher kept house.

The idea of a teacher's cottage grew out of this experience, and the following September a comfortable two-room cottage was built on the school grounds where the teacher lived with her mother for three years, leaving only when the opportunity presented itself to finish an incomplete college course.

I took the stand in my county that no teacher could give her best service in the schoolroom if she was unhappy or uncomfortable in her boarding-place; that she was entitled to good board, to a comfortable room, to peace of mind, and to be by herself when she desired. Friends warned me that I was treading on hallowed and dangerous ground when I attempted to make the problem of the teacher's boarding-place a part of the administrative work of the county superintendent's office. But this determined stand, persisted in, gradually brought about a recognition of the importance of the problem with the result that either the board of directors took the responsibility of providing a suitable boarding-place or a teacher's cottage was built.

Teachers' cottages came as a welcome solution to the housing accommodations for teachers, thus attracting some of the best talent to the country and adding permanency to the teacher's tenure of office. Home life is pleasant because it is real. The home for the teacher appeals more strongly to me perhaps than any other one thing accomplished. It took courage to stand firmly for the teacher's right against a community's inherent right to give or deny the privilege of comforts and good home food to the molder in the schoolroom of the future citizens of one of our great states.

The three movements which I have presented to you tonight have come to me as a partial solution to rural-life problems. The community center idea grew out of my intimate knowledge of rural conditions. I came to realize fully that "community and school must develop together" and that organization of rural centers was inevitable. The boys' and girls'

contest work came from the need of attention being directed thru our schools toward practical home work. Living in an agricultural state with a course of study slightly touching the agricultural needs, the farmers, the bankers, and rural-school people urged a vitalized school curriculum.

C. THE MOONLIGHT SCHOOLS OF KENTUCKY

CORA WILSON STEWART, PRESIDENT, KENTUCKY ILLITERACY COMMISSION, FRANKFORT, KY.

The various impressions which have obtained thruout the country as to the moonlight schools of Kentucky, as expressed in letters to me, have been most interesting and amusing indeed. Some have conjectured them to be schools where children studied, scampered, and played on the green like fairies in the moonlight; some have imagined them to be ideal courting schools where lovers strolled arm in arm, quoted poetry, and told the old, old story by the light of a bewitching moon; while others have speculated as to their being schools where moonshiners, youthful and aged, were instructed as to the most scientific method of extracting the juice from the corn and the most secretive method of providing successfully against government interference.

Three years ago there was established in Rowan County, Kentucky, the institution known as "moonlight schools." They were so called because in the beginning they were held only on moonlight nights. These schools were designed primarily to emancipate all the men and women in the county who were enslaved in the bondage of illiteracy. They were intended, also, to afford an opportunity to those who possessed a limited education.

First, the public-school teachers of Rowan County were called together and informed of the conditions and needs, an appeal was made to them, especially on behalf of the eleven hundred and fifty-two men and women whom the schools of the past had left behind, and they were asked to volunteer for night-school service. Those teachers received the plan and purposes of the moonlight schools with sympathy and enthusiasm, and not only volunteered to teach at night, free of charge, but to canvass their districts in advance and to inform the people of the purpose of these schools and to urge them all to attend. That they did their work well, and that they met with hearts responsive and minds hungry for learning and souls that yearned for higher things was attested by the fact that when the first session opened on the bright moonlight evening of September 5, 1911, instead of the lone and solitary student or the straggling few at each school, as was anticipated, they came thronging up out of the hollows and over the hills, they came hurrying in groups, they came walking for miles, they came carrying babes in arms, they came leaning on canes and bent with age—they came twelve hundred strong. There were overgrown boys who had dropped out of school at an early age and had fallen behind their classes

and who had felt ashamed to re-enter school and be classified with "tiny tots"—and they came to catch up again; there were maidens in their teens who had been deprived of an education earlier by reason of isolation, home duties, invalidism, and other causes, but whose souls had yearned for better things than ignorance dense; there were women who had married in childhood, practically, as is too much the wont of our mountain girls, and who for years craved that which they knew to be their inherent right, their mental development; there were their husbands by their sides, who had too often known the sting of humiliation when making their marks in the presence of the educated and when they had asked the election officers to cast for them a vote for the candidates of their choice; there were middle-aged men, who had seen a hundred golden opportunities pass them by because of the handicap of illiteracy, whose mineral and timber and material stores, as well as their time and energy, were in the control of the educated men, making them but beggars, as it were, on the bounty of those whom they enriched; there were women who had seen their children grow up and vanish from the home, some of them into the Far West, and, when the spoken word and the handclasp had ceased, there had been no heart-to-heart communication, for a third person as an interpreter between mother and child is but a poor medium at the best; there were grandfathers and grandmothers who had heard the Bible read and the gospel propounded but had never had the privilege of reading and verifying the precious promises of that Book of Books with their own eyes—these and other folks, such as make up the average rural community in the southern mountains, some half-educated, and some more, made up these schools. "Just to learn to read my Bible" was the cry of many a patriarch and many a withered dame. "To write my children with my own hand and read their letters with my own eyes" was the earnest wish of the mother's heart. "Just to learn to write my name—to escape from the shame of making my mark!" was the appeal of the younger men, while "Just to have a chance with other folk, to be something and do something in the world!" were the desires expressed by the younger people. The youngest student was aged eighteen and the oldest was eighty-six. It was a scene to bring tears to the eyes, and yet to make the heart rejoice, to see these robust young people and those hoary-haired old people, as they sat at their desks and studied together or stood at the blackboard and wrote their names for the first time with inexpressible pride, or stood in a row and spelled.

They learned to read and write during the first session and wrote letters to their friends and loved ones. Two school trustees, who could read and write but possessed little other literary attainment, received encouragement and inspiration from their rapid progress in the night school and entered the day school when the night school closed, pursuing their studies with unsurpassed diligence, and they are today two of the most faithful members of the corps of teachers in that county. One man, who had labored for

years at the low wage of $1.50 and had seen many men less worthy promoted above him from time to time, specialized in mathematics, mastering the principles of the branch which dealt with his particular business, lumbering, and at the close of the night school was promoted at a salary double the one which he had previously earned. There were a hundred instances of individual development and individual achievement which are on my lips to tell you tonight if time would but stay its hand. The joy in achievement, simple achievement tho it was, is beyond the power of mortal tongue to describe. The newly learned wrote their names with frenzied delight on fences, posts, barns, logs, barrel staves, and every available scrap of paper, and those who possessed even meager means drew their store from its hiding-place and deposited it in the bank and wrote their checks and signed their names with satisfaction. Friction and factional feeling, which existed in some districts, gave place to a spirit of co-operation. A community spirit and Sunday schools and other organizations were direct results of the moonlight schools.

The institution was too popular and too fruitful of results to abandon. When the teachers entered their districts the next year they were greeted with a chorus of inquiries, "When will the night school begin?" A teacher who hesitated was a teacher who lost the good will and esteem of his patrons. We conducted a six weeks' session the second term, running forty-eight schools. We surpassed our first year's record in every particular. Sixteen hundred students were enrolled, 350 were taught to read and write, and a man aged eighty-seven came and put to shame the record of the proud school girl of eighty-six of the session before. The moonlight schools were now an established institution in Rowan County and had been adopted in some one or more districts in eight or ten other counties in the state, and whether it was in the bluegrass county of Madison, among the tenant class, or in Garrard in the distillery section, or in Johnson among the miners, or in Lawrence among the farmers, it had always been with the same results: there had been men and women in large numbers who came and eagerly welcomed the opportunity and who strove with all their might to make up for the years which they had lost and who plead for a longer term when the session closed.

When the third session of moonlight schools opened in Rowan County, in August of 1913, it was destined to be the most strenuous campaign against illiteracy that the world had ever known. The teachers had met in the month of March and had agreed with their superintendent to wipe illiteracy finally from that county. We had employed each trustee in April to take a careful census of the illiterates of his district, and when the reports came in each individual case was investigated and an illiteracy record made. On this record we had not only the name and age of every illiterate in the county, but the history of each and every one, his religious preference, his political faith, his weaknesses, tastes, his peculiarities, his family ties, his

home environment, and the influence or combination of influences thru which he might be reached. Each teacher was provided with the record of illiterates in her particular district, with instructions to call and cultivate these people—like good politicians—before the session of night school began. We established a home department, in which the feeble and those disinclined could be instructed by the teacher or by someone under the teacher's direction in the home. We enlisted every educated person possible to campaign, to speak, or to teach. Ministers, doctors, lawyers, stenographers, merchants, school children, and even many of the illiterate themselves as soon as they passed out of the illiterate class began to teach members of their families and their friends. We tried by every means, fair and foul, to get every man in the county to learn to read and write. An overwhelming majority accepted the opportunity with joy and gratitude. A few had to be coaxed. Four in their ignorance had a false conception of the movement and stubbornly and persistently refused to attempt to learn; six were afflicted with defective eyesight or total blindness; five were confirmed invalids languishing on beds of pain; six were imbeciles; and two who moved in at the close of our session did not learn to read or write, leaving us twenty-three illiterates in all. A few weeks ago a Rowan County teacher, whose school had closed, took a sudden and peculiar notion to go and board a while with one of the stubborn old women who had refused to learn and to pay her an exorbitant price for board. She induced the woman to teach her to knit and as they sat and knitted together they became fast and familiar friends, and when the time was ripe this teacher said:

> Now you have been so kind as to teach me something which I have always wanted to know, I am going to be as kind to you. I am going to teach you to write to Elias in the state of Washington and to Jacob in Illinois and to Charles in Indiana. I know how glad they will be to have a letter from their mother and how happy you will be to read a letter from them.

And all the time she was talking the teacher was getting her paper and pencil and materials together, and this old woman, either from a long-smothered desire to communicate with her absent loved children, or from the fear of losing a valuable boarder and charming companion, or from some other inducement, was soon at work copying the letter "E," the first letter of her name. On last Thursday, this earnest little teacher came up the stairway and knocked at my door. I opened, and, with shining eyes but without a word, she laid that old woman's first letter on my desk. Oh, those Rowan County teachers! They have the spirit and they know the method, and I do not believe that any illiterate within their reach has a chance to escape them!

Illiteracy is an easy thing to eradicate. It does not take long for an adult to learn to read and write. Saul Dehart, aged thirty-eight, states in this his first letter that it took eight evenings' instruction to achieve it. S. P. Johnson, a Baptist preacher aged fifty, says that he could only write

one letter in his name when the night schools began, the letter "S." In four days, he signed his name to the assessor's list for the first time and after seven lessons wrote me this, his first letter, pleading that we should not let the night schools go down. Mose Wallace says that it required five evenings for him to learn sufficiently to write me this, his first letter. Tom Stapleton says that four evenings sufficed for him. Burr Harfield says that he learned in two evenings, and is very happy, and his teacher verified his statements. Henry Kissick says that the school supervisor taught him in the woods, where he was making ties, and I have his and the supervisor's affidavits stating that he had never attempted to write before he learned to write and wrote this note, which was done after only two hours' instruction and practice.

While we were reducing our illiteracy in Rowan County, we had time to organize and direct night schools in other whole counties and in individual districts in twenty-five other counties in the state. In Grayson County, where we organized twenty-two night schools last August, a man ninety-four learned to read and write and wrote me this letter which I hold in my hand, and which may be plainly read, and which, it is needless to say, I treasure more than fine gold.

These statements as to the rapidity with which some men have learned to read and write and the achievements of these venerable students may meet with skepticism in some. They are too unusual and too remarkable, I realize, to meet with fullest credence from those who have known no such experience and have never witnessed such efforts and results. And, notwithstanding the fact that all the world knows that it is risky to dispute a Kentuckian's word, I should cringe and cower to stand before this intelligent audience and make such assertions did I not have in my possession proofs to substantiate them.

I hold in my hand photos of the most remarkable group of students in the world: Dulcina Morefield, aged eighty-three; Dicie Carter, aged eighty-six; Martin Sloan, aged eighty-seven, and John Hatfield, aged ninety-four. To every apostle of education seated in this audience, the desire and the determination and the efforts of these men and women to escape from ignorance, even as they stand at the very portals of the grave, should be an inspiration and a stimulus to a newer and fuller and completer consecration to the great and noble profession in which those assembled here have chosen to engage. It should stimulate us to a consecration which would hold us to the task beyond the shining hours of day and impel us by some means to pry open the doors of all the schoolhouses in this country for the use of the people at night. There sit in this audience men and women who are superintendents of rural communities. The United States Census Bureau reports that illiteracy exists in the rural communities in almost double the proportion that it does in the urban, and this despite the fact that a stream of illiterate foreigners is pouring into

the urban districts daily. I want to ask you who are superintendents of rural schools, whether section, township, county, or state, if there is any good reason why a night school should be a city product and a city institution only. Is there any just reason why our sturdy pioneers, who were deprived of an education in the strenuous duties of pioneer life in the newly-developed sections, and our pure-blooded Anglo-Saxon retarded mountaineers of the Appalachian highlands, and our American farmers should be condemned to everlasting ignorance, while illiterate foreigners who enter this country may find the schoolroom door wide open in the cities where they land?

A day school in every community! Once it was a doubtful experiment, and it has come up only thru trials and tribulations and struggles innumerable. But it is firmly established, and forever so. A night school in every community! If a cultured community, a night school for more culture, for specialization, for social development; if an ignorant community, a night school for the emancipation of illiterate men and women and for their new birth into the realms of wisdom and power. I believe that the public school should be as liberal in its policy as is the church. I do not believe it has any right to say to men and women, "If you embrace me not early I will close my doors to you at a certain time or a certain age." The hour of a man's opportunity should be that hour in which he awakens to his need, whether that be at the age of six or one hundred and six.

Kentucky is awake on the subject of her adult illiteracy and her heart beats a sympathetic response to the cries of "Wait" from her men and women whom the schools have left behind. Kentucky's governor recommended in his message to the general assembly, which is now in session, that an illiteracy commission should be created to study and to relieve the condition of adult illiterates in the state. I was privileged to be present when the lower house passed that measure with a unanimous vote, and some of its members were so enthusiastic in its favor that not content with voting once they voted twice, shouting "Aye! Aye!" One week ago today I received this message telling of the disposition of the measure in the Senate:

Dated C. H. Frankfort, Ky. 18
To Mrs. Cora Wilson Stewart,
Morehead, Ky.

"Your illiteracy bill passed the Senate this morning by unanimous vote and many complimentary remarks about you and your noble work in the state of Kentucky."

(Signed) Starling L. Marshall

This commission is designed to organize the other counties of the state to do in six years what one of its counties accomplished in three—to practically wipe out illiteracy.

Hasten the day when the rural dweller, wherever he may be, whether in the mountains or by the sea, in the cotton fields or on the western plain,

may have a school that is not only open to his children and his grandchildren by day but is open to his wife, his grown son, his aged father, his hired man, and himself by night. Hasten the day when there shall be no men and women in this country who have eyes to see but see not the splendid truths which have been written in books, and who have hands to write but write not the thoughts which, if recorded, might stamp with genius someone whose wisdom the world, in its urgent need, is seeking tonight.

THE FOUNDATIONS OF EDUCATIONAL ACHIEVEMENT

EDWARD L. THORNDIKE, PROFESSOR OF EDUCATIONAL PSYCHOLOGY, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK, N.Y.

A minister of the gospel who was asked to enumerate the foundations of the religious life answered, "Everything in God's world and its proper use." Doubtless the proper use of everything in the world of knowledge and skill and conduct is not too wide a description of the fundamentals of educational achievement. You do not, however, expect anybody to outline an entire educational creed and practice in thirty minutes. What you wish, I judge, is that, as a representative of educational psychology, I should report any contribution that recent psychology has to offer to your work of making schools more efficient—of increasing educational achievement.

There is such a contribution, and, as I hope to convince you, an important one in the general view of human nature which recent studies of human thought and action support.

About fifteen years ago the point of view of students of human nature showed the first clear signs of what has been a rather abrupt change toward thinking of a man's mind as the sum total of connections between the situations which life offers and the responses which the man makes. Up till then the mind had been thought of primarily as a set of magical faculties or powers—attention, memory, inference, reasoning, choice, and the like—or as a collection of certain contents—sensations, images, thoughts, volitions, and the like. Today the progressives in psychology think of a man's mind as the organized system of connections or bonds or associations whereby he responds or reacts by this or that thought or feeling or act to each of the millions of situations or circumstances or events that befall him. Their customary name for the mind is the connection-system; their ideal of psychology is a science which can predict what any given situation or stimulus will connect with or evoke in the way of thought, feeling, word, or deed in any given man; their offering to education is an offering of knowledge of the laws whereby connections in thought and behavior are made and broken, are preserved and weakened, and are of help and hindrance one to another.

From this point of view educational achievement consists, not in strengthening mystical general powers of the mind, but in establishing connections, binding appropriate responses to life's situations, "training the pupil to behavior" ("behavior" being the name we use for "every possible sort of reaction on the circumstances into which he may find himself brought"), building up a hierarchy of habits, strengthening and weakening bonds whereby one thing leads to another in a man's life.

The first suggestion resulting is the obvious and simple but profitable one that nothing is achieved by schools unless some connection is influenced, that we cannot assume change in any pupil unless bonds have been made or broken so as to cause him to respond as he did not before. The connection may be one leading only to an attitude, say of interest or enjoyment. It may be only partly made, guaranteeing the possibility of a certain response, not its surety. It may be hidden, showing itself only indirectly, or only after years, or in some subtle modification of intellect or character. It may lead from some elusive element or feature of a situation, such as the "place-value" of a number or the subjunctiveness of a subjunctive, to some general element or feature of many responses, such as open-mindedness, or cheerfulness, or readiness to do what one accepts as right. But if anything is achieved, some actual connection or bond has been made, strengthened, weakened, or broken. A child's mind is never a witch's pot to be set in action by educational incantations. Its defects are not curable by faith. To discipline it means to improve its specific habits. To develop it means to add bonds productive of desirable responses and to weaken their opposites. Learning is connecting. It never becomes so spiritual, so general, or so involved as to evade expression in terms of concrete couplings between real happenings to a man and real responses by him. Of any assumed educational achievement that does evade such expression, we should be suspicious. Probably its only existence is in our hopes or fears.

What bonds are being formed, what is being put with what in the pupil's experience, then becomes a fundamental question concerning school achievement. It is of course the old, old question of what knowledge, what habits, what interests, what skill, and what ideals are being taught, but put so as to encourage real rather than verbal, and detailed rather than vague, answers. We need to ask it. For this new point of view protects us against careless omissions and mistakes. For example, I venture to prophesy that more will be achieved in arithmetic by special exercises in teaching the addition-combinations with the higher decades—that is, in forming the connections 26 and 5 are 31, 26 and 6 are 32, 26 and 7 are 33—than by leaving them to be deduced from the previously formed connections 6 and 5 are 11, 6 and 6 are 12, 6 and 7 are 13, and so on. Whether or not these particular bonds do need special drill or may be left to come by transfer, the general rule, not to assume that a bond exists unless you find it or

make it, is sound. Again, I venture to prophesy that written single-column addition with sums of 10 or more and without carrying should and will disappear as a preparation for addition with carrying. A child who adds 6 and 4 and 3 and writes down the 13 is forming a habit that he will have to break when in two-place addition he has to write down only the 3 and use the 1 in adding. The answers in the preliminary drill may be better announced orally. However this particular case be, the general rule, other things being equal, not to form any connection that will have to be broken, is sound. Again, I venture to prophesy that soon the millions of connections formed in the present teaching of arithmetic and algebra only to test the existence of some other connections will be replaced by connections that do this disciplinary and drill work as well and also serve some intrinsically worthy end. For the psychology of connection-forming carries the educational corollary, "Other things being equal, favor those situations which life itself will offer and those responses which life itself demands. Form connections for use."

Let me read you one or two problems, all from arithmetics published within the last ten years, and ask you to consider whether, if the writers had thought of just what bonds or connections these problems formed, they would have printed them.

1. The step of an ostrich measures 5 feet. How many yards does it travel in taking 120 steps?

2. At $\frac{5}{8}$ of a cent apiece how many dozen eggs can I buy for $60?

3. Eight (8) times the number of stripes in our flag is the number of years from 1800 until Roosevelt was elected President. In what year was he elected President?

4. In a school there are 12 classes and an average of 50 pupils in a class. If everyone in the school should make 500 straight marks on each side of his slate, how many would be made in all?

These needed connections now neglected, avoidable connections now formed only to be broken, and wasteful connections formed only for the sake of some principle or power which really useful connections could illustrate or exercise as well, I have illustrated in the case of arithmetic only. But any other school subject would have served as well or better. If each of you will master the psychology of learning, and then scrutinize each page of your approved textbooks and each exercise prescribed by your course of study, asking, line by line, "What connections are formed by this?" the importance of the facts and the point of view for criticism and for construction will soon be proved.

I turn now to a second fundamental principle for school achievement, the order of formation of the connections. The bonds to be formed having been chosen, the next step is to arrange for their most economical order of formation—to arrange to have each help the others as much as possible, or, as we psychologists say, to get the maximum of facilitation and minimum of inhibition.

You have heard so many discussions and read so many treatises concerning the sequence of topics, the correlation of studies, and the like, that you perhaps shrink from re-examining a minute inventory of all school work and reconsidering its best possible arrangement as a system or hierarchy of connections to be formed, each with the interests of all the others in view. It must, indeed, be admitted that the work is long and also tedious, unless one has a scientific interest in minute matters of educational efficiency and in principles whereby to adjudicate them. It is, however, important, for economy in educational achievement means that we form the most desirable connections in the most useful order. And it is needed; for, in spite of the very great advance of the past hundred years, textbooks and courses of study still follow mere traditional customs or the order which happens to appeal to some individual expositor.

I may illustrate this need in the simple case of the bonds between printed words and their meanings that should be formed before, or at the time that, certain work in arithmetic is to be done. It is obvious that to follow printed directions and to solve printed problems a pupil needs to be able to read the directions and problems—that is, to have formed the bonds leading from the sight of certain words and phrases to their meanings. What I propose to show is that even the best of our modern arithmetical textbooks presuppose, at stage after stage, "word-meaning" connections which, at that stage, have not been and should not have been formed; and that, on the other hand, they and the textbooks in reading fail to form in early grades certain connections which would enormously facilitate the arithmetical learning for these grades.

I shall first read you a list of words all of which occur within the first fifty pages of one or more of four elementary beginning arithmetics intended for pupils in Grade II (or Grade III at the latest). I submit that the majority of the children in question will not have formed the connections in question and should not be expected to have done so, and that to make achievement in arithmetic hang on knowledge of these words as a prerequisite is a monstrous offense against rational organization of learning. The words beginning with "c" are:

cabbage	California	camped	camphor	candles
cardboard	carriage	charity	Clara	Charlotte
Carrie's	circus	circumference	closet	cloudy
clothespin	cocoa	collected	combinations	committee
covered	county	cradles	crane	cranberries
crew	crumbs	currants		

These four books show in the first fifty pages at least four hundred words which not half of the children at the middle of Grade II can read or should be expected to read. For example, in one or more of the four may be found a galaxy of seventy proper names which these children must master before they can understand their problems.

I submit that so long as such offenses come in our best textbooks a scrutiny of the order of formation of bonds in school work is no empty psychological amusement, but a vital concern for educational policy.

On the other hand, consider the bonds between these words and their meanings:

How much, how many, count, with, together, add, sum, difference, take away, is left, are left, once, twice, two times, three times, four times, half of, some, all, in all, any, not any, equal, part, whole, greater, less, longer, shorter, cost, buy, bought, sell, sold, measure.

The existence and sure action of connections between these words and their meanings must precede or accompany early work in arithmetic, if it is to be efficient, yet few books or courses of study in arithmetic provide for their formation save hit-or-miss; and surely the primers and first and second readers do not. The four books in arithmetic which I examined actually avoid forming these bonds. The word "difference," for example, occurs only once in twenty pages, the pupils' time being spent in getting acquainted with such words as

dairyman	depot
department	Dorothy
discharged	dishwater

Two of the four do not use the word "sum" in these fifty pages, yet find room for Samuel, Susan, Susie, swimming, syllable, syrup, soldiers, sparrows, strips, stripes, and so on.

Bear in mind that the textbook writers who thus leave unformed important facilitating connections, and burden the beginners of arithmetic with the task of learning to read the names of rare food products, strange vehicles, and the Adele, Byron, Dorothy, Esther series, are from our best—that without such a deliberate warning to consider the place of every connection in the hierarchy as I have given not one of us would have done better. Bear in mind also that textbooks in elementary geography show a similar state of affairs.

A psychologist examining the connections made by the school subjects with a view to their arrangement in an optimum order finds many of these chances for sure improvement and also many problematic cases where, it appears, experimentation has a fair probability of showing ways to increase school achievement. Any few of these problems for investigation will serve as illustrations. Consider, for example, teaching certain facts about pints and quarts, feet and yards, cents, dimes, and dollars, very early as an introduction to and confirmation of knowledge of our system of decimal notation and of the processes of "carrying" in addition and "borrowing" in subtraction. The later decimal-system habits would undoubtedly then be more intelligent and less productive of interference. Whether this gain would be outbalanced by other losses can best be discovered by experiment. Or consider, for example, teaching the metric system as an

introduction to, instead of as a consequence of, decimal fractions. This change may seem preposterous, but I venture to remind you that doing just this in the case of United States money is one of the most successful features of the arrangement of modern textbooks.

Or consider teaching much of United States history first in the reverse chronological order—from aeroplanes to automobiles, to the electric trolley, to the steam railroad, to the stagecoach; from the building of the schoolhouse to the settlement of the town, to pioneer days, to the Pilgrims; from the discovery of America by Isidore Strauss to the discovery by Columbus—reviewing and expanding and co-ordinating later in a direct chronological account. As romance or panorama, history begins with centuries back, but as a science, it may perhaps best begin at home, and with facts near and verifiable, as we have found it profitable for geography to do.

Or consider the order of acquaintance with the words in a foreign language. The commonest bonds found among words are those binding words to their opposites (good-bad, father-son, boy-girl, hot-cold, up-down, and the like), yet I have searched a score of Latin, French, and German language books without finding any systematic use of this fact. Again the word-meaning connections of most help in facilitating reading are with the relational words, conjunctions, auxiliary verbs, prepositions, pronouns, and directive adverbs. Yet these words are very rarely given early or extensive or ingenious treatment. Indeed, I do not find much recognition of any principles of economical arrangement of vocabularies save the utterly obvious one that words not fitting the grammatical and translational exercises are kept out, and the common words or words used in the "first five books of Caesar" or the like are worked in. Yet the maximum of achievement demands that there should be a reason for every word taught and for teaching it at just that time and no other.

Such problems as these in mental mechanics—problems in choosing, ordering, and manipulating the mind's connections—are now the growing-point of experimental education. By skilful analysis of human learning into the millions of elementary connections between situation and response which constitute it and by experimental study of the ways in which these connections are best formed, preserved, organized, and used, the psychologist hopes to get both comprehension and control of the foundations of educational achievement.

The foundations of educational achievement are these connections or bonds or habits of response, but these habits themselves lead us back farther to the unlearned, original capacities and tendencies of man. Human beings, as you well know, are not indifferent clay to be molded at will by the teacher's art. They are themselves active forces to help or hinder. They inherit as a human birthright instincts and interests of which education from the start and thruout must take account. Educational achievement

is small or great in proportion as it neglects these natural untaught tendencies in man or utilizes them to further his ideal aims. And educational science needs as its basal equipment an exact and adequate inventory of the original nature of man as a species and of the idiosyncrasies of individual men.

No choice of the habits of thought or action to be formed by schools is sound which gives technique irrespective of needs felt by the pupil, or adds knowledge without any motive for its use, or tries to cultivate artificial virtues in disregard of the crude forms of courage, kindliness, zeal, and helpfulness which nature already affords.

No arrangement of the mind's connections is economical which fails to use the inborn organizing power of curiosity, the problem-attitude, and the desire to test and verify or refute by eyes and hands.

No manipulation of bonds in learning is efficient which disregards the pupil's own sense of sociability, kindness, and achievement during the learning process. The original proclivities of the human animal are as real as its laws of learning and condition these thruout. Every habit is formed in the service of some instinctive interest.

The inborn interests of man in movement, novelty, color, life, the behavior of other human beings, sociability, cheerfulness, notice, approval, mastery, and self-activity are not ultimate aims of education, nor is their presence a guaranty that school work is well directed and efficient. But we double achievement if we get them on our side and we enrich life enormously at little cost if we turn these fundamental passions into line with higher nature and the common good.

I hold no brief in favor of avoiding in schools anything necessary for human welfare, either because it is hard or because it is disliked. I find many of the tendencies born in man to be archaic, useless, immoral, adaptations to such a life as man lived in the woods a hundred thousand years ago, when affection had not spread beyond the family, or justice beyond the tribe, or science beyond the needs of tomorrow, and when truth was only the undisputed and goodness only the unrebuked. That the natural is the good is a superstition which psychology cannot tolerate. Still less, however, can psychology tolerate the superstition that there can be any foundation for educational achievement other than the best that human nature itself affords. Truth is only what the best in human intellect accepts; goodness is only what the best in human nature craves. We mean by the rational, ideal, and impersonal aims of education only the nobler inborn human interests purified of their crude accompaniments and broadened to harmonize with the common good. We must not find too much fault with human nature; for ultimately it is all we have! Its best elements are the best the world has or ever will have.

What psychology offers education today is thus a matter-of-fact view of human nature as a set of original unlearned connections or tendencies to

respond, which we redirect and to which we add by arranging the situations of life so that new and better connections are formed. The efficiency with which we do this work will depend on our knowledge of man's inborn equipment, our wisdom in choosing and arranging the connections to be formed, and our justice and ingenuity in maneuvering these forces of instinct and habit for human betterment. A flawless architecture of human affairs will not be attained until every possible response of every variety of human being to every situation of life is thus understood and controlled by human reason in the interest of human welfare. However, each minute addition of scientific knowledge of man's nature means one more stone (or at least one molecule of cement!) of wise placing in the foundation for education's building.

REPORT OF THE COMMITTEE ON ECONOMY OF TIME IN EDUCATION

H. B. WILSON, SUPERINTENDENT OF SCHOOLS, TOPEKA, KANS., CHAIRMAN

In its report of progress one year ago, your committee indicated that the largest result of its labors by that date consisted in securing the co-operation of a number of investigators, each undertaking some study with a view to a future report on some significant phase of the general problem of economy of time in public-school education.

Undoubtedly, the most significant thing which occurred during the past year in relation to this general problem was the publication of the report by the Committee of the National Council of the National Education Association on Economy of Time in Education by President James H. Baker, chairman, together with the other members of his committee. This report, as is well known, resulted from the persistent efforts of President Baker since the meeting of 1903 and represents the labors of President Baker and the other members of his committee, working since 1908. As a result of their efforts and upon their advice, two co-operating committees have been created within the past three years—one from the National Association of State Universities and the other from this department.

The work of President Baker's committee is of significant value in that the attention of educators thruout the country has been constantly kept upon this problem of such consequence during this period of wonderful educational reconstruction, and in that, resulting from their work, there has developed a large amount of co-operative thinking, practicing, and testing, and in that the printed report sets forth clearly and succinctly the fundamental principles which should consciously guide in a constructive way in the further work upon this problem, and in that they proposed in closing their report the following divisions and distribution of the time consumed in the period of general and special education:

Elementary Education ..... 6 to 12
Secondary Education (two divisions—4 years and 2 years) ..... 12 to 18
College ..... 18 to 20 or 16 to 20
University (graduate school and professional schools) ..... 20 to 24

In closing their report, this committee also suggests that upon the committees from the Association of American Universities and from this department "rests the responsibility of a final solution." In a letter to the chairman of your committee following the issuance of this report, President Baker says: "I believe the final solution of the problem will come largely thru the work of your committee."

During the past year, extended, aggressive work on the part of your committee has been impossible owing to financial embarrassment. Altho this department at its meeting in Philadelphia one year ago recommended the continuance of your committee and the appropriation of $500 to defray necessary expenses, and altho the Council at its summer meeting indorsed this recommendation to the Committee on Appropriations of the National Education Association, the funds available did not enable the setting apart of any money for the use of your committee. As soon as we were officially informed that the expected deposit could not be made to our credit, we proceeded to learn the size of our overdraft and to notify all investigators that no additional expenses could be defrayed. In spite of the heavy draft on the funds of the National Education Association, however, all bills which had been contracted were properly paid. Despite the fact that we were unable to lend them financial encouragement, a number of the co-operating investigators have found ways of continuing the work, some meeting their expenses personally, and others finding ways of charging limited expenses to the institutions with which they are connected. In addition to the two reports which are to be presented in the program of this session we are able to report definite progress on the part of the following co-operating investigators:

W. C. Bagley, on "The Formulation of the Minima in Geography and History."
L. D. Coffman, on "The Size of Classes in Relation to Economy of Time."
W. W. Black, on "Reading."
C. W. Stone, on "The Elimination of Arithmetic in the First Two Grades."
L. W. Rapeer, on "The Relation of Health to Economy of Time."
O. I. Woodley, on "What the Normal Schools in the United States Are Doing in Practice and in Theoretical Investigation Pertaining to Economy of Time."

While he has not begun his investigation, W. W. Charters has completed his plans for studying "The Methods of Prolonging the Professional Growth of Teachers in Active Service." During the year, F. E. Spaulding completed his study of "Measuring Efficiency," which was published in *Education* for December, 1913.

Further progress is manifest thru the interest in the work of your committee which has been evidenced by numerous inquiries from educational associations and investigating committees thruout the United

States and by the attention to the topic of economy of time in the programs of various educational meetings. The most significant and exhaustive of such programs was that of the Western Section of the Northern Illinois Teachers Association which met at Rockford, Ill., in the autumn of 1913, the program for which was organized by Superintendent J. B. McManus, of La Salle, Ill. Copies of this program may be had by those interested in constructing similar programs by writing to Superintendent McManus. There is probably no more effective means of carrying this theoretical discussion over into practice than that of arranging for its detailed presentation and consideration in the programs of educational meetings.

Meetings held by your committees since the opening of this session of the department show that your committee is able to announce the issuance, by the time of the meeting of this department one year hence, of a printed statement of the minimum content which both good practice and theoretical considerations indicate should be required in a number of subjects of the elementary curriculum. This statement will attempt to indicate also the time which should be required in the teaching of this content as reflected in the general practice thruout the country and particularly in that practice which indicates that less than the usual time is sufficient for the doing of thoroly adequate work. Arrangements have already been completed for the formulation of such a report on arithmetic by W. A. Jessup; on language by J. F. Hosic; on history and geography by W. C. Bagley; on spelling by Hugh C. Pryor; on reading by R. G. Jones; and on writing by Frank N. Freeman.

Plans have also been consummated for the publication of these reports as a yearbook of the National Society for the Study of Education. Your committee confidently believes that this step insures a significant advance in the matter of insuring, in the near future, additional safe attempts to economize time in public education. This yearbook will contain a study of systems which are definitely attempting practical programs for economizing time, setting forth concretely such facts in reference to their organization and practices as are essential to understanding specifically their practical programs and undertakings. This study will be made by Frank E. Thompson. A study will also be made of the time distribution by subjects and grades in representative cities in the United States the study being interpreted from the standpoint of the suggestions it may contain in relation to economy of time. This study will be in charge of Frank E. Spaulding.

The need at this time, as it seems to your committee, is further serious study of the problem, from the standpoints of both practice and theory. This end will be furthered, as we believe, in very specific and concrete fashion by the studies above announced for publication. That programs for securing desirable economies may actually work out in practice, ways and means of insuring constructive thinking and doing on the part of the rank and file of teachers and superintendents must be sought. In this

interest, we urge the study of the topic on the part of teachers in service as well as on the part of intending teachers now in training. We also urge the testing-out of various plans for economizing time as they may come to the attention of those in administrative positions. It will also aid a popular grasp of this program if our local as well as our national educational journals give space to good articles relating to the topic and if educational programs provide opportunities for presentation and discussion of various significant phases of the problem.

ECONOMY OF TIME IN ARITHMETIC

WALTER A. JESSUP, DIRECTOR, SCHOOL OF EDUCATION, STATE UNIVERSITY OF IOWA, IOWA CITY, IOWA

In September of 1913 a questionnaire was sent by L. D. Coffman, of the University of Illinois, and myself to the city superintendents listed in the directory of the United States Bureau of Education, which includes practically all of the cities with a population of 4,000 and over—about 1,700 in all. The same questionnaire was sent to every sixth county superintendent in the United States.

The questions were answered by 52 per cent of the city superintendents, and by 24 per cent of the county superintendents. Returns were received from practically every sized city in the country. However, the larger cities were a little better represented in the matter of replies than were the smaller cities and rural districts. Each section of the country was well represented in returns. Thus it can be said that the data here submitted represent the attitude of one-half of the superintendents distributed quite evenly over the country as to size of city and geographical location.

QUESTIONNAIRE

ECONOMY OF TIME AS RELATED TO MATERIAL USED IN ARITHMETIC

City.....State.....

Underscore once the subjects which should receive slight attention; underscore twice the subjects which should be eliminated: apothecaries' weight, troy weight, furlong, rood in square measure, dram, quarter in avoirdupois weight, surveyors' tables, foreign money, folding paper, reduction of more than two steps, long method of G.C.D., L.C.M., true discount, cube root, partnership, compound proportion, compound and complex fractions, cases in percentage, annual interest, longitude and time, unreal fractions, alligation, metric system, progression, aliquot parts.

Others.....

Underscore the subjects which should receive more attention than is usually given: addition, subtraction, multiplication, division, fractions, percentage, interest, saving and loaning money, banking, borrowing, building and loan associations, investments, bonds and stocks, taxes, levies, public expenditures, insurance as protection and investment, profits in business, public utilities.

ECONOMY OF TIME AS RELATED TO THE METHOD USED IN TEACHING

Percentage of recitation time in arithmetic which should be given over to *strictly drill* exercises in each grade.

Grade	1	2	3	4	5	6	7	8	9
Percentage									

Percentage of recitation time in arithmetic which should be given over to *rationalization* work in each grade.

Grade	1	2	3	4	5	6	7	8	9
Percentage									

Approximate number of minutes *per week* given over to recitations in arithmetic in *your* schools in each grade.

Grade	1	2	3	4	5	6	7	8	9
No. Minutes									

Remarks: .....

.....

.....

.....

.....

Signed.....City.....

MANIPULATION OF DATA[1]

The returns were distributed so as to reveal differences, if any, between the responses of school men in the different sections of the country and for the cities of different sizes. Some of the superintendents answered only a part of the questions; hence the totals in the various parts of the report are not all the same. All doubtful answers were eliminated or checked by means of a supplementary inquiry asking for verification of statement.

MATERIAL USED IN ARITHMETIC

The percentage of superintendents who favored elimination was calculated so as to show the difference in attitude toward each of the twenty-five topics suggested. A large percentage favored the elimination of certain formal subjects such as alligation, cube root, unreal fractions, progression, etc., and certain more or less obsolete tables such as paper-folding, surveyors' measure, etc. Table I shows the exact distribution for each subject.

Many superintendents who did not go so far as to favor absolute elimination did favor the plan of giving less attention to these subjects. Table II shows the percentage of superintendents distributed for each subject.

[1] This report would have been impossible had it not been for the painstaking statistical work done by a group of students in the graduate seminar in the College of Education, State University of Iowa. The following men assumed the chief responsibility: James Richardson, Chester Buckner, H. W. Anderson.

Chart I is made up by combining Tables I and II and reveals the attitude of 867 superintendents toward these topics. The crosshatched portion indicates the percentage of superintendents who favor the elimination of each of these subjects; the shaded portion indicates the percentage of superintendents who favor giving less attention to each of these subjects; and the unshaded portion indicates the percentage of superintendents who are satisfied with the present status. It is seen from Chart I that the superintendents are overwhelmingly inclined to favor the elimination or at least a lessening of emphasis on these subjects.

TABLE I

PERCENTAGE OF SUPERINTENDENTS WHO FAVOR ELIMINATION OF THE TOPICS, DISTRIBUTED SO AS TO REVEAL DIFFERENCES IN ATTITUDE IN LARGE CITIES, CITIES AND COUNTIES, AND FOR ALL CITIES

Topic	Cities of 100,000 and Over	Cities and Counties	All Cities
	Per Cent	Per Cent	Per Cent
Apothecaries' weight	72	51	53
Troy weight	75	40	42
Furlong	85	70	72
Rood in square measure	13	19	20
Dram	78	58	60
Quarter in avoirdupois	81	66	68
Surveyors' tables	72	43	47
Foreign money	25	27	28
Folding paper	63	34	35
Reduction of more than two steps	25	21	22
Long measure of G.C.D	66	33	35
Least common multiple	25	20	22
True discount	66	44	47
Cube root	56	41	46
Partnership	50	23	25
Compound proportion	72	49	52
Compound and complex fractions	28	24	26
Cases in percentage	28	18	20
Annual interest	63	40	41
Longitude and time	13	7	8
Unreal fractions	72	70	74
Alligation	88	82	85
Metric system	41	19	20
Progression	88	63	67
Aliquot parts	9	19	21

Analyses of these data indicate that the superintendents of the larger cities are inclined to favor more elimination than are the superintendents of the smaller cities. The returns from the county superintendents who represent the rural schools seem to reveal no striking differences in attitude.

Analyses of the replies on the basis of the geographical sections of the country indicate that there is a slight difference between the North and the South, but this is no greater than the difference to be found between the North Central division and the North Atlantic division.

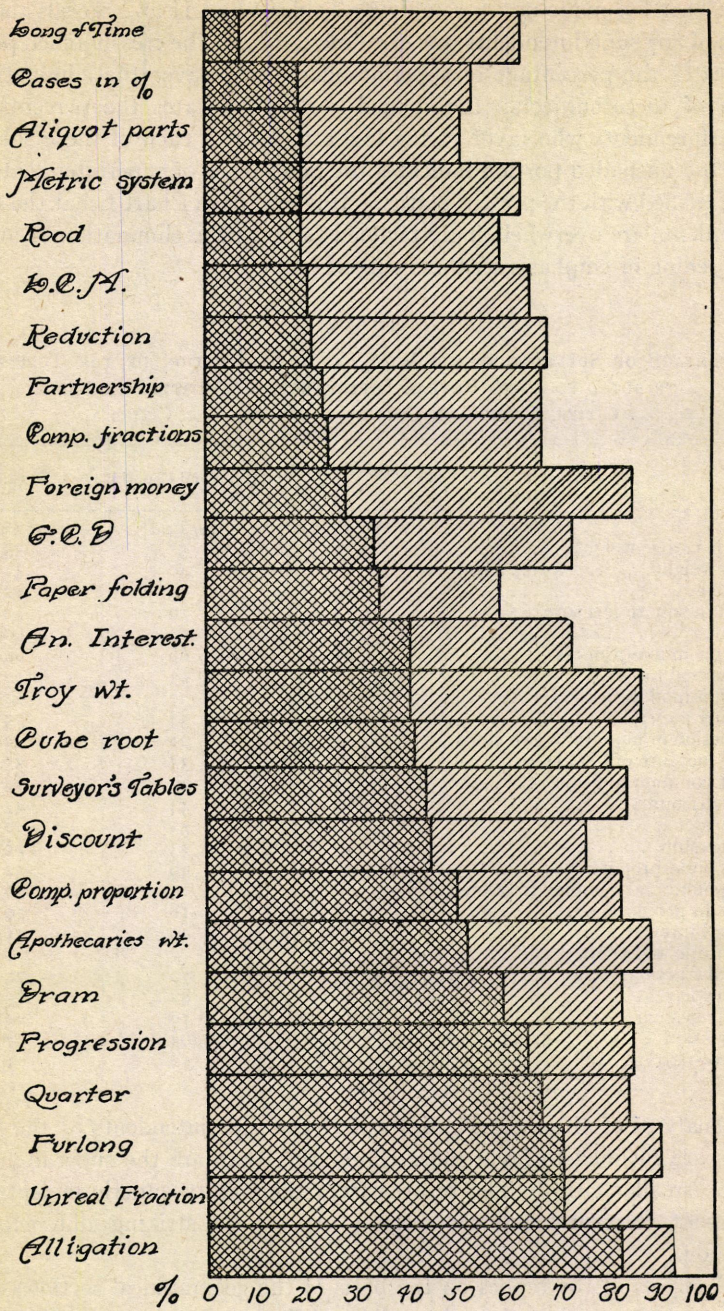

CHART I.—Percentage of superintendents who favor "elimination" or "less attention" (830 cities represented).

After distributing and tabulating the material in order to learn of differences in cities of different sizes in different sections of the country, it seems safe to say that the differences are so slight that Chart I can be taken as a representative measure of the attitude of the superintendents of the country toward the elimination or decrease of attention in regard to the different topics in the list.

TABLE II

PERCENTAGE OF SUPERINTENDENTS WHO FAVOR THE PLAN OF GIVING LESS ATTENTION TO THE TOPICS, DISTRIBUTED SO AS TO REVEAL DIFFERENCES IN ATTITUDE IN LARGE CITIES, CITIES AND COUNTIES, AND FOR ALL CITIES

Topic	Cities of 100,000 and Over	Cities and Counties	All Cities
Apothecaries' weight	31	37	36
Troy weight	32	46	44
Furlong	12	20	19
Rood in square measure	37	39	42
Dram	18	24	23
Quarter in avoirdupois	14	17	17
Surveyors' tables	40	40	40
Foreign money	47	57	57
Folding paper	31	34	35
Reduction of more than two steps	45	46	48
Long measure of G.C.D.	47	39	40
Least common multiple	50	44	45
True discount	27	31	31
Cube root	34	39	37
Partnership	39	43	44
Compound proportion	38	33	32
Compound and complex fractions	49	42	44
Cases in percentage	36	34	35
Annual interest	35	32	31
Longitude and time	55	55	56
Unreal fractions	9	17	15
Alligation	4	10	9
Metric system	42	42	44
Progression	12	21	20
Aliquot parts	28	31	32

ADDITIONAL EMPHASIS

The percentage of the superintendents who favored the plan of increasing the emphasis upon certain subjects was tabulated so as to show the different attitudes toward each of the subjects suggested. A large percentage were in favor of giving more emphasis to the fundamental subjects such as addition, subtraction, multiplication, and division. There was also a very strong sentiment in favor of increasing the emphasis on the applications of arithmetic to the social and economic conditions of the day; such as the saving and loaning of money, taxation, public expenditure, insurance, etc. Table III shows the exact distribution for each subject.

The replies were also tabulated on the basis of size of the different cities represented. The superintendents of the larger cities seemed to be less inclined to favor an increase in attention to these subjects. This may be due to the fact that these cities are already giving more emphasis to these subjects than are the small cities.

TABLE III

PERCENTAGE OF SUPERINTENDENTS WHO FAVOR THE PLAN OF GIVING MORE ATTENTION TO THE TOPICS, LISTED SO AS TO REVEAL DIFFERENCES IN ATTITUDE IN LARGE CITIES, CITIES AND COUNTIES, AND FOR ALL CITIES

Topic	Cities of 100,000 and Over	Cities and Counties	All Cities
Addition	59	75	75
Subtraction	50	68	69
Multiplication	59	72	72
Division	56	69	70
Fractions	56	66	65
Percentage	31	51	50
Interest	25	41	39
Saving and loaning money	50	61	61
Banking	38	40	39
Borrowing	22	37	37
Building and loan associations	13	46	48
Investments	16	44	44
Bonds and stocks	9	20	20
Taxes	25	53	53
Levies	6	36	35
Public expenditure	28	54	55
Insurance	31	54	55
Profits	28	47	46
Public utilities	34	57	57

The replies were tabulated on the basis of the geographical sections of the country. Only a slight difference was found in this particular. The South is perhaps slightly better satisfied with present conditions. This may be due to a situation similar to that in the large city. Chart II, based on the returns from all cities, seems safely to represent the present attitude toward the increased emphasis upon these topics. The shaded portion indicates the percentage of superintendents who favor giving more attention to each of these subjects.

POSSIBLE ECONOMY OF TIME

In connection with the special problem in which the committee is interested, namely, to find out if conditions are favorable for effecting an economy of time by means of the elimination of certain subjects, or by means of reducing the time being given these subjects, it seems reasonable to say that the time gained from this elimination or decreased attention to the twenty-five foregoing subjects may wisely be given to the nineteen subjects which demand more attention. While it is true that it is impossible

to say how much time will be saved thru this change in emphasis, it should be borne in mind that the superintendents overwhelmingly favor increased

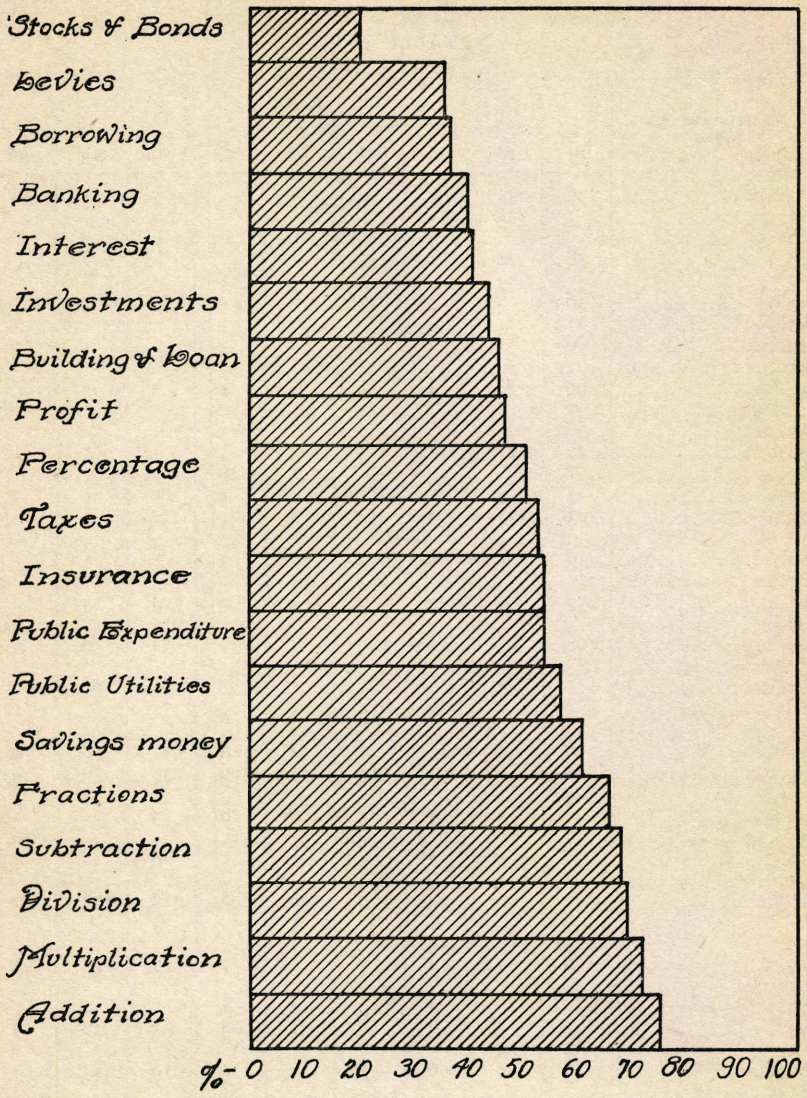

CHART II.—Percentage of superintendents who favor giving more attention to each of these topics (830 cities represented).

emphasis on the fundamental divisions of arithmetic—addition, multiplication, subtraction, and division. Surely, with more thoro instruction in these fundamental subjects, a distinct saving of time might be gained. It should be noted that the method of learning most of the twenty-five

subjects is thru memory, while the method of learning the new subjects is, with the exception of the fundamentals, largely thru thinking or rationalization. It is believed that the superintendents may wisely adopt the plan

TABLE IV

No. Minutes per Week	Grades								
	1st	2d	3d	4th	5th	6th	7th	8th	9th
0	136	31	4	.....	.....	.....	.....	24	439
15	7	2	.....	.....	.....	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	18	1	1	1	1	.....	.....	.....	.....
30	10	7	5	1	.....	1	1	1	.....
35	1	.....	.....	.....	.....	.....	.....	.....	.....
40	6	4	2	5	2	1	.....	1	2
45	.....	.....	.....	.....	.....	.....	.....	.....	.....
50	99	36	3	1	4	4	2	2	.....
55	.....	.....	.....	.....	.....	.....	.....	.....	.....
60	27	22	10	5	3	4	5	5	4
65	1	.....	.....	.....	.....	.....	.....	.....	.....
70	3	3	1	1	1	1	2	1	1
75	103	127	59	12	4	.....	.....	2	.....
80	6	5	10	11	2	3	1	1	1
85	.....	.....	.....	.....	.....	.....	.....	.....	.....
90	5	6	12	3	4	2	3	3	2
95	.....	.....	.....	.....	.....	.....	.....	.....	.....
100	108	83	156	129	71	31	14	10	3
05	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	1	1	6	5	3	.....	.....	2	1
15	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	6	10	13	13	12	19	22	18	4
125	17	40	90	113	132	109	59	36	5
30	.....	3	4	5	6	9	3	.....	2
35	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	.....	.....	2	4	6	1	9	8	2
45	.....	.....	.....	.....	.....	.....	.....	.....	.....
150	53	66	98	129	158	196	210	192	30
55	.....	.....	.....	.....	.....	.....	.....	.....	.....
60	1	2	4	4	6	2	7	8	5
65	.....	.....	.....	.....	.....	.....	.....	.....	.....
70	.....	.....	2	3	3	1	.....	2	.....
175	6	8	9	20	31	28	35	37	6
80	2	5	6	3	5	9	16	15	4
85	.....	.....	.....	.....	.....	.....	.....	.....	.....
90	.....	1	.....	.....	.....	1	.....	.....	.....
95	.....	.....	.....	.....	.....	.....	.....	.....	.....
200	11	33	54	56	52	72	96	121	60
05	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	3	2	.....	1	.....	2	5	7
15	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	.....	1	1	2	1	1	1	2	2
225	4	10	25	19	22	28	31	38	27

TABLE IV—*Continued*

No. Minutes per Week	Grades								
	1st	2d	3d	4th	5th	6th	7th	8th	9th
30	.....	.....	.....	1	1	2	2	2	.....
35	.....	.....	.....	.....	.....	.....	.....	.....	.....
40	.....	4	8	8	4	4	4	7	1
45	.....	.....	.....	.....	.....	.....	.....	.....	.....
250	1	9	25	39	51	51	45	34	13
55	.....	.....	.....	.....	.....	.....	.....	.....	.....
60	.....	1	.....	1	1	2	2	2	.....
65	.....	.....	.....	.....	.....	.....	.....	.....	.....
70	.....	.....	1	1	4	3	2	1	1
275	.....	2	2	8	7	9	8	5	1
To 300	.....	4	14	24	30	30	38	33	5
To 350	.....	.....	.....	3	2	3	7	8	2
To 450	1	1	1	.....	.....	.....	2	3	.....

of lessening the emphasis upon the twenty-five subjects and uniformly increasing the emphasis on the nineteen subjects. Surely, this is in the direction of a more *economical use* of time.

AMOUNT OF TIME GIVEN TO THE RECITATION OF ARITHMETIC

Reports were received from 630 superintendents showing the actual time distribution for the recitation in arithmetic in each grade in each city. The wide variation found in time expenditure is shown in Table IV. This table should be read as follows: in the first grade 136 cities allow no time for arithmetic, 7 allow 15 minutes per week, 18 allow 25 minutes per week, and so on down the column. (Extreme cases were verified by supplementary correspondence, so that the variations here indicated are truly descriptive of variations in practice.)

Chart III shows graphically the variation and the central tendency in practice. It is seen that the median time spent in the first grade for the United States as a whole is 75 minutes; for the second grade, 100 minutes; for the third grade, 125 minutes; for the fourth, fifth, sixth, and seventh grades, 150 minutes; for the eighth grade, 165 minutes. This means that one-half of the cities spend this amount of time or more in the various grades, and one-half this amount of time or less. The 25 percentile shows that one-fourth of the cities spend 25 minutes or less in the first grade; 75 minutes or less in the second grade; 100 minutes or less in the third and fourth grades; 125 minutes or less in the fifth and sixth grades; and 150 minutes or less in the seventh and eighth grades. Again, the upper quartile brings out the fact that another fourth of the cities spend 100 minutes or more in the first grade; 125 minutes or more in the second grade; 150 minutes or more in the third grade; 200 minutes or more in the fourth, fifth, sixth, seventh, and eighth grades. Thus, from the foregoing analysis

it may be seen that some spend relatively far more time than others on arithmetic. Comparison of the 157 cities spending the greatest amount of time with the 157 cities spending the least amount of time indicates that already many of these cities are making headway in the economy of time. May we not look to these cities for suggestions? If one-fourth of the cities can get satisfactory results with an expenditure of from 5 to 20 minutes

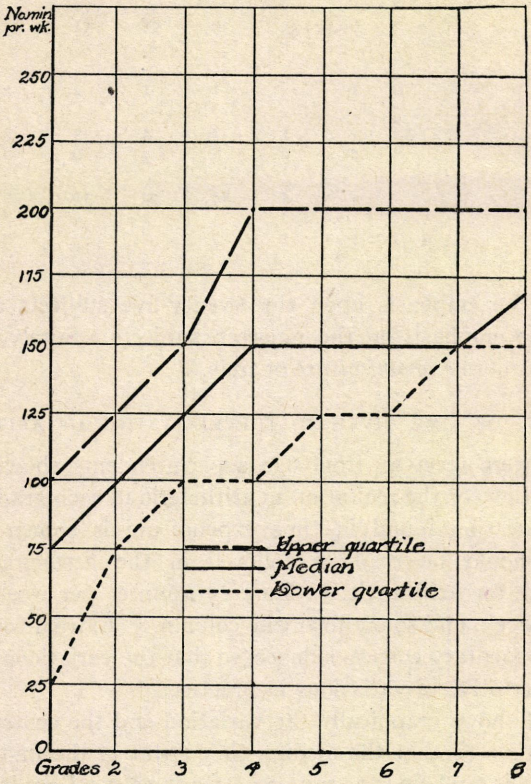

CHART III.—Showing median and quartile distribution of time per week given over to recitations.

per day or less in the first to fourth grades, there is reason for inquiry as to the accomplishment of cities which spend from 20 to 40 minutes or more per day during the first to fourth grades. Again, if one-fourth of the cities are able to get satisfactory results in from 20 to 30 minutes per day or less in the fifth to eighth grades, certainly we have cause to question the reason why another fourth of the cities spend from 40 to 60 minutes or more per day in these grades. On the whole, it seems safe to say that the wide variation of recitation time in the various cities of the United States suggests the possibility of attempting to effect an economy of time by means of standardizing the number of minutes in the recitation period.

A comparison of the actual results obtained in cities giving a large amount of time to the recitations in arithmetic with the cities giving a small amount of time would be invaluable in arriving at this standard amount of recitation time for each grade. It may be said, however, that practically all of the investigations which have been made thus far on this subject indicate that there is less relation between the time expenditure and the achievement than many have supposed. In other words, from these investigations, we have no reason to expect that city A which gives twice as much time as city B to arithmetic will get results in the same proportion.

It would seem that the conservative superintendent who is spending a relatively large amount of time on arithmetic might safely reduce the time at least to the median for the country for each grade. The less conservative superintendent might reduce the time to the 25 percentile without endangering his school, while the radical superintendent might join the 157 who spend still less time on the arithmetic recitation. Thus, the 50 per cent of the cities spending the most time might simply join the 50 per cent spending the least time. Surely, this plan need not frighten even the most cautious, because half of the cities have already tried out the reduction plan.

It is noteworthy that the North Atlantic and South Atlantic states spend from 25 to 50 per cent more time in arithmetic than do the cities in the other parts of the country. It would be interesting to compare the arithmetical efficiency of the schools in the different sections.

Large cities seem to give more time to arithmetic recitations than do smaller cities, altho the difference is not great. The county superintendents reporting on rural schools report a very much smaller proportion of time given to the arithmetic recitation. This is due, no doubt, to the difference in the organization of the daily program in the rural schools.

However, these differences in practice are not so great as to make it impossible for the adoption of the sliding standard suggested above. No section or city differs so much from the central tendency as to make it difficult to work toward some part of the lower half of the curve of time distribution for recitations in each grade.

DISTRIBUTION OF TIME AMONG THE DIFFERENT GRADES

It is interesting to note that the median time distribution for the grades shows a regular increase in the time given to the recitation in the classes up to the fourth grade. Chart III shows this clearly. For example, the median for the first grade is 75 minutes per week; for the second grade, 100 minutes per week; for the third grade, 125 minutes per week, and for the fourth grade, 150 minutes per week; beyond which grade there is no increase.

Certain sectional differences are found. For example, the median time in the North and South Atlantic states increases up to the seventh

grade which is the maximum; while the median time in the North Central, South Central, and Western states reaches a maximum in the sixth grade. Analysis of the data indicates that the large city gives more time to arithmetic in the sixth and seventh grades than in the eighth, which is contrary to the practice in smaller cities. Such variation in practice simply emphasizes the possibility of effecting economy of time thru the widespread adoption of a standard for the recitation time as suggested above.

PERCENTAGE OF RECITATION TIME GIVEN OVER TO DRILL

The superintendents were asked to make a tabular statement showing the percentage of recitation time in each grade given over to drill. Analysis of these returns revealed a wide variation in practice. Chart IV shows graphically the situation in terms of medians and quartiles for 564 cities.

It should be noted that the median percentage of time given to drill in the city schools begins in the first grade at 43 per cent, increasing to 53 per cent in the third grade, and decreasing steadily from then until the close of the eighth grade, which means that one-half of the cities spend this percentage or more of the recitation time in drill and one-half spend this percentage or less in each grade. The wide variation in practice is revealed by comparing the line which indicates the lower quartile with the line which indicates the upper quartile. That is to say, one-fourth of the cities spend 25 per cent of recitation time or less in drill in the first grade, 35 per cent or less in the third grade, decreasing to 5 per cent or less in the eighth grade; while one-fourth of the cities spend 80 per cent or more of the time in drill in the first grade, and 25 per cent or more in the eighth grade. The same variation exists in the country schools. These answers are significant in that they express the idea which the school superintendents and teachers have in regard to the emphasis which should be placed on drill in each grade. They clearly show that the distribution of time in the recitation between drill work and the so-called rationalizational work is not standardized.

We have no adequate means of evaluating the comparative arithmetical efficiency obtained in the schools differing in the amount of time given over to drill. However, it would seem safe to say that if one-fourth of the cities are devoting 80 per cent or more of the recitation time in the third grade to drill, 50 per cent or more in the fifth grade, and 25 per cent or more in the eighth grade, we should inquire into the effectiveness of the arithmetic teaching in the 140 cities devoting 35 per cent or less of the recitation time in the third grade to drill, 26 per cent or less in the fifth grade, and 5 per cent or less in the eighth grade. In other words, such wide variation suggests the *possibility of waste in the method* at this point.

A thorogoing comparison of results attained in cities with widely different standards for the time given to drill would be of great value in connection with constructive recommendations. The scientific investiga-

tions on the value of drill in arithmetic have thus far been confined to a narrow range of time, grades, and other conditions. However, the results of these investigations have led to the conclusion on the part of the investigators that drill within the limits of their investigation is of decided value.

In the absence of scientific data for the evaluation of the different degrees of emphasis on drill, it is of importance to know the central tendency

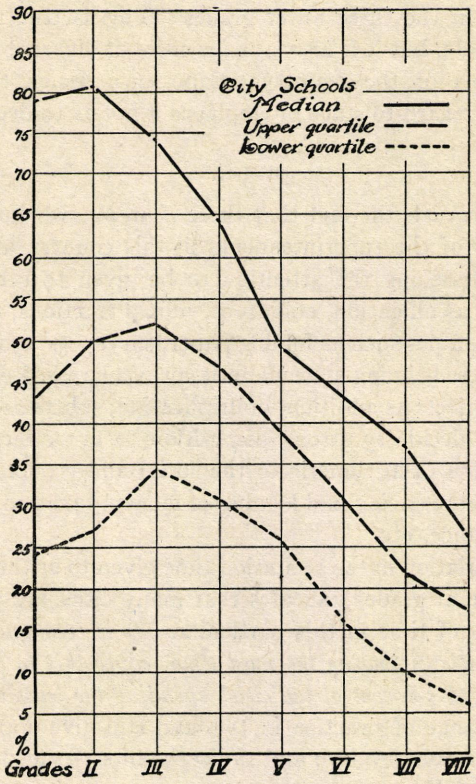

CHART IV.—Showing the median percentage of time given over to *strictly* drill work in the recitations in each grade (564 cities).

of existing practice based on the experience in hundreds of cities. A conservative view will no doubt tend toward the adoption of a standard such as the median for the whole country unless local conditions offer some specific reason to do otherwise.

Analyses of the replies on the basis of the size of cities represented revealed only slight difference in the time distribution for drill in the cities of different sizes.

Further analysis of the returns reveals the difference in different sections of the country. The North Atlantic section stands out in striking

contrast to the South Atlantic section in that in the North a very much higher percentage of time is devoted to drill in the first three grades than in the South. It would be of interest to compare the arithmetical achievement in the schools of the North Atlantic division with the schools of the other sections where very much less emphasis is placed on drill in these grades.

It is significant that there is great agreement in regard to the emphasis placed on drill in the three lower grades. This is true not only for the country as a whole, but it is also true for cities of different sizes and for the different sections of the country. Experience seems to have become standardized in regard to stage of emphasis if not as to degree of emphasis.

SUMMARY

This study reveals the fact that there is an overwhelming tendency on the part of half of the superintendents in this country in favor of either eliminating or lessening the attention to be given to certain subjects in arithmetic such as alligation, cube root, unreal fractions, progression, and certain obsolete tables such as folding paper, surveyors' tables, etc. Again, it reveals an overwhelming attitude in favor of increased emphasis on such fundamental subjects as addition, multiplication, subtraction, and division. There is also a decidedly strong disposition to favor increased emphasis on the application of arithmetic to the social and economic conditions of the day, such as the saving and loaning of money, taxation, public expenditures, life insurance, etc.

The wide variation in the recitation time given to arithmetic as a whole, and in the different grades indicates that many cities are already effecting a large economy of time in this particular. *It is recommended that the 50 per cent of the cities spending the most time reduce this to the amount being expended by the 50 per cent of the cities spending the least time.* This plan would cut the range of practice in two and still give opportunity for the expression of the conservative and radical points of view. This standard is shown in Chart III.

The wide variation in the percentage of time given to drill indicates the importance of scientific investigations of the relative achievements secured from the different time allotments. The median time allotment in practice now in the different grades thruout the United States most nearly represents the judgment of the school men based on their own experience. *It is suggested that this median percentage of recitation time given over to drill in each grade be adopted as a standard until scientific investigations have proven this to be in error.* This standard is shown in Chart IV.

In conclusion it should be said that this investigation clearly points to the desirability ot a study of relative achievements attained in the work in arithmetic in these same schools.

THE DETERMINANTS OF THE COURSE OF STUDY

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Four sharp distinctions are fundamental for course-of-study-making: Between (1) knowledge and power; (2) specific and general usefulness; (3) general education and specialization; and (4) essential and optional material. The first three represent all possible forms of usefulness. The fourth results from the measurement of relative usefulness. If, by reducing each of the three to its simplest terms, usefulness is made definite; if a valid test is provided which, by measuring relative usefulness for all three, discriminates between what is so essential that it must be compelled of all learners and what must be presented to all but left to the option of each, course-of-study-making can become a science.

KNOWLEDGE EDUCATIONAL ONLY THRU FIVE FORMS OF FORMAL ACTIVITY

As education depends upon the retention of experience and the control of new experience thru activity which has been given continuity and dominance by the old, knowledge in the educational sense means an idea or activity in the relationships in which it is retained by the learner, and power the resulting forms of self-activity which form or control his future experience.

Now our everyday experience furnishes us with the fate of all presentations from the standpoint of retention, whether we gain them in school or out. Most of them are forgotten altogether, except thru vague impressions they leave behind. Some of them, usually in the form of new words, are barely held in mind, in some partial or accidental relationship; about others, many-sided associations gradually gather, differing in individual learners with varying interests, experiences, moods, and circumstances, but resulting in fuller ideas, information, and mental interconnection. Still others, definitely and certainly retained in specific relationships, take the form of habit and systematic knowledge. A few, general enough to be found in other fields than that in which they are acquired, are more or less generally applied in other fields. All knowledge gained in school, or out, is retained either in forgotten relationships, in single or partial relationships, in varying and many-sided relationships, in definite and certain relationships, or in relationships general enough to be found in various fields of experience.

The usefulness of knowledge as a means to power or mental training consists solely in its contribution thru these five sets of relationships in which it is retained to five corresponding forms of formal activity. Forgotten relationships result in impression, which cumulatively develops permanent interests, tastes, ideals, and points of view. Single or partial relationships form vocabulary thru the partial concepts by which most words and ideas are held in mind; many-sided relationships bring about an interconnection

of ideas which constantly reassociates them in new and varying connections. Definite and certain relationships result in specific discipline in the sense of habit and system; while a relationship general enough in its form may, under favorable conditions, bring about a general discipline or application which carries ideas over into branches of knowledge and fields of experience other than those which have developed them.

Even with analysis as rough as this, the strength and weakness of present-day mental training stand revealed. For the growing many-sidedness and vocabulary which constitute its strength in elementary education, Herbartianism is only partially responsible. The multiplication of children's books and periodicals, story-telling, the phonograph, the mechanical piano-player, the moving-picture show, the improvement in methods of instruction which gives the pupils of the first school grade a half-dozen readers in place of one—all tend to vocabulary expansion and information getting, with a consequent mental interconnection, widely varying in the case of each pupil.

In the general college course this many-sidedness is threatened by an overspecialization, which excludes it from essential domains of knowledge and experience. Partly thru the elective system, partly in reaction from it, partly as a concession to vocational specialization, but even more largely thru the influence of graduate-school training upon college teaching, a tendency to concentration upon a few academic subjects has set in, which is more of a menace to democratic culture than the old classical course itself.

If the mastery of mathematics and the ancient languages, as elementary wholes, long required of all, involved the certain memorizing of technical details, useless both in everyday life and to habit formation, it at the same time compelled moral and intellectual habits which, if not economically insured elsewhere, cannot be bought too dear. If limitation of culture to the study of Greek and Latin literatures made it aristocratic and excluded it from broad fields of modern thought and experience, it insured more many-sided contact with the spiritual inheritance of the race than either the elective system or the more persistent academic specialization being seized upon as its antidote.

The most serious weakness of present-day education on the side of mental training is its failure to compel what is most useful: its lack of persistency in the development of tastes and ideals thru cumulative impression; its lack of the drill and continuity adequate to the building-up of permanently essential habit and system; its failure to insure the conditions favorable to general application; and even in the individual and varying selection, necessarily left to each learner, from the material not made certain by drill, its failure to so limit and control that what is relatively most useful is given the greatest likelihood of survival.

In course-of-study-making at least three facts concerning power or mental training must be held in mind: First, all vaguer terms and generaliza-

tions regarded as essential to mental development either can be reduced to one or more of these five forms or can result from them. Second, all five forms must be considered in determining the usefulness of material in any branch of knowledge or any phase of preparation for life. Third, no one of the five forms can be fully developed by any one branch of knowledge and some can result only from the partial use of all. Cumulative impression is mainly dependent upon an emotional form of expression which is strongest in nature, literature, music, and art, while vocabulary and varying interconnection, as the Herbartians have long demonstrated, result from the correlation of essential parts of all branches of knowledge. Specific discipline can be developed by any subject that insures habit and system, but general discipline or application cannot fully result without the varying interconnection which comes from the study of the more general phases of all subjects. It is difficult to determine which assumption is more stupid —that any subject which insures habit and system is useful regardless of its specific usefulness, when so much of habit and system is incapable of general application; or that mere many-sidedness of knowledge insures application, in the absence of the thoro drill and never-ending review which must build up the habit and system useful enough and permanent enough to be applied.

ALL FIVE FORMS OF FORMAL ACTIVITY CAN BE SPECIFICALLY OR GENERALLY USEFUL

The second fundamental distinction necessary to course-of-study-making is between general and specific usefulness: that is, between "mental training," "general knowledge," "discipline," or "culture," and direct and definite preparation for life. While direct preparation for life consists in mental training, mental training does not necessarily prepare for the various phases of life. A man may be generally learned or intelligent, but immoral, unhealthy, industrially inefficient, unsocial, weak or dangerous as a citizen, and ill prepared for the right enjoyment of leisure. Indeed the more learned and intelligent he is, the greater the menace he may be to the community and the state. On the other hand, a man may in a very definite and certain sense be prepared for every phase of life and at the same time be a mere creature of habit—unintelligent in his action and ignorant of all that he has not put to specific use. In either case, every step in his education has resulted in one or more of the five forms of formal activity. But the specific usefulness that prepares for life involves impression, vocabulary, interconnection, habit, and application that are definitely and certainly useful to religion and morality, health, industry, social service, citizenship, or individual and social leisure. However variously we phrase it, this is what we mean by education as "adjustment" or the "social aim." While general usefulness, on the other hand, consists of mere multiplication of vocabulary in general, all possible interconnection of ideas, knowledge for

the sake of knowledge, and the ideals and the habits of some academic field that may or may not carry over to life.

In any efficient scheme of education, general and specific usefulness must supplement each other. No one questions the primary necessity of direct preparation for life, but we have too slowly come to the realization that the school must contribute to every phase of it, at every stage of development. Because of the lessening educational service possible to home and to organized industry, because the school, legally at least, reaches all learners as the church can no longer reach them, because of its growing efficiency, and because of the fact that as a democratic institution its instruction is accepted as a universal right, it is being compelled to add every form of specific training to an academic learning whose general usefulness in the sense of the mastery of elementary subjects as wholes is being seriously questioned. In order that material adequate to the effective teaching of each specific educational end shall be supplied, the details within each branch of knowledge must be examined with a view to their relative usefulness for each specific end. In order to insure material adequate to the development of each form of formal activity in its general usefulness, the details within each branch must be examined with a view to their general as well as their specific worth. No detail of knowledge is educationally useful which does not further one or more of the five forms of formal activity in either a specific or a general usefulness.

It is readily apparent that the most useful details are those that add to definite and specific usefulness the possibility of general usefulness. But there are generally useful facts that have no specific value except for academic specialization and specifically useful details that have no general value either within or without the field in which they are taught. Every detail within each of these classes will be included, or excluded, either on account of a unique usefulness which nothing else can supply or its relative worth as compared with other details.

THE EDUCATIONAL ABSURDITY OF SACRIFICING THE PARTIAL STUDY OF MOST BRANCHES TO THE EXHAUSTIVE STUDY OF THE FEW

Now it has already been demonstrated that all branches must be drawn upon, if the course is to contain all that is essential to the five forms of formal activity in general. It is equally true that all the branches taken together will fail to contribute any more material than is essential to specific preparation for some of the various phases of life, and that each will contribute relatively useful material to preparation for one or more phases.

Nothing, then, can be more obvious than the inconceivable folly of substituting the exhaustive study of a few branches as elementary wholes, with their great mass of relatively useless details, for the partial study of all branches in general, confined to the relationships most useful in both the specific and general sense. Yet this is the absurd basis on which the

course of study is at present organized. A fallacious seeking after thoroness in the sense of exhaustive detail, for the sake of discipline, has defeated its own purpose. The thoroness that truly makes for discipline is repetition adequate to the mastery of a few essential relationships, persistent continuity of instruction necessary to their permanent retention, and the cumulative association of the material favorable to their general application.

At best, from the standpoint of discipline, the detailed study of some one elementary science, a historical period or a branch of mathematics, to the exclusion of material infinitely more useful contained in others, insures a few fixed habits, without the conditions favorable to their being carried over to other fields or even any certainty of permanence thru continuity of instruction and relationship to everyday life.

Even the crudest sort of pedagogical analysis reveals the utter weakness of a high-school course that teaches one or two sciences in technical and insignificant detail, to the exclusion of what is fundamental in all others; algebra and geometry in the first two years without any continuity of instruction to keep their essentials alive until they are reviewed in the fourth, taken up again in college, or forgotten altogether in life; or Greek and Roman history, or English and American history in petty detail, in place of that general sequence of historic periods and epochs which assures the only unique contribution made by history to mental training—the great mnemonic system thru which all ideas belonging to the past can be not only remembered, but placed in mental proximity with others to which they may be essentially related.

The remedy is twofold. First: In the general school course, logical thoroness, thru the mastery of a few subjects as detailed elementary wholes, must give way to pedagogical thoroness, thru the partial mastery of all subjects in proportion to the relative worth of their details to the five forms of formal self-activity, both in their general usefulness and in their specifically useful relationship to each phase of direct preparation for life. Second: The continuous review and cumulative expansion of this essential material at such intervals thruout the entire school course as are found to insure its permanency and its dominance.

In the elementary school, this means that the study of the most useful material in geography, history, or arithmetic, instead of ending with the grade in which it is first mastered, will be reviewed and broadened at gradually increasing intervals thruout the entire elementary and high-school course. Probably above the sixth grade, a review period each week for each subject will be adequate, owing to the fact that as the amount of material accumulates the time necessary to the review of the older material lessens. Determination of the interval effective for the retention of definite relationships is one of the most important problems for experimental pedagogy.

In the high school, general science, general mathematics, and general history, for one or two years, will be followed by review courses of, say a

period a week, thruout the remaining school years. In a formal program, such studies in their initial presentation may seem superficial and as review courses attenuated, but they are infinitely more thoro in the sense of mental training, continuity, and dominance than courses full of relatively useless details that are not reviewed at all. One important consequence of limiting required work in courses such as these will be more adequate provision for specialization.

THE EXTENT TO WHICH SPECIALIZATION SHOULD BE PROVIDED FOR IN THE GENERAL SCHOOL COURSE

In fact, the third distinction fundamental for course-of-study-making is between general education and specialization—between the material that is presented to all learners in common and that presented only to particular individuals. Specialization in this, its true meaning, involving the presentation of qualitatively different material to chosen individuals, adapted to their varying abilities, interests, and vocations, must be distinguished from quantitative differentiation made in the proportionate amount of material presented to so-called bright pupils as compared with those who for any reason are incapable of learning as much; and from both quantitative and qualitative differentiation, yet to be discussed, due to the fact that most of the material presented to all learners in common cannot be made certain to all thru drill, and therefore must be left to the varying retentiveness and interests of each individual.

Three phases of specialization must eventually be provided for thru the school: (1) early opportunity for specialization according to individual abilities and interests; (2) inclusion of such material in the general course of study as will keep the door open to the commoner forms of specialization possible later on; (3) provision for specialization with vocational intent above the sixth or the eighth school year. Adaptation to the social and economic needs of different communities in course-of-study-making will be brought about thru provision for these three forms of specialization, rather than thru variation in what is most essential to general mental training and specific preparation for life in general. It will also be provided for thru the great mass of optional material of approximately the same relative usefulness from which selection can be made from the standpoint of individual abilities and community needs.

Early specialization thru special aptitude must in the end be made possible in the earliest school years, either thru provision for more rapid advancement in some part of the general course of study than in others, or thru assignment to special classes where instruction is given in subjects not included in the required elementary course: such as foreign languages, a natural science, instrumental music, stenography, or in more advanced phases of any required subject, whether it is mathematics, literature and composition, or drawing, painting, and manual training. Such work as

this will either continue in the higher schools as academic specialization or merge in vocational specialization at some point above the sixth school year.

The inclusion of material in the required course, with a view to keeping the door open to future specialization, is especially necessary for those subjects which are conditioned by a certainty and persistency in habits, tastes, and ideals or a cumulative system of knowledge and experience. The approach to some specialized subjects is kept open thru the fact that the general course itself requires all that effective specialization must presuppose. This is probably true of the aesthetic appreciation basal for the fine arts and of fundamental habits essential to natural science. But for those branches of knowledge where the course required of all learners in common fails to insure all that is preliminary to future specialization, opportunity for early specialization cannot be safely counted upon to insure it. Individual interests and abilities are often late in revealing themselves and occasionally late in development. Some material, therefore, must be included in the general course wholly with a view to keeping the door open for future specialization—at least for those subjects, such as mathematics and the languages, that lead the way to a variety of occupations or avocations. For example, utilitarianism in the narrow sense has gone too far with its elimination from arithmetic of all complex problems and operations and all causes or explanations of rules and principles that afford no aid to practical application. Perhaps the most fundamental conditions to success in mathematical specialization are the feeling of confident willingness and the habit of persistency, in the face of complex mathematical difficulty, and the rational attitude of mind due to the consciousness that every mathematical process and judgment has a necessary reason behind it. It is not necessary that either a complex solution or the definite cause of each operation or principle should be remembered, but only that they should be experienced often enough to insure an attitude of mind. All that ideals require is adequate repetition of impression extending thru long periods of time, frequently combined with an utter forgetfulness of most of the experiences thru which the impressions have been gained. This is not true of the cumulative knowledge and gradually developing system of habits and judgments necessary in arithmetical reasoning, mainly useful thru their own definite retention thru drill and review rather than thru impressions which they leave behind. Here, usefulness to future specialization must be very great and the necessity for cumulative development thru a long period of time certainly demonstrated, before material, otherwise of little worth, can be required in the general course. But the usefulness of any material is greatly increased if to specific usefulness, general usefulness, or both is added usefulness from the standpoint of future specialization; and each subject must be investigated to determine the specialized material useful enough to parallel or be included in the general course.

THE DISTINCTION BETWEEN ESSENTIAL AND OPTIONAL USEFULNESS FUNDAMENTAL FOR COURSE-OF-STUDY-MAKING

The contrast just made between the forgotten experience adequate to ideals and the specific retention essential to a cumulative system of habits involves the fourth and most fundamental distinction necessary in course-of-study-making—between essential and optional material; between the material which must be certainly memorized and persistently retained by all learners in common on account of its supreme usefulness, and the material which, while presented to all alike, will be variously retained and associated by different individuals according to their native retentiveness, innate abilities, past experience, and immediate interests. Much of the past discussion has been planned to make this less familiar distinction definite, apparent, and compelling.

Each of the five phases of formal self-activity, whether developed on account of its specific or general usefulness to all or its usefulness in specialization, requires in its development some relationships which have been definitely and certainly mastered. That is, habit, in the broad sense of definite and necessary relationships, conditions all the others. Cumulative impression must center about a permanent idea or activity, and is greatly furthered if it is transformed into an emotional center thru certainly and permanently associating with it one or two exceptionally emotional incidents or experiences. Vocabulary expansion and mental interconnection are immensely aided thru the earliest practicable memorizing of general terms and groups of ideas that tend to reach out after others. General application of a fundamentally useful idea depends not only upon the many-sided interests, vocabulary, and interconnection thus insured, which makes it possible to apply it to any experience, but its firm retention in the relationship that makes it a useful habit and in the most general form in which it can be usefully applied; such specific centering of cumulative impression upon it as will emotionalize it and create a permanent desire to apply it; such definite association with it of vocabulary and interconnection most many-sidedly related to it as will tend to make its application probable in every field in which it ought to be applied; and, in the case of ideas that are supremely useful, a further system of habits and knowledge that insures all remaining conditions favorable to their application. That is, general application is far less dependent upon the specific system peculiar to mathematics, a language, or a science than upon a specific pedagogic system definitely planned to insure it. No matter how mechanical the drill or slavish the imitation, if it is necessary to the building-up of the systems of knowledge and habits essential to these five forms of formal self-activity, it constitutes the most direct and certain road to the intellectual freedom which they alone can insure.

Logically opposed, but educationally complementary, to this essential material which must be made as certain and continuing as possible for all

learners is the optional material which, tho presented to all learners, will, thru the very absence of adequate drill, be variously retained and associated by each individual. It is just as necessary educationally that each learner shall vary in the experiences that are creating cumulative impression, in the relationships in which a developing vocabulary is held in mind, and in the many-sided associations which bring about completeness of mental interconnection as it is that all learners shall be compelled to possess the definite and unvarying relationships that are generally most useful in developing vocabulary and interconnection and specifically most useful either to specialization or to morality, health, industry, social service, citizenship, individual leisure, and social intercourse.

Essential material is limited in quantity, both by the fact that relatively few details are so highly useful that they must be required or compelled and by the limited amount of memorizing and review possible for each individual and for the majority of individuals. It is the uniform element in the course of study, almost wholly identical for all localities and individuals, for the sake of insuring to all, not only the common essentials of specific preparation for a community and social life that must be led in common, but the equally common elements in general training essential to individuality and specialization.

Optional material exists in unlimited quantity. Everything is useful to some one or other some time or other. Thru it, the test of relative worth must add to the compulsion of repetition, the compulsion of selection and emphasis. While each individual mind will freely select from the optional material the details it prefers and the relationships in which it will retain them, the test of relative worth should prevent the presentation of any material that excludes what is relatively more useful, and should result in such emphasis within what is presented, that the most useful material will have the greatest likelihood of being retained, and that, in material equally useful, the details which have the greatest likelihood of survival and permanence will be most likely to be selected. With optional material, then, uniformity consists not in identity of details, but in equality of worth. Various communities may have equally useful courses of study and various individuals equally useful selections from them, if their few essential and identical details are retained in common by all pupils thru drill in the specific relationships in which they are most useful and if the optional material presented in each to serve the same educational end differs in everything but its relative worth to that end.

THE TEST OF RELATIVE USEFULNESS NECESSARY TO DISTINGUISH ESSENTIAL FROM OPTIONAL MATERIAL

In the last paper read before the department at the Philadelphia meeting, a test of relative worth was presented in technical form and detail. All that is necessary to point out at present is that relative usefulness, from

all of the points of view which analysis yields, can be measured by its many-sidedness of useful relationship, its frequency of recurrence in useful relationship, and its inherent sensational or emotional appeal.

The main object of such a test is the determination for each school subject and educational aim, first, of the details so obviously essential in some definite relationships that their permanent mastery must be compelled by drill; second, of those so low in their relative worth that they can be excluded altogether; and, third, of those lying between these two extremes which exist in such variety for each degree of relative worth that it does not matter which are chosen, except in so far as they differ in relative likelihood of survival.

While exact determination is unnecessary for each of these classes, the test of relative worth is capable of the mathematical expression essential to scientific exactness. Degree of emotional appeal can be measured, the number of useful relationships possible for an experience counted, and frequency of occurrence estimated. No one of these tests is adequate without the others. Indeed a few things have so unique a usefulness that since nothing else can take their place, no comparison of relative values is necessary to insure their inclusion in a course of study.

IMMEDIACY OF USEFULNESS DETERMINES THE STAGE OF DEVELOPMENT AT WHICH MATERIAL SHALL BE TAUGHT

The most serious misuse yet made of any of these factors is thru the assumption that sensational or emotional appeal should determine the material to be introduced into the course of study and the period at which it shall be taught. It is false doctrine to proclaim: "Find out what interests children, and you know what to teach; find when it interests them, and you know when to teach it."

Essential things are not useful because they are interesting. They must be made interesting because they are useful. The true basis for selection at each stage of advancement is relative usefulness and immediacy of usefulness. That is, the most useful material should be taught as early in the grades as its many-sidedness and recurrence become in part immediate for the learner and always early enough to insure the time necessary for its mastery before its many-sidedness and recurrence begin to be immediate.

If material is capable of expanding vocabulary, multiplying interconnection, furthering specific usefulness, or supplying conditions favorable to useful application, if it gives children something to remember by and think with, compels right habits, broadens their interests and develops their ideals, what does it matter whether their comprehension of it is complete or whether the time when its educational usefulness begins coincides with the time when it can be most readily developed or when interest in it is most natural and spontaneous? The too frequent defect both of the so-called spiral method in the elementary school and of the textbook

prepared by the specialist for high school or college lies in the assumption that because subject-matter can be understood at a given period of development is reason why it should be taught there. Equally misguided is the complementary defect of insisting on immediate fulness of comprehension for all ideas that are to be taught. It has manifested itself in substituting words that are simple in the sense of having few associations for words that cannot be fully comprehended because they have a wealth of associations that will gradually be added with the growing years. It teaches island and volcano in the first school year, because they seem objectively simple, in place of California and New Jersey, which, tho objectively complex, more or less many-sidedly recur in the life of most children. It teaches all possible combinations which can result in the number six and all into which six can be separated, because six is objectively smaller than the subjectively simpler and more useful decimal concept involved in ten times six, or sixty and six, or sixty-six and one. It teaches Robinson Crusoe in monosyllables or makes an objectively simple phonetic reader instead of polysyllables more many-sided and recurring in child life outside the school. It substitutes a juvenilized literature that is fully understood, and at least the effort at fulness of comprehension of Burke's *Conciliation with America* and the *Merchant of Venice*, for a far more partial and more loving comprehension of what is noblest and most impressive in every field of literature. If life outside were not less simple and primitive than some culture epochists and biologists have attempted to make life within the school, their simple schools would make simple children. Such mental development that victims of over-simplification have gained has been in spite of a simplified school.

To this misuse of comprehension has been added the misapplication of culture epoch, child study, and biology in determining thru natural interest and points of readiest development what shall be taught in the various grades. It may be that modern flesh creeps at the touch of a fur coat because antediluvian bodies jumped when in contact with a cave bear and that children successively pass thru the same stages of development that civilization has passed thru, but this is no reason why their primers should contain bloody pictures of prehistoric combats between man and beast or why their primary arithmetic should fail to make them think by means of the simple judgments and combinations of judgments which must become habitual thru long periods of time to prepare for the more complex reasonings of the grades above. Because things are naturally interesting or ready of development in a particular school grade is no reason why they should be taught there. Because they respond to natural interest at a later period or can be more readily developed is no reason why their teaching should be postponed. At best, natural interests and nascent periods point out the educational line of least resistance. But it can be followed in the work of the school only when they make easier the mastery of something

developed, not because of its immediate naturalness, but because it is immediately useful. Material must be included in the course of study in the order of its relative usefulness, in the relationships which make it useful, as early as its usefulness becomes partially immediate. If it is complex, it can be partially understood. If it is not naturally interesting, it can be made interesting thru cumulative impression and growing interconnection. If it is difficult of development, it must be more effectively and persistently taught.

THE SUCCESSIVE STEPS NECESSARY IN SCIENTIFIC COURSE-OF-STUDY-MAKING

With the completion of this rough analysis, the bases for course-of-study-making can be definitely summarized. Whether we approach the problem from the standpoint of what is most useful within an academic branch or from what is most useful in realizing a specific educational end, the procedure is the same:

1. Classification of all useful material within each branch of knowledge into what definitely furthers cumulative impression, vocabulary development, varying interconnection, habit and system, and application.

2. Its further division into (*a*) what is specifically useful either to the branch as a specialty or (*b*) to a particular phase of direct preparation for life and (*c*) what is generally useful or (*d*) what is both specifically and generally useful.

3. Its classification within these phases and divisions in the order of its relative usefulness measured by its possible many-sidedness, recurrence, and sensational and emotional appeal.

4. Its division thru its many-sidedness and recurrence (*a*) into material useful only to the specialist, including the specialist whose aptitudes are discovered in the early school years, and (*b*) into the material useful in general education, including what is essential to keep the way open for future specialization.

5. Its distribution among the grades in the order of its relative usefulness as it becomes partially immediate—in the sense both of immediate many-sidedness, recurrence, or emotional appeal and of sufficiently early presentation to insure the drill necessary to the mastery of what will become many-sided and recurring in the immediate future.

6. Its division within each grade into (*a*) the essential material so exceptionally high in its immediate usefulness as to be made certain and permanent by drill, for all localities and individuals, and (*b*) optional material often varying with localities, but including nothing at the expense of what is immediately less useful and emphasizing what is most useful and has exceptional chance of survival.

7. The inclusion in essential material of certain details unique in their usefulness, regardless of their relative value—especially from the stand-

point of adequate representation for each phase of specific preparation for life.

8. The limitation of essential knowledge at each stage, both by the amount that can be newly memorized and by the gradually accumulating mass of essentials already memorized that must be adequately reviewed.

9. Such organization of the material so selected, classified, and limited, thru textbooks and courses of study, as will make possible an actual many-sidedness and insure the system both essential and optional that results from the correlation and subordination of material in accordance with its relative worth.

The science of course-of-study-making is no simpler than any other science, no less technical. Fundamental as it is for the mastery of all, why should it be? If the present paper to any extent contributes to its formation, it is thru its attempt to reduce complex familiar factors to their lowest terms and to include every factor that affects educational values. If any have been omitted, further analysis will surely include them; if others lack definiteness, they will be further simplified. But analyses, resulting as this has resulted from the combined efforts of many thinkers, must in the end compel the agreement of all. There is one compulsion stronger than tradition or authority, before which individualism, however strongly intrenched in idealism or successful practice, has always given way; and that is the compulsion of the universally valid fact which analysis and research must sooner or later reveal.

HOW THE COURSE OF STUDY SHOULD BE DETERMINED

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To get this problem fully before us it is necessary to consider the meaning, scope, and aim of education in modern life; the means and processes involved; the agencies by which the means are to be selected and applied; the public school's rightful place among these agencies, and its proper relation to them; its own peculiar work and the part of this work which should be accomplished thru the course of study.

On the meaning and scope of modern education I submit the following propositions: The needs and values of life to which education in the broadest sense should minister cover the whole period of life and cannot be confined to any particular part of it; these needs and values can only be progressively realized; education is a continuous process coextensive with life itself; the aim of education, in the case of any individual, is either furthered or hindered by every experience thru which he passes, he is being educated to some degree and in some direction every moment of his waking life; education cannot take place except thru experience, but experience itself is not education. By experience is meant any interaction between

an individual and his environment; it is the response, physical and mental, which he makes to any situation which his environment provides or suggests. Education as a process may be identified with this living interaction, but education as a result is the modification or effect which it leaves behind. The experience which thus produces education may be, and usually is, conscious, but the education which results can only be known by the influence which it exerts on subsequent experience and behavior.

Briefly then education is taking place wherever responses are being made directly or indirectly to one's environment; it is by no means confined to the school, but involves all human experiences including those that hinder as well as those that further the aims and purposes of life. They all educate in one way or another.

The terms "environment," "situation," "response," and "modification," which I shall continue to use, need definition.

By environment is meant all forms of energy or other influences external to an individual and capable of evoking responses in him. An educative situation is that part of an individual's total environment which acting upon him at any given time calls forth in him an educative response. This response may be considered from two points of view: the direct, immediate, and partial response, and the indirect, prolonged, and complete response. The direct response is the kind of consciousness immediately called forth and the bodily behavior directly occasioned by the situation. The indirect response consists of the reflective, emotional, and volitional processes that are started by the direct response and guided and controlled by association, attention, and will.

In the science of teaching, therefore, there can be fundamentally only two kinds of problems: (1) given a desired educational result, required to find the situation or series of situations which thru the educative responses evoked will produce that result; and (2) given a certain situation or series of situations including the method of applying them, required to ascertain the educational result that should be expected to follow. The two terms "educative situation" and "educative response" therefore involve all that is meant by education as a process.

As already stated, education as a result is a modification or effect left behind by experience. This result may be and usually is of a twofold character, for the individual is different and the environment may be different, after the experience, from what they were before. Both these changes have educational significance, for both may exercise an educative influence over subsequent experiences of the same and of other individuals. The changes in the environment that persist become important means of education; taken collectively and for the entire human race, past and present, they constitute the whole of material civilization. The change that takes place in the individual is both mental and physical and is known by the

influence which it exerts upon his subsequent life of consciousness and behavior.

Considering, then, the educative process as an observable transaction taking place in the physical world and determined by the two facts, educative situation and educative response, I desire to distinguish three important processes that influence the determination of the course of study. (1) The process of educating may evidently go on without the aid of a teacher. It is determined by the nature of the educand and of the educative situation to which he responds. It therefore involves two variables, the nature of the environmental situation and of the individual making response to it; the outcome or resulting education is a function of both variables. The basic science is educational psychology. (2) Teaching is the process of selecting and applying environmental situations that are designed to evoke or stimulate responses on the part of the educand. This process is determined by the will, intelligence, and skill of the teacher and the availability of appropriate environmental means. It therefore exercises a limited direct control over but one of the variables involved in educating. The basic science is the science of teaching. (3) Testing is a process of ascertaining as accurately and fully as possible the results of educating. Like teaching, testing is also limited to environmental control. Since the results of educating can only be known by the influence which they exert upon the subsequent experience and behavior of the educand, the process of testing can only determine thru the study of new responses the modifications produced by former ones. Its problem is that of ascertaining what responses in any given case will truly reveal the effects of previous educational effort and of providing the proper situations to call forth these responses. Testing stands as truly in need of a basic science as does teaching itself. There is probably nothing more significant in present-day education than the effort that is being made to attain at least the beginnings of such a science. The hope of much further improving both the theory and the practice of teaching, in real fact rather than in mere opinion, lies to a very large degree in the direction of improving the means of scientifically testing, as far as possible, the results of teaching. Herein lies also the hope of detecting and eliminating useless material from the course of study and of otherwise improving the course by ascertaining the relative effectiveness of different methods of instruction and different plans of organizing and presenting the subject-matter of the course.

From what has been said up to this point, it is obvious that the means of education are limited entirely to educative situations. The course of study itself is nothing but a gigantic plan or scheme designed to aid the teacher in providing the right situations to call forth in the child the desired educative responses. This is the one operation of fundamental importance to which everything else is subordinate. A school or system of schools is, in fact, an organization having the one supreme function of providing thru the course

of study or otherwise educative situations of the right sort, in the right order, and at the right time. The actual production of the situations planned for in the course of study is, of course, under the direct control of the teacher, and the effectiveness of the course depends mainly upon his insight, intelligence, and skill in making the situations which the course calls for real and vital to the child. The teacher is the biggest factor in making any course of study really effective.

Since the whole means of education are the environmental situations which call forth the responses of life, it follows that the only means that can be employed by one person in the effort to educate another are physical and confined to the possibility of modifying, in one way or another, the physical environment of the educand. In fact, the whole effort to educate is but an effort to make changes in the physical environment with more or less definite ends and purposes in view. Without such changes and the capacity to respond to them there can be no education. The teacher can, within certain limits, manipulate the environment of the child, but when he has done this, if the desired response does not take place, there are no other different means which he can employ.

Taken as a whole the means of education are of two general kinds, human and non-human. The latter are those which are determined and applied by non-human forces constituting the natural environment. The human means, those which are, or may be, determined and controlled by human agencies, are also of two kinds, the direct and the indirect or symbolic. The former consist of the manipulations of things, objects, etc.; the latter of language, illustrations, and symbols of all kinds.

If the foregoing conception of the means of education is tenable, and I am sure it is, it is evident that all the facts of education are essentially such as can be studied by the same scientific methods that have proved successful in other less complicated and difficult fields.

Having defined the general meaning and scope of education, the processes involved, and the means that may be employed, we may now consider the aim of education as governing, in general, the choice of means.

A satisfactory conception of the general aim of education must meet the following conditions: (1) it must be general enough to cover the whole of education, not merely that of the school; (2) it must represent the interests of society as well as those of the individual and give the right value to each; (3) it must include education as a process and also as a result, since education as a process is life, or the living interaction between an individual and his environment, and since education as a result is not life, but the effect of life whose value comes solely from the fact that it prepares for life; this is equivalent to saying that the aim of education is identical with the aim of life, and that changes in the conceptions and practices of the one must keep pace with changes in the conception and needs of the other; and (4) the aim of education must be consistent with the spirit which per-

meates the life and thought of the present. It must take account, not only of the profound changes that have taken place in our economic and social life, in recent years, but also of those changes, equally potent and profound, in our mental attitude toward the world and toward human life in all its relations. There is growing need that present-day education, in its aims, practices, and products, shall be characterized by open-mindedness and reasonable adaptability. There is also the increasing conviction that we must look to education more than ever before to solve the hard problems, minister to the needs, and promote the values and ideals of our increasingly complex democratic life. As a result of these transitions, profound changes have also taken place on the moral side of life. Previously accepted standards have proved more or less inadequate; the influence of recognized moral sanctions has in general declined; the contacts and wants of life have greatly increased; the opportunities to go wrong as well as to do good have been multiplied; the pace of life has been accelerated and its strains increased; in short, the whole problem of moral life and moral education has become exceedingly complex and difficult.

Briefly, then, we define the aim of education as being the aim of human life, both individual and social. As we conceive the latter, so must we conceive the former. Education's central purpose is to reduce suffering and waste of life and to promote individual and social well-being, to assist as fully and economically as possible in meeting life's needs and in the realization of life's values thru the proper selection and control of the means of education.

All agencies in modern life which in any way control and apply the means of education are involved in the realization of this aim. Among the most important of these are the school, the home, the playground, the various occupations, the neighborhood, the church, the press, the library, the stage, the museum, the club, and the government. Each of these has a share in the work which varies more or less with local conditions and with the time considered.

The principles which must be applied in determining the public school's proper relation to other educative agencies are the following. (1) The total task of education should be accomplished in such a manner, at such periods of life, and by such agencies as will secure the most perfect conservation and utilization of human energy in doing the work and realizing the values and ideals of individual and social life. (2) Each agency having a share in the work should be held responsible for that part of it which that agency can do more efficiently and with greater economy than any other. (3) The principle of co-operation among the various agencies should be applied in such a way as mutually to stimulate endeavor and as far as possible eliminate waste in accomplishing the total work. (4) The public school as the only exclusively educative agency which represents the collective will of the people should be regarded as the final arbiter and

custodian of the child's educational well-being. (5) In our democracy, the public school is charged by the state with the peculiar responsibility of defining the aim and work of education as a whole, and of determining the right relation of other educative agencies to itself and to each other.

Applying these principles we note that the public school should endeavor to understand the actual operation and results of other educative agencies in so far, at least, as they are operative in its own particular community, and to the extent that is necessary to ascertain their significance. It should have a definite constructive policy with regard to other educative agencies operating within its own territory—it should actively stimulate and encourage them to do the part of the total work which belongs to them and should attempt in some degree even to direct their operation. If such agencies neglect the functions which belong to them or fail properly to discharge them, these functions should be taken over by the public school within limits determined (*a*) by the social necessity for the performance of these functions; (*b*) by the legal right and actual ability of the public school adequately to perform the neglected functions in addition to those that are peculiarly and distinctively its own; (*c*) by the probable deleterious effect upon the efficiency of other agencies which would be produced by taking over their special functions; and, if the results of other agencies neutralize or vitiate those of the public school, (*d*) by the latter's responsibility in the matter which it has no right to ignore but which it must try to meet in any way that is legitimate and effective.

But what is the public school's own peculiar function and what are the values which it should directly seek to realize?

Referring once more to the educative process as involving both the educative situation and the corresponding educative response, we must find the source as well as the realization of all educational values in educative responses and their results. In other words, the value of any educational effort must be measured by the character of the responses which it produces and the more or less permanent educational results of those responses. With reference to the aim of education, these results are of two kinds: those which are of value to society, and those which are of value to the individual himself. Those results which are of primary importance to society are the organized motor tendencies and bodily forms of expression constituting behavior in its broadest meaning. The results which are of first importance to the individual are those which secure for him the satisfactions of life. A bit of organized mental life which is the result of education, and which may be highly valued by the individual, is of no concern to society unless it somehow actually or conceivably influences his behavior in relation to others. The word "behavior," as I am using it, is not restricted in meaning to volitional conduct, that is, conduct determined by consciously chosen ends, nor merely to the grosser forms of behavior. It means bodily behavior of all sorts that can in any way

influence the lives of others and thus become means of education, including those forms which are initiated and controlled by consciousness and those that are not.

There are two and only two ways in which anything may have value; it may have value either in itself directly or as a means to something else which has value in itself. The first kind of value may be called intrinsic, and the second instrumental. The seat of all human values is in the feeling or emotional aspect of individual human consciousness. To eliminate feeling entirely would be to eliminate the possibility of value of any sort. But feeling is individual; its very essence lies in its being experienced by somebody. It follows, therefore, that all intrinsic educational values can be realized only in individuals and that they are for the individual the values that are of primary concern. It is also evident that society is primarily interested in the behavior aspect of the educative responses of individuals, for it is this aspect alone that can serve as means of producing desirable conscious responses in other individuals. In other words, my fellow-men are interested in my education and are willing to tax themselves in order that I may receive it, but they do so fundamentally because they hope that out of that education will come forms of behavior which may serve as means of enhancing the lives of others by producing in them desirable forms of conscious experiences. The artist's behavior in producing a picture, for example, is socially valuable chiefly because of the aesthetic satisfaction which it brings to others.

Hence the primary purpose of public education is the determination of socially valuable individual behavior. An individual's knowledge and other organized forms of mental life resulting from education are, of course, socially valuable, because they are important means of determining behavior. Unless they actually or conceivably influence the individual's behavior they have no social value, and if they result in behavior that is detrimental to the general well-being they are, of course, socially undesirable. The principles therefore which should control the organization and direction of public education must be derived from the study of human behavior and of the means of determining and controlling it.

For my present purpose, I shall resolve the problem into two subordinate ones and deal with these in the order mentioned. (1) What kinds of behavior are socially as well as individually valuable? (2) How shall the means of producing such behavior be selected and applied?

I have shown that society is primarily interested in the behavior aspect of education, and that behavior can have only instrumental value and that it has this only in so far as it serves to promote directly or indirectly, in the individual himself and in other individuals, the realization of intrinsic values. The essence of behavior, therefore, from an educational point of view, is individual and social service; to serve anyone is to assist him by means of one's behavior to realize intrinsic values for himself either

directly or indirectly. This is, in fact, the only way in which service can be rendered. Now an individual can by means of his behavior serve himself and others in two and only two general ways: (1) by what he produces for the use of himself and others and by his manner of producing it; (2) by what he himself uses and the way in which he uses it.

For both these kinds of behavior education is not only possible but necessary under modern conditions. The realization of the general aim of education is impossible without it. An individual cannot realize himself and promote the well-being of society unless there is developed in him the capacity and the disposition, not only to produce well himself, but to use wisely the products of others. The individual who is merely a user, who does not produce anything for the inspiration and use of others, is a parasite on the social organism and therefore an undesirable citizen whether he be a millionaire or a tramp. On the other hand, one who produces skilfully and well much that society needs, but himself uses comparatively little of the products of others, is, of course, not wholly undesirable, but he is certainly not the most desirable member of the community. This is easily seen to be true when we multiply the number of such men in any community. To the extent that such a man does not spend his means in securing and using the products of the toil and inspiration of others, he prevents them from satisfying their own proper physical and spiritual wants by the use of products which they in turn might secure. The one who best realizes himself, and at the same time promotes as fully as possible the well-being of others, is the one who is best equipped and most disposed, not only to produce, but to use, the good things of life.

In fact, these two types of activity, producing and using, constitute the fundamental game of all civilized human life; and education in all its forms—science, philosophy, training for citizenship, aesthetic, ethical, and religious instruction—all are intended to develop the capacity, produce the disposition, and provide the rules for the playing of this game and for the realization of those values of life which come from playing it properly. General public education, therefore, whether accomplished in the schools or by other educative agencies, naturally takes the two forms, education for production and education for use.

The sense in which the terms "production" and "use" are employed is this. Man is a producer whenever he makes environmental changes of any sort, temporary or permanent, that may be used for the satisfaction of any human want, physical or spiritual. He is a user whenever he appropriates any such change, whether made by himself or by others, for the satisfaction of his own wants.

If we define general or fundamental education as that which is designed for, and supposed to be needed by, all, and also accept the proposition that this education, so far as it goes, must be both liberalizing and vocational, that is, education for use and production, we must distinguish two grades

of vocational and liberal education. Specialized vocational education, which later on in the child's life seeks to develop specialized knowledge, skill, and efficiency in some form of productive activity accepted as the child's life-work, must be based upon, and grow out of, a more general and fundamental kind of vocational education which seeks to give the child those forms of experience, ideals, attitudes, and habits that will help to determine for him his appropriate place in the world of producers. Specialized liberal education which in secondary school or college seeks to develop a refined taste and appreciative use of any products of the labor and inspiration of others, past and present, must also be based upon an elementary education in the right appreciation and use of the simpler and more common things of life.

The public elementary school should not attempt to provide specialized vocational education or specialized liberal education, but a general or fundamental education that is the best possible preparation for both, that provides for marked individual differences, makes for adaptability, and is in general well suited to the nature and capacity of children.

Therefore in making the curriculum for the public elementary school we should answer as well as we can the following questions: (1) Are there any experiences, forms of knowledge, types of behavior, mental attitudes, and dispositions that are fundamental to those vocations, at least, upon which the majority of the children of a given school system are likely to enter? If so, these should be provided for in the elementary course of study. (2) What are those values, knowledges, forms of behavior, and qualities of mind which are fundamental in enabling an individual to make the most of his opportunities to live a rich, sanely balanced, happy, wholesome, and socially valuable life as a user of the increasing wealth of things which the labor and inspiration of all men of all time have made possible for his comfort and for the enrichment of his life? So far as possible, these values must also be provided for in the elementary curriculum. (3) What, from the standpoint of the elementary school, for the period of the child's life which it covers, is the relative importance of these two aspects of life; and how shall these two types of material be rightly woven together and administered so as to develop in the child a unified, rightly disposed personality, and at the same time assist in finding for him that vocation and that type of culture for which he is by nature best fitted?

RURAL-SCHOOL ADMINISTRATION

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For one who has given but little attention to the subject, it is hard to appreciate the great revolution in rural life which has taken place during the past three-quarters of a century. The changes which have been accomplished have been of far-reaching importance, and they have touched every phase of rural life. Almost nothing now is as it used to be; almost nothing is done now as it was done three-quarters of a century ago. We of today live in a new world—a world of which our grandfathers scarcely dreamed. Life everywhere today is far more complex, intricate, difficult, and fruitful of both pleasure and profit than was that of which our grandfathers formed a part. The great changes which have taken place in living and industry have affected all of our people, rural and urban, but perhaps nowhere has the revolution been of more far-reaching importance than to those of our people who live on the farms and in the little villages of our nation.

This social and industrial revolution has profoundly changed the whole nature of rural life and created entirely new rural problems. Some rural communities have naturally experienced a greater change than others, but no community has wholly escaped. The revolution, too, has been so rapid, so extensive, and so far-reaching in its consequences that both rural people and rural institutions have not changed anywhere rapidly enough to keep pace with the demands of the new civilization. The result has been the development of a rural-life problem of great social, educational, and economic consequences, and one which involves most of the cherished institutions of rural society. It has become particularly acute as it relates to the character and elements of the rural population itself, to the conditions of land ownership and farm tenancy, rural home life, rural society, the rural church, and the rural school. Taken altogether and as a whole we call this collection of problems the rural-life problem. Of this rural-life problem the rural-school problem forms only a part, but if the rural-school problem is to have any satisfactory solution it must be approached with some understanding of the rural-life problem which surrounds it.

Perhaps more than any other rural institutions, the rural and the small-village church and the rural school have felt the effect of these profound social changes. Everywhere we read of the decline in influence and the dying-out of the rural church; and everywhere thoughtful men look almost hopelessly at the problem, wondering what the future will be.

The decline in influence of the rural and village churches serves to modify the whole nature of rural education and, in consequence, to throw

a much greater burden upon the rural and small-village schools. In proportion as the church declines in social, moral, and religious influence, other community forces must take its place and do its work. Chief among these must be the school, tho it, too, has been hard pressed by the great social and economic changes which have marked our agricultural development.

The result of the many changes in rural-life conditions, brought about by the changing economic and social conditions in our national life, is that the rural school has lost its earlier importance and finds itself today in a sorry plight. It is no longer, generally speaking, the important community institution it was forty or fifty years ago. It has largely ceased to minister, as it once did, to community needs; its teacher no longer plays the important part in neighborhood affairs that he used to play; it has lost most of its earlier importance as a community center; its attendance has shrunk to a fraction of what it once was; it finds itself in a serious financial condition; and it has been left far behind, educationally, by the progress which the cities have made. The rural-school problem as we now find it, tied up as it is with the whole rural-life problem, has become too complex to be solved by local effort, and little short of a fundamental reorganization of rural education will meet the needs of the present and of the future. The problem is not a simple or a single one, but is in reality composed of a number of related problems in educational organization and administration. We now propose to indicate briefly the reorganizations which must be effected if any real solution is to be had.

In the first place, the district system of school organization should be abandoned in favor of a unit of larger jurisdiction, preferably the county. So clearly have the defects and limitations of the district system been revealed that a number of states already have entirely abolished the system, while almost all the others have limited the powers of the district authorities in many ways. As a system of school organization, it has done its work and should be abandoned in favor of a system better calculated to serve the needs of rural life. As a system of school administration, it is expensive, shortsighted, inefficient, inconsistent, and unprogressive; it leads to great and unnecessary inequalities in schools, terms, educational advantages, and to an unwise multiplication of schools; the trustees, because they hold the purse strings, frequently assume authority over matters which they are not competent to handle; and most of the progress in rural-school improvement has been made without the support and often against the opposition of the trustees and the people they represent.

The unit, too, is too small for taxing purposes, and the substitution of some larger taxing unit than the school district is necessary if any substantial progress in rural-school administration is to be made. Adequate financing, state and county taxation for education, and a wise system for the apportionment of the money lie at the basis of any marked improvement in the educational conditions surrounding the rural schools in nearly all

of our states. More money for the schools is an absolute essential, and until this can be obtained no very satisfactory progress in rural education is possible. It cannot well come from an increase in district taxation, and hence must come from increased general taxation, or from a reorganization of rural education, or from both.

Another fundamental need is a rational scheme for the reorganization and consolidation of the districts, so as to form a unified school system of the best possible type for all of the people of the counties. In the days of cheap schoolhouses, cheap teachers, cheap education, and local taxation, it was thought wise to encourage the process of multiplying districts, and pride was taken in the abundant school facilities thus provided. The result is cheap and poorly equipped schoolhouses, four times as numerous as there is any real need for. This unwise multiplication of school districts should be stopped; consolidated schools, which will afford the kind of education needed by rural children, should be provided, whenever possible; and a rearrangement of expenditures should be made which will provide sufficient funds to maintain the necessary number of good schools and attract good teachers to them. This is feasible only thru a reorganization of the educational resources of our counties along good business and educational lines. Such a reorganization proposes nothing more nor less than the creation for country children of as good schools for their needs as city children now enjoy. It contemplates the abandonment of dozens of the small and inefficient one-teacher schools which dot the surface of almost every county, and the creation, instead, of a much smaller number of centrally-located consolidated schools, with partial or complete high-school facilities attached.

It will require two generations to accomplish this, under the present conditions in educational organization. Here and there in some states, a county superintendent of larger insight and energy from time to time succeeds in doing some rather brilliant piece of work and, by the force of a strong personality, or the exercise of an abiding patience and persistence, succeeds in creating a few reorganized schools, which are effective and which really minister to the community life; but the large interest among school men, which such accomplishments create, only serves to cause to stand out in contrast the antiquated, inadequate, and practically unchangeable conditions which on all sides surround their one or two accomplishments. The work seems wonderful only because so few such successes can be made. Whereas what now is so rare ought to be universal. The Kingsville School, in Ohio, a pioneer in the consolidation movement, has been heard of everywhere, but, after more than twenty years of successful work, the county in which it is located has townships in which no change has been effected. The work of Kern, in Winnebago County, Illinois, has, deservedly, received much attention, yet the accomplishments there after more than a decade and a half of effort, and considering the county as a whole, were really very small for the energy expended. The county has today as a result a few excel-

lent consolidated schools, while Kern's work, successful as it was, has affected the conditions in surrounding counties and in the state of Illinois but little.

Under the county unit of organization, the needs of the county as a whole may be planned for at one time, and stranded districts or ill-advised unions, common in all states where voluntary district consolidation has been accomplished, may be prevented. The Minnesota plan of county-unit planning, where the county is carefully surveyed and a plan of reorganization for the whole county is adopted, is of particular merit in this respect.

If our rural schools are to be properly reorganized, however, and conducted on a plane as efficient and intelligent as our city schools are conducted, provision must be made both for securing and for retaining real leadership at the top. This demands the elimination of the county superintendency from the political column. Never before in the history of our educational systems has there been such urgent need for men and women of adequate professional preparation, deep social and professional insight, and large executive skill and personal power for the supervision of our rural schools; and such men, once selected and appointed, need to be given the same tenure, compensation, and free hand which a superintendent of schools in a well-organized city-school system has today. Long ago our cities abolished their districts, stopped choosing their superintendents by popular election, and began to manage their schools as a unit, and not until our counties introduce something of the same unit-system into their educational management, and begin to compete in the educational markets for real leadership, will rural education ever be made very effective or be put on a competitive basis with city education. For the pleasure of retaining an antiquated and worn-out administrative system, electing a horde of unnecessary school trustees, and voting for another county officer, our rural people have, as a consequence, an unnecessary number of small, costly, and inefficient rural schools, poorer teachers than is necessary, inadequate and often unsuitable instruction, and supervision, in most of our states, which is little more than a name.

Say what we may for the present system, the stubborn fact remains that the office of county superintendent today, outside of a few southern states and the states of New York, New Jersey, and parts of Utah, is but a poorly paid job, offering but temporary employment, no career for anyone, and no incentive to anyone to prepare for the work except in the school of politics. Once take the office out of politics, make it appointive instead of elective, abolish the local residence requirement, throw it open to competition as city superintendencies and high-school principalships now are, and base salary, tenure, and promotion on efficiency in the service, and the office of county superintendent would offer a career for which a man or woman would be warranted in making long and careful professional preparation.

Not until this has been done can our rural schools ever hope to enjoy a supervision which is as close and as effective as our cities today enjoy or that intelligent guidance and direction of which they stand so greatly in need.

To one who stands off and looks at the rural-life situation as affecting the school and compares it with the city-life situation as affecting the school, another striking difference as to leadership at once appears. This difference, which means so much to the welfare and development of the rural public school, represents the second item of supreme importance in the solution of the rural-education problem and consists of the almost total absence of civic leadership in rural communities. Whatever else may be said by way of criticism of the life in American cities, rarely is one able to find a city without some evidence of a deep-seated civic pride and civic spirit. Voluntary organizations such as civic leagues, philanthropic organizations, commercial societies, women's clubs undertake to do that which individuals and municipal government neglect to do, or are unable to do. To the leaders of such organizations is due the largest share of credit for what our cities have recently accomplished in the way of civic progress and reform. These leaders have been, in the majority of cases, men and women who have been possessed of a desire to give something, to do something, for the general betterment of the community in which they lived. It may be said, in contrast to this, that rural communities in which there is fostered anything akin to the civic spirit of the city are few and far between. The generally isolated conditions of life in the country contribute to the development of an individuality which masquerades under a variety of names—such as self-reliance or independence—but which from the standpoint of the common welfare is nothing but a more or less virulent form of selfishness. One hears frequent charges nowadays concerning the materialism and commercialism of modern life, and by general consent these are thought to apply exclusively to the life of the city. One hears also many sighs from old-fashioned people, or from people who think they would like to be old fashioned, for the good old times when we did not live so much in cities, when we did more plain living and high thinking. We venture to remark there is no class of people who so uniformly measure every action in life by its possible value in dollars and cents as do the people of the better agricultural sections of this country; no class which has a more highly developed spirit of selfishness.

Now the personal virtues of excessive industry, frugality, and economy, however valuable and desirable they may be in individuals, are likely to lead to certain undesirable characteristics in the community life, among which may be mentioned the distinctive tendency to permit community affairs to take care of themselves. The school is the most important community affair that any rural territory possesses; and it is because every-

body's business has been nobody's business that the school has suffered from neglect and parsimony. Such things have happened and are happening in cities; but the difference between the country and the city is that whereas the country seems generally unable to produce from its own citizenship those who are willing to lead the way toward better things, the city is able to do so. This difference is not due to the city's having more ability or more energy than the country has, but rather to the fact that the country is not yet in the habit of using its own strength for its own betterment. The real reform of the rural-school situation must come not from without but from within. County-life commissions and educational investigators may serve a valuable purpose; but each community must be led out into the high road of progress by one of its own members.

There is also need of a new type of teacher, one with a deep insight and interest in rural service and having a new conception of the curriculum as a living thing adapted to the present and future needs of rural children, rather than to the needs of a period which has passed by forever.

Not only must our system for the selection and preparation be so altered and improved as to give a better grade of men and women as country school-teachers, but the system of compensating the teacher must be modified in such a way as to reduce to a minimum the prevalent methods of competition and private barter whereby the local school authorities buy in the cheapest and the teachers sell in the dearest markets. One need not hesitate to say that in nine out of ten cases today the country school-teacher is regarded in the light of a private employee of the district school officers. The status of the teacher must be changed from that of a private servant to that of a public officer, whose qualifications and whose training are prescribed to fit the demands of the service to be performed. And as a state officer, compensation will be fixed and paid directly by the state, and not by the local school community. Present and past experiences fully justify the conclusion that, until the standard of compensation is raised and maintained at a level far above that now existing, the country school will be without trained and efficient teachers, and the rural-school problem will remain a permanent one.

On this point, tho, we have not time to dwell. Our main theme is that the really fundamental need today is that rural and small-village education should be reorganized along efficient administrative lines, to enable such to meet the needs of our rapidly changing rural civilization, and that the educational reorganizations made necessary by the great and far-reaching changes in our rural life and rural needs are essentially those which we have just outlined. These involve a county unit of organization, administration, and finance; the election of a lay county board of education, analogous to a city board of education, to select the experts and to determine the larger questions of policy and procedure; the substitution of an appointed for an

elected superintendent, and the reorganization of the county administrative office along the lines of the best city administrative experience; a redirection of the instruction to meet modern educational needs; and the training of a body of teachers for rural work who can and will render community, as well as educational, service.

To inaugurate such reorganization will not be especially easy. The precedents of three generations and the selfish interests of individuals and communities will need to be overcome. In not a few states constitutional obstacles exist. Such a fundamental reorganization cannot be expected to come thru the voluntary co-operation of district authorities, upon which we have so far placed our chief hope. District authorities are too short-sighted and know too little as to fundamental rural or educational needs. Neither can we expect much assistance from the average politically-elected county superintendent. The system of which he is a product too often to him seems a sacred system, and, in the district-system states at least, he is too afraid of the enemies he may make in the districts, and the opportunities he may give an opponent to defeat him for re-election, to render much service looking to any fundamental reorganization of rural education. The necessary reorganizations are of such a fundamental character that they will have to be superimposed from above, sweeping away before them the opposition of both county and district-school officials. The state, in the exercise of its inherent right to demand constructive reforms, must demand a reorganization of rural education which will create a system adapted to modern rural educational needs, one under which business can be transacted in a modern manner, and one under which rapid progress will be possible.

Counties which refuse to reorganize their school systems on a proper educational basis, and to provide properly for the needs of their children, should be penalized by a reduction of the apportionment of state funds to no more than would be demanded, for the same educational facilities now provided, if regrouped under a proper educational reorganization.

After a few years of operation under such a county-unit reorganization, each county would have a much smaller number of community-center consolidated schools, with partial or complete high schools attached, adequate and professional supervision and direction, and a new and an effective type of rural education. What now seems so wonderful and so exceptional, when carried thru by some energetic and persuasive county superintendent, would then become the rule.

ROUND TABLES

ROUND TABLE OF STATE AND COUNTY SUPERINTENDENTS

PROBLEMS THAT CONFRONT THE STATE SUPERINTENDENT IN HIS RELATION TO THE RURAL SCHOOLS

FRANK W. MILLER, STATE COMMISSIONER OF SCHOOLS, COLUMBUS, OHIO

When I was elected state commissioner of common schools of Ohio, I had a preconceived notion that intelligent people would have at least a vague idea of the duties of the position. You can well imagine with what amazement I heard the questions of many of my friends: "What are you supposed to do?" "How much of your time will it take?" "Will it interfere with your school work?" If these questions had come from Hungarians or from the drawers of water and hewers of wood, they would have been passed by and soon would have been forgotten. But coming from professional men, lawyers, doctors, preachers, and shrewd business men, men who know the duties of the constable, the street commissioner, the mayor, the probate judge, the congressman, the secretary of state, the governor; men who could discuss intelligently the measures before Congress and the President's message, and who were conversant with the news of the world, such questions have a deep significance.

What is wrong? Have we, as state superintendents, been working in the wrong channels and misdirecting our energies? Have we been leaders, and, if so, leaders of whom?

There may be many here who are not in accord with my views, but I do not believe that it should be the duty of the state superintendent to give most of his time to lecturing at teachers' meetings upon pedagogical subjects, but rather to attend to the business phase of the school system of the state.

We have in our teachers' colleges and normal schools men and women who have the opportunity and the time to study existing methods, methods recently developed in other states and in other countries, and to devise new ones of their own; men and women who are thoro students of psychology and the history of education, and who, by processes of reasoning and by experimentation and observation, can determine what courses of study and what subjects are most effective in developing the highest and strongest type of citizenship. We have in our public schools men and women who can develop new ideas, new methods, and new devices which may be of great value in classroom instruction. It is to these people that we must look for instruction along pedagogical lines.

The state superintendent may deliver a lecture that may be like music to the ears, developing a beauty and harmony in the teachers' souls, or he may give his auditors practical points in teaching, but all this, as far as the public is concerned, falls upon deaf ears. The school world is still a remote and secluded spot. If the state superintendent is to awaken the public conscience, he must address commercial clubs, chambers of commerce, boards of trade of the cities, and public gatherings of the rural and village people. He should be the connecting link between the school world and the general public and bring them into close touch. He should call the attention of the public to the condition and needs of the schools, get its co-operation in working out some of our school problems, especially the financial problems, and prepare the way to put into operation new ideas in education, which we have good reason to believe are sound.

A gathering of business men does not care to hear much about Socrates, Comenius, or Montessori. They want to know what can be done by them to bring results. They are ready to intrust the pedagogical knowledge to the teachers. Whenever the state superintendent addresses business men he should always have a message, definite, succinct,

direct, and to the point. Business men do not on such an occasion care for pleasantries or platitudes. When he has such an audience, he should feel that his message is worth as much to them as the value of their time is when employed in any other capacity.

Residents of the cities should have impressed upon their minds what an intricate institution civilization really is, how impossible it is for civilized man to live alone, how he must live in the midst of, and by the help of, others. A city located in a rich farming country may burn to ashes, but, like the Phoenix of old, she will rise again, a greater city. But if by some transformation or cataclysm of mother earth the surrounding fields should become a desert, the city would soon become a collection of deserted walls of brick and stone. When the business men of the city see that increased wealth in the country stimulates better business conditions in the city, they will become interested in the welfare of the people and the schools of the country. This may be a selfish reason, but man is a selfish animal and, in many cases, must be treated as such.

We have in Ohio the corn boys, the boys who raise one hundred bushels of corn to the acre while their dads raise thirty. The prize winners have for the last two years been given free trips to Washington. These prizes have been given in many instances by the generosity of business men from the cities—merchants, bankers, newspaper men, and even school-teachers. This is doing much to stimulate interest among the young people of the country in farm life and farm work. The state department of education can interest many men and women from both city and country to such an extent that they may gladly furnish the prize to be won by some industrious boy or girl on the farm. In movements of this kind, what is most needed is leadership. The state superintendent should be the leader.

The state superintendent should familiarize himself with country life and country conditions. He should mingle with the people of the country, so as to become acquainted with their customs and traditions, their social life, their industrial life, and their religious life. He should be able to see thru their eyes and hear thru their ears. He should be a big man but he should also be humble. When a man gets too big for his job he is in a dangerous position. When a state superintendent gets too big to get thru the door of a little one-room schoolhouse, the value of his service is approaching an end, and he had better hunt another job.

Whatever uplift is to come to the country people must grow out from within and not be poured in from without. The state superintendent has the great opportunity of meeting the country people on common ground. They do not consider whether he be from the city or from the country, but look upon him as the legal head of the school system, whose business it is to advise with them and aid them in any problem that will pertain to their betterment. He has every opportunity to gain their confidence by never hesitating to tell them the truth and plenty of it. But this confidence will never be gained if the state superintendent remains complacently in his office, enjoying easy life and occasionally addressing a teachers' meeting upon "The Joy of Teaching" or some other kindred subject. He must meet the people. If he has something to tell them they will be interested. They delight to hear of the schools in the other parts of the state. They are interested in centralization and are pleased to hear it discussed. They are interested in the teaching of agriculture, in high-school work, in domestic science, when they are once understood.

The state superintendent should have a program. Without it he is headed for nowhere and gets nowhere. People are ready to act if they feel that they can act intelligently. They are ready to expend money if they can be assured that they will get value received. The state superintendent should make recommendations to the legislature to give us such laws as are needed to keep our schools abreast with the times. If there are bad conditions, he should not hesitate to make that fact known to the people concerned. By furnishing a good school program, he can in the course of a few years do much to improve the social and industrial conditions of the rural communities without

the people being cognizant of how the change was wrought. He must establish courses of study that will prepare people for complete living; courses of study that are in harmony with what should be the natural life of the community; courses of study which will lead to better farming, better business, and better life on the farm.

Boards of education of rural districts are frequently in need of guidance. The state superintendent should make his office a clearing-house or a distributing agency of all good ideas found in the various parts of his state, so that all may receive the benefit. He should educate delinquent boards of education to discharge their duties and give them the right inspiration to look at the school problems in behalf of the boys and girls and not in behalf of dollars and cents, nor of positions for their own sons and daughters or anybody else's sons and daughters. He should teach them to trust their superintendent and teachers to buy the milk-tester and material for testing soils and seeds, rather than to be tricked by the smooth chart agent. He should instil in them an extensive interest in boys and girls rather than in intensive tax saving, an interest which will develop the physical plant of the country school and course of study which will prepare for country life.

In most states the distribution of funds derived from taxation is not upon a just basis. The state superintendent can have no higher duty than to advocate that the state should give greater support to the schools and throw less of the financial burden upon the locality. Many localities have the exchequers of their treasuries filled with taxes from public utilities such as railroads, pipe lines, and telegraph lines, while other localities do not receive the benefit of any of these taxes. The money made by these public utilities is not produced alone where the tax is paid, but is a composite result of the business of the entire state.

Every boy and girl in the United States should have the God-given right of an opportunity for an education. When the state bears the greater part of the burden, the city schools will no longer be able to take away so many teachers from the country. Wages of the country teachers will then more nearly equal those paid in the city. There will be an inducement to young men and women to make teaching in the rural schools their life-work. Our rural schools will be taught by men and women trained in rural-school work to the benefit of the rural schools and country life. Herein lies the great problem before the state superintendent.

DANGERS OF OVERORGANIZATION OF THE RURAL SCHOOLS

PAYSON SMITH, STATE SUPERINTENDENT OF PUBLIC SCHOOLS, AUGUSTA, ME.

If a topic is presumed to suggest the exact position of the speaker, then mine should probably be restated. I am not at all clear that any country schools I know are in imminent danger of overorganization. Perhaps the topic ought to read, "The Place of Organization at the Present Stage of Rural-School Progress." Whatever danger exists doubtless lies in the tendency to place confidence in machinery or system as a producer of results. Organization of the kind that seeks to limit, that makes and enforces rules and regulations, that interferes, that fixes inflexible standards—that sort of organization has done harm in city schools but may be necessary there; it would do more harm to rural schools and it is not needed there. The kind of organization, however, that develops and helps to realize a program of advancement is peculiarly needed in rural education just now.

In speaking of the effects of organization, its advantages, and its dangers, one must consider some phases of the reconstruction of rural schools. There is apparently not a little confusion in the minds of many as to the ends for which we ought to work and the means that would be likely to operate to those ends. The country school is having its day, and, like any other phase of education that happens for the time to be prominent, it suffers from the theories of the extremists. After its years of neglect it comes under

the notice of the expert. It is being investigated, it is being surveyed, and so, we are afraid, it is straightway to be reported and then systematized and then—left alone. Many of these expert friends come from a distance both professional and geographical, and it sometimes appears the remedies they suggest are not practical ones. For example, at a recent rural-life conference, the prophecy was made that within a decade our several thousand one-room country schools will have been brought together into consolidated schools. If the seer of this vision would attend the function of the discontinuance of one of these one-room schools down in our northeast corner and note the circumstances that attend its translation, he might state his prophecy in more moderate terms. The fact is that the great majority of a generation of country school children must get their education in one-room country schools, and probably after consolidation has done its best we must still have a place for the one-room school. Our plans for making that school a more efficient institution ought not to wait upon the fulfilment of the prophecy. Again, only last week a gentleman was reported by the press as saying that university instructors ought to be the teachers of our rural elementary schools. We wonder whether he has noted the salary schedules of country schools; or perhaps we wonder whether his is a naïve suggestion for the improvement of university instruction by elimination and substitution. Still again there is at present a pronounced emphasis on agricultural aims in rural education.

I know it is popular to say just now that the country school and agriculture are inseparably connected and that the welfare of the former depends on the extent to which we are able to introduce the agricultural note as the dominant one in the work of the country school. At the risk of violating this fundamental tenet in the creed of many rural-school reformers, and speaking for rural elementary education, I must say that I believe we are radically wrong where we attempt to make any elementary school, whether in city, village, or country, the sponsor for any special trade or occupational education. I must confess that I have seen few indications that those who are most vitally interested in rural schools desire them to be given over to scientific agriculture. Still less have I seen any indication that elementary country schools are prepared to undertake or to discharge such function. Least of all does it appear that trade education, however important elsewhere in our scheme, has any business in common schools. What the people who live close to the country school most desire and what they have a right to expect is that it shall be a thoroly good common school, teaching in a thoro fashion the subjects which are fundamental to the acquisition of other education. From this aim rural elementary education cannot be diverted without serious danger both to the educational welfare of the hundreds of thousands of children who must look to it for their school privileges and to the welfare of the industry of agriculture itself. To promote the interests of agriculture most effectively, we need not so much to have agricultural teaching as we do to make available to country youth common-school opportunities that will be so good that no farmer will have to remove from his farm home in order to educate his children. This is not to deny the value as incentives of boys' and girls' agricultural clubs, school gardens, and other means of making school life more interesting to country children and of opening their eyes more appreciatively to the surroundings in which they live. Let us not make the mistake, however, of putting the relatively unimportant device in the foreground and making it appear the aim or absorbing motive of the school.

One has some difficulty in speaking in moderation of those who are in a measure preventing the sane development of rural education by their advocacy of impossible theories. Not a little confusion exists in the minds of many country people as to the steps they ought to take for the betterment of their school facilities. Rural education in each community and state stands in need of an avowed program of progress, a program that will recognize in the first place existing deficiencies and will state attainable standards. The people need to be told the truth of their schools. The country people who have been told so often that by its product the little red schoolhouse has proven its superiority over other schools are the conservative souls who are willing to keep it both little and red—or indeed

to let it go without paint altogether on the theory that its efficiency will increase in the ratio of its humility. The program must indicate in specific terms the needs that must be met if the country school is to become as efficient in its place as other schools in their places. For example, the one outstanding fact in the present rural-school situation is that the funds available for its support are inadequate in much greater degree than in other schools. The remedy for this—or one remedy—lies in the adoption of a more general tax for school support. One does not need to discuss at this late day the justice of the principles underlying this more general levy. It was recognized when, for the sake of a better social state and a higher grade of citizenship, the first tax of any kind was levied for public-school support. Only those who hold that the district, township, or county limit is to mark the bounds of a people's responsibility for the state's welfare should argue for an educational tax assessed and distributed within these respective lines. The educational, and hence the civic, material, and social, welfare of all the people calls for the kind of a school levy which will assess wealth and property where they exist, creating a school fund for the education of children wherever they may live.

Again, and this depends on the first point, our program must consider the element of the teaching force. We are told that about a hundred thousand persons began their teaching experience this school year. Of these a little more than one-fifth had received some special training for their work. Of the remaining nearly eighty thousand practically all went into the schools of the smaller places. At once there is evident a cause of deficiency in rural schools. It is as true of country schools as of any other that the school is as good as its teacher. All the rest of our educational paraphernalia exists for the betterment of the teaching or to supplement it. Machinery, system, rules, regulations, courses of study, outlines, all of these are worse than useless when employed without due sense of proportion as related to the quality of the instructors for whose benefit they are instituted. But our program does not end there. School buildings and equipment in the country lag generally far behind the standards that have been attained in towns and cities. While the teacher is indeed an important element of the school, we very well know that children are educated by the influence of their surroundings. The ill kept, insanitary, badly lighted and ventilated school buildings that are scattered across our land for the use of country children are the most obvious reproach to our American school system today. In my opinion the present condition is not so much due to the parsimony of country people as it is to the fact that those who have administered schools have been so absorbed in other phases of their work that they have not taken the time to formulate a procedure for the correction of these defects. I have known difficulties of this sort to be completely overcome within a very few years by superintendents who have taken the pains to lay before their constituencies the exact details as to the state of their school property, with accurate estimates of the cost of placing it in decent condition. I will not carry farther this analysis of a constructive program for rural education. I have already indicated the extent to which it deals with matters that are regarded as commonplace. They are commonplace and they indicate clearly enough that with respect to the basic conditions of school economy the country school is weak and must be made stronger, that this institution needs just now, not so much the systematizing regulations that go with a completed school system, as the development of some of the rather primary and essential conditions on which a school system must be based. As I see the matter in one of our states, the demand of the hour is not for an excess of machinery to regulate and to enforce but for the cultivation among the people of a stronger sentiment in behalf of rural education. All the people—residents of both city and country—need to be told and often that the present depressed state of rural education is a menace both to country and to city, that there is a more than local responsibility for the betterment of country schools. The problem is a state-wide one. In Maine as well as in other states this wider responsibility is being recognized. In that state last year the support of elementary education was borne to the extent of nearly two-thirds by a state-wide tax, and many poor towns secured

state educational funds very far in excess of their total taxes paid to the state. This indicates the measure in which wealthy centers are contributing to the support of education in the rural sections of the state.

The organization needed therefore for the benefit of rural education is the organization of constructive forces and especially of the force of public opinion upon which, in our country, educational progress must chiefly depend. With regard to its internal affairs, the rural school is not ready—if it ever becomes so—for close organization, especially of the kind that would seek uniformity as an end, or that would superimpose upon all schools and communities requirements adapted only to a part of them. We shall probably agree that there may have been too much of that kind of organization even in city schools. We have had, I repeat, too much faith in system as a yielder of results. There has certainly been in our centers of population, in connection with the fascinating problems connected with rapid urban growth, a strong temptation to engage ourselves with the construction and operation of machinery which would help us to classify, reclassify, subclassify, and superclassify the interesting material at hand. Happily, however, the day appears to have passed when there was in the ascendant the kind of superintendent who prided himself that his charts would tell what was doing at any stated time, in all his numerous classrooms, and who indulged the proud boast that all his teachers worked under methods prescribed by him and followed minutely in every last detail. The revolt from oversupervision in city schools began none too early and has reached none too far. Yet one cannot successfully contradict those who will say that this close supervision has yielded much of positive benefit to city schools. They often confuse the causes for the greater efficiency of city schools in comparison with country schools, but, after making deductions for all the other reasons, there is still something that must be said in favor of careful oversight. With these points of advantage in mind, it is natural that these who have become interested in the improvement of the rural school should seek to apply the same forces to it. The tendency is apparent. It is to be noted in the legislature of a state where there appear all kinds of measures whose authors apparently believe that the deficiencies of teachers, of school equipment, and of local sentiment can in some way be overcome by legislation. It appears among the people who not infrequently demand official regulations to correct wrongs which it is already in their own power to make right. It is even to be found in the teaching force, usually thought to be resentful of official interference.

This constant and probably increasing demand for rules, restrictions, requirements, and arbitrary standards is an indication of the faith we have in organization. It would appear to be a general belief that if someone from the outside could get hold of the situation then affairs on the inside could be at once made quite satisfactory. Yet this theory accords very little with that on which our American educational system has been based and by means of which it has grown. We who believe we know what is best for the people's education may sometimes long for the power of an imperial bureau that we might say what next shall be done and to enforce that thing in action. But we know that the most representative thing about America is her public school. It has progressed with the people. Its mistakes are their mistakes; its virtues are their virtues. Nowhere does a school system in this country keep very far away from the average of public opinion as related to public education. In our educational policy our people have been at once training their children and training themselves. I grant you by a system of bureaucratic or commission control we might make—if it were to be permitted—a striking showing of what would look like very great progress. But would it be real progress? Has not our necessity of keeping the people close to our school procedure been the means of making the American schools, despite their obvious crudities, the most vitally and soundly and permanently progressive? School reforms in America have never come by edict or dictum. One cannot readily recall any permanent gain in education that did not rest first of all upon the previously won support of the people.

Our schools have improved by the process of experiment. No matter into what field you may make inquiry you will find that this is true. In the training of teachers, one state first set the example, later followed and perhaps improved by others. In the furnishing of textbooks, one city demonstrates first to itself, then to other cities, and finally to states, the efficiency of its plan. Medical inspection makes a beginning, but a quarter of a century passes before large areas respond to the call for more careful health regulations. Today industrial educatian is a vivid illustration of the way American education adopts and assimilates any reform. In every instance community support under wise local leadership is the prerequisite for each and every advance.

This process of progress by experiment continues. We like to believe that experiments are attempted more scientifically from year to year, that the pioneers are a little surer of their ground; but however that may be, it is quite true that the things we are to do next year and the year after to improve all our schools are being this year demonstrated by some courageous and enlightened school or community. This, of course, is only another way of saying that educational progress depends on educational freedom. In rural education our country is to make its next great advance. We are conscious of the need, we are confident of the opportunity. In making this advance, there is place for an organization of forces that will arouse public opinion, that will prepare and dignify a teaching corps, that will help house and equip, that will focus and sustain interest. But with this organization must go a spirit of freedom which will permit and encourage pioneering individuals and pioneering communities to set up all the wise experiments they will.

INTERRELATION OF THE OFFICE OF STATE SUPERINTENDENT AND THAT OF COUNTY SUPERINTENDENT

I. FRANCIS G. BLAIR, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, SPRINGFIELD, ILL.

There are two large groups of interrelations existing between these two officers in the administration of public-school systems. The first group may be characterized as the legal interrelation and the second group as the professional interrelation.

Legal interrelations.—There is a more general condition upon which both of these depend. In some commonwealths the state superintendent and the county superintendents may be elected or appointed by the same power or authority. In such states, it is easy to see how the legal and professional relationships existing between state superintendent and county superintendent will be peculiarly close and effective. The definitions and standards set by the superintendent of public instruction can easily be made effective as these county superintendents are the extension of his legal arms. In other commonwealths, where the state superintendent and county superintendents are elected by the people or where the state superintendent is appointed by one authority and the county superintendents by another, we have the maximum of independence and variety, whereas in the former case we would have the maximum of uniformity and the minimum of variety. It is impossible for me to discuss this subject except in the light of the situation with which I am most familiar. In Illinois, the state superintendent of public instruction and the county superintendents are elected by the people. Being elected by the people, they cannot be removed except upon the gravest charges. The fact that they are elected by the people gives a sense of independence and security. In commonwealths where this relationship obtains, it is necessary that many of the interrelations between state superintendent and county superintendent shall be defined definitely by law.

First: A most important legal relationship which these officers bear to each other is in the collection of statistics. One of the primary reasons for the establishment of the offices of county superintendent and state superintendent was the collection of data, and their classification and publication for taxpayers and lawmakers. It is believed that the

demand for the collection and publication of such data is growing more imperative. It is very essential that the law should specifically state the powers of the state superintendent in calling upon county superintendents and of the county superintendent in calling upon boards of education and school officials for the data required by the superintendent of public instruction. The law should set certain sufficient penalties for neglect or failure to perform this important duty of collecting and furnishing required data. In Illinois, the state superintendent of public instruction is empowered to withhold the salary of the county superintendent; the county superintendent is empowered to withhold the state distributive fund; and, under the new certificating law, teachers are required to make out certain statistical statements and any failure to do so is declared unprofessional conduct which may lead to the forfeiture of the certificate. Every department of public instruction should have a statistical department in which there is at least one person who gives the major portion of his time in preparing the blanks, advising with county superintendents and school officers concerning the gathering of statistics, and in the working-out of definite, attractive forms in which to bring these data before the public and to the members of the legislature.

Second: Another interrelationship which should be defined by law is the co-operation of these two officers in the interpretation, construction, and administration of the school laws. The superintendent of public instruction should be made the legal adviser of county superintendents in such questions. Wherever a legal question is of such importance that the superintendent of public instruction desires the opinion of the attorney-general, he should secure such opinion. But in 99 cases out of 100 or in 999 cases out of 1,000, all legal questions can be answered directly by the superintendent of public instruction. Every department of public instruction should have a legal department at the head of which should be a man who is first of all a lawyer, who knows how to read the law and construe it, and who is familiar with court decisions. There should be legal arrangements provided for making an appeal from the county superintendent in certain legal questions to the superintendent of public instruction.

Third: The relationship between the state superintendent of public instruction and county superintendent with respect to the certification of teachers should be clearly defined by law. Perhaps no other thing has led to greater misunderstanding and greater friction in some of our commonwealths than this interrelation. Just what are the proper relations to establish by law is a matter upon which we could not agree. Different states would demand different sorts of arrangements. In Illinois, after many years of study and consideration, a law has been enacted which seems to remove most of the sources of misunderstanding and annoyance and to establish certain fundamental and necessary relationships between state superintendent and county superintendent in the administration of this important matter. The law gives the state superintendent of public instruction the power to issue all state certificates upon certain conditions. It provides a state examining board to have charge of making all questions and the examining of all papers which relate to county certificates. This board is made up of the superintendent of public instruction, who is chairman, one person appointed by him, and three county superintendents who are nominated by the County Superintendents' Section of the State Teachers Association and appointed by the state superintendent. The kind, character, and validity of county certificates are established by law. It is believed that, under the control of this central board, constituted as it is, there will be a greater degree of uniformity in qualifications of teachers and that some of the confusion and difficulty involved in the previous plan will be avoided.

Professional interrelations.—Under this head I would place all those relationships which exist between state and county superintendents in their effort to supervise the schools of the state.

First: Thru publications. Every state department should be authorized by law and the funds should be available for publishing freely all sorts of information and suggestions to county superintendents with regard to supervision and administration of all

phases of public education. There should be a department of publicity or publication with someone definitely responsible for the mechanical side of the work. It is easy to believe that one of the most helpful relationships which a department of public instruction may maintain with the county superintendents of the state is thru its publications. Perhaps one of the most helpful publications is a periodical which shall carry out each month to county superintendents and state superintendents data and information which, if placed in circulars and in large reports, would reach the persons for whom they are intended too late or, having reached them, will not be in the form to attract immediate attention. A bill is now before Congress which seeks to give all departments of public instruction a second-class postal rate for such periodical publications.

Second: Thru conferences. The state superintendent of public instruction has a great opportunity to promote wise supervision and administration by holding annual conferences with the county superintendents. The conferences should be small so that the freest, most informal discussion may be had upon all sorts of questions with which they are mutually concerned. In Illinois it has been the custom for seven years for the superintendent of public instruction to meet all of the county superintendents of the state in an annual conference. As there are 102 county superintendents, it was thought wise to divide them into at least five groups. As there are five state normal schools, these five conferences are held at the five state normal schools. The program extends from one noon until the next noon. The first afternoon is given over to a discussion of certain legal and administrative matters that are of present interest. The evening program is concerned with such questions as are of interest to the normal-school faculty, the county superintendent, and the state superintendent. The morning is spent in visiting classes taught in the training department. After these classes have been visited, a time is given over to their discussion. To these conferences go the state superintendent of public instruction and as many of his office force as are related to any point which will come up in the conference. In a state where variety and independence are prominent, it is very essential that the state superintendent of public instruction thru his publications and thru conferences shall effect an organization to carry out certain standards and definitions of education.

Third: Thru supervisors who go from the department of public instruction into the various counties and assist in certain specific forms of inspection and supervision. Every department of public instruction should be provided with expert supervisors of secondary and of rural-school education. The elementary schools, especially of the larger cities, having supervisors of their own, do not stand in so great need of assistance from the department of public instruction. This line of interrelationship perhaps can be best illustrated by me by reference to what is being done by the rural-school supervisors. Illinois was the first state in the Union to distinctly recognize this sort of an official in the office of public instruction. In December, 1906, a person was appointed as assistant superintendent of public instruction who was to give his entire time to work with the county superintendents in helping to improve the quality of supervision and especially to improve the standard of the one-room country schools. We have 10,632 such schools in Illinois, and, while there are many people who believe that they must soon give way to the consolidated school, it is not so apparent to some of us that the disappearance will be within our time. It would seem to us that we should make these one-room schools the very best instruments of public instruction that we can. This supervisor of rural schools prepared certain minimum requirements for a standard one-room country school. These requirements related to grounds, buildings, and all the physical equipment, length of term, course of study, library, qualifications of teachers, etc. A diploma was devised and a label provided. After a short time the results of the work showed that the undertaking was of the very greatest value. Another supervisor was appointed. Up to the present time these two supervisors have visited from five to six thousand of these one-room schools. Over sixteen hundred of them have met the standard requirements and have received

the diploma and have had the label nailed upon their doors. For every one that has thus met the requirements, at least four or five have met some one of the requirements set forth, but were unable to meet all of the requirements. In very much the same way, the departments of public instruction must thru their supervisors of high schools go out into the various counties to advise with county superintendents with regard to the best methods and plans of tying the high school and the elementary school together in the most fruitful educational way, and of relating the high school to the community as every high school should be related to the people whom it serves.

Of course, there are many interrelations between the state superintendent and county superintendent which cannot be enumerated in this brief statement. I have attempted what seemed to me the most important legal and professional relationships which are established between these two important public-school officers which help to promote the cause of public education.

II. OLIVER J. MORELOCK, SUPERINTENDENT OF ESSEX COUNTY SCHOOLS, NEWARK, N.J.

I shall assume, for the purposes of this discussion, that the typical status, powers, and duties of state superintendent and county superintendent are clear in our minds, and I shall assume also that reason and custom have established each of these offices as really necessary for the effective administration of public education. The discussion then narrows down to the fact and the method of the interrelation between these two offices, and the questions before us are: Should there be close reciprocal relations between these two offices? And, How can such relations be best assured and most effectively promoted?

In order to give a purposeful answer to the first of these two questions, we should first dispose of a larger and deeper question, a question of which that of the vital interrelation between the offices of state and county superintendent is but a corollary: Namely, Shall the administrative and supervisory power over public education, particularly in rural, village, and small city communities, be strongly centralized? Shall the state departments of education in the various states go outside of the traditional field of performance of perfunctory duties prescribed by statute, and become great dynamic forces of educational activity in their respective states, capable of commanding the respect of the most progressive local communities and ready and able to compel the indifferent and backward communities to conform to prescribed minimum standards? To anyone who has made a study of the trend of school legislation, the tendency to enlarge the powers of state departments of education must be clearly apparent. To any observer of the changing attitude of the public toward the question of the centralization of authority in civil officials in general, it must be plain that the old distrust of a single executive with large and practically unchecked powers has given way before the realization that such distrust is really groundless under present-day conditions.

We realize now that the important thing is not that executive and administrative authorities should be checked by other authorities, but that by some effective device the supreme authority should be held distinctly accountable to the people. The appointive official can always be reached by holding his elective superior accountable for his acts.

If, then, in the present stage of our national development and in our present complex social organization there is a strong preponderance of reason in favor of centralized authority in the administration of civil matters in general, how much more does the argument hold true when applied to the administration and supervision of public education!

Granted that to insure wise and effective administration and supervision of our public-school system, particularly in rural, village, and small city districts, we need large intelligence coupled with large power, to whom should that power be delegated if not to the state superintendent? To be clothed by the legislature with large authority is a necessary condition of his success in office; but efficient administrative agents thru whom he may get into close contact with local conditions and local needs and thru whom he may

give personal attention and exercise personal influence and authority in the various school districts of the state are equally necessary.

Now experience reveals to us two well-known types of such administrative agents of an education department—namely, itinerant state inspectors without any local status, and allocated state inspectors who are held responsible for the supervision of particular districts to which they have been assigned and in which they live. Each of these types has inherent advantages and disadvantages. In a well-balanced and completely organized state department both are necessary. In most of the states, we have the former type represented to a certain extent in the assistant state superintendents in charge of the various departments of the field of public education and explicitly represented in the so-called state education department inspectors of New York state. The latter type, that of allocated state inspector, is best represented by the office of county superintendent in the state of New Jersey. It is because of the fact that the county superintendency in other states seems to be increasing in importance and seems to be passing thru an important stage of evolution that the discussion of the interrelation between the office of state superintendent and that of county superintendent is a pertinent one. For, excepting such personal interrelations between the incumbents of these offices as a capable and enthusiastic state superintendent may succeed in cultivating by a labor of love, so to speak, the interrelation between these offices in all of the states with the exception of one seems to the writer to be conspicuous by its absence. It is not my purpose to enter into the reasons for the absence of a close relation between these two offices. It is sufficient to call attention to the fact.

It is from the standpoint of the county superintendent as an allocated state inspector that I propose to discuss the interrelation of state and county superintendencies.

At this point I shall cease to theorize for a time and confine myself to a brief description of a state system in which the county superintendent's office has undergone transformation to that of allocated state inspector. That is, the transformation is complete so far as legislation can accomplish it, and is well under way so far as the mental attitude of the general public, of the school boards, and of the county superintendents themselves is concerned. I refer to the state of New Jersey. Without attempting to go into the history of its development, I shall point out what appeal to me as the significant characteristics of the office of county superintendent in New Jersey. To appreciate the status of the office fully, however, it may be necessary to call to your attention the organization of the New Jersey state department. The state commissioner of public instruction is appointed for a five-year term by the governor. The governor also appoints a state board of education—a lay board consisting of eight members appointed consecutively for a term of eight years. This board formulates the necessary regulations for carrying out the provisions of the school law in regard to school buildings and approves the rules and regulations formulated by the state board of examiners in regard to certification of teachers, etc., upon the advice and suggestion of the state commissioner. It also appoints an inspector of school buildings and an inspector of school accounts, confirms the commissioner's appointments, and administers the state normal schools. The commissioner is given power by law to withhold state aid from school districts that fail to conform to the requirements fixed by law or by regulation of the state board. The commissioner appoints the assistant state commissioners in charge of school law, secondary education, elementary education, and vocational education.

The county superintendent is appointed by the state commissioner of education, with the advice and consent of the state board, for a term of three years. He may be selected from any part of the state. His salary is uniform for all the counties of the state, is fixed by statute at $3,000, and is payable by the state controller upon warrant of the state commissioner. He has an expense allowance of $350, the payment of which is mandatory upon the county collector, and he receives a sum not to exceed $600, appropriated by the county board of freeholders toward the salary of a clerical assistant. New

Jersey has a state system of teacher certification, and a state certificate is a legal *sine qua non* of receiving teacher salary in all except a few of the larger city districts. The duty of enforcing the law and of carrying out the necessary administrative regulations of the state board of examiners in connection with teacher certification is laid upon the county superintendent. He is also held responsible for the enforcement of the building code requirements within his county, for the enforcement of the attendance law, and for the provision by boards of education of adequate medical inspection. On the other hand, he still retains the traditional functions of supervisor of instruction in all the rural, village, and small city districts and of apportioner of state and county funds. This latter duty, however, is something more than the usual clerical procedure of the traditional county superintendent. A considerable portion of the state and county funds is apportioned upon condition of the performance of certain acts and of conformity with certain requirements and standards set up by law and by the state department. It is for the county superintendent to determine whether or not these conditions have been met in given instances. He has the statutory power and duty, with the approval of the state commissioner, of withholding state and county funds for certain violations of the school law or for violations of regulations of the state board. I think that you will see from this description of the New Jersey county superintendency that the office is substantially what I have styled it, namely, that of an allocated state inspector.

You will doubtless have noted that the most significant fact of all is that the county superintendent in New Jersey is appointed by the state department and not as in other states elected by the voters of the county, elected by the school board members of the county, or appointed by a county board. It is this fact more than any other that gives a unique status to the New Jersey county superintendent. On the one hand, it distinctly identifies him with the state department, and, on the other, it frees him from the hampering influences of local prejudices, local factional feuds, and local petty politics. Granted that the county superintendent is a man of at least ordinary tact and granted also that he understands his business, he can feel free to tell boards of education the exact truth and the whole truth in regard to conditions for which they are responsible. Not merely can he feel free to do this, but he can do so with a confidence that if he has right on his side his course of action will have the approbation of his superiors in office, who are in a position to size up the situation in the large, and with a confidence also that he has the power ultimately to accomplish the thing that ought to be accomplished. I do not wish to intimate that he should ignore local sentiment and local public opinion, but I do wish to emphasize the fact that he is in a position to weigh calmly the importance and value of such sentiment and such opinion and to make only such concessions as the good of the service seems to dictate. In a word, we have here a state-appointed, administrative school official of safe tenure bent upon the duty of adapting a state-wide policy to a particular county, and of reflecting the needs of education as he sees them in his county back upon the state policy, in contrast with the traditional locally elected county supervisor and examiner of short-term tenure attempting to work out the educational salvation of his county in splendid isolation—and necessarily with one ear to the ground lest he make a wreck of his own professional career.

But to return to the specific topic under discussion. Real interrelation between the offices of state superintendent and county superintendent in New Jersey is made evident in a number of ways. First, there are the frequent communications that are exchanged between the two offices in regard to the furtherance of the school building program which has been inaugurated and which has for its object the strict enforcement of the state building code in all new buildings and the elimination of all insanitary and unsafe conditions in all old buildings. The state department and the county superintendent work together upon these problems, the state department relying upon the county superintendent for information as to where action is necessary and to what extent and when it is feasible, and the county superintendent relying upon the department for expert inspection

service and for authority to enforce the action that has been decided upon. Second, there is a constant exchange of communications in regard to the certification of new teachers, the renewal and the conversion of the certificates of teachers in the service, and in regard to any modification of the rules and regulations governing certificates that further experience or changing conditions may seem to require. In the third place, there are conferences between the individual county superintendents and the state commissioner or his representative in regard to special problems of the county superintendent, in connection with school consolidation, with pupil transportation, with the establishment of vocational departments or schools, and in connection with the creation of supervising principalships in the rural districts. In the fourth place, are the circular letters from the state commissioner calling attention to particular matters which the state department has under consideration at the time, for definite information bearing on these matters and for suggestions as to how they may be most wisely handled. In the fifth place, during the present year each county superintendent has been sending an informal monthly report giving, in terse form, the significant things he has done or attempted to do during the month. Last, and most important of all, are the Trenton conferences of county superintendents and state department officials presided over by the state commissioner. These meetings are held three or four times a year and the sessions usually occupy the better part of two days, including the evening of the first day. The program of the meeting has been sent to each county superintendent and includes for the most part only matters that pertain to the live administrative problems that confront the state department and the county superintendents. The method of conducting these conferences is somewhat after the manner of the "experience meeting" and they are in fact what the commissioner himself has called them—clearing-houses of ideas and opinions from all sources, relative to the good of the service. I believe that my somewhat varied experience in four different states and in various parts of the public-school work, as well as the comparatively limited time during which I have been identified with the New Jersey system, little more than a year, gives some value to my personal reaction to these conferences. I am free to say that these meetings are far more helpful to me in every way than any I have ever attended.

I made some small study of the school inspection service of Germany and of England, and, as a result of that study, I have been profoundly impressed with the high character of the inspection service of these countries and the obvious benefits from it that accrue to the state schools, especially to the smaller and more isolated schools. Now all of us who have had experience with the office of county superintendent know how much of his time is necessarily consumed with administrative work and how little actual supervision he can give to any particular school. Nevertheless, we know too how necessary is supervision. In the rural schools the county superintendent will always have to be held responsible for the supervision, in the last analysis. To do it adequately he will have to have under his supervision supervising principals in charge of a number of schools. But supervision alone cannot make schools efficient. Sufficient salary must be paid by the local board to secure intelligent and trained teachers. Conditions must be such as to make it possible to retain high-grade teachers. To accomplish such tasks effectively, a county superintendent must have authority. I do not see from what source he can obtain the necessary authority that will leave him free from the dangers of petty retaliation unless he obtain it from the state. It is for this reason mainly that I look forward to increased authority and increased dignity for the office of county superintendent, and to its evolution into what, for want of a more American term, I have called the office of allocated state inspector. When that time shall have come, the county superintendent will receive his appointment from the state department, will derive his authority from the state department, will be responsible in the last analysis to the state department alone, and the interrelation between these two offices will be complete.

ROUND TABLE OF SUPERINTENDENTS IN CITIES WITH A POPULATION OF OVER 300,000

TOPIC: THE FUNCTION OF THE SCHOOL TO THE COMMUNITY IT SERVES

A. ITS SCHOLASTIC FUNCTION

J. M. GWINN, SUPERINTENDENT OF SCHOOLS, NEW ORLEANS, LA.

One is in danger of being considered at least a bit old-fashioned, if not antiquated, if he holds that scholarship should be a leading function of the school today. Scholarship, except possibly in the inaugural address of some college president, seems to have fallen into disrepute. Why this seeming indifference to, and neglect of, scholarship?

In the first place, it is due to the reaction against the useless, impractical, and dearly purchased scholarship of the past. The value of knowledge for scholarship, in the past, seemed to vary inversely with its value in practical living, and directly with its difficulty of acquirement. The pedantic college professor in his threadbare coat and with his visionary and bookish notions, which he thanks God nobody can use, has become the symbol of scholarship, while the college and high-school graduate, floundering and failing in practical affairs, is compared unfavorably with the self-made young man who has learned the way of success in the hard school of experience.

Secondly, we are, today, living in a practical, money-making age. Pragmatism, with its emphasis on results, seems to be the dominant philosophy, which philosophy, interpreted by the modern business man, means sales and contracts, dollars and cents. The big thing today is the reward, the dollar, and it is paid for practice, and not for the theory and training behind the practice. This emphasis on, and the rewarding of, results has deceived the less thoughtful into believing that practice is all-important and that theory and scholarship are useless.

Again, our abounding egotism and self-complacency, bolstered up by the knowledge of the marvelous material development made possible thru the no less wonderful inventions and discoveries of today, have almost caused us to believe that we are self-made and self-sufficient. Our egotism seems to have made some forget that our splendid triumphs are but the flowering of the toil-achieved experiences of other days.

In the fourth place, the development of democracy seems to have decreased the love of scholarship. The scholarship of the past has always flourished as a child of the court and aristocracy. Scholarship and pride of ancestry go hand in hand. In a democracy, the man is esteemed for what he is and not for his ancestry. Aristocracy and all its kin are despised. So, scholarship, in a democracy, may fall into disrepute.

Finally, we are in a great hurry today. We must arrive and that quickly. This demand for speedy, even for instantaneous, results, coupled with our American delight in being buncoed, has made us easy victims to all get-education-quick schemes.

For these, and for other reasons which time forbids to mention, scholarship as a function of the school has become, for many, discredited and neglected and a half-forgotten tradition. A careful examination of the facts, however, clearly shows that scholarship as a function of the school is in no danger of being abandoned. This examination, nevertheless, reveals the fact that the conception of what scholarship is and how it is acquired is undergoing serious modifications. The old divorced-from-practical-life, narrow in content, and disciplinary conception of scholarship has passed. The fine gentleman of leisure as an ideal has made way for the toil-marked captain of industry or master of finance. With this changed ideal, the old notion that the work of the world could be done by the untrained and ignorant has gone and now the work of the world demands knowledge, superior skill, and training. In this way, has come the demand that the school and scholarship join themselves to vocation and practical living. The field of

human experience has widened tremendously during the past century. With the coming of the sciences, Spencer raised the question concerning the relative worth of knowledge. Much more do we need to raise that question today. The widening of the fields of human experience has produced multiplicity of courses of study and wide election of subjects. Scholarship is no longer bound to Latin, Greek, and mathematics, nor yet to any one or to all of the newer subjects. Scholarship has lost its definiteness in content till now it is more appropriate to speak of scholarships rather than of scholarship, for the scholarship of one scholar will be quite different from that of another. With President Eliot, we must agree that scholarship cannot now imply a knowledge of everything, nor even a little knowledge of everything, but, rather, a general knowledge of some things and a real mastery of a small portion of the field of human experience. In the last place, the changed attitude toward, if not the complete breakdown of, the dogma of formal discipline has contributed largely to the spread of scholarship to other than the traditional subjects.

It is difficult, therefore, to define scholarship in any very definite way. There are, however, certain ways of looking at scholarship which may aid in reading meaning into the term. It may be viewed as dynamic and as static. Scholarship, dynamic, works out toward others in social ways, yes, as vocation even into the economic field. Scholarship, viewed as static, implies the possession of certain knowledge which varies with the position and nature of the individual and the surrounding social needs. It also implies certain attitudes of mind and ways of reacting due to the training in the school. The more homogeneous a country is, the greater the core of knowledge in common, the more diversified, the smaller the core of common knowledge and the greater the marginal differences.

Whatever aim is set as the principal function of the school, all concede that school education at first must devote much time and energy to the technique of human experience. The child must be trained in the use of the processes thru which experience is acquired and be given possession of, and skill in using, the forms which society has invented for the preservation and communication of its experience. The technique of reading, writing, mathematics, grammar, literature, geography, history, science, art, and industry must be taught. The emphasis on form quite naturally caused a neglect of content and often inappropriate and useless and even silly subject-matter formed the basis for lessons on forms. Modern pedagogy has greatly improved the method of teaching this technique, and social demands have forced a practically useful content as the basis of form studies. It has also been found that much of the technique can be acquired incidentally when the aim, for the child at least, is content. The insistent demand today is for both useful and interesting subject-matter. The extent to which the demand for useful content has gone is well represented in the suggestion recently made by a prominent psychologist that the first sentence in the first reader should be "This is a toothbrush."

Practically the same causes which dethroned Latin, Greek, and mathematics as the only bearers of scholarship have robbed the three R's of some of their prestige as instruments of education and have brought rival subjects into the elementary curriculum. A great contest is going on here. The complexity of modern life has brought the advantage to the broader elementary course.

The demand for useful content has powerfully tended to localize subject-matter, for what is useful in Boston may be of little use in San Francisco, and the most valuable experiences in Chicago may be positively hurtful in New Orleans. The makers of elementary textbooks can no longer hope to produce books that will find sale thruout the country. The elementary textbooks of the future either will be locally produced, or more general texts will be used with local supplements. The community which a school serves is demanding that the elementary school should lead the child into its local heritage.

After the school has given the child control of the elementary tools of human experience, its second great scholastic function is that of scholarship. As stated before, there is a strong movement in some quarters to decrease greatly, if not to eliminate, this function

of the school and to plant vocational education immediately upon that of the grammar school, if not upon the primary school. We are now urged to have vocational education begin at the early age of three, when the child should receive training in the vocation of caring for its personal needs. This is doubtless sound education, but vocational education in the sense of education directly aimed at preparing one for the occupation thru which he will earn his living should certainly be postponed to a much later age, for vocation tends to fix habits and produce immobility. The capacities of the child, the economic and social position of the family, and the kind of work the community needs to have done will determine the beginning-point of vocational education.

All attempts to eliminate scholarship as a function of the school are doomed to fail. No matter how broad one's personal experience may be the requirements of modern society demand knowledge far greater. A genius might succeed without the assistance of the past and help of others, but the great host of common mortals would fail and find themselves no better off than their primitive ancestors guided by instincts. Each individual must be given that portion of human experience which will be of most service to him in making a life and in earning a living. The school must transmit this heritage to the child if it serves the purpose for which it was created. This heritage must be transmitted for the following, briefly stated reasons:

1. It is the great interpreter of the present and prophet of the future. All right adjustments of the individual to his environment are conditioned on his having possession of it.
2. It is the great conserving force in social progress. Without it, the advances of the radical element of society would be lost and future progress would become impossible.
3. It saves the individual from being overthrown by temporary storms. It is like ballast to the ship that holds it steady when surface waves toss in fury. The tango is not going to wreck society.
4. It is the foundation of all truly practical education. The material conquests of the age took their rise in the fountains of science and higher mathematics. President Wilson is a great living example of the value of scholarship in practical affairs.
5. It prepares one to rightly use his hours of leisure and saves him from the dangers of his non-vocational hours. Emphasis on vocation has made some forget the shortened hours of labor and the need for education for man's non-working hours. The migration toward the devil comes when man is not at work.
6. It saves one from repeating the mistakes of others and enables him to profit by their successes. It frees the individual immeasurably.
7. It makes one at home in the world and teaches the kinship of the race. One can work most effectively and live most happily when he is at home.

While yielding to the demand for practical education and to the pressure and popularity of vocational training, the school must hold aloft the banner of scholarship and culture and stand for the drill necessary to the learning of the technique of experience. Yet not for the monotonous grind on mere form nor for the scholarship represented by the dry bones of the past, but for technique made interesting and profitable by rich content, and for the new scholarship which at once mingles the blue blood of ancestral aristocracy with the red blood of horny-handed democracy.

B. ITS SOCIAL FUNCTION

JAMES M. GREENWOOD, ADVISORY SUPERINTENDENT OF SCHOOLS, KANSAS CITY, MO.

I shall treat this subject under three types of mind for the sake of clearness and differentiation of educational engineering in a community.

1. *The "rushers" and "can't-waits."*—Each pair of lungs of this class is now on a platform in person or by proxy, trying to get his opinions listened to on what public education, fits, misfits, and unfits should undertake to do for those in school, and also for some seventy-five millions of people out of school. If each one of these would shut his mouth and not open it again until his contriving faculty has devised some scheme worth

listening to, the country at large would be an immense gainer thereby. That would give time for a breathing spell and to cast about and determine what could actually be done that is worth doing. The Americans have before them a terrible task to be disposed of in some fashion; so immense in itself, so swift and needful and impressive is the business, that effective blows must be struck at once to prevent a collapse. We are told that the laws of the universe, of which the schoolhouse as a social center is not an exact transcript, need amendments immediately and that something must be done to attract the applause of magazine writers and other purveyors of public intelligence. The question is: Shall we be ruled by wisdom and foresight, or by folly and hindsight?

Verily, a new epoch in modern civilization is hurled upon us, out of which we are vainly looking for a new order of stable intelligence to be developed and placed approvingly on the stage of human affairs. This is a bread-of-life theory on this whirling ball. It is affirmed that this educational mill has a hopper wide enough, high enough, and big enough to take in all the grists, human and otherwise, that can be garnered under the plea of present necessity and just legislation. We hear vocal explosions which are volcanic, sulphuric, oily, insistent, acrobatic, and otherwise, and let us be thankful that the damage is no worse. I dare say many of these promoters are brave men after their sort, made, it must be confessed, mostly out of shoddy brain-stuff of which there is much evidence. Logically, their theory of the "socialized schoolhouse" and the concomitants thereof leads to a brewing and an overflow of poisonous waters that will submerge the ideal, honest, spiritual life of the American nation.

Altho it is an evidence of righteous living to affirm that honored age never had any shadow of a noble belief about the world or could have engaged in any profitable activity connected with it prior to about 1914 A.D., there are yet some solid rules of living, thinking, and acting in some homes; some notions that our fathers and mothers cherished that still pulsate in the blood of their descendants. Some people still believe that the spiritual should originate the practical, and that it is a sad commentary when the practical of a low condition externally dominates the internal soul action—even the body as well as the garment of the spiritual. Beautiful prize oxen, horses, hogs, dogs, mental and moral degenerates—these are the ideals in that Utopia land we must bow down to and worship under this cult or that. The one who would cultivate his soul and think, even on a secondary plane, is reduced to the sad necessity of finding God in a cow barn, a swill tub, or a hencoop, in a cheap novelty performance, or in a round of giddy pleasure that surfeits and passes away, leaving dross in character as the national sediment to be capitalized.

2. *The "stand-stillers."*—The "under-do-its" are never quite so ridiculous as the "over-do-its." They see clearly in a very circumscribed range what is actually occurring, and they stand firmly to the faith of "what has been." They are not altogether a bad element in a community. Their mission is to keep the Pegasuses from slopping over when riding their hobby horses thru the air at public expense. This social life that is flaunted to every breeeze, they fear, is becoming overorganized and getting top-heavy, a sort of windbag bobbing up and down and around in the air.

Too many organized functions for the healthy stability of even small communities; and the needless multiplication of entertainments, amusements, compulsory attendance at functions that deplete pocketbooks, bankrupt morals, paralyze intellectual activity, and turn life into a whirligig of silly pleasure, are the specters that the "stand-stillers" view with horror. All these amusements when sifted down to the bottom reveal a promoter whose patriotic ambition is to procure money for some cause in which he is deeply interested. He sugar-coats it as a benevolent enterprise for the amusement, enlightenment, moral and social betterment of tired, overworked, and careworn members of the community. The organization needing assistance may be worthy, and, as this is the easist way of raising the revenue, the public is taxed to support it.

The "stand-stillers" see that the patient "public-ox" is being taxed enormously for what is most frequently poor stuff in any market. Beside this there is a heavy and con-

stant drain on the slender resources of those who can ill afford it, which oftentimes interferes with their regular work to such an extent as to create financial embarrassment of a serious nature. The entertainments are projected too often upon the theory of competition with the five- and ten-cent "moving-picture shows." It is the indiscriminate use of schoolhouses for regular "show-business" that the "stand-stillers" object to. They do not object to teachers' and parents' meetings, debates, declamatory contests, spelling matches, and such like public gatherings at the schoolhouses as have always been in vogue in this country since the schoolhouse was first built at the crossroads in the unorganized school district. They favor discussions of big subjects but object to sticking picture diagrams on sex hygiene on every blackboard. The "stand-stillers" look at flashy movements in a distrustful way, because they fail to see any strong indication of the development of either substantial mental or moral habits that will make national fiber. To them it is a spineless and nerveless business that ends in the human scrap-heap, showing no efforts of how to trim either thought or action for definite plans of life.

3. *"Both-way lookers."*—There is perhaps no other nation on the earth whose level of general intelligence is higher than is ours, but the most superficial investigation in the most enlightened communities will convince any patient observer that many gross and absurd notions respecting many common but important subjects connected with human welfare and intellectual and moral advancement are prevalent, and are not understood except by very few persons.

It would be an interesting investigation if a competent commission in each center of population in this country would undertake to determine what percentage of the population is really enlightened—how many of our people prosecute rational pursuits for their own sake and from a pure love of knowledge, independent of that specific information requisite for practicing a vocation. After making all legitimate deductions from the mass in the aggregate, the great problem is that of the general diffusion of useful knowledge among all classes of people. The higher and more humanitarian view then is that the intellectual and moral faculties of man should be directed to the pursuit of objects worthy of the dignity of an enlightened manhood. Here is the great field for uplifting each community. A general uplift can be effected only thru a conviction of the importance of a better understanding of common and higher things. When these notions are deeply impressed on the minds of the most intelligent and influential class of citizens in a community and move to action, then something valuable can be accomplished.

Such a diffusion of knowledge among the masses would dissipate many crude notions concerning common things, would foster health and prevent accidents, would prepare many for making proper and correct observations on the facts of the various sciences, would place enjoyments on a high level, would inculcate a tendency to promote the comfort of society, would give enlarged views of the beautiful in art, literature, music, the drama, and architecture; would make possible the general utility of knowledge in relation to man's moral, physical, and intellectual endowments, and a proper estimate of human life and its possibilities and problems. In addition to all these advantages, the way would be opened for gathering and organizing information on all the larger world problems now occupying the attention of the most thoughtful and benevolent members of the human race in all quarters of the globe.

Except in rare cases, the evening work at the schools should not be for the children in attendance at the day schools, but should be serious work for grown people, who seek enlightenment and entertainment rather than amusement in picture shows and vaudeville performances of a low quality. Those who go to such places are among the better informed and cultured people. Lectures on travel, science, literature, manufacturing, industries, transportation, and other problems, properly illustrated, are the most beneficial to thoughtful people. Persons who can tell of journeys and experiences in foreign countries, or those who are making, or have made, new contributions to any department of knowledge are

listened to with profound respect. Lectures for the promotion and the advancement and diffusion of knowledge are always most heartily welcomed.

4. *Story intellects.*—There are one-story intellects, two-story intellects, and three-story intellects with skylights. In the writer's judgment, the plan that has been in operation in New York City for a quarter of a century, projected for the instruction and edification of men and women and young persons not attending the day schools, is based on rational lines of high knowledge of a far-reaching character. In planning these meetings, the manager assumed that men and women are interested in getting larger views of matters in general and desirous of taking more comprehensive surveys of the vast fields of nature's work, of inventions and discoveries in the interest of the industries, of becoming acquainted with the highest and best products of human institutions, the mixed and the higher sciences, art, literature, laws, and forms of governmental methods of different nations, the transaction of business affairs, the manners and customs of different peoples, and of learning how communication is conducted between individuals and nations. The writer pleads for these refining qualities in thought and ethics that comport with the elevated ideals that our best men and women reverence. The social function of the school lies in these upper stories of thought and conduct with skylight openings above.

The demagog in all ages and in all countries has been a pestiferous trouble-maker, because of his interference in matters that he did not understand or failed to comprehend. Let great floods of light flow in on educational methods. The nation's children, yea, the nation itself is involved in the issue. No parent would willingly, intellectually and morally pauperize his child. To avoid plunging the children into mental and moral anarchy is the real issue at stake. This is the dreadful story that history records. Let us not repeat it! Sober-minded men and women in educational work should face the issue squarely and look at it straight.

5. *The worker that the world likes.*—The orderly worker possesses an orderly mind. He is capable of planning ahead. He has acquired the qualities of neatness and system. Schools can be safely and sanely administered only thru a vigorous, resourceful, clear-visioned intelligence that knows the best and the right and has the courage to stand for these things that are fundamental in life. The teacher who knows how to get a high cultural and specific value out of each exact science is a great teacher, but rare is the teacher who can drag knowledge from the realms of space and cause his pupils to pursue it with a zeal that never falters. There are rock foundations in education that are eternal. Shall we stand by these higher aims of life? Shall calm judgment give place to noise and clatter? Shall the boards of education conduct the socialized function of the schools, or shall this work be handed over and farmed out to the promoters of the John Law type?

ROUND TABLE OF SUPERINTENDENTS IN CITIES WITH A POPULATION OF FROM 25,000 TO 300,000

TOPIC: DIFFERENTIATION IN COURSE OF STUDY IN THE UPPER GRADES

A. SHORTENING THE COURSE

HERBERT S. WEET, SUPERINTENDENT OF SCHOOLS, ROCHESTER, N.Y.

My experience in superintendency work, extending over a period of about two years, has done little more than enable me to appreciate the significance of the problem under discussion. The investigations of the Committee on Economy of Time in Education have found substantial agreement among the school men of this country on two propositions. The first is that we are doing many things in our elementary-school course that

might well be omitted and leaving undone many things that should be done. The second is that thru inadequate methods we are taking far more time than we need to take for accomplishing those things which we are attempting.

Those of us who are in the field of administration feel that there are certain needs which must be met by experts in educational theory. In the first place, we feel the need of agreement among these experts as to what may properly be eliminated from the present elementary course of study. In a certain course of study in arithmetic, for example, the proposal was made to eliminate the greater part of commission, taxes and insurance, stocks and bonds, and some other similar topics. This elimination was based on the belief that these subjects had little utility knowledge value for the pupils and that they were in no sense essential to desirable training. But no sooner were these eliminations proposed than reputable authorities declared this to be a shortsighted policy because these very topics were the ones which gave to the child the socializing point of view of arithmetic. In view of the pressure for elimination, we are constrained to ask to what extent our authorities in education are agreed that the socializing value of any division of arithmetic is important enough to warrant its retention in the course of study. This socializing value is not a characteristic contribution of arithmetic. We might as well try to defend music on the ground that it affords an opportunity for training in concentration. There are inspirational subjects in the course of study that do have as their characteristic feature this socializing function, while training for concentration is not a contribution of any subject *per se* but rather one of methods of teaching. Unquestionably the child should get so far as possible the social significance of this phase of arithmetic. To this end, however, it is by no means necessary that these shall be taught as arithmetical processes. This illustration represents a type need in elimination.

In the second place, we need guidance in the way of substitutions quite as much as we do in the way of eliminations. The elementary school has established its activities for the mental training of our children. Whatever modifications may be desirable as a result of experience can be made in these activities with comparative ease. But there are other activities that are rapidly coming to be regarded as essential and that are bound to find their place in the elementary school. We have made a good beginning in guarding the physical welfare of our children, but it is only a beginning. This activity is bound to demand more of our time as we increasingly appreciate its importance. In like manner, moral instruction seems destined to become more of a conscious process than it has hitherto been, and sooner or later additional time must be assured for it. There are inherent moral powers which develop as surely and quite as much in accordance with law as do characteristics of body and intellect. Their manifestation in the child must be consciously observed, their retardation diminished, and their development guided in accordance with the laws of moral development. Nothing short of this will enable us to minister to the whole child. Here again in the field of substitutions must we look for special help from the expert in educational theory and practice.

We need, in the third place, to have these same authorities establish for us mileposts on the journey and mileposts bearing inscriptions stating whither we are going and how far we have gone. It seems almost astonishing to think that subjects of this kind have for a long time been discussed among the best educational bodies of this country and that our public-school systems are still so woefully lacking in real standards of measurement. We are not agreed as to what knowledge we may reasonably expect of the child in any subject in any grade of our elementary-school course, and still less are we agreed as to what may be regarded as a satisfactory working power. The man of the laboratory no sooner demonstrates his discovery in science than it is seized upon by every interested activity and appropriated at its full value. And the explanation is not difficult. A scientific principle in chemical science, for example, is demonstrable. There is no appeal from it and there is consequent agreement upon it. We are aware that the differences between the

physical sciences and the mental sciences are very great, but we feel the need in the field of education of that which carries with it the sanction of science.

Underlying this discussion today is the assumption that the elementary course in education can be shortened for practically all the pupils in our elementary schools. It is, in reality, a shortening for the masses. However skeptical any one of us may be as to the possibilities in this direction, there is no doubt in our minds that we have scores of boys and girls in our schools who are gifted enough to do the work in far less than the allotted time. We are too likely to content ourselves with the belief that the holding back of such pupils is an inevitable concomitant of our mass teaching. There is no defense for such an assumption to the extent to which we are likely to defend it. On the quantitative side of our organization, we are gradually coming to realize that there is a limit to the number of pupils that can be assigned to any one teacher if we are to expect efficient service. This quantitative change manifests itself in the decreased size of our classes. But there is a qualitative as well as a quantitative element which vitally concerns the effectiveness of mass teaching. Other things being equal, such effectiveness will be determined by the extent to which the teacher is dealing with common elements. The organizing principle of our grades is too inclined to consider the actual accomplishments of pupils and to ignore to too great an extent the causes which lie back of those accomplishments. As a result, natural ability, home environment, limitations in the physical organism, all of which are forces that determine the kind and rate of accomplishment, have not received their proper consideration in the organization of our city systems. This has frequently led to a grouping together in a single room of the older pupil and the younger, the bright and the dull, the worldly wise and the innocent, and others presenting similar incongruities. It is to remedy these conditions and thereby enable the school to serve far better all pupils concerned that the special classes are being organized so generally in our public-school systems.

These are common agreements among school men. At once we face the practical problem of getting sufficient funds to give us adequate building room in which to make these differentiations. A special class of subnormal children should not have more than fifteen pupils and it should have the best teacher available. It thus costs us more than twice as much to educate such a child as it does the normal child, special class work for the public schools being extremely expensive. The development is correspondingly slow, but it is in a direction the validity of which is far more easily appreciated and defended as a means of shortening the time of all pupils in the elementary schools than is the process of elimination or differentiation in courses. Such special classes of various kinds have, however, a vital contribution to the shortening of courses, or of accomplishing more within the given time.

In the last analysis, however, the fundamental essential for all economy is the competently trained teacher. More time must be given to this training, especially during the preparatory period. To take the immature young woman from the high school, give her two short years of training, and then expect her to cope successfully with these problems is unreasonable. In my own city we are supplementing this training by the sabbatical year on half-pay, and by granting a double salary increase to any teacher who takes summer-school work in an approved institution. As a result of this latter plan more than sixty of our teachers took such courses during the past summer. Approximately one-half of these studied at Teachers College, Columbia University. This has proved a great stimulus, but our city will not have met its full duty until it provides suitable teacher-training facilities within its own borders and so places the opportunities for constant training easily within the reach of all. In the training of our teachers, therefore, is another factor which vitally affects the problem under discussion. This again must be the immediate problem of the administrator.

On the one hand the meeting of these fundamental needs challenges the best intelligence and the best co-operation of the school men of this country. On the other, they

must be increasingly met if we are to make substantial progress in shortening our time without at least impairing our efficiency. Furthermore, I have faith to believe that they will be met and that our public schools, for which we need have no apology, will thereby contribute even more to the happiness of the individual and the welfare of the community.

DISCUSSION

LLOYD E. WOLFE, San Antonio, Tex.—The course of study can be effectively shortened: (1) by omitting the nonessential, vitalizing the essential, and by appealing more strongly to the understanding and to the initiative and less strongly to the memory; (2) by organizing city and town superintendents, supervisors, principals, county superintendents, and superior teachers to improve the teaching corps in work vital to schoolroom efficiency, and by the selection and promotion of teachers solely on merit; (3) by lengthening the school day and the school year; (4) by requiring all superintendents and supervising principals to spend most of their time in critical, sympathetic, and helpful supervision.

All the reasons for a twelve months' salary that apply to other workers apply to teachers. So few teachers of this country draw a salary for twelve months that one would suppose that teachers did not need food, clothing, and shelter for the entire year, and that the powers of pupils for good or evil were dormant for a period ranging from two to six months in each year. The time must come when the pupil will be under the educative direction of the teacher for practically the entire year, pursuing a course of study so skilfully combining books, observation, industrial training, and play as not unduly to fatigue either teacher or pupil.

On account of the democratic spirit that pervades every department of human endeavor in the United States, and because of the difficulty of early determining the natural aptitudes of pupils, differentiation should be introduced with great caution, especially below the ninth year. I suggest the following line of semi-vocational work, which, if thoroly done, would go far toward obviating the apparent necessity for early vocational differentiation: the systematic use, by girls, for industrial training, of the sewing, cooking, sanitary, and general household appliances of the home; also the use, by boys, for industrial education, of the vacant lots of cities and towns for vegetable gardening, fruit and tree culture. There should also be given a training in minor repairing and in sanitation in the home, the school, and the community.

B. SUBSTITUTION OF WORK OF VOCATIONAL OR PREVOCATIONAL CHARACTER IN THE UPPER GRADES

I. WILLIAM A. GREESON, SUPERINTENDENT OF SCHOOLS, GRAND RAPIDS, MICH.

I shall take the liberty of discussing prevocational work first. It is a fact, is it not, that when the word "prevocational" is used in discussions connected with education, most people think of industrial work or of some form of manufacturing? The truth is that all education, all schooling, all training is prevocational—from the education of the savage American Indian to the education given to young ladies in the most fashionable finishing schools. This is true now, always has been true, and always will be true. In other words, either consciously or unconsciously the supposed future occupation of the young has, to some extent at least, determined the character of the education given to them by their elders.

It may not be out of order, however, to discuss some phases of the education of children in the upper grades of fundamental importance to them whatever vocation it may be their destiny to follow; also some differentiation in the course of study may appear

to be advisable, depending upon the sex, ability, inclination, and home environment of the child.

All girls are potential homemakers. That is a short sentence, easily said, readily believed, and yet seldom used as a fact of fundamental importance in the education of girls of any age. Instinctively every girl expects to become a homemaker, and most of them—80 per cent probably—will become homemakers and mothers with more or less success. This instinct is a determining factor in the life of every girl and should be consciously used in shaping her education. Every girl, therefore, in the upper grades should have courses of study founded on this instinct and adapted in method and content to the age and development of the girl—courses in cooking, sanitation, hygiene, sewing, cutting and fitting of garments, art, design, house decoration, artistic ornamentation, etc. Here is a wealth of subject-matter of vital interest to the girl, truly educational in effect, and not difficult to teach, provided always you have the right organization and administration of the school and competent teachers who have some training and a modicum of common-sense.

Not only ought some or all of these things to be taught in the schools but also they must in some vital way be connected up with the home—the actual home in which the girl is living. This may seem, and probably is, more difficult than the teaching of these things in classes in the school. But it must be done if this education is to be effective—and it can be done. The instruction given in the school must function in the home.

All boys, unless spoiled by bad training or by bad environment or by both, are ambitious to earn a living. It is not necessary or desirable for them to choose a particular vocation. Let them think they know what they are going to do in life, talk with them about what men do in the world, let them read the lives of great men in different occupations. Fire their ambition to do something and to be something when they become men. Boys of this age want to do something. Let them do some of the things that appeal to them and that have great educational value.

This instinct for work, for motor-activity, is fundamental in the nature of every unspoiled boy and we should make use of it in his education. Let the boys have an opportunity to work in wood and in metals. Give instruction in carpentry, cabinet-making, wood-turning, forging, foundry work, and in freehand and instrumental drawing as a necessary part of all construction work in wood and in metals.

Whatever is done should be done in a workmanlike manner, and the teaching should be done by men who know from actual experience how to use the tools in a workmanlike way. Otherwise, the boy will have only contempt for the subject and for the teacher.

Printing is a thing of great educational value, always fascinating to the boy, and may have a truly prevocational outlook if taught by a practical printer who knows how to teach as well as how to do all the things connected with the trade of printing.

In the upper grades of every school are found children who have not done well in their academic studies. Often the opportunity to do some of the things mentioned will prove to be a great intellectual awakening. When a boy or a girl finds that he or she excels in some of these activities, self-respect is restored and improvement in all respects is manifest. The school is for the child and the child is more sacred than the course of study. The organization of a school should be such that it is possible to let the boy spend one-half of his time in the drawing-room and the shop if he is getting the greatest good for himself there. The girl should be permitted to spend half of her time in the kitchen and sewing-room if she is getting the greatest good for herself there.

It goes without saying that things advocated in this paper cannot be done in a school organized on the one-teacher-one-room plan of organization. Departmental organization of the school is imperative and also promotion by subject rather than by grade. There is also implied a school of considerable size, with properly equipped shops and kitchens, rooms for drawing, printing, etc.

What about substitution of vocational work in the upper grades? If by that phrase is meant actual trade instruction in the upper grades, in my opinion, that kind of education belongs in a trade school and not in the upper grades of a public school. Who knows what trade a boy should follow? What right has anyone to say to a boy in the upper grades, "You ought to choose and to follow this particular trade"? Who has the knowledge or the wisdom necessary to determine these vital things? Not the child, nor the parent, and certainly not the teacher. This is a period of development, of growth, of formation of character and ideals, of education. This is not the time for the final decision which fixes the destiny of the child. The effort of all at this stage of the child's development should be to keep him in school, to prolong the period of growth and development, to form his ideals, and to give him an intelligent outlook on life.

The teaching of vocations, trade schools, ought to have a place in a system of public education, and public trade schools will come, slowly perhaps, but they will surely become a part of every well-developed public-school system. But such schools should have a separate teaching faculty and should not admit pupils until they have completed the upper grades or until they are at least fourteen years of age.

II. I. I. CAMMACK, SUPERINTENDENT OF SCHOOLS, KANSAS CITY, MO.

The papers and discussions of the past two days have indicated that it is unnecessary to devote further time to advocating the desirability of introducing vocational work in the public schools. This being granted it then becomes the duty of the school to provide such vocational, or rather prevocational, activities in the upper grades as will direct and influence development along the lines of greater social efficiency and as may assist in giving the future men and women some useful information and help to bring them into a proper attitude toward the life which they will soon enter.

The problem is, then, one of "ways and means" and depends, or should depend, upon the specific conditions that must be met in each individual case. The kind of work and the method of handling it should be made to fit the local needs. What is desirable in one city or town or rural district may be, and I think often is, wholly inappropriate for another. In fact, a single city of any considerable size usually requires several different kinds of work to fit the diverse social conditions and home life of its people.

Perhaps I cannot illustrate my meaning better than to describe what we are trying to do in the schools with which I have the honor to be connected. A little less than two years ago our shifting population permitted us to abandon one of our elementary schools, leaving us an excellent building of thirteen rooms in a central location easily reached from all parts of the city. We equipped this building with shops and asked the principals of all the schools to invite the pupils in the upper grades who desired vocational work sufficient in amount to employ half their time in school to report at this building. Sixty reported the first day and the number reached 150 the first year. We were soon obliged to enlarge the equipment and employ additional teachers. At first both boys and girls were admitted, but the necessity for additional shops for the boys was such that this year the entire building is given to their work, while the girls are taken care of in one of the high-school buildings. There are now more than 250 boys in attendance.

These boys are from eleven to seventeen years of age and from the upper elementary grades. Many of them are overage and had lost standing in the classes in the schools from which they came. Many would have dropped out of school had this opportunity not been given to them.

Besides cabinet work and wood-turning, most of the building trades are taught. The boys have already become so proficient as to be able to wire their building for electric light to accommodate the evening school and to instal the plumbing. They are con-

structing much of the apparatus and miscellaneous furniture needed in the schools of our city. They do practically all the printing needed by the board, except that which requires machines we have not yet been able to instal.

During the coming summer, we expect to construct four frame school buildings of two rooms each to accommodate the pupils in two districts where the growing population requires the opening of additional schools. This work is possible from the fact that we have as supervisor a teacher, a graduate of a state normal school, who served as superintendent in a town employing more than twenty teachers, and who for several years during the summer vacations was a successful architect, contractor, and builder on his own account. He is, therefore, able to conduct the work from the viewpoint of both the educator and the practical builder.

In addition to the work above mentioned we are trying to bring vocational opportunity more directly to pupils in different parts of the city by the establishment of prevocational work for the students in the sixth and seventh grades in three of the elementary schools. These pupils are given from one-quarter to one-half of their time daily for vocational work. The academic work is modified so that essentials only are provided and these essentials so modified as to take on an industrial character. The design is that these schools shall be centers at which others living in the immediate vicinity may avail themselves of the chances to modify their work while in the elementary grades.

In a school located some seventeen miles from the city, to which boys are sent by the juvenile court, we have established shops and machinery which permit, under the instruction provided, the boys from ten to sixteen years old to construct the buildings used for the homes. The cottage plan is adopted, each cottage being large enough to accommodate from twenty to twenty-five boys, together with the man and woman who serve as master and matron, and in which, as far as possible, home life is provided.

Vocational education is further given to our children in the elementary grades thru the school gardens. During the past year, thirty-one such gardens were maintained, not only during the period in which the schools were in session, but during the summer vacation, and we were glad to note that 75 per cent of the pupils who did work during the school year reported regularly during vacation time. The chief purpose of this work is not so much the school garden but the home gardens that result from the interest awakened in the school garden. Never before had so many back yards and vacant lots been cultivated as during the past season. Already arrangements have been made by which, during the coming summer, fifty-five schools will have gardens.

Perhaps the most far-reaching innovation designed to develop the practical vocational side of child life is the introduction of what has been termed the activities of the "informal hour." Formerly, the daily sessions of our schools lasted from nine in the morning until four in the afternoon. The last hour produced less satisfactory results along the academic lines than any other part of the day. We therefore devoted the hour from three to four to miscellaneous activities, designed to interest and develop children along practical lines. The academic subjects necessary to the promotion of the children were placed earlier in the day, so that, in case parents desired to withdraw their children at three o'clock, they were permitted to do so without endangering regular promotion to higher grades.

This "informal hour" is given to a great variety of school activities. The chief purpose is to direct the attention of the teaching body to the necessity of adapting the activities of the school to the demands of child life. It is really the children's hour and to a large extent it is bringing to the children those things which cultivate greater interest and develop in them a desire to participate in the activities presented.

During this hour, also, teachers are giving individual instruction to those who in any way fall behind in any particular branch. The encouragement thus given and the personal interest and sympathy of the teacher hold many in school who, otherwise, would lose

interest and withdraw. During this time, also, opportunity is offered to the more active pupils who wish to proceed independently with various work.

In these activities large use is made of the recreational side of child life. The relation and duties of children in their association with each other are emphasized perhaps more fully in their play than in any other school activity. We are devoting considerable attention to story-telling and are bringing to the children in this way much of the best child literature. We are also encouraging the dramatic talent, and pupils are taking great interest in developing along this line such gifts as enable them to give entertainments for each other and for their parents. Music is also emphasized. In the manual-training shops and in domestic science much miscellaneous work is being given. Basket weaving, camp cooking, and other miscellaneous things are proving attractive. The stereopticon is being used for both slides and moving pictures.

One of the best features that has thus far been developed is the interest which has been created in the home. There have already been organized in our city more than fifty parent-teacher associations. The mothers' meetings are held in the afternoon and the fathers and mothers meet together in the evening. The result has been that the school and the home have been brought closer together than ever before and a greater co-operation is being manifested than we thought possible. Many of our principals are enthusiastic over the benefits derived from this "informal hour." Some of them believe that it is the most valuable hour of our school day. Teachers are studying child life as never before, and their interest has caused teachers' classes to be organized in the afternoons and in the night schools to prepare especially for this line of work.

DISCUSSION

DAVID SNEDDEN, commissioner of education for Massachusetts, Boston, Mass.—Certain tendencies in the reorganization of the work of the upper grades of our elementary schools are now evident in all urban communities in this country. It seems to me that when present movements shall have been carried to the point of definite results, we shall have a reorganized school system in urban communities that may roughly be described as follows:

1. All children between six and twelve years of age will be found in relatively small school buildings, located as near to their homes as practicable. The tendency will be to make these school buildings small, rather than large, in the endeavor to have each school located close to the homes of its pupils. These schools will be staffed entirely by women teachers. There will be no principal, in the sense of a person who does no teaching. A head teacher, exercising certain responsible functions of principal in administrative and disciplinary matters, will be found. Each school will have a playground, which playground will be in use not merely during the time school is in session, but at all other times, since it will be located in close proximity to the homes of the children.

2. For each fifty or sixty teachers in these primary schools, there will be found a primary supervisor, directly responsible to the superintendent of schools. This primary supervisor will in most cases be a woman, who is a pedagogical expert in matters of method, course of study, etc., as these are involved in the education of children under twelve years of age. Thus it will be seen that the education of children of these ages will be turned completely over to women teachers.

3. All children over twelve years of age, whether in the seventh and eighth grades, or retarded, will be brought into large central schools. These schools will embrace not merely classrooms, but workshops, laboratories, and the like. It will be assumed that children can walk at least a mile to schools of this character, and may be transported even farther.

4. In the large school for children from twelve to fourteen years of age, which may be here called the intermediate school, much of the teaching will be on a departmental basis. Certainly all shop and practical arts teaching, and the commercial subjects, will be departmentalized. At least half the teaching force for the boys will be men, selected partly with reference to their capacity to teach such subjects as arithmetic, history, and shop subjects, and partly with a view to the influence of their personality upon the pupils. The school will be in charge of a principal, giving his entire time to organization, administration, and supervision.

5. In the intermediate school will be found considerable flexibility of courses. Certain subjects, such as English expression, literature, history, hygiene, and the like, will be taken in common by all pupils, special classes being formed for those who are retarded. Other subjects, such as manual training, household arts, elementary commercial subjects, practical science, music, foreign languages, and mathematics, will be elective, it being required only that each pupil shall carry a substantial program of work.

6. In every case, while retarded pupils will have special classes adjusted to their needs in such subjects as arithmetic and English, they will also be permitted to work with advanced pupils in other subjects, such a shop studies, for which they may be qualified.

7. The intermediate school in many cases will be located adjacent to the high school. In some cases it will occupy the same building, altho it is not expected that teachers in the intermediate school will be college graduates, as will be necessarily the case with high-school teachers. An ideal arrangement for many communities would be to have the high school and intermediate school in proximity, so that, to some extent, the same shop equipment and playgrounds could be used.

LEONARD P. AYRES, director, Division of Education, Russell Sage Foundation, New York, N.Y.—We need differentiated courses in our schools because our schools are filled with differentiated children. We are just awakening to the significance of this condition. A few years ago educators began to discover the facts concerning the ages of the children in the different grades. This brought to light the astonishing fact that there are children of almost every school age in every grade. In every large school system we found that the oldest children in the first grade were older than the youngest children in the eighth grade.

A few years later we began to study the progress of children thru the grades and we found similar extreme variations in every school system. In every city we found slow children in the first grade who had been in school longer than the brightest children in the eighth grade. Indeed it was often found that there were children in the lower grades who had begun attending school before some of their classmates were born.

With the growing mastery of measurements in education, attention now turned to the measurement of classroom products, and here again a similar situation was brought to light. When we began to test children for their arithmetical ability, we found that the best children in the second and third grades made better scores than the poorest ones in the eighth grade. When attention turned to spelling, we found that the best children in the second grade spelled correctly words on which the poorest of the eighth grade children failed. In every branch in which reliable scales for measuring results have been developed the same situation has been brought to light. In handwriting the best children in the lower grades do better work than the poorest in the upper grades. The best drawing in the second and third grades is better than the poorest in the seventh and eighth. The brightest children in the third grade write better English compositions than the least gifted in the seventh and eighth grades.

In broad general terms this condition is a constant and universal one. It does not apply merely to the rare and exceptional children. On the contrary, it maintains everywhere, among all children, in every subject, and in a relatively constant degree. Everywhere and in every subject we find about the same proportion of poor students, medium students, and superior students. The reason why we have not realized this before is that

it is only recently that we have developed moderately accurate methods of measuring classroom achievements. But now, even with the crude scales and tests that have been developed, these evidences of the universal and inherent natural differentiation among children are becoming ever-increasingly convincing.

Nor is this the only or perhaps the most important lesson taught thru the application of scientific methods to educational problems. Whenever we measure the attainments of children in more than one intellectual product and compare the results, we find that children who excel in one sort of ability strongly tend to excel in other sorts of achievement. The abilities which the human race considers desirable abilities generally accompany each other in the same individuals. Nature has not decreed any law of human compensation whereby the individuals who are strong in certain attributes are weak in others, while those weak in some are strong in others.

Disappointment and disillusionment await those educators who believe that children of marked ability in performing abstract book work will generally prove deficient in concrete shop work and that those who are deficient in abstract work will excel in shop work. Such a compensatory law does not exist, for, in the long run, nature bestows her intellectual endowments upon her chosen favorites instead of scattering them impartially among all.

These conditions mean that we need differentiated courses because we have differentiated children. We have them everywhere and in all subjects. Whenever we measure educational products we find three fundamentally significant conditions. The first is that in every school system there is greater difference in classroom ability between different members of the same grade than there is between the abilities of the average children in the lowest and the average children in the highest grades. The second significant fact is that everywhere in every sort of measurable ability we find fairly constant and definite proportions of bright, medium, and slow children. The third significant fact is that different sorts of intellectual abilities tend to accompany each other in the same individuals. Nature has made no compensatory law of equality but has on the contrary decreed a universal and inherent inequality whereby the well endowed in one sort of ability are apt to be well endowed in other sorts also.

All this means that if we are to give all the children the best and fullest sort of educational opportunity we must differentiate our courses so as to fit them to the needs and abilities of the differentiated children. We must locate our brightest children in groups with other bright children and give them work of sufficient thoroness and scope so that they may develop thru earnest application instead of deteriorating thru easy achievement. For our children of average abilities, we must organize classes and courses that will give them work within their power to accomplish but requiring their best efforts. For the slowest children, we must organize courses composed of essentials so simplified that in their mastery the children may acquire the habit of success instead of being trained in the habit of failure. We must differentiate our courses because our courses are made for our children, and our children are differentiated by nature.

W. L. ETTINGER, associate city superintendent of schools, New York, N.Y.—In discussing the question of prevocational work, Mr. Ettinger gave as his definition that prevocational work is trade preparatory work, plus academic work, plus vocational guidance. He also sounded a note of warning in respect to the assumption that children in the same class or grade are differently endowed because they respond unequally to the same test. In other words, the slow child of the first-year grades may be more liberally endowed in the upper grades, and, again, the pupil who seemed to be slow and backward in the elementary grades may do very good work in the high-school grades. Slowness and so-called dulness may be a condition of the mind at some particular time in a period marked by physiologic and psychologic changes.

JOHN H. HAAREN, associate city superintendent of schools, New York, N.Y.—As this round-table conference is an experience meeting, it will not be out of place to speak of some things in the line of vocational instruction, which the city of New York is doing. Our idea is to organize the prevocational work in the regular elementary schools, with pupils of the seventh and eighth years of the school course. These are to be tried for nine weeks at a time in several industrial courses, in order to ascertain any special aptitude. Three hours daily are to be devoted to industrial work and three hours daily to academic work. The subjects so far introduced in the girls' school are sewing and dressmaking, millinery, embroidery, novelty work, care of invalids, homemaking. The course in the boys' school is to consist of metal work, woodwork, joinery, turning, and electrical work. In the regular vocational schools, practically all of the industries mentioned in the course of this discussion are introduced, with the exception of bricklaying, painting, and plastering; instead, there is work in printing, including linotype and monotype operating. I might state here that there is the warmest interest in prevocational instruction in the city of New York at the present time. It is receiving the heartiest encouragement of the very progressive president of the Board of Education, Thomas W. Churchill. He has concerned himself not alone with this work, but with what may be considered a branch of it, the continuation classes, which are being established in the mornings in department stores. In these classes, the pupils are being taught the things necessary to increase their efficiency, and, of course, their salaries, and to make them eligible for promotion to the next higher step in the business.

M. H. STUART, principal, Manual Training High School, Indianapolis, Ind.—In the reorganization of the school system whereby we introduce vocational courses into the grammar and high school, it is of the greatest importance that teachers be selected who are masters of their field. Our teachers for this work will doubtless be selected in two ways. We can take our good teachers who are of a practical inclination and send them to industrial schools and also to the industries, or we may go to the industries and select tradesmen who possess in our judgment the natural qualifications for teaching but who lack the academic and professional training. These tradesmen may be sent to professional schools and may thereby become vocational teachers. Since our school system is under the control of school men, it seems easier for us to preserve the proper balance and establish vocational courses by the second method. A school man can take a tradesman and train him day by day to the school point of view easier than he can take a school man and push him out into the industrial field to the point where he will command the respect of the men who possess skill. In order that the vocational movement, therefore, may make its full contribution to our educational problem, I believe we should be willing at the outset to tolerate in our faculty tradesmen with only a moderate degree of academic and professional training.

ROUND TABLE OF SUPERINTENDENTS IN CITIES WITH A POPULATION UNDER 25,000

HOW SHALL THE SUPERINTENDENT MEASURE HIS OWN EFFICIENCY

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In these days of scales and standards or norms, when there is a burning desire to reduce everything in the pedagogical universe to the fraction of something else, and then to hold it up to public view as a percentage, or a graph, or a segmented line, or a sectored circle, or groups thereof, one device seems to have escaped the inventive diabolism of the

experts, namely, a contrivance whereby the superintendent of schools may take his own measure, quickly, accurately, privately. Other people are constantly doing it for him, with no nice scruples of accuracy or privacy, and they write his *Mene Tekel Upharsin* wholly regardless of the Ayers scale; they compose "*pro bono publico*" contributions for the local press, unmindful of Hillegas and Thorndike, and they plot the superintendent's curve of efficiency with absolutely no reference to its co-ordinates.

But how is he to do this himself? How can he anticipate the inquisitorial methods of some Holy Office of a Survey? How shall he project himself out of himself so that, from some point of view sufficiently apart to give a proper perspective, he may look upon himself and his work with unclouded vision and study both with the micrometric methods of the laboratory?

You are conversant with the use of the Binet-Simon scale by which the inmates of institutions for the feeble-minded are tested and graded. A pupil of twelve or fourteen may grade only six years of age in average mental capacity. Sometimes the abnormality of a single trait exhibits great maturity; again certain functions may be normal. Now it is not my task nor my purpose to construct a scale of this sort which will reveal to the superintendent his professional status—whether normal, sub-, or supernormal—whether behind, abreast, or ahead of his times. But it is my purpose to state a few fundamental qualities of the successful superintendent and a few features of his work which, all will agree, must characterize the equipment and output of any efficient man, and whose absence indicates partial or total failure.

First, he must come into his position with adequate preparation and in the right manner. No man can do effective work who lacks the training of two schools: the school of real scholarship, whether obtained in a fresh-water or a tide-water university, or in no university, and whether he have many, or few, or no degrees; and the school of successful experience in earlier and more elementary situations. Nor can he do his best work in a field which he has entered in any surreptitious, haphazard, bargaining, or compromising manner. He deserves not to survive such a handicap. Sometimes a good man, by a combination of circumstances, the nature of which is beyond his ken, is placed in a wrong position. He may be as square as a die, but the hole in which he finds himself is round or rhomboidal or irregularly polygonal, and the friction is dreadful. The only thing to do is to get out and get fitted elsewhere; and such extrication and readjustment may be accomplished with entire dignity and self-respect.

The second essential is that the superintendent's heart must be right. The stethoscope of conscience must show that it beats true to every high ideal and purpose and practice. Only an incomplete success can be hoped for by the man who is careless of even the conventions of life; but he who despises the weightier matters of the law, however scrupulously he may tithe the mint, anise, and cumin of accepted social standards, is doomed to certain failure. Honesty, truthfulness, sobriety, and personal purity are old-fashioned virtues, but they are the corner stones of every man's life who is built four-square. The breaking-down of any one of them throws the superstructure out of plumb and threatens ruin. How supremely absurd it is for any school man to think that he can cheat a little, lie a little, drink a little, and break the seventh commandment a little! "The fear of the Lord is the beginning of knowledge; but fools despise wisdom and instruction."

Third, the efficient superintendent is a man of ideals, and these ideals, it goes without saying, should be intrinsically worthy. No enduring work can be modeled on lines that depart from the standards of art and beauty. He has a profound feeling for the best there is in the educational world, and he has his antennae out like the wires of a Marconi station to catch all messages that are attuned to this feeling. He instinctively rejects the unworthy in educational theory and practice, or, rather, they never touch him, for, to carry the figure a step farther, his soul, like the coherer of the Marconi instrument, is

set to a higher note. He packs his life full of everything big and good and great. And so he reads the best books, hears the best music, sees the best pictures, visits the best schools, studies the best methods and programs, makes close and intimate friendships with the best superintendents, is alert to the best in school architecture, school hygiene, school ethics, school texts and literature—in short, he demands only the best of everything for the immortal work committed to his charge. He has his moments of satisfaction when he realizes that a cherished ideal has, thru his efforts, been wrought into the organic structure of his schools, and he is disposed to measure his efficiency by the number of such ideals thus incorporated; but, when the issue is otherwise, he has the bitter reflection of those who have loved and lost, and this is indeed "sorrow's crown of sorrow."

Nothing contributes more to any department or phase of school work than a fine ideal finely worked out. For example, "order for order's sake" was the slogan of disciplinarians of a certain type, now happily almost extinct, and the means to that end were the rod, the dunce-stool, brutal sarcasm, and expulsion. Repression, fear, lack of initiative, sullen subjection, or its antonym, dogged defiance, were the prominent characteristics of such a régime. Now, on the other hand, "order for the sake of the school as a community" is altogether a finer ideal. This sets a powerful motive in the mind of the pupils as citizens of the school republic; it furnishes a consideration of values by the pupils resulting in acts of judgment which almost invariably are on the side of good order; it tends to stimulate children to organize all of the facts that have to do with conduct in its larger aspects, and thus contributes much to the morale of the child; and, lastly, instead of repression, and sullen subjection, or open defiance, the successful operation of this ideal gives the entire school an abounding life in which the graces of initiative, courage, and every other manly quality find fullest development.

The superintendent of ideals has, of course, imagination—the ability to see things in their higher and more subtle relations—and the constructive imagination is, we all know, one of the most practical things in life.

> The poem hangs in the berry bush
> Till it catches the poet's eye;
> And all the street is a masquerade
> When Shakespeare marches by.

Fourth, our self-testing superintendent should be a man of affairs. By this I mean not only that he should know the details of the school plant and equipment, from pens and ink to plumbing fixtures and vacuum cleaners, but that he should be an expert in warming, ventilating, school-seating, decorating, and landscape gardening. It would be well also if he should possess more than a mere amateur's knowledge of the special departments of study over which supervisors and special teachers are usually placed—music, drawing, manual training, domestic science, and physical culture. In cities of less than 25,000, he is frequently the purchasing agent of the board of education, and hence he must be a compendium of school and office supplies. Catalogs, samples, and price-lists comprehensively filed are at his finger-tips. He familiarizes himself with the quality of the manufactured output of the various houses. He inspects the school grounds, basements, furnace and engine rooms, toilets—the entire realm of which the janitor is king, and even ventures a suggestion or a correction, if need be, to that potentate. Whenever the need of a new school building arises, he sets forth the facts and needs to the board of education in fullest detail, with tentative plans based on a careful preliminary study. To this end, he is a close student of school architecture and has visited and inspected the latest notable examples of this art in a radius of some hundreds of miles. The physical well-being of the children is his constant care.

In his relations to the board of education the superintendent will scrupulously maintain the best traditions and customs of his office. As an educational expert and adviser, and as the executive officer of the board, he commonly receives all the respect that is his

due. If it is otherwise, he may reasonably conclude that something is wrong—possibly with himself—possibly someone has thrown a monkey wrench into the school machinery. It is most desirable that a clear and definite understanding of the superintendent's functions be early established and always recognized. Otherwise no constructive program is possible. He must have large liberty in the initiating of educational measures, and his should be the final word in the nomination and assignment of teachers, the promotion and transfer of pupils, the choice of textbooks, the preparation of the courses of study, and the supervision of the work. If he cannot freely give his attention to the really big things of his calling, either he shrivels up into a perfunctory agent of the strong man or men on his board, or he congeals into a frigid conservatism. A strong and inspiring personality is the best asset that any superintendent can have, and he ought not to tolerate influences or circumstances that tend to thwart its free and symmetrical development.

As a man of affairs, the superintendent will get to know the leaders of other community interests, professional, commercial, industrial, and social, and will use every proper means to enlist them in his propaganda for the schools. He need not "talk shop" to the point of boredom, but he will neglect no opportunity to secure the co-operation of all citizens of whatever class. Hence, he ought to be interested in folks, because he needs their help, if for no other reason. Ideals have only a speculative interest in the abstract. To have real, usable value, they must be crystallized into the actualities of the present day and generation. If the ideals of the superintendent are to be something more than an iridescent dream, he must reduce them to the concrete. In this task he not only needs the help of his board of education and the assistance of his teachers, but, in a special sense, he needs the help of the community. His ability to bring things to pass is one of the tests of his efficiency. The superintendent's recommendations are not worth the cells of gray matter used up in framing them, after he has received his congé from a hostile majority.

If, then, you accept my analysis and admit that to be efficient a superintendent must be a man of adequate preparation, a man of high ideals, a man of affairs, and a man of winning and masterful personality, the question still remains, How is any specific, individual superintendent—you or I, for instance—to know that *he* is that kind of a man? How can he see himself as he really is and as others see him?

Obviously, the sane method is a rigid, impartial, scrutinizing self-examination; even a merciless self-dissection, if that be necessary to the study of his vocational anatomy.

With "himself the judge and jury and himself the prisoner at the bar," let him look at himself with the disillusioned perspective of impersonality. Let him courageously condemn or acquit himself of every fault which he observes in other superintendents. Then let him fearlessly apply the measures of the highest standards and heroically note his deficiencies with a determination to correct them.

If he finds himself to be a man of earnest and searching thought, definite conviction, and profound feeling; if he has acquired skill from training, character from discipline, intelligence from observation and study, and culture from the assimilation of all these; if his work is free from agitation, restlessness, uncertainty, feverish intensity, and consuming haste, but full of dignity, resourcefulness, and repose—not the repose of lethargy, but the repose of quiet, calm, effective activity; if he never allows his brain to become entangled with his nerves; if he looks upon his daily program not as drudging toil, but as spontaneous, self-expressing, creative work—fatiguing, to be sure, sometimes to the point of exhaustion, yet however perplexing and annoying, happily free from friction and irritation; if he preserves a just sense of proportion and a wise adjustment of the tasks, opportunities, and pleasures of the school; if he regards his pupils as future citizens of a great, progressive republic, and tries to make life to them sweet and sound and sane and serviceable; if he keeps himself free from an over-self-conscious and dictatorial manner; if he vitalizes with his own refreshing individuality the dull monotony of routine work; if, when political disturbances or other trying conditions arise, he can count upon the staunch, unswerving loyalty of his corps of teachers; if his community looks confidently

to him for co-operating leadership in establishing and maintaining the best things in civic life; if, since "the truest teaching is living," he daily seeks to express in his personal life his noblest ideals of character—if all these foundation facts are firmly beneath his feet when he emerges from the flood of self-accusation, and if the searchlight of cross-examination reveals no dark corners of injustice and self-seeking, uncovers no lurking negligence and insincerity; then let him humbly and thankfully "rejoice with exceeding great joy," for he is indeed a master workman whose labor will require for its adequate testing and measuring a heaven and an eternity.

TESTING GRADE TEACHERS FOR EFFICIENCY

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Efficient teaching develops in the pupil self-reliance, ability to reason, judgment, and the power of initiative. The proper tests of a teacher's efficiency, therefore, should be applied to the pupils rather than to the teacher. As it requires considerable time, however, to develop these qualities even in bright pupils, we cannot wait until the end of the elementary-school period to apply these tests. Much harm may be done while we wait the necessary time for these qualities to be developed if the pupils happen to be under an inefficient teacher whose inefficiency is discovered too late. It is necessary for us to have some tests that we can apply, not when the pupil applies for admission to the high school, but at the end of each year, and frequently during the year, monthly, and perhaps oftener.

As many of the elements that are essential to good teaching are intangible and exist only in the resourceful teacher who is allowed great freedom of action, we must not use tests that will, even indirectly, repress the teacher's initiative and personality. In deciding upon the tests that we are to use, we must be very broad in our view and never lose sight of the fact that we are dealing with human minds that in turn train other human minds. If we observe detail too closely our tests will be mechanical, with the result that our teachers will become lifeless in their work. We may overemphasize the small things and altogether overlook the large and essential things. The school system that rates its teachers on thirty or more points of merit, running somewhat as follows, punctuality of the teacher, disposition shown in following instructions, dress, tone of the voice, temperature of the room, seating of pupils, preparation of outlines, method in assigning new work, etc., may be able to rate every one of its teachers as "excellent" or "very good" yet not have an efficient teacher in any one of its schools.

The proof of a teacher's efficiency is to be found in the pupil whom the teacher advances from her room rather than in the teacher herself. If the pupil has gained the habit of punctuality, is well behaved, seems to have some definiteness of purpose, knows how to organize his ideas, has developed a power of reason commensurate with his age, is self-reliant, and is not afraid to take the initiative, then his teacher has been efficient, and should be given the highest rating irrespective of the mechanics of the method she has followed. If the pupil is lacking in any of these traits of character, there has been a weak point somewhere in his training, and some one of his teachers has failed in her work.

The rating of teachers may become simplified and equitable if every school official charged with their rating is provided in advance with a rating card specifying the commonly accepted tests that prove a teacher's efficiency. The teacher should know what these tests are, so that she may ever have before her a guide showing what is supposed to constitute good work. The number of tests should be reduced to a minimum and might be as follows:

1. Attendance.
2. Discipline.
3. Tidiness of pupils and room.
4. Interest of pupils.

5. Knowledge of pupils and of their environment.
6. Interest in outside activities.
7. Accuracy in keeping records and in making reports.
8. Teaching ability.

Without regular attendance on the part of the pupils good school work is impossible. The standard in attendance for each teacher should be a percentage based on enrolment, as high as or higher than the average for all classes in the same grade or department. In a small system that is divided into primary, grammar, and intermediate departments, the department may be made the basis rather than the grade. If the attendance under any teacher for any month falls below the average for that grade or department for that month, the teacher's attention should be called to it at once, and the cause of the poor attendance should be investigated. If the attendance is higher than the average the teacher should be given credit for it. The percentage should be based on the enrolment, from which a pupil's name should be removed only because of death or removal from the school district. If this is done the teacher will be held responsible for all avoidable cases of elimination. It is surprising how few absences a good teacher has, and how few children leave school while under a good teacher.

The teacher who never brings an unruly pupil to the principal and who settles all cases of discipline in her own room is considered to be a good disciplinarian. The proof of this quality in a teacher, however, should be seen in the conduct of the pupils on the playgrounds, on the street, and in other public places. The public is not as much concerned with what the pupil attempts to do under the restraining eye of the teacher as it is with how he deports himself when unrestrained. It is then that he shows his training. The teacher who succeeds in implanting in the child a proper consideration for the rights and feelings of others is a better disciplinarian than the teacher who rules thru force and fear.

If pupils are allowed to come to school with unkempt hair and with unwashed faces and hands, if they are permitted to drop bits of waste paper, pencil shavings, bread crumbs or other remains of their lunch on the schoolroom floor or on the school grounds, or to put them in their desks, as grown-up men and women they will not develop much civic pride. The personal appearance of the pupils, the appearance of the schoolrooms and of the school grounds is a fair test of teachers' value to the community.

Any visitor to a schoolroom can tell in a very few minutes whether or not the pupils are interested in their work. The principal, however, looks farther, to see if the teacher has so aroused the children that they turn to other sources than their textbooks for information concerning the things about which they are studying, and to see if they are finding practical applications in everyday life for the things they are being taught. The teacher who stirs up such interest in her pupils probably possesses in herself all the elements of good teaching.

To get the best results the teacher not only must know something of the principles of child study, but must have made a special study of the nature of each child under her charge, must show a lively sympathy in all that interests him, and must know something about his home life and environment. The teacher must know the child's parents, and must know something of the training or lack of training he has had at home; otherwise she will not know what to expect of him, nor will she know how to deal with him.

From the very nature of her work the teacher ought to hold a position of leadership in the community. The confinement of the classroom, however, has a tendency to cause a teacher to lead a life somewhat apart from that of others. To overcome this a teacher ought to take a lively interest in some outside activity. A school system increases its efficiency as it lends itself to works of social service. The teacher, if a woman, can find a field for telling work in some one of the departments of the average woman's club; if a man, he can find a place where his services will be much appreciated on some one of the

committees of the average chamber of commerce or business men's club. The teacher who is interested in the things that tend to the improvement of the community can train the children of the community in the duties of good citizenship much more effectively than the teacher who is not so interested.

It is great help to the teacher to have access to the detailed record of each one of her pupils for every year he has been in school. Frequently the pupil after leaving school has to refer to his school record. For administrative purposes the principal must be furnished from time to time by the teacher with detailed reports about different phases of her work. Hence, one of the teacher's duties to the school system is to be accurate in keeping records and in making reports.

The foregoing tests of a teacher's efficiency are all easily measurable at frequent intervals and should be rated under a broad system of marking, such as excellent, very good, good, fair, and poor. If a teacher's rating is more than "good," she ought to be told so; encouragement is a great stimulant, even to a teacher. If a teacher's rating falls below "good," her deficiencies ought to be pointed out to her privately by the superintendent so that she may know how to strengthen her work.

The last test of a teacher's efficiency has to be measured in a different way. Teaching ability is shown in the increase in the mental power of the pupil, and in his ability to put to practical use the things he has been taught. The real measure of teaching ability is shown by the results produced in the pupils by the teacher's year's work, and the problem of the principal and of the superintendent is to find some way of measuring these results. When we can say of a pupil who, at the beginning of his fourth year, can read easy stories at sight with a fair degree of fluency and expression, who can spell correctly a certain percentage of the words he finds in his reading-books, who knows the combinations of figures, and can use some of the multiplication tables—when we can say of this pupil just how much better he should be able to read at the end of the year, how many more words he should be able to spell, how much more thoroly he should know the multiplication tables, and what other processes in arithmetic he should have mastered, then we shall have a definite standard for measuring this last and most important test of a teacher's efficiency.

As quickness and accuracy of work are the chief standards by which the world judges the proficiency of those who leave the schools, so should quickness and accuracy of work be the chief standards for measuring the proficiency of pupils in school and, indirectly, the efficiency of their teachers in teaching. Simple tests can be prepared for each department of work in the school, something similar to the Courtis tests in arithmetic, on which the pupils can be graded on the time required to complete the tests and on the accuracy of their work. When these tests are given at the beginning of the year they will give a fair indication of the pupil's ability when he enters school. If the same tests are repeated at or near the end of the year, they should be completed in less time, and the work should be more accurate than at the beginning of the year. Comparing the final results with those obtained at the beginning of the year we can measure exactly the work done by the teacher during the year.

The tests to be effective do not have to be severe, nor do they have to cover all that the pupil has been taught. They are rather to show how quickly and how accurately the pupil can apply what he knows. It is not necessary to have a different set of tests for each grade. The same tests can be given to several grades, provided they are given under the same conditions, and the time element is taken into consideration in marking the papers.

An example of the working of these tests may be seen in the following: The same test in arithmetic was given in October, 1912, to an A section of the fourth, fifth, sixth, and seventh grades. In May, 1913, the same test was again given the A section of the same grades. The average percentage of the work correctly done by the pupils of the sections

tested and the average time required to do the work were recorded. The results obtained in May were compared with those obtained in October; they were as follows:

	October, 1912		May, 1913	
	Percentage Correct	Time	Percentage Correct	Time
Fourth grade	40	10 minutes	40	9 minutes
Fifth grade	46	8 minutes	53	6 minutes
Sixth grade	50	7 minutes	51	6 minutes
Seventh grade	53	6 minutes	61	5 minutes

A comparison of these results shows that there was a great difference in the teaching ability of the four teachers of these sections. The fourth-grade section practically stood still, the sixth did but little better, while the fifth and seventh made a marked improvement. It is interesting to know that the tests given in the other studies revealed about the same ratio of improvement for the fifth and seventh grades, an additional proof that these two grades had efficient teachers. It was hardly a coincidence that the rating given these two teachers as a result of these tests was found to differ but little from the average gained by them during the first eight months of the year on the other seven points of merit on which they had been rated.

With the Courtis tests in arithmetic and the Hillegas tests in English to serve as models, we can very easily make for ourselves a series of tests for each elementary-school subject. It will require some time and a great deal of care to make out the tests and to give them, but the labor of making them out and giving them is well worth while. The teacher working in the school where such tests are used knows exactly what is expected of her, she has a definite goal to reach, and she has an incentive to do her best work. She knows that the rating she is to receive at the end of the year will be entirely of her own making. The principal or superintendent rates the teacher not on a hastily formed opinion, but upon the actual results of her work.

The testing of teachers should be done by the school officer who comes into the most frequent contact with the teaching staff, the principal, or, in small systems, the superintendent. An efficiency record of the teachers should be kept in every school; it should be as faithfully kept as is the pupils' record, and should show from month to month the rating on those measurable things that are the characteristics of a good school, and should show at the end of the year the result of the year's work measured by the development of the pupils in mental power. From this efficiency record the superintendent can make his recommendations in reference to teachers; according to this record salaries can be regulated and promotions to higher positions can be made.

HOW SECURE MORE EFFECTIVE SUPERVISION?

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This is a day of experts. In his book on *The Principles of Scientific Management*, Frederick W. Taylor shows how good methods under expert supervision enabled his men to increase their power to handle thirty-five tons of pig iron a day, per man, more than they were able to handle by the rule-of-thumb method, without supervision. It has long been known in the army that you can train men to take a thirty-inch step at the rate of one hundred and twenty steps to the minute by placing a commissioned officer over every five men to see that instructions are carried out.

There may be good teachers in a system of schools, and yet the system remain on a low plane. The foundation of good schools is good teaching, strengthened and supported by wise supervision. The entire responsibility of supervision must be assumed by the professional head of the school system, the superintendent, altho he may delegate others to assist.

The need for assistant supervisors in the larger cities is occasioned by the large areas and the great number of schools; in the smaller towns, the duties of the superintendent are so manifold that he can spend only a fraction of his time in supervision, and the need for additional supervision becomes imperative. The superintendent must be the executive, as well as the professional head of the school system. While it is possible in larger cities to separate the mechanical work from the purely pedagogical, this procedure is not feasible in smaller school centers.

Clearly defined, among the superintendent's duties, other than direct supervision, are: (1) to give expert advice to the school board; (2) to select textbooks; (3) to construct the course of study; (4) to aid in the selection and assignment of teachers; (5) to direct the general educational policy of the community; (6) to be the court of last resort in extreme cases of discipline. In addition to these duties, there are many chores, such as making statistical reports, distributing and recording supplies, etc., which should be delegated to a clerk. Thus, in the small city, the superintendent has so little time left for direct supervision that he must do his most effective work in directing supervision. This demands broad scholarship, proper professional spirit, a clear vision of his school conditions as they are and as they should be, and skill in management.

The first step toward more effective supervision in the small city is the conviction that more supervision is needed. It is possible that some large city systems are over-supervised, so that the teachers are bewildered in trying to serve so many masters, and so that their own teaching genius is crushed out by minute and specific requirements laid down and demanded by the ever-present critic.

In cities having from thirty-five to one hundred and twenty-five teachers, the superintendent and the high-school principal often do all the supervising that is done, except that of the special subjects, drawing, music, manual training, physical culture, etc., which is done by the special teachers of these subjects.

If, in addition to the superintendent, the high-school principal, and the supervisors of special subjects, a ward principal should be put in charge of every twenty teachers, it would give broader opportunities for unity in the work of the schools and more effective teaching. In most instances two adjacent buildings can be put under one supervising principal. This combination will enable a city to employ one good supervisor at a commanding salary and yet save money on the cost of supervising two buildings by two principals. In many cities increase in supervision may mean greater expenditure of money, but in education there is nothing more extravagant than poor schools.

A system of schools cannot progress far beyond the ideals of the superintendent, and on the other hand a superintendent cannot build teachers and schools into his ideals without competent supervision.

More effective supervision not only depends upon having a sufficient number of supervisors, but it is largely dependent upon the quality of supervision. The quality of supervision will be determined: (1) by the personal fitness of supervisors; (2) by the methods employed in supervising; (3) by the means employed to make supervision most effective.

The supervisor must be more than an inspector and greater than a common critic. Supervision in an educational sense is broader than inspection and greater than criticism, for it should be stimulative and constructive. To be successful, he must be trained, not only in theory, but by actual experience in teaching and in dealing with both children and adults. A man may be a natural supervisor, but he must make himself a professional

one by knowledge of principles, power to teach, and a comprehensive understanding of school work in all of its phases. Altho in some directions his authority must be absolute and his judgments decisive, he should be, at all times, a sympathetic counselor and a co-operative manager. He must be broad enough in his vision to appreciate the general scheme of education and to hold before himself a bird's-eye view of the whole school system, but he must not be so visionary that he cannot be persistent and positive in carrying out every detail of daily school work. He must possess the courage to act according to his own convictions and to regard and protect the best interests of all. His work demands good judgment based upon broad knowledge and wise reasoning. He must cultivate that patience born of experience and service which is always the secret of true success.

The quality of supervision depends also upon the methods employed. While the time spent by the supervisor in office work and in collecting material for reports may be useful, yet it is the direct personal contact with teachers and pupils at work which makes supervision effective. His methods should be such as to command respect, to promote harmony, and to inspire to highest endeavor. The supervisor who visits a schoolroom merely to criticize and to report weaknesses is likely to be looked upon with suspicion and welcomed only as a spy. His methods should produce unity in school work rather than uniformity, for unity promotes growth, while uniformity may mean lack of life. Altho each pupil should have equal educational opportunities, these opportunities may not necessarily be identical.

Of the means the supervisor may employ to make his schools more efficient, the greatest is to increase effective teaching. Whatever may be the system, the course of study, and the plan of procedure, success or failure must rest mostly upon the real workman—the teacher. No means for eliminating weak teaching and for providing for intelligent teaching, for fixing a responsibility for failure as well as for rewarding merit, should be overlooked.

Suggestions and supplementary work, school visiting, institutes, teachers' meetings, study classes, and personal conferences are some of the agencies which help the supervisor to build up his teaching force. Every system of schools should be a teacher-training school. When the teacher cannot command the situation in discipline, teaching, or training, something should be done to stop the waste. The supervisor must share the responsibility, stimulate the highest teaching power, and protect the interests of the children. It is also important that each teacher be allowed that independence of thought and freedom of initiative necessary to produce effective teaching.

The supervisor having a view of the whole can keep in touch with each pupil from grade to grade and thus protect and direct his interests as a teacher has not opportunity to do. The very bright pupils and the very slow pupils are more likely to get a square deal under wise supervision. Skill in grading a school and wisdom in promoting pupils are the electric rails over which safe and rapid progress is made. All qualified pupils in the grades should be promoted twice each year. Promotion by subject or the privilege of an ungraded school will save the time of the pupil, and the money of the taxpayer.

A good supervisor will unify the work so that one department shall not rob another. Specialization has a tendency to produce lopsided development. The competent supervisor, therefore, will use great tact and skill in correlating and supervising the work of special departments.

The same teacher who is barren of results without supervision often becomes a fruitful and satisfactory teacher when her course of study is interpreted by an experienced supervisor. In unsupervised schools, there are often at least two courses of study—the one outlined on paper and the teacher's interpretation of the course outlined. Devices and methods cannot take the place of constructive teaching toward positive ends and high ideals. The course of study is not so much matter to be poured into the minds of children.

It has to do with experience, interests, and knowledge. A good course of study is the combined work of an expert on the subjects, an expert in supervision, and the teacher. The course of study can be no broader than the teacher. So it is of the utmost importance that teachers be given the feeling of freedom to exercise their own originality and independence on the question of length of lessons, notebook work, home preparation, methods of study, etc. This will tend to produce growing teachers, but the amount of time to be given to a subject, its relation to other subjects, and the general method of interpretation are the work of the supervisor. He must take his full share of responsibility for results.

Supervision should be effective in establishing wholesome public sentiment. The hope of the future is in the school, but the hope of the school is in the mental attitude of the community toward the school. When parents are interested in the welfare of the school, children are eager to do well, and home work is done better and there is a spirit of co-operation that spells success. There are those who say excellent things about the school, but who do not embody their convictions in action. Wise supervision not only will enable the school board to know the current details of the work of the schools, but also will enlist the patrons so that, while as individuals they may be weak, collectively they will be strong in sustaining a good school sentiment. To suppose that children in the schools will take a keen interest in their work, while patrons of the schools are indifferent, is to suppose the children to be wiser than the patrons.

The classroom teacher who is a beginner is so absorbed in the immediate work of her school that she overlooks or undervalues community activities. On the other hand, an experienced teacher and a teacher of special subjects who plans for children, works with children, and lives among children finally loses contact with community interests. To meet this condition there is but one remedy—the special work of a good supervisor emphasizing points of contact with community life and preserving sympathetic relations between the home and the school.

Briefly stated, supervision may be made more effective: (1) by giving the superintendent more time for professional duties; (2) by providing an adequate number of supervisors; and (3) by improving the quality of supervision.

PRE-DELINQUENT BOYS

C. E. JOINER, SUPERINTENDENT OF SCHOOLS, MONMOUTH, ILL.

Many of us have had the privilege of studying statistics regarding delinquent boys, men, and women in reform schools, and in other penal institutions. These statistics are useful, but not beneficial to the inmates of these institutions. Why not make a study of the so-called "troublesome" or "pre-delinquent" boys, and gather a body of facts for use in preventing these boys and their successors from becoming delinquents, thus keeping them out of reform schools, jails, and penitentiaries? The writer was appointed by the executive committee of the western section of the Illinois State Teachers Association to make a study and to report at their annual meeting. Blanks were sent to the superintendents of about fifteen schools of western Illinois, but only nine schools made a thoro study and a complete report. These reports may be summarized as in Table I.

From the pulpit, the local and cosmopolitan press, and even from the magazines a torrent of criticism of the public schools annually pours forth, some of it timely, helpful, and wise, and some of it quite otherwise. Now let us direct our attention to the home and to society and ask these institutions whether they are bearing their just portion of the burden of responsibility for the education, especially the moral and religious education, of our children. The school has easily succeeded where it has a good entire home behind it, but we must confess that the school is up against an almost impossible condition where

it has behind it either indifferent, fractional, or bad homes. The school, however, is expected to succeed where the home has been broken down by divorce, intemperance, immorality, or laxity. The teacher is expected to govern well thirty children from good homes along with ten or fifteen from broken-down or fractional homes, and the awful job is annually causing many conscientious teachers to realize that they must retire from the schoolroom, or be retired by their shattered nervous system. Fathers and mothers unable to properly govern themselves or their three or four children expect a teacher to govern fifty, and if she does not do so without friction they cast the blame wholly on the teacher. I protest it is not only unfair but unjust—it is even wicked and cruel to expect these young teachers to control where men and women working together(?) have failed, but that is exactly what society expects of the teacher. If these statements are not plain to you, please let me refer you to the figures in Table I: 322 boys, or 13 per cent out of a total of 2,452, reported "troublesome" or "pre-delinquent." A pre-delinquent is one whose conduct would indicate that he is in danger of becoming a delinquent later on, unless he changes his course. Of these 322 pre-delinquents, 188 have been kept out of school by their parents so much that they are older than the normal age and hence have become idle and troublesome; 24 are without mothers; 48 are without fathers; and 22 of the parents are divorced, hence nearly 100 of them are from *fractional* homes. Again, 50 of them have intemperate fathers; 75 have mothers who are slovenly housekeepers; and 23 of their parents are immoral; hence nearly 150 of them are from bad homes. Again 103 have homes without religious influence; 191 have homes with loose home government; and 167 are never sent to Sunday school.

TABLE I

REPORT OF CERTAIN SCHOOLS ON "PRE-DELINQUENT BOYS," THAT IS, ON BOYS WHO GIVE TROUBLE IN DISCIPLINE FREQUENTLY ENOUGH TO BE CALLED "TROUBLESOME"

Cities—Monmouth, Canton, Kewanee, Keithsburg, Princeton, Galesburg, Galva, Quincy, and Rushville

Grades	Total Enrolment of Boys	No. Who Use Cigarettes	No. of Troublesome Boys	No. beyond Normal Age	Home Is Motherless	Home Is Fatherless	Parents Divorced	Intemperate Father	Mother Poor Home-Keeper	Immorality of Father or Mother	Home without Religious Influence	No. Who Attend Sunday School	Lax Home Government	No. Belonging to a Gang	No. Using Cigarettes	No. Out Late Evenings	The Sex Problem Affects
3.....	562	61	54	34	8	11	3	6	16	3	22	26	38	12	22	19	16
4.....	475	80	65	39	6	10	5	8	21	7	25	34	44	11	32	29	4
5.....	414	86	57	39	3	9	4	14	14	6	20	24	36	12	35	33	8
6.....	371	56	64	35	4	7	6	10	13	3	16	27	30	25	32	34	4
7.....	283	36	43	23	1	6	1	7	8	3	10	22	18	14	20	22	2
8.....	347	76	39	18	2	5	3	5	3	1	10	22	25	9	22	26	11
Total..	2,452	395	322	188	24	48	22	50	75	23	103	155	191	83	163	163	45
Per-cent.		15	13	58	7½	15	7	15	23	7	32	48	60	25	50	50	14

On the boys' personal-habit side, 83 belong to a "gang"; 163 use cigarettes; and 163 are out late of evenings. Whoever reads these figures carefully can come to but one conclusion—wherever there is trouble in managing a boy at school, usually back of this trouble is something wrong in the home. It is clear then that the breaking-down of so

many American homes, and not weakness in school management, is the trouble. Society must attend to delinquent homes, or it will always have more delinquent boys than it can take care of. The state never can be a good mother or a good father but it can help to make good mothers and good fathers. It can prevent the breaking-down of the home by not granting divorces where young children are involved. It can cease breaking up homes by forbidding forever the practice of selling liquor to fathers and mothers and cigarettes to minors.

The home is still the greatest of all influences in education for good or for evil. The school is most willing to bear its just burden of responsibility for the conditions of society, but we plead that reformers turn their attention for a little while at least toward the home, in order to make it feel its responsibility, to the end that its products be fit subjects for the school and for school education. The public seems to have practically forgotten that there is such a thing as home education to prepare and supplement school education. If this article shall serve to convince a few parents of the great truth that the home is still, or in truth should be, the greatest of all educational agencies, then the purpose of this investigation and of this paper shall have been accomplished.

THE NATIONAL COUNCIL OF EDUCATION

SECRETARY'S MINUTES

RICHMOND MEETING

OFFICERS

President—ROBERT J. ALEY, president, University of Maine.....Orono, Me.
Vice-President—JAMES Y. JOYNER, state superintendent of public instruction...Raleigh, N.C.
Secretary—WILLIAM B. OWEN, principal, Chicago Normal School.....Chicago, Ill.

FIRST SESSION—MONDAY EVENING, FEBRUARY 23, 1914

The meeting was called to order by President Robert J. Aley at 8:00 P.M., in the auditorium of the Jefferson Hotel.

The general topic of the evening was "Health Problems in the American Public Schools," which was considered under two heads: (1) "Plans for Promoting Improvement in the Sanitation of Rural Schools"; (2) "Supervision and Care of Personal Health of Pupils in Rural Schools."

The following persons took part in the discussion: Thomas D. Wood, M.D., professor of physical education, Columbia University, New York, N.Y.; James Y. Joyner, state superintendent of public instruction, Raleigh, N.C.; R. W. Corwin, M.D., chairman, Committee of American Medical Association, Pueblo, Colo.; W. H. Heck, professor of education, University of Virginia, Charlottesville, Va.; W. S. Rankin, secretary, State Board of Health, Raleigh, N.C.; Charles H. Keyes, president, Skidmore School of Arts, Saratoga Springs, N.Y.; Jacob A. Shawan, superintendent of schools, Columbus, Ohio; D. B. Johnson, president, Winthrop Normal and Industrial College, Rock Hill, S.C.; Ella Flagg Young, superintendent of schools, Chicago, Ill.

SECOND SESSION—TUESDAY FORENOON, FEBRUARY 24, 1914

The session was called to order at 9:30 A.M., in the auditorium of the Jefferson Hotel, with President Aley in the chair.

"The Report of the Committee on Tests and Standards of Efficiency in Schools and School Systems—A Brief Statement concerning the Purpose, Nature, and Conduct of School Surveys" was presented by George Drayton Strayer, professor of educational administration, Teachers College, Columbia University, New York, N.Y., chairman.

A discussion followed the reading of the report in which the following participated: Frank E. Spaulding, superintendent of Newton schools, Newtonville, Mass.; Ben Blewett, superintendent of instruction, public schools, St. Louis, Mo.; E. C. Elliott, director, course for the training of teachers, University of Wisconsin, Madison, Wis.; C. H. Judd, director, School of Education, University of Chicago, Chicago, Ill.; C. N. Kendall, state commissioner of education, Trenton, N.J.; Adelaide Steele Baylor, assistant state superintendent of public instruction, Indianapolis, Ind.; J. H. Van Sickle, superintendent of schools, Springfield, Mass.; John W. Cook, president, State Normal School, DeKalb, Ill.; C. E. Chadsey, superintendent of schools, Detroit, Mich.; John W. Withers, president, Harris Teachers College, St. Louis, Mo.; and L. E. Wolfe, former superintendent of schools, San Antonio, Tex.

THIRD SESSION—TUESDAY AFTERNOON, FEBRUARY 24, 1914

President Aley called the meeting to order at 2:00 P.M., in the auditorium of the Jefferson Hotel.

The following program was presented:

"The Public-School Survey"—C. S. Meek, superintendent of schools, Boise, Idaho.

"The Method, Scope, and Value of the Survey in Relation to the Course of Study"—A. J. Kinnaman, dean, State Normal School, Bowling Green, Ky.

"The Method, Scope, and Value of the Survey in Relation to the Teaching Force"—M. E. Pearson, superintendent of schools, Kansas City, Kans.

Discussion: M. G. Brumbaugh, superintendent of schools, Philadelphia, Pa.

At this point began a discussion of the topic "Sex Hygiene," under which papers were presented as follows:

"Wanted—A Twentieth-Century Ideal"—Grace C. Strachan, district superintendent of schools, Brooklyn, N.Y.

"Sex Hygiene—What the Schools Can Do"—Carroll G. Pearse, president, State Normal School, Milwaukee, Wis.

Discussion: J. W. Carr, superintendent of schools, Bayonne, N.J.; J. Stanley Brown, superintendent, Township High School, Joliet, Ill.; and Thomas A. Mott, superintendent of schools, Seymour, Ind.

The death of A. C. Nelson, state superintendent of public instruction, Salt Lake City, Utah, was noted and a committee appointed to prepare resolutions relating to the same, which committee will report at the St. Paul meeting of the Council.

WILLIAM B. OWEN, *Secretary*

PAPERS AND DISCUSSIONS

TOPIC: HEALTH PROBLEMS IN THE AMERICAN PUBLIC SCHOOLS

THOMAS D. WOOD, M.D., COLUMBIA UNIVERSITY, NEW YORK, N.Y., CHAIRMAN OF THE COMMITTEE ON HEALTH PROBLEMS IN EDUCATION OF THE NATIONAL COUNCIL OF EDUCATION

The Joint Committee on Health Problems in Education of the National Council of Education and of the American Medical Association has made an exhaustive study of the problems of health and sanitation in rural communities. It has already decided at this meeting upon lines of action that will bear early fruit. It will issue in time for publication in the *Proceedings* a clear-cut statement of the "Minimum Sanitary Requirements for Rural Schools."

Statistics show that most physical defects are as prevalent, or more prevalent, among pupils in rural schools than among those who go to schools in the city. School buildings and grounds in cities and towns are in general more attractive, more sanitary, and more adequate for the education of children than school buildings and grounds in the country. Many country schools are in schoolhouses and outhouses, not only dangerous to health, but deadening to the finer sensibilities and degrading to the morals of the pupils.

The country school should be as sanitary and as wholesome in all essential particulars as the best private dwelling in the community. The expense of the things which really affect the health of the pupil in school should be estimated in terms of child life and efficiency and only for convenience reduced to dollar and cents.

The welfare of our country depends upon no factor more indispensable, more vital, than the welfare of rural life. The rural school is the universal, the strategic, the incomparable agency for improving rural life. These influences of the rural school affect not only methods of agriculture, but all phases and standards of the lives of the people—physical, mental, social, and moral.

If the rural school is to be considered fundamentally and passably efficient, it must be sanitary enough to conserve all health values, and a sure and sufficient supervision of personal health of rural-school children must be instituted and maintained.

Medical inspection of pupils has been instituted in about four hundred cities of the country. Not one state in five provides even nominal medical inspection and health care for children in country schools.

The Joint Committee on Health Problems in Education of the National Council of Education and of the American Medical Association is committed with conviction and enthusiasm to promoting improvement of sanitation of rural schools and care of health of country children. The committee is considering a plan for stimulating improvement of rural schools thru prizes to be awarded to states and communities which demonstrate the greatest relative improvement in their own schools.

MINIMUM SANITARY REQUIREMENTS FOR RURAL SCHOOLS

The following are the "Minimum Sanitary Requirements for Rural Schools" proposed by the Joint Committees on Health Problems in Education of the National Council of Education of the National Education Association and of the American Medical Association:

It is the desire and purpose of this committee to help establish a standard of fundamental health essentials in the rural school and its material equipment, so that attainment of this minimum standard may be demanded by educational authorities and by public opinion of every rural school thruout the country.

Possession of the minimum sanitary requirements should be absolutely necessary to the pride and self-respect of the community and to the sanction and approval of county, state, and other supervising and interested official or social agencies.

Neglect of anything essential for health in construction, equipment, and care of the rural-school plant is at least an educational sin of omission and may reasonably be considered a social and civic crime or misdemeanor.

The country school should be as sanitary and wholesome in all essential particulars as the best home in the community. Further, it should be pleasing and attractive in appearance, in furnishings, and in surroundings, so that the community as a whole may be proud of it; so that the pupils and teacher may take pleasure in attending school and in caring for and improving it.

I. LOCATION AND SURROUNDINGS

The school should be located in as healthful a place as exists in the community.

Noise and all other objectionable factors should be eliminated from the immediate environment of the rural school.

Accessibility.—Not more than two miles from the most distant home, if the children walk. Not more than six miles from the most distant home, if school wagons are provided.

Drainage.—School ground must be well drained and as dry as possible. If natural drainage is not adequate, artificial subsoil drainage should be provided.

Soil.—As every rural-school ground should have trees, shrubs, and a real garden or experimental farm, the soil of the school grounds should be fertile and tillable. Rock and clay soil should always be avoided. If the soil is muddy when wet, a good layer of sand and fine gravel should be used to make the children's playground as useful as possible in all kinds of weather.

Size of school grounds.—For the schoolhouse and playground, at least three acres are required.[1]

Playground is not a luxury but a necessity. A school without a playground is an educational deformity and presents a gross injustice to childhood.

Arrangement of grounds.—The school grounds should have trees, plants, and shrubs grouped with artistic effect but without interfering with the children's playground.

II. SCHOOLHOUSE

The schoolhouse should be made as nearly fireproof as possible. Doors should always open outward and the main door should have a covered entrance; a separate fuel room should be provided, also separate cloakrooms for boys and for girls.

A basement or cellar, if provided, should be well ventilated and absolutely dry.

The one-teacher country school should contain, in addition to the classroom:

a) A small entrance hall, not less than 6 by 8 feet.

[1] If the rural-school plan includes the additional features (a teacher's home, a garden, and an experimental farm), which are already in some progressive states accepted and established as educational essentials, then the school grounds should contain 8 to 10 acres.

b) A small retiring-room, not less than 8 by 10 feet, to be used as an emergency room in case of illness or accident, for a teacher's conference room, for school library, and for health inspection, a feature now being added to the work of the rural school.

c) A small room, not less than 8 by 10 feet, for a workshop, for instruction in cooking, and for the preparation of refreshments when the school is used, as it should be, for social purposes.

Classroom should not be less than 30 feet long, 20 feet wide, and 12 feet high. This will provide space enough for a maximum of thirty pupils.

III. VENTILATION AND HEATING

The schoolroom should always receive fresh air coming directly from out-of-doors in one of the following arrangements:

a) Thru wide open windows in mild weather.

b) Thru window-board ventilators under all other conditions, except when, with furnace or jacketed stove, special and adequate inlets and exits for air are provided.

Heating.—Unless furnace or some other basement system of heating is installed, at least a properly *jacketed stove* is required. (No unjacketed stove should be tolerated in any school.)

The jacketed stove should have a direct fresh air inlet about 12 inches square, opening thru the wall of the schoolhouse into the jacket against the middle or hottest part of the stove.

The exit for foul air should be thru an opening at least 16 inches square on the wall near the floor, on the same side of the room as the stove is located.

A fireplace with flue adjoining the stove chimney makes a good exit for bad air.[1]

Temperature.—Every school should have a thermometer, and the temperature in cold weather should be kept between 66° and 68° Fahrenheit.

IV. LIGHTING

The schoolroom should receive an abundance of light, sufficient for darkest days, with all parts of the room adequately illuminated.

The area of glass in windows should be from one-fifth to one-fourth of the floor area.

The best arrangement, according to present ideas, is to have the light come only from the left side of the pupils and from the long wall of the classroom. Windows may be allowed on rear as well as on the left side. High windows not less than seven feet from the floor may be permitted on the right side as an aid to cross-ventilation, but not for lighting.

[1] The following arrangement for ventilating flue is required in one western state: A circular sheet steel smoke flue, 8 inches in diameter, passing up in center of ventilating shaft (foul air exit) 20 inches square in the clear.

There should be no trees or shrubbery near the schoolhouse which will interfere with the lighting of the classroom.

The school building should so face with reference to the windows that the schoolroom will receive the direct sunlight at some time during the day.

Shades should be provided at tops and bottoms of windows with the dark shades at top, so that light may be properly controlled on bright days.

Schoolroom colors.—The best colors for the schoolroom in relation to lighting are:

Ceiling: white or light cream.
Walls: light gray—green.
Blackboards: black.

V. CLEANLINESS

The schoolhouse and surroundings should be kept as clean as a good housekeeper keeps her home.

a) No dry sweeping or dusting should be allowed.

b) Floors and furniture should be cleaned with damp sweepers and oily cloths.[1]

c) Scrubbing and airing are better than any form of fumigation.

VI. DRINKING WATER

Drinking water should be available for every pupil at any time of day which does not interfere with the school program.

Every rural school should have a sanitary drinking fountain located just inside or outside the schoolhouse entrance.

Drinking water should come from a safe source. Its purity should be certified by an examination by the state board of health or by some other equally reliable authority.

A common drinking-cup is always dangerous and should never be tolerated.

Individual drinking-cups are theoretically, and, in some conditions, all right, but practical experience has proven that in schools, individual cups, to be used more than once, are unsatisfactory and unhygienic. Therefore, they are not to be advocated or approved for any school.

Sufficient pressure for running water for drinking fountain or other uses in the rural school may always be provided from any source without excessive expense by a storage tank or by pressure tank with force pump.

VII. WATER FOR WASHING

Children in all schools should have facilities for washing hands available at least:

a) Always after the use of the toilet.

b) Always before eating.

[1] Sweeping compounds in moist-proof containers may be obtained in the markets.

c) Frequently after playing outdoors, writing on blackboard, or doing other forms of handwork connected with the school.

Individual clean towels should always be used.

Paper towels are the cheapest and most practicable.

The common towel is as dangerous to health as the common drinking-cup.

VIII. FURNITURE

School seats and desks should be hygienic in type and adjusted to the size and needs of growing children. Seats and desks should be individual—separate—adjustable—clean.

Books and other materials of instruction should be not only sanitary but attractive enough to stimulate a wholesome response from the pupils.

IX. TOILETS AND PRIVIES

Toilets and privies should be sanitary in location, in construction, and in maintenance.

a) If water carriage system for sewage is available, separate toilets for boys and girls should be located in the schoolhouse with separate entrances on different sides or corners of the school building.

b) If there is no water carriage system, separate privies should be located at least fifty feet in the different directions from the schoolhouse, with the entrances well screened.

c) The privy should be rainproof, well ventilated, and one of the following types:

1. Dry earth closet.
2. Septic tank container.
3. With a water-tight vault or box.

All containers of excreta should be water-tight, thoroly screened against insects, and easily emptied and cleaned at frequent intervals.

No cesspool should be used unless it is water-tight and easily emptied and cleaned.

All excreta should be either burned, buried, treated by subsoil drainage, reduced by septic tank treatment, or properly distributed on tilled land as fertilizer.

X. ALL SCHOOLHOUSES AND PRIVIES SHOULD BE THOROLY AND EFFECTIVELY SCREENED AGAINST FLIES AND MOSQUITOES

XI. SCHOOLHOUSES AND OUTHOUSES SHOULD BE ABSOLUTELY FREE FROM DEFACING AND OBSCENE MARKS

XII. BUILDINGS SHOULD BE KEPT IN GOOD REPAIR AND WITH WHOLE WINDOWS

STANDARDS

Provision and equipment of adequate school plant depends on intelligence, interest, pride, and financial ability of community.

Maintenance of a clean and sanitary school plant depends on efficient housekeeping and on interest and willing co-operation of pupils.

No community should be satisfied by the minimum requirements indicated in the foregoing, but every country school should be so attractive and well equipped as to minister with some abundance of satisfaction to the physical, mental, aesthetic, social, and moral well-being of those who provide it, who own it, who use it, and who enjoy it.

PRESENT CONDITIONS

Among the reasons which explain the present deplorable conditions of rural schoolhouses, the following are prominent:

a) Low architectural and sanitary standards in rural regions generally thruout the country.

b) Ignorance regarding the physical, mental, social, and moral effects of unattractive and insanitary school buildings on the children and on the community as a whole.

c) False economy expressed by local school boards in failure to vote enough money to build and maintain suitable school buildings.

d) Lack of supervision or assistance by the state which is usually necessary to maintain desirable standards.

IMPROVEMENT

How shall the rural schools thruout this country be improved up to a reasonably satisfactory standard?

I. By a popular campaign of education regarding the conditions desirable and possible in the country school. Such a campaign would profitably include many or most of the following:

a) The United States Bureau of Education and state departments of education should furnish plans and instructions for construction and equipment of rural-school buildings.

The United States Bureau of Education in Washington is already supplying on request valuable help of this kind, and a few state departments of education are demonstrating what may be done by supervision and support which aid without controlling.

b) State departments of education should supply supervision of rural schools and should have power:

1) To condemn insanitary and wholly unsuitable buildings.

2) To give state aid to rural schools when the local authorities fulfil certain desirable and reasonable conditions.

c) Ideas and standards of school sanitation should be inculcated in minds of local school patrons and school authorities who control school funds and who administer the affairs of the schools. Public lectures on health topics should be provided in the schoolhouse and elsewhere.

d) Effective school health courses should be introduced in normal schools and teachers' institutes.

Better education of rural-school teachers, county superintendents, and rural-school supervisors in the principles and practice of school hygiene and sanitation should be assured.

e) Interest in, and enthusiasm for, the improvement and care of all features of the school and its surroundings which affect health and happiness should be inspired in the minds of rural-school pupils.

Organizations such as "Pupils' Board of Health," "Civic Leagues," or "Health Militias" may profitably be formed among pupils.

f) Organizations like "The Granges," women's clubs, county medical societies, and other groups so situated that they may further the cause of health and efficiency should co-operate with the rural school.

g) Attractive but reliable health information should be furnished abundantly by the public press.

II. Emulation and competition should be recognized and rewarded in ways that will promote wholesomely and progressively the welfare of the community as a whole.

TEN SANITARY COMMANDMENTS FOR RURAL SCHOOLS

In every school which may be considered passably sanitary the following conditions shall obtain:

1. Heating by at least a properly jacketed stove. (No unjacketed stove to be allowed.)

Ventilation by direct outdoor air inlets and by adequate and direct foul air outlets.

2. Lighting from left side of room (or from left and rear) thru window space at least one-fifth of floor space in area.

3. Cleanliness of school as good as in the home of a careful housekeeper.

4. Furniture sanitary in kind, and easily and frequently cleaned. Seats and desks adjustable and hygienic in type.

5. Drinking water from a pure source provided by a sanitary drinking fountain.

6. Facilities for washing hands, and individual towels.

7. Toilets and privies sanitary in type and in care (with no cesspools unless water-tight) and no neglected privy boxes or vaults.

8. Flies and mosquitoes excluded by thoro screening of schoolhouse and toilets.

9. Obscene and defacing marks absolutely absent from schoolhouse and privies.

10. Playground of adequate size for every rural school.

REPORT OF THE COMMITTEE ON TESTS AND STANDARDS OF EFFICIENCY IN SCHOOLS AND SCHOOL SYSTEMS— A BRIEF STATEMENT CONCERNING THE PURPOSE, NATURE, AND CONDUCT OF SCHOOL SURVEYS

GEORGE DRAYTON STRAYER, PROFESSOR OF EDUCATIONAL ADMINISTRATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK, N.Y., CHAIRMAN

The committee on standards and tests has spent a part of the time available at each of the three meetings which it has held in considering the subject of school surveys. It is obvious that any consideration of the subject of standards or tests of efficiency must involve some treatment of that form of inquiry now so commonly advocated by the critics of public education who hope to base a wise and economic reorganization of our school system upon a critical scientific examination of present practice. It is the purpose of this brief statement to present the findings of the committee with reference to the following questions: (1) What is a survey? (2) When or under what conditions should a survey be undertaken? (3) By whom should a survey be made? (4) What are the methods to be employed in an efficient survey? (5) Under what conditions should reports of surveys be issued? (6) What results may we expect from school surveys?

1. *What is a survey?* A school survey may be defined as an inquiry concerning public education which seeks to acquaint the public with all of the educational agencies supported in whole, or in part, by public moneys, with respect to their organization, administration, supervision, cost, physical equipment, courses of study, teaching staff, methods of teaching, student body, and results as measured by the achievements of those who are being trained or have been trained therein. Such an inquiry must, of necessity, reach conclusions in terms of the aim or purpose of education, and may not fail to relate present achievement of the school system to the sources of support now utilized or which may be made available. A school survey is not to be confused with a school investigation. Common usage has given to the term "investigation" a more or less invidious significance. It suggests the assembling of evidence in proof of inefficiency of method, or of incompetence and negligence of individuals or institutions. Its stress is upon failure and non-performance. Consequently its attitude is primarily negative and its attention focused upon affairs of the past. Moreover, an investigation must work in the face of the hostility, or, at the best, passive resistance, of those whose activities are brought under scrutiny. The survey, on the other hand, seeks to cause the school system, as it actually exists and operates, to pass in complete review before the public. While of necessity taking account of the neglected responsibilities of individuals, the survey is concerned, first of all, with schools as institutions serving a definite public purpose. Its aim is, not to bring individuals to

trial, but rather to define those conditions under which the organized institutions of public education become most immediately effective for the public good. The survey involves the highest degree of co-operation between those on the inside and those on the outside of the school system. This difference between the school survey and the school investigation is more than a verbal distinction. It involves a difference in motive that predetermines both immediate scientific results and ultimate educational gain.

2. *When, or under what conditions, should a survey be undertaken?* In general, in the large systems, it is best for the superintendent's office to secure from the board of education the necessary funds to maintain a bureau or department of special statistical information and special tests whereby the efficiency of the school system may be reviewed at all times in a way which will add needed important data and conclusions to the reports and the observations possible under the usual organization that now exists. In small systems, and in all systems on special occasions, this will not be possible. Therefore other measures must be adopted.

When any special questions arise calling for expert knowledge which cannot be easily supplied by the superintendents or school officials, as, for example, in the matter of architectural plans, in the matter of expert revisions of accounting system, and in cases where new and elaborate subjects are to be introduced into the curriculum, or when additions and revisions are undertaken, the community should be led to recognize the fact that it is wise to employ the services of specialists who can advise the superintendent's office and the board in these particular matters.

When the superintendent or the lay members of the school administration feel uncertainty with regard to any phase of the school work, it should be possible to employ the services of competent persons who can supplement the regular observation of the schools and confirm or modify the recommendations that are under consideration. Such persons, constituting a survey committee, should be recognized by the community as a temporary extension of the supervisory staff of the schools. In special cases such supplementary service can be resorted to as a means of deciding points which are under dispute. Thus it is easily conceivable that the several members of the board of education would not agree with regard to the wisdom of certain policies under consideration. They should be brought to recognize the value of advice from representatives of the educational profession outside the particular school system in question. The community and the educational profession should recognize that consultation is not a reflection upon the efficiency of the superintendent, board of education, or members of the teaching staff, but rather a recognition of the teaching profession as a large and complex group, the members of which are capable of supplementing each other, even where there is not absolute agreement on methods of procedure.

Temporary additions to the school staff in the fashion above described are justified by the fact that schools continually are facing administrative emergencies for which it is not necessary to provide permanent additions to the staff. Furthermore, these temporary situations very frequently call for a broader view than can be supplied by a single supervisory officer. The teaching profession itself needs the kind of opportunity which would be furnished by such surveys to enlarge its own views and to try out many of the experiments which are necessary in order to secure the best adjustment within the complicated school situation.

The superintendent very frequently needs the support of the general educational profession to make a community clearly aware of needs which he sees, but which the community is slow to recognize. For example, he frequently needs more funds than he can easily obtain without the cooperation of some outside advice. The superintendent ought to be able to call in such outside advice for the benefit of the community itself.

Finally, the community may be in doubt as to the efficiency of its school officers. When criticism has once become the fashion in a given community, it is very likely to undermine the efficiency of the school system, and the superintendent should welcome a survey which will either give him the support which he needs in dispelling the criticisms, or give the community the suggestions which it needs in order to remedy the situation.

3. *By whom should a survey be made?* From the above discussion it will be seen that a survey can be most advantageously undertaken by the school officers. If the citizens wish to have a survey made, they ought to be able to secure it thru their regular representatives on the board. Groups of citizens who cannot secure such action thru the board should be provided with means of carrying out a survey and should feel justified in adding temporarily to the supervisory staff a group of specialists competent to undertake a thorogoing inquiry. Furthermore, the superintendent ought to be in position at any time to call in impartial professional advisers in case he finds school interests seriously jeopardized. Whether the survey originates with the superintendent or with the boards or with an interested group of citizens, its purpose should be to protect and advance the interests of the children and youth of the community by employing specialists, whether within or without the system, competent to study scientifically the school system and able, by virtue of their experience as educators, to propose adequate and workable reforms.

4. *What are the methods to be employed in an efficient survey?* A school survey naturally will aim to deal with those phases of school organization which are capable of exact objective review. Thus the financial management of the schools should be taken up. The physical equipment of the schools should be examined. The attendance at schools, including the question of enforcement of the compulsory attendance law, can be definitely determined. The rate of promotion within the grade can be known defi-

nitely. The number of children in a given classroom should be ascertained as well as the provisions that are made for exceptional children, including defectives. The method of training teachers, their qualifications, the methods of their appointment, and the method of eliminating inefficient teachers should be considered. The salaries of teachers and the rules governing their tenure of office; the provisions that are made for the improvement of teachers during the period of their service; the organization and functions of the supervisory staff and the efficiency with which they carry out their work, especially with reference to their conduct with the classroom exercises; the efficiency of instruction, including an examination of the course of study; the methods of class instruction, including the variations in these methods of class instruction; the variations in these methods which are to be observed in the different parts of the system, and the measurement of the achievements of pupils in the subjects commonly taught, all will be subject to careful review. There should also be made an examination of the provisions which exist within the system for recording such data as are necessary for the proper study of educational problems, together with recommendations concerning the use to be made of these facts.

Any school inquiry should, so far as is practicable, observe, measure, and report the conditions of the community's political, industrial, social, and educational life which favor or interfere with the work of the schools. Investigation should dwell upon the achievements of the school system, especially noting the direction in which it is moving. The measure of the efficiency of any school or system of schools must always be made in terms of the changes, developments, improvements, or growths in efficiency which have taken place under a given administration or during a given period of years.

5. *Under what conditions should reports of surveys be issued?* Any report concerning school conditions should be so planned and arranged as not to mislead educational officers or the public concerning the general and special methods of any important feature of the work of the schools within its scope. For example: If the scope of the inquiry includes the work of the department of physical education, and if the physical growth of pupils is below what should be expected, while the moral and social atmosphere of the school playgrounds is admirable, the latter fact should be made as clear as the former. In general, certain topics should be chosen for measurement and report, and the result should be reported in the case of each topic without selection for purpose of the support of any interest within or without the school.

The report should be prepared as a document intended for the information of the school officers. The further use of the report should depend upon the agreement of these school officers and the specialists who are employed by the board. No publicity should be given to the work of the survey during its progress without the consent of both parties. Upon

completion of the survey, publication involving alterations in the report should depend upon the consent of the persons making the survey.

6. *What results may we expect from school surveys?* From school surveys having the scope indicated above and conducted by competent professional specialists, we expect to derive more adequate appreciation of our public-school systems with respect to both their successes and their failures. From such surveys, we may hope for an accumulation of educational data from which scientific conclusions concerning the changes which should be brought about in educational practice may be derived. When surveys involve the men of highest scientific attainment and of sound professional judgments, we shall get recommendations which, if followed, will make for the increased efficiency of public education.

DISCUSSION

FRANK E. SPAULDING, superintendent of Newton schools, Newtonville, Mass.—Measurements of administrative efficiency that are at once mathematically and scientifically accurate and also of any considerable practical value have yet to be achieved. While we wait on such perfect measurements, however, we may render our profession incalculable service thru measurements that are practically reliable, usable, and useful; such measurements are already at hand.

In making measurements that possess these characteristics of practical reliability, usability, and usefulness, no other unit of measure can compare, either in significance or in the extent of its applicability, with the dollar. How much—how many definite units—of anything, material or immaterial, does one dollar buy or produce; or, what is the cost of any definite unit or number of units of anything that the schools are trying to produce? How is each dollar of expenditure apportioned among the various things—services, plant, equipment, supplies—that are bought? Such questions as these, directed with discrimination, demand measurements that penetrate to the very heart of administrative efficiency.

The number of significant measurements that may be made thru the application of some monetary unit is almost without limit; and there is scarcely one of these measurements that is not as significant pedagogically as it is financially. To bring out this significance, financial and pedagogical, comparisons are essential; we must compare the costs of similar achievements under different conditions, in different school systems, in different parts of the same school system, or in the same school system at different times and under different conditions.

But we may not rest with comparisons alone; these are valuable only as they lead to critical analysis and constructive study of the effects of the different conditions under comparison which result in different unit costs of production. It is the merit rather than the defect of these measurements and comparisons of costs that they seldom offer at once the basis for final conclusions; almost invariably they stimulate further inquiry. A special school survey that does not result in a continuous survey carried on by those regularly in charge of the school system fails of the chief function that a survey should serve.

C. N. KENDALL, state commissioner of education, Trenton, N.J.—This report has not been presented to the committee. I alone am responsible for it.

In order to measure achievements in geography, it is necessary to know the ultimate ends to be attained by a study of the subject. We must know what we want to accom-

plish before undertaking to measure results. We cannot estimate progress unless we know where we are going. We cannot measure unless we have something to measure. Qualitative standards must precede quantitative ones. Have we such standards? Has any serious attempt been made to establish these standards as a necessary prerequisite to measuring efficiency? There is little evidence that such an attempt has been made, at least so far as American schools are concerned. This is not merely my opinion, but it is also that of some of the foremost teachers of geography in the country. They deprecate the fact that it is so.

Geography has received scant attention from the National Education Association In the past ten years, not to exceed six or eight papers on all the various subjects pertaining to it, in both the elementary and secondary schools, have been presented. The literature on the subject for teachers may be found in the modest compass of not to exceed half a dozen books, some of which are of modest merit.

The points which in my judgment need emphasis are these: (1) We lack collective or generally accepted standards of what should be accomplished; (2) No serious attempt has been made to establish such standards; (3) Such standards, however, are necessary before we can estimate efficiency with confidence.

In what way is it possible to establish such standards as preliminary to knowing what we are to judge or measure? By what means are we to reach conclusions as to what should be the essentials in a course of study in geography to which inquiring school superintendents and surveyors could look for guidance?

One way would be this: A committee could be appointed by this Council to report upon standards or desirable accomplishments in geography. This committee could call to its assistance leading teachers of geography. It could also secure the co-operation of psychologists to pass upon the adaptability of material to the age of children, an important consideration. Superintendents of schools should be represented on such a committee in order to prevent an overdose of the subject in a crowded curriculum. Such a committee could not be expected to settle all debatable questions. It could, however, reach a consensus of opinion which would be of immense value. The digested, well-thought-out report of such a committee, presented to and adopted by this Council, would carry great weight, and many persons would use it. It would have more influence than the individualistic opinion of any one person, whoever he might be; it would be a help to many; it would prevent much of the prevailing waste; it would be a piece of needed constructive work which this Council might well undertake; it would do much to shape the geography teaching of the country. What body in this country is so fit to deal with this subject as this Council?

I have been trying to gather what is the consensus of opinion from some conspicuous teachers of geography as to what should be the essential purpose in teaching geography, and in these I personally concur. Summarized there are four:

1. Well-organized observation of geographical phenomena within the child's environment—no textbooks here.

2. The location of those facts and features, limited in number, which should be at the ready service of any intelligent person. There are some persons who think this purpose has been too much ignored of late years. Desirable as it may be to teach facts in geography in connection with problems set up by either teachers or pupils, desirable as it may be to provide motives for learning facts, yet if problems and motivation cannot be furnished either by teachers or by children the facts nevertheless should be learned. The situation here is analogous to the facts of the multiplication table.

3. Power to reason clearly from cause to effect—to look back of a given fact to the condition which has brought it about. Such questions may be stated as problems. Here are three:

How does it come about that Japan, a small nation, was able to defeat Russia in the late war between those countries?

Why is it that the German Empire, not half as old as the United States, with a population only two-thirds as great as our own, with only 200,000 square miles of territory in contrast with our 3,000,000, has a much larger foreign trade than the United States?

Suggest an explanation of the fact that we have our winter when the earth is nearest the sun.

These problems and similar ones have at least three values: (1) They stimulate thought; (2) They cultivate initiative; (3) They have interest because they relate to situations of the day, to the experiences of this generation, because they have a particular bearing on everyday affairs of life. But they must be within the comprehension and appreciation of the pupil.

4. Training and skill in the use of maps, translating the facts and conditions represented on maps in terms of the real world. Training in the use of textbooks, reference books, atlases, etc. The power to use a map or textbook with a definite purpose, to discriminate and select with reference to that purpose.

Not without debate would these four purposes here offered as basic principles be accepted, but they might afford a starting-place for discussion.

We must admit, if we are honest with ourselves, that the habit is too common of looking on the printed page in geography with the receptive rather than the questioning attitude of mind; that pupils use words and expressions which they give and take glibly without asking what they mean; that geographical thought often begins and ends with the hieroglyphics on the map; that too many teachers are unable to discriminate in the vast range of the subject between essentials and nonessentials; and that there is too much ignorance of geography when pupils come to our normal schools.

A professor in the department of geography in a leading state university says:

"From one hundred to three hundred graduates of high schools pass thru my hands yearly. We frequently give these Freshmen in the university tests in the early part of the college course. These tests in geography reveal how small a knowledge of geography high-school graduates possess. It is unbelievably small and could almost be called ignorance of geography, yet these are the same type of students who enter the normal schools to become teachers of geography."

Turning to the reports of surveyors made in several cities, we find that either the surveyors were convinced of the difficulty of making the survey in the absence of standards by which to measure or the subject was thought to be of little value. The subject is dismissed with but a few lines in each of these reports. The New York report of twenty-five hundred pages devotes seven pages to geography. However it must not be forgotten that any survey cannot be expected to pass judgment upon everything that is done in a school system.

The problem, then, is the setting-up of standards or courses of study by trained and interested leaders in geography teaching, together with other leaders in education. Only when this has been done will we be in a position to estimate with confidence and satisfaction the efficiency of geography teaching. Not until then are we likely to have more than individualistic opinion as to the efficiency of the teaching of this subject, one of the important subjects in the elementary course of study.

ADELAIDE STEELE BAYLOR, assistant state superintendent of public instruction, Indianapolis, Ind.—The great work of the public schools today is to eliminate from the curriculum all unnecessary matter and method and to make all instruction count in more specific terms toward the educational progress of the pupil. The possibility of applying definite tests and standards to measure school abilities in the various subjects taught is just beginning to find place in public-school systems. Arithmetic, long holding a large place on the daily program of the schoolroom, must show a better reason for its prominence than the tacit assumption that it is both disciplinary and practical.

J. M. Rice started the movement in 1902 when he applied uniform arithmetical tests to over six thousand pupils in the elementary schools of seven cities with results showing a variation of from 80 per cent to 25 per cent in averages for schools. Dr. Rice concluded

from the array of facts before him that these variations were not due to causes commonly assigned, but arose from the need of proper standards and tests whereby teachers might ascertain from time to time the actual progress of their schools compared with other schools or with an average allotment in a number of schools.

In 1908, Cliff Winfield Stone compiled the results of his arithmetical tests put to about six thousand pupils in twenty-six different school systems for the purpose of investigating the nature of the product of the first six years of arithmetic work and the relation between distinctive procedure in arithmetic work and the resulting abilities. Dr. Stone makes the following interesting conclusions: (1) the study called arithmetic makes demand on a plurality of abilities, for while ability in any fundamental except addition implies nearly the same ability in other fundamentals in both systems and individuals, yet ability in any fundamental implies ability in reasoning in individuals to a less degree than ability in any such subject as English implies ability in such a subject as geography; and (2) there is wide variability among systems and still gre ater variability among individuals within a system, while the variability among boys does not differ appreciably from that among girls.

In 1910, S. A. Courtis, following the work of Dr. Stone as a basis, determined standard scores in the fundamental abilities involved in work with whole numbers, thru ten thousand records collected from about seventy schools in ten states and England.

In 1911, seventy-five thousand tests were used and Dr. Courtis established measurements of growth and determined the value of the comparative graph sheet. He is now working on the determination of standard growth, control of individual variations, and the determination of efficient methods.

Dr. Courtis has done the latest and possibly the most complete work in the subject, and his tests and standards are becoming more and more widely used.

If the work is continued with the same scientific interest and insight with which it was undertaken and has been followed to the present time, it promises to be only a few years until a teacher in any grade in the schools will be able to know, rather than to infer, the arithmetical status of his school as a whole and that of individual members, by the use of universally recognized standards, and can therefore determine upon the most efficient methods, and know exactly where to put his time and energy to secure reasonable achievements in the subject—such achievements as will satisfy social and commercial needs.

L. E. WOLFE, former superintendent of schools, San Antonio, Tex.—While listening to the able discussion, it occurred to me that it would facilitate the solution of this problem and the application of its solution if this committee would officially invite the normal schools, educational departments of state universities, state teachers' associations, and the teaching corps in towns, cities, and counties to work, under the direction of this committee or independently, on this great problem. While the difficulty of solving this problem is great, it is small compared with that of its application in the half-million schoolrooms of the United States. The assistance that this committee would derive from the work of these educational bodies thruout the country, tho valuable, would be much less valuable than the preparation of the rank and file of the teachers of the country to receive the solution and to apply it, because of their grappling with the problem. The larger the percentage of the teachers of the country who can be induced to study this problem the better. During my twenty-five years as town and city superintendent, I have devoted several thousand happy and profitable hours in trying to work out with my teaching corps a course of study suited to community needs and in trying to determine the best methods of teaching this course of study and of testing the results of the teaching.

In order to give motive to this and similar work with teaching corps, credits should be granted for the completion of portions of a course of study vitally related to schoolroom efficiency, and these credits should lead to higher certificates and, where practicable,

to diplomas from normal schools and from the educational departments of state universities. I know of no greater waste than the prevalent failure to organize the superintendents, supervisors, principals, and leading teachers of town, city, and county for the systematic professional improvement of the teaching corps. The superintendents, supervisors, and principals in towns, cities, and counties are often the equal of normal-school faculties and are many times more numerous. It is a much more practical thing for a superintendent to organize for the improvement of his teachers than to lament that so small a percentage of teachers are well trained.

THE PUBLIC-SCHOOL SURVEY

C. S. MEEK, SUPERINTENDENT OF SCHOOLS, BOISE, IDAHO

Approximately five hundred millions of dollars are collected annually by taxation for the support of public education. New activities are each year added to the curriculum which invariably increase the cost. The annual exaction will never grow less but will constantly increase. Thruout the country we are dangerously near the breaking-point in taxation. The margin of safety is in many communities already very narrow.

Those who administer public schools direct the expenditure of vast sums. Laymen may keep the books, audit the accounts, and see that the money is not stolen, but beyond this they have no protection. Taxpayers may assail and scrutinize all other forms of public expenditure, but when they approach the budget for public schools we say, "This is sacred ground. You are laymen. This is the field in which God has rendered educators responsible for power. No right rests with you save that of paying the bills. Ask no questions. Hands up and deliver." But those who pay the tribute are not content to ask no questions. They are proud of their schools and will loyally support them. They want to know that no part of the vast sums they each year pay for the support of public education is wasted, but that all of it is wisely and economically expended; that all of it is yielding for their children the greatest possible return in terms of educational units. Who in the community can reassure them on this question? The local educational experts who have directed the expenditure of the funds allotted to public education? Are they likely to render a decision against themselves? Statesmen and even presidents burn with righteous indignation when "my policies" are assailed. Is it reasonable to expect that educators can or will assume an impersonal and entirely judicious attitude under like circumstances? In behalf of themselves who bear the burden, and of their children who will be benefited if schools are efficiently managed, or injured if they be inefficiently directed, patrons should seek disinterested judgment as to the state of their schools. They have a right to ask, and a duty to demand, that their schools be examined by experts in education who have no interest in the local situation.

Some school directors are opposed to the employment of a school-survey committee. Often this reluctance does not grow out of any distrust of their

own administrative policy or any fear that their own system will be discredited if it be intelligently and fairly standardized. They fear that an investigation will stimulate that spirit of unrest which is always present whether or not it be justified. They are mindful of some notable examples where reports of such committees have been followed by great disturbances. The mistake made here is the assumption that the investigation is the cause of the trouble. In every example of this nature that might be cited, the destructive forces were already developed and thoroly organized before the committee was employed and put to work. The case had been tried and an adverse verdict rendered before the report of the committee had been published.

CONSTRUCTIVE POSSIBILITIES OF THE SCHOOL SURVEY

Why permit the school survey to be used so exclusively for destructive effect? Why permit those with grievances to employ the committee, direct the activities, and accumulate the data? The custodian of public funds who tries to prevent an investigation of his books by his very attitude arouses public distrust. If, however, he is honest and efficient he urges an investigation because he knows that an inquiry will be for him not a menace but a vindication. In the latter case, his very attitude inspires public confidence. The directors of public-school activities who believe in the wisdom and efficiency of their administrative policy, who know definitely what they are striving for, who have effectively organized all the educational agencies at their disposal for the realization of their aims, and finally who know positively just what they have already accomplished and what in the immediate future they may confidently hope to achieve—all these have nothing to fear from a school-inquiry committee. For them a movement to employ a school-survey committee will be, not a calamity to be avoided, but a protection to be welcomed. They should not assume a merely passive attitude toward the employment of such a committee but should urge an investigation. The very fact that they have not been content to run things smoothly but have insisted on getting somewhere means that they have occasioned some friction. They have, therefore, endured selfish and ignorant abuse. Why should they not welcome some sympathetic commendation and criticism?

But the survey as a balm to lacerated feeling is not sufficient justification. It should be employed to educate the public to bear the burden of further constructive effort. The experience of Boise is an illustration of what I mean. Four years ago Commissioner Kendall, of New Jersey, was invited to that city to examine the school and to report to the board of education such changes and enlargements as he deemed expedient. He recommended the introduction of a somewhat advanced and unusual system of industrial education. His report was adopted by the board, printed, and freely distributed in the community. The innovations were accepted by the

patrons when indorsed by such a well-known educator much more confidently than would have been possible had the local superintendent been their unsupported sponsor.

A year ago, Dr. Elliott, Dr. Judd, and Dr. Strayer visited the schools, studied the situation, and submitted to the board a report on progress. They made some helpful criticisms and suggested some changes. One of their recommendations was that the eighth grade as an elementary-school proposition be eliminated and that junior high-school work be substituted. That recommendation was approved by the board. In September last some changes were made in accordance with the recommendation of the committee. A few patrons who had labored faithfully for a year on cube root, partial payments, true discount, the subtle distinctions of formal grammar, etc., did not intend that their education should be discredited. They immediately became active and eruptive. But parent's meetings were called in the grade buildings, the reasons for the changes explained, and the excitement immediately subsided. But the patrons would not have been so easily reassured had the school authorities not been supported by the three eminent educators.

As a protection to competent school administrators, as an effective device to convince the public that the enormous sums the schools are each year exacting are being wisely and economically expended and are yielding commensurate returns in educational units, and as a means of educating the patrons to an appreciation of the newer phases and modern trend of education, the work of a school-inquiry committee is invaluable. Why then not use such a committee for constructive ends?

Boards of education at stated intervals employ expert accountants to convince the public that all money collected by them is expended for the purchase of specific services, plants, and equipment, and that no part of it is wrongly appropriated by themselves, their agents, or employees. This act is selfish in that its purpose is to protect themselves and to reassure the public. But they have a higher duty toward the children whose interests are in their charge. Boards of education know whether they are honest and alert in their management of the public funds. The report of the expert accountant cannot add to their assurance of duty well performed. But they do not know that the services, plants, equipment, and supplies purchased by them are yielding the best possible returns in terms of education. If boards of education think it wise and expedient to employ a financial expert to check up their own management of public funds, how can they evade the duty to have educational experts check up the educational management of their own employed agents?

EFFECT OF THE SCHOOL SURVEY ON THE TEACHER

Public schools are being assailed today more vigorously, even viciously, than ever before. Because of these attacks, supervisors, principals, and

teachers find the task of keeping up their faith and enthusiasm a difficult one. A college professor writing in the *Nation* recently said:

> Year by year industrial education is crowding out culture. The pupils are noisy, happy, and empty. When they go to college they must first be cured of twelve years of petting before they can be equipped with a profession and a decent sense of values.

We must bear this sort of abuse because we have too much industrial education. Because we do not train children for vocations in life the National Manufacturers' Association in one of its latest reports says:

> There are about two million boys and girls between fourteen and eighteen in the United States out of school and, for the most part, at work. This marks our common school as so hopelessly, wickedly inefficient and damaging as to call for instant and tremendous consideration and readjustment.

No matter what attitude we assume toward reforms and innovations, we are damned if we do and we are damned if we don't. But we must keep our minds clear and our hearts courageous. The supervising force must know what they want and how to get it. The entire teaching force must understand the aims and ideals of the system, believe in them profoundly, and work intensely and spontaneously for their realization. The most potent agency for the realization of this happy situation is a report of a competent and fair school-inquiry committee which shall set forth clearly what phases of administration, curriculum, and instruction are to be eliminated, what to be emphasized, and what to be added. After such a report has been submitted to all the teachers, thoroly studied, and freely discussed, every member of the force will approach his own assigned task with renewed faith, force, and enthusiasm.

William C. Bagley, who visited Boise after the report of the committee was published, said in *School and Home Education:*

> At a time when so many people are trying to believe that nothing in the educational situation is good, a report of this kind has, at any rate, the virtues that inhere in contrast. We cannot believe that the teachers and supervisors of Boise are working any less strenuously because their efforts have been commended. It might be urged that they will rest content with their laurels, but we have personal evidence that they are working on toward further improvements that the report suggests.

I am sure this comment of Dr. Bagley's is true. Every member of the teaching force is working more earnestly and effectively than ever before. Where before there was some skepticism, there is now more faith. Where before, in some phases of the work, we were struggling toward vaguely conceived ends, we are now laboring with more clarified vision. Nowhere is there any evidence of self-complacency and self-satisfaction.

Any local situation under investigation should be standardized by what is best in both educational theory and practice. There should be, therefore, upon the committee of inquiry, research scholars in educational administration, who know thoroly the aims and the results of many systems of education, who are able to measure accurately the mental power of the various

groups and ages of children, who will take care of their varying needs, and who can also accurately calculate the personal efficiency of teachers. The professor of educational administration can bring into the deliberations of the committee scientific methods of determining with quantitative precision what the present situation really is and what changes should be wrought.

But the efficiency of a system of education should not be measured from the viewpoint merely of what is ideal and desirable. Due consideration must be given to local influences which shall determine what in a particular situation is practicable and attainable. The practical school administrator should, therefore, be represented on any school-inquiry committee because only he knows how easy is the problem of discovering faults and suggesting remedies and how infinitely more difficult is the task of eliminating defects and changing helpful suggestions into constructive realities.

Well-known research scholars from the field of educational administration and public-school administrators who have had extended and successful experience should also be assembled when any school system is to be investigated. But they should all come immediately from their own life labor. They will thus bring to their joint deliberations all the ideals and enthusiasms of their different fields of professional service. Their only motive will then be to do a distinctive piece of work and to make their report an educational contribution. They should then disorganize and leave the next job to another group.

I mean by this that the investigation of systems of public schools should never fall into bureaus organized for that purpose and conducted by this section or by any other organization. A bureau for surveying school systems means inevitably the employment of experts who shall make a living at the business. It will thus become a matter of formalism and ritualism. The paid employees will cease to have immediate contact with either educational research or educational administration. They would soon approach a special field, not with the unselfish enthusiasm to do a distinctive piece of work, but like the bell in the fable of the fox and the grapes, bent on making such a noise as to insure some more jobs.

THE METHOD, SCOPE, AND VALUE OF THE SURVEY IN RELATION TO THE COURSE OF STUDY

A. J. KINNAMAN, DEAN, STATE NORMAL SCHOOL, BOWLING GREEN, KY.

The school survey, from the standpoint of the course of study, concerns itself with two groups of school subjects: the traditional or fundamental group supposed to vary comparatively little in time, matter, and method thruout the country; and another group varying much more, probably thru the deflecting influence of local teachers and local com-

munities. These two groups of studies require widely different consideration in any genuine survey of a course of study. Again, the course of study survey is confronted with, and made more complex and difficult thru, the fact that the course of study must be laid out to subserve the best interests of two widely different groups of children—that small but important group who hold fast to the end of the higher course, and that very large group who drop out along the journey. Again, the course-of-study survey addresses itself, naturally, to the problems of administering the course of study and to methods of teaching. At least these three avenues of investigation confront and help to complicate the problems of those who attempt to survey a course of study.

This traditional group is fundamental and appears in all courses of study. Local conditions affect it but little. It is essentially the same in Massachusetts, Michigan, and Mississippi. All pupils in all grade schools are expected to master all of them and do it in essentially the same manner. An examination of many courses reveals a large measure of uniformity in these subjects, in the proportional time given to each, in the subject-matter selected from each, and in the methods recommended for each. With these subjects when standards or norms exist the survey of any course has only to determine how near they come to conforming to the semi-conventional standards set up, to point out the deficiencies in the selection of work, in the time devoted to each, and in the methods employed, and to recommend the devices for overcoming these deficiencies. Of course every school man understands that all good courses of study are dynamic and not static. But during the time that any régime prevails with this class of subjects the survey may be very simple and need not go far beyond the four walls of the schoolroom and the two lids of the published course of study.

The more variable group of studies, such as nature study, agriculture, domestic economy, vocational training, the content of some of the formal studies, etc., makes heavier demands on the survey and is vastly more significant from the standpoint of the survey. This group of subjects feels greatly the deflecting influence of local, social, and industrial demands. Since communities have their distinctive stages of development and bents of interest (industrial and otherwise), these varying subjects get themselves into widely different twists of relation with each other in different courses of study. Some courses omit all of them; others insert from one to all. In some courses they are regular studies while in others they are taught incidentally or in an attenuated form by correlation. So far as this group is concerned a school survey confined to schoolrooms and to course-of-study manuals only is of little value.

If the course of study is to mean most in a community, it must adjust itself to the best interests of that community. The course-of-study survey then must come after, or at least co-operate with, a genuine community survey or a thoro knowledge of the community—of its illiteracy, reading habits,

organizations, hygienic conditions, industries, moral and religious life, etc. With these results and with a survey of the course of study itself before those making the survey, they should be able to make rational and helpful suggestions, providing they are wise enough to divine the proper higher ideals toward which that particular community should be going. Trying to make recommendations to a community about these varying subjects in the course of study, without a knowledge of the community status and its proper goal for development, is as futile as an attempt to make out a bill of lumber for a building without knowing whether it is to be a barn or a house.

Relating these two surveys as suggested is given greater significance thru the fact that the large body of children who drop out from the school early become fixed factors in their native communities. These move about but little. The course of study should adjust this class of pupils especially to the best interests of that community. The survey should help to reveal the status of the community to itself and should help it to dream dreams of greater things, and the course of study should be so devised as to provide a way for the youngsters that they may come to live these dreams.

The survey will gain immensely in value if the community in a broad sense can become interested in the survey and desire it to be made. That sentiment should be created before the survey is ordered. The desire for a survey should be held by the people generally. This desire should spring from the hearts of more people than the superintendent and the school board. It is the community that is to do the developing. *It* is the object to be interested and improved. Improving the course of study is at best only improving the means. The course of study is not the end. No serious survey should ever be imposed upon a people. Generally people are not more anxious to be surveyed than the American Indian was to be discovered, and the results may be quite as fatal. Coming from without, the survey may offend and defeat its very purpose. It certainly has sometimes had that effect. The people must be induced to want to be surveyed. In a democracy such as ours you must honor the spirit of the democracy.

I fear that some of the surveys have stressed the survey to the neglect of making it effective so far as the course of study is concerned. A banker friend, having listened to a lengthy explanation of an admirable survey, asked: "What's the good of it all? What are you all going to do about it?" His questions were vital. We survey and then throw up our hands and call out our observations of terrible conditions, of the amounts paid for units of instruction, of poor untrained teachers who fail to carry out our ideas, and then we neglect the pedagogy of inducing the good people to profit from our wonderful discoveries. I fear sometimes that in this business of surveying we may be in danger of staging a new play under the title of "Much Ado and Nothing about It."

In conclusion, I believe that a survey of a course of study is a different problem from that of establishing norms or standards in subjects such as geography; I believe that a survey of a course of study should always be made in conjunction with a social and industrial survey of the community that the course of study is to serve; that the community should not be so large that its diverse interests predominate over its common interests; that most consideration should be given to those studies which vary most in different communities; that the survey should come after the public has been duly prepared for it; that a survey without community co-operation loses much of its educational value; that more effort should be put forth to induce the public to rise up and profit from the survey; that the survey should first be made by trained experts who have had a real school experience in a setting not too remote from the community surveyed, assuring thus a proper comprehension of the community's vital problems; and that it should be continued indefinitely by local teachers, superintendents, and other officers.

TOPIC: SEX HYGIENE

A. WANTED—A TWENTIETH-CENTURY IDEAL

GRACE C. STRACHAN, DISTRICT SUPERINTENDENT OF SCHOOLS, BROOKLYN, N.Y.

My first strong conviction on this subject is that no superintendent or board of superintendents or board of education has any right to add to the curriculum of any public school talks or lessons or lectures on the more intimate phases of sex hygiene without the approval of the taxpayers supporting such school.

My second strong conviction is that no lecture should be delivered to pupils, which, if written or printed and sent thru the mails to the parents of those pupils, would cause the arrest of the sender.

My reasons for these convictions are: (1) pupils are forced by law to attend these schools; (2) the schools are erected and maintained, and the teachers and superintendents are paid, by the taxpayers.

Another strong conviction of mine is that the dangers and the evils resulting from class- or group-teaching of this subject are greater than those resulting from no teaching of it.

Now I do not claim that ignorance is synonymous with innocence; but I do deny that knowledge is purity. Some of the most vicious among both sexes know all that there is to be known both as to human relations and as to the physical dangers often resulting therefrom; yet they use their knowledge, not to the end of living purer lives themselves or leading others to live purer lives, but simply to save themselves from certain undesired results of impure living. And some of the purest lives are lived by those who know nothing either of such relations or of the mental and physical decay resulting therefrom; but who, knowing only that certain things are

wrong, have sufficient will power and sufficient loyalty to an ideal to do the right and avoid the wrong.

And here let me say that such will to do right must be our hope, rather than the fear of contracting the loathsome diseases, the whole history and nature of which some extremists would have us spread before our children. Miss Blake, referring to this, pointed out that seven murders occurred among the spectators of the last public hanging on Holborn Hill.

What then shall be our "twentieth-century ideal" and how shall we attain it?

Our ideal should be a young man and a young woman equally pure in body, mind, and soul—each preserving and revering the body always as the temple of the future race, and each determined that no fault of his or hers shall mar or lessen the usefulness of the body, mind, or soul of the child who may be born of him or her.

How attain this ideal?

In babyhood and childhood, parents, teachers, and preachers should teach purity and modesty of thought, word, and act without sounding the depths of all it may mean. Parents should encourage their children to give them their fullest confidence. When troubled or doubtful in special cases, they should consult a physician. Teachers should watch zealously and, when any child's actions or appearance seem to demand special consideration, should consult with the principal and the parents. Where it is evident that the parents cannot be depended on for the assistance needed, the physician—home or school—or the school nurse may be called on. But this instruction and this advice should always be given "one by one." For Mary Brown may have a very bad, depraved mind, and be guilty of very bad practices, but she will be very careful not to let all the girls and the boys in her school know how bad she is. She may by watching and waiting select one here and there to drag into her net; but let her sit in a room with three hundred others and listen with them to a talk on these hidden subjects, and the barriers are at once washed way, the guardians of reserve and modesty are routed, and she feels free to discuss and to instruct in her own dangerous way. I believe there is no greater danger threatening the modesty and the sanctity of the home than the man or the woman who advocates teaching all the intimate facts of human relations to little children and young boys and girls "just as they would teach arithmetic."

B. SEX HYGIENE—WHAT THE SCHOOLS CAN DO

CARROLL G. PEARSE, PRESIDENT, STATE NORMAL SCHOOL, MILWAUKEE, WIS.

I have the feeling that the term which stands at the head of the announcement for this discussion is quite generally misunderstood and misused. I suspect that "sex hygiene" quite often means sex physiology,

as the term is used in our common speech, and while this distinction may not be important, I shall, in what I have to say, assume that "sex physiology and hygiene" is now the thing meant.

Personally I have little doubt that the best way for the schools to teach this subject is not to teach it at all, but for it to be taught elsewhere—for the most part by the parents in the homes; if not in this way, then by the physician, or by the teacher in the church, or Sunday school. None of these are constrained by the limitations which hedge about the teachers in the public schools. But it is only too true that in a multitude of cases neither the parents at home, nor the physician, nor the teachers in the church school either interest themselves in this vital matter, or, if interested, know how to determine what is proper instruction or to give it in a proper and beneficial manner. And so, as in so many other matters concerning the education of children, there is the demand that in this, too, the public schools shall serve the state.

If any adequate instruction is to be given in the home, some instruction in subject-matter and in methods of approach must be made available for parents. There is as much need for this instruction and as much hope of benefit from it as there was and still is of necessity and hope of improvement from instruction to farmers in methods of seed selection and cultivation, and animal husbandry, and dairying. The lectures and classes for parents which some communities have organized have shown at least one practical method of dealing with this situation, and doubtless other cities and neighborhoods will take up the matter and develop classes for parents and other practical plans for arousing a sense of responsibility for, and a fit knowledge to permit, wise presentation of the topic to the young people of their families.

In considering what, if anything, can be done at the school and considering, naturally, the primary grades first, the problem is made easier by the fact that little children naturally have little interest or curiosity concerning the subject; and there is no occasion for the teacher to call it to their attention. Only those small children who have been perverted or have lived under abnormal conditions have information or habits likely to cause trouble, and in the sweet atmosphere of a well-conducted and supervised school there is every tendency for even these little unfortunates to become normal and wholesome. The largest opportunity here lies in the setting of ideals and the formation of desirable habits; in teaching care to avoid the localities where the toilet rooms of the other sex are placed; a courteous ignoring of those schoolroom accidents to the clothing of other pupils; a chivalrous care by both boys and girls for those children who are weaker and have less ability to care for themselves—all these lie easily within the scope of the teacher's influence. Without lecturing or preaching or scolding or moralizing, the teacher need give only a caution, a shake of the head, a suggestion, and the thing is done. There is little

need for explanations; suggestion as to the right thing is here the great power, not discussion of, or enlargement upon, or warning against, the incorrect thing.

In grammar grades more children are "wise"; but to talk to pupils of this grade about these matters in any general or promiscuous way is to emulate the example of the farmer and his wife who went to town leaving the children at home but giving as a parting injunction that the youngsters should not put beans in their noses. The juvenile members of the household had never thought of such a possibility before, but when the parents returned at night they found the nasal passages of their offspring well stuffed with those useful vegetables. Some children bring this contagion to the school, and it may be necessary for the teacher or the head of the school to talk plainly and seriously with individuals; but this is a fever which needs to be cooled by absence of the fuel that feeds its fire of suggestive thoughts, and beyond some laying-down of rules of conduct for these individuals, with such suggestion of reasons and consequences as individual cases may require, the remedy is to fill the mind with other thoughts and suggest new ideals and worthy achievements to those members of the school who come with minds already tainted.

In these, as in previous grades, the behavior side is the important one. Careful supervision and suitable arrangement of schoolhouses and grounds will make it easy to see that worthy speech and plays and associations fill the time of pupils outside the classroom. Mental and social and physical activities and discussions and exercises and games that incite to clean speech and clean thoughts are the best prophylactic. A boy who is helping his mother at home, or young people of this age who are at a well-supervised school playground or social center, will never be arrested for stealing from the corner grocer, or involved in one of those nameless and shameless situations sometimes discovered among groups of boys or girls or of boys and girls who have developed secret "hangouts." The teacher who cares and who has a sense of the finer values can do much to develop in grammar-grade boys a chivalrous attitude of speech and behavior toward girls, and in the girls that quality of reserve in certain directions which fine women retain. And this is true even if the parents were born in peasants' cottages in Europe. There has been many an honorable and courtly knight of Bohemia or of Poland, and many a high-souled and gracious princess of Italy or Roumania. There seldom lacks something to appeal to or to kindle enthusiasm and high ideals. These matters of ideals and conduct are particularly important in the grammar grades because of the large numbers who close their education without entering the high school. Among other points of behavior may be discussed, perhaps, conduct upon the streets, at the moving-picture shows, in automobile riding. It is not necessary to go into the things which often happen to girls who accept luncheons or other favors from men they meet on the street, or who go to moving-picture shows with

strangers or with young men their mothers or their own sense of propriety would not approve, or who go riding in a similar manner, and especially to those who ask men who pass in automobiles on the street to take them riding; but the rules which good women who wish to be thought well of set for themsleves in these matters can be made plain, and good influence may be exercised upon the lives of many girls who really wish to be right and who have no one at home to teach them these things. And while the dangers to boys are of different sort, much may be done to give them standards of conduct in their associations with girls, both with their schoolmates and acquaintances and with girls who are strangers.

When pupils enter the high school, there is seldom much need for anatomical or biological facts, tho suitably written books may very well be at hand to which to refer students who are found to need such instruction.

But the gymnasium instructor or the athletic coach, either of whom should be qualified for this duty, and for whose opinion on matters relating to bodily vigor the boys are likely to have much respect, has a great field. Boys get from each other, from older men, sometimes, sad to say, from their fathers, much misinformation; but these boys can learn from the men at the high school that continence for men is possible, as it is for women. Athletes of mature years in training for an important event are not permitted this dissipation or any other. Boys can learn that continence not only is possible for young men but is a benefit to them, both in the present and for the future. They can learn that practically every man of loose life becomes infected with at least one of two loathsome diseases; that many times these prove incurable; that neither of these diseases is a light matter, but is fraught with grave dangers, both to the man and to his family. The boy can be taught that his body is given to him as a trust: first, that he may be as happy and useful and effective an individual as possible; second, that he may pass on to his descendants good health and clean blood. He can safely be told that thousands of children are today walking in blindness because of the sexual immorality of their fathers; and that a large proportion of those wives who go to our hospitals for serious and mutilating surgical operations are sent there as the result of those same loathsome diseases contracted from loose-living husbands.

The teacher of physiology or the gymnasium instructor or the coach for the girls can, whenever necessary, teach them the things every young woman should know as to her physical being and health; and is there any reason why the girl should not learn the importance of clean blood and freedom from infection on the part of her possible future husband and her right to demand that he come to her with a clean bill of health? Girls can learn here, too, the importance of vigorous vital organs and strong muscles, especially the importance of strength in those great muscles of the trunk and abdomen which have so vital a duty in future possible maternity. It may not be out of place for them to know the dreadfully large number of

women who fail in their great hour and too often sink into hopeless invalidism because of the impotency of these great muscles.

Boys of high-school age, if we except the pasty-faced cigarette consumers sometimes found in our towns, are generally bursting with life and vitality and feel within them the pushing of those impulses which lead them to seek the society of girls, and, lacking acquired self-control, they are often too free in their conduct and speech. But while they have this trouble of too great steam pressure with an unregulated "governor," they have also the capacity for high enthusiasms, and this is the time to put up to the boy the importance of avoiding temptations, the ideals of chivalry in his association with girls, the fineness of treating every girl as he would wish another fellow to treat his sister or the girl who may some day be his wife. High-school girls have in them the same surging forces as their brothers, and they, too, lack balance and control. They may learn here the importance of restraint and the necessity for reserve in speech and manner; they can probably learn here better than elsewhere, if their mothers have not already taught them, the reasons for, and the importance of, those conventions which our society has established for the regulation of the association of men and women, and especially that of young men and young women; and the importance of avoiding those situations which often make great strain, sometimes a breaking strain, upon their self-control.

In the colleges the matter can be taken up in a scientific way. It is to be assumed that the conduct side has been disposed of before this time. Young men and young women, in separate classes, can go into the biological, the eugenic, the sociological, and economic side. All these offer many problems for serious study. The economic waste in money and in health and in the increase of pauperism and crime, the practical remedies in marriage laws, the question of suppression as against the segregation or regulation of the social evil, and many others. The recent volume by Dr. Flexner might very well furnish material for a profitable seminary study. It is increasingly important that these underlying principles be studied, for more and more these questions will come up for legislative action; and men, and women also, for they will soon be voters, must understand these questions and be able to vote wisely. But so far as the elementary schools are concerned, the question is chiefly one of conduct and habit; and the duty of those schools is to co-operate with, and reinforce, the teachings of the home, so as to secure the adherence of our boys and girls to worthy ideals and to crystallize conduct into habits based on those ideals.

DISCUSSION

J. W. CARR, superintendent of schools, Bayonne, N.J.—I am opposed to the direct teaching of sex hygiene in the public schools for several reasons.

1. The subject is not suited to class instruction for boys and girls of grammar or high-school grades. The subject is so intimate and personal that the teaching should be

given to the individual by father or mother or some other person who is near and dear. This knowledge should be imparted at a time when it is most needed and in a manner which will be most effective. The fact that many parents neglect or are unable to give this instruction is no reason why the school should undertake the work. There should be a general understanding to the effect that the school cannot and should not be expected to do all that needs to be done for children. Parents have duties and responsibilities which cannot be delegated to others, and, in my opinion, this is one of them.

2. The teaching of this subject to groups of children inevitably leads to morbidity. If the child is given the proper instruction in regard to sex in the proper way, he regards the knowledge he receives as something sacred. But the mind should not dwell on it, neither should it be regarded as a fit theme for general conversation. The sense of modesty and shame should be developed which is so important to the morals of children as well as adults.

3. Public sentiment does not and probably will not sanction the direct teaching of sex hygiene in the schools. So far as I have been able to find out, in no community, either in this country or abroad, has the direct teaching of sex hygiene met with public favor. On the contrary, numerous instances have been published where the attempt to teach it has been unsuccessful. The general result usually has been antagonism between the community and the school, the setting of tongues to wagging, and the stirring-up of trouble in general. To such an extent is the public mind wrought up over this subject in some states that bills have been introduced in the legislature prohibiting the teaching of sex hygiene.

What seems to be the sanest and best scheme of sex instruction for the public schools may properly be called a scheme of indirect instruction. The atmosphere of the school is clean and wholesome. Purity and cleanliness are stressed. The spirit of chivalry is developed. The will is strengthened. The instinct of shame is guarded. Motor activities such as manual training and vocational occupations are carried on. Strong and abiding interest in things worth while are aroused. Courses are given in the high schools in botany dealing with flowers and fertilization, followed later with courses in biology dealing with the reproduction of lower forms of animal life. Such instruction paves the way to the proper understanding of sex, and such training develops purity and wholesome living. Such instruction and training I most heartily approve, and I believe it will meet public approbation also.

J. STANLEY BROWN, superintendent, Township High School, Joliet, Ill.—I am glad to confess that I do not know the content of this subject, but in time I am confident that some capable organization of men will determine its content. I shall therefore not discuss the subject sex hygiene but I shall talk about the subject. The history of the introduction of every new subject into the curriculum recounts a bitter struggle. Two generations ago when a proposition was made to put into the public schools of a great state the subject of physiology and to put into the equipment for such work a manikin, the opposition expressed by large numbers of teachers, by many boards of education, and by the clergy at large was marked and persistent. When an attempt was made to introduce into the curriculum music, drawing, American history, and later manual training, printing, bookbinding, and the like, the opposition which greeted such effort was nothing less than tremendous. But today there is scarcely anyone who in a great convention dares stand up and declare that any one of these subjects mentioned has no rightful place in the curriculum. The opposition has disappeared because the subjects themselves have shown that they are their own greatest defense. The history of these various subjects in the effort to find their place in the curriculum is a fair indication of the path which sex hygiene must travel. Ten years hence, conventions of this kind will wonder why anyone was ever so foolish as to oppose the proper study of sex hygiene. One might think that the only meaning attached to this subject is wrapped up in the nature of *The*

Traffic, The Lure, The Fight, Damaged Goods, etc. Any such conception is so shriveled and unjust as to make it seem ridiculous to an intelligent audience. We have heard from this platform that our concern is with the mental, moral, and physical child. We have heard and applauded the statement that we send the whole boy and the whole girl to school. Sex hygiene certainly concerns the highest welfare of the whole boy and the whole girl. It is unfair to suppose that this subject shall be completely taught in a part of one grade. Like our mathematics, it must be taught in small measure in four or five different grades beginning with the fifth or sixth and extending thru the ninth or tenth or farther. In so doing, the knowledge accumulated is so gradual and its necessity so apparent that the spasmodic and mediaeval opposition now expressing itself will entirely disappear. Let us hope that the conservative aggressive and progressive spirit shall make for this important subject the same kind of defense which has attended similar efforts in the past.

THOMAS A. MOTT, superintendent of schools, Seymour, Ind.—The race reproduces itself every fifty years. Statistics show conclusively that more than one-third of the children in this country fail to reach a healthy maturity. Every student of child life and every agency of education must recognize these facts and the importance of the subject of sex hygiene or, better, race hygiene. Our instruction in race hygiene must consist of much more than a knowledge of hygiene and the laws of biology. It must seek to develop in children a spirit of altruism and an idealism in the realm of parenthood and child life. A true reverence for motherhood and a deep love for little children will do more to inspire noble, pure living among our youth than the fear of the ravages of disease which follow in the wake of immoral social practices.

It is something for the child to know at the right time some of the important facts relating to his development into manhood; it is something for the child to know the chief dangers that confront him during the unfolding of his sexual powers; but this movement in the schools must mean more than this. The problem includes the development of right attitudes of mind, of high ideals and ethical standards of life, of respect for the social standards and conventions of society, of an appreciation of the sanctity of the home, the sacredness of motherhood, and the love of little child en. Everything in the school curriculum that leads in this direction is a part of the teaching of race hygiene.

Physiology and hygiene are required subjects in most schools. In grades above the sixth, the boys should be separated from the girls. The boys should have a male teacher, preferably a father. The girls should have a woman teacher. In our city, the boys' classes are taught by a man of high ideals, a teacher of fine experience, a father of boys. The teacher of the girls' classes in physiology is a college-trained woman, a woman of dignity, and with a rich experience as a teacher. In these classes, nothing need be held back which the students should know. The real questions of the laws of reproduction the schools should leave to the home. But such knowledge of sex hygiene as the pupils should know may be taught by the teacher as the occasion demands.

Most high schools have departments of biology. In these the principle of biparental reproduction is taught as a law pertaining to all life. In the department of home economics, in the grades, and in the high school, when teaching cooking, sewing, home-furnishing, and the beautifying of the home, we are building in the minds of the pupils higher ideals of home life, and along with this growth of ideals of the home will come higher ideals of the purity of the home and the importance of healthy children in the home. In the art departments of our schools where the first aim is to develop an appreciation of, and love for, the beautiful, as well as to give the pupils the power to reproduce the beautiful in their own lives, every phase of moral purity has a support. In historic art the favorite theme thru the ages has been the sacredness of motherhood. The Madonna in art stands as a silent teacher of purity as well as of the holiness of motherhood and the sacredness of child life. Thruout the realm of English literature, no theme

is more emphasized than the purity of the home, the sacredness of motherhood, and the love for little children. The teacher of literature has an opportunity which has never been measured to develop in the student a lofty idealism and a spirit of altruism in the realm of home life and of child life. The school must have as one of its aims the creating, in the coming generations, of the highest ideals of home life and of parenthood, and where it can do so it should be able to aid the home in giving that knowledge which will safeguard the health of the child at every point.

SECRETARY'S MINUTES

ST. PAUL MEETING

OFFICERS

President—ROBERT J. ALEY, president, University of Maine.....Orono, Me.
Vice-President—JAMES Y. JOYNER, state superintendent of public instruction...Raleigh, N.C.
Secretary—W. B. OWEN, principal, Chicago Normal School.....Chicago, Ill.

FIRST SESSION—SATURDAY AFTERNOON, JULY 4, 1914

Robert J. Aley, president, University of Maine, Orono, Me., called the meeting to order at 2:00 P.M., in the Y.W.C.A. Hall.

The first topic under consideration at this session was "Co-operating Forces for the Improvement of Rural-School Conditions," which was discussed by the following persons: A. H. Chamberlain, secretary, California Council of Education, San Francisco, Cal.; Margaret E. Schallenberger, commissioner of elementary schools, Department of Public Instruction, Sacramento, Cal.; C. P. Cary, state superintendent of public instruction, Madison, Wis.; Adelaide Steele Baylor, assistant state superintendent of public instruction, Indianapolis, Ind.; and David B. Johnson, president, Winthrop Normal and Industrial College, Rock Hill, S.C.

This was followed by a discussion of "Superintendent Problems," in which the following persons took part: John W. Carr, superintendent of schools, Bayonne, N.J.; Lloyd E. Wolfe, San Antonio, Tex.; Walter R. Siders, superintendent of schools, Pocatello, Idaho; John MacDonald, editor, *Western School Journal*, Topeka, Kans.; Edwin S. Monroe, superintendent of schools, Muskogee, Okla.; and David Felmley, president, Illinois State Normal University, Normal, Ill.

SECOND SESSION—SATURDAY EVENING, JULY 4, 1914

The meeting was called to order at 8:00 P.M., with President Aley in the chair.

President Aley then gave the presidential address.

James M. Greenwood, advisory superintendent of schools, Kansas City, Mo., read a paper entitled "History and Achievement of the National Council of Education."

John W. Cook, president, State Normal School, DeKalb, Ill., read a paper on "Some Positive Educational Gains in the Last Decade."

THIRD SESSION—MONDAY FORENOON, JULY 6, 1914

The meeting was called to order at 9:00 A.M.

The first topic to be discussed was "Harmonizing Vocational and Cultural Education." The following members took part in the discussion: Josephine C. Preston, state superintendent of public instruction, Olympia, Wash.; William J. Kerr, president, Oregon Agricultural College, Corvallis, Ore.; Homer H. Seerley, president, Iowa State

Teachers College, Cedar Falls, Iowa; G. W. A. Luckey, dean, Graduate School of Education, University of Nebraska, Lincoln, Nebr.; James W. Crabtree, president, State Normal School, River Falls, Wis.; and John W. Cook, president, State Normal School, DeKalb, Ill.

"Economy of Time in Education" was then discussed by Frank Strong, chancellor, University of Kansas, Lawrence, Kans.; Harry B. Wilson, superintendent of schools, Topeka, Kans.; Francis G. Blair, state superintendent of public instruction, Springfield, Ill.; L. D. Harvey, president, Stout Institute, Menomonie, Wis.; and E. E. Scribner, superintendent of schools, Ishpeming, Mich.

FOURTH SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The meeting was called to order at 9:00 A.M.

The following report was then presented and unanimously adopted:

We, your committee appointed to draft resolutions relating to the death of A. C. Nelson, state superintendent of public instruction, Salt Lake City, Utah, beg leave to report the following resolutions:

Resolved, That we deplore the loss of our friend and colaborer, A. C. Nelson, for many years participating actively in the deliberations of this Council and in the business of the National Education Association.

Resolved, That we tender to his bereaved family our heartfelt sympathy and condolence.

Resolved, That we bear testimony to the efficiency and the very high character of his work as an educational leader and official head of the public schools of his state.

Resolved, That we admire the spirit which characterized all his public services and impelled him to support with enthusiastic and unselfish devotion every national movement for the improvement of school education and the perfecting of school systems.

Resolved, That we who knew him appreciate deeply the uniform good fellowship shown in his dealings with people in all the varied duties of his active official and professional career.

Resolved, That we here make record of our admiration for his broad-minded, tolerant, whole-hearted Americanism, his very high qualities of manhood, his sterling integrity, and irreproachable character.

Resolved, That we, the members of the National Council of Education of the National Education Association, cherish his memory as that of an ideal colaborer and a friend whom it was always a delight to meet and to know.

Respectfully submitted,

JOHN R. KIRK, *Chairman*
NATHAN C. SCHAEFFER
WILLIAM J. KERR
WALTER R. SIDERS
Committee

The following report of the Committee on Membership was unanimously adopted:

WILLIAM B. OWEN, Chicago, Ill., *Secretary*.....Term expires 1917
A. J. MATTHEWS, Tempe, Ariz., Executive Committee.....Term expires 1917
JAMES Y. JOYNER, Raleigh, N.C., Committee on Membership.....Term expires 1917
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PAPERS AND DISCUSSIONS

TOPIC: CO-OPERATING FORCES FOR THE IMPROVEMENT OF RURAL-SCHOOL CONDITIONS

I. ARTHUR HENRY CHAMBERLAIN, SECRETARY, CALIFORNIA COUNCIL OF EDUCATION, SAN FRANCISCO, CAL.

Before putting this paper in final form, a letter was addressed to many leaders in rural-school education thruout the country. The question was asked: "What is the most-needed improvement in rural education today?" Replies came from state, county, and city superintendents, normal-school presidents, professors of agriculture, special students of rural problems, and teachers in rural schools. These replies are interesting and instructive in the highest degree.

SUMMARY OF NEEDED IMPROVEMENTS

In the enumeration of the most-needed improvements, we find the greatest number of replies place better, closer, and more expert rural-school supervision at the head of the list. This, in a number of instances, implies the necessity for rural-school supervisors. Better-trained teachers comes next in order and shares honors with consolidation of districts and centralization of schools. Following in the list, we have the necessity for more money. This is implied in many of the replies and stated specifically in a large number. As education is a matter of state concern, it is felt that the state and wealthy city should see to it that the rural district is not disadvantaged in lack of funds for educational purposes. The next most-needed improvement is thought to be the modification of the course of study the better to meet the needs of the rural community. Farm mathematics, applied chemistry and physics, industrial education, home economics for girls, and agriculture are elements of this modified course. Then follows the necessity for making the school the social center of the community, with opportunities for social and literary betterment, and the discussion of problems having to do with the improvement of industrial, commercial, economic, and health conditions. In this connection, a community auditorium is advocated by some. Better salaries for teachers, large attractive playgrounds, plots for experimental agriculture, more modern school buildings, improved water supply and sanitary conditions, the appointive

rather than the elective county superintendent—these appear to be held of equal importance. More extensive and improved school equipments, with particular reference to the teaching of industrial and home economic subjects and agriculture, special normal-school courses for the training of rural teachers, abolition of the district system, and the substitution therefor of the county unit, and a home for the rural-school teacher balance one another. Closing the list of needed improvements, we find better salaries for county superintendents, open-air schools, endowments for rural schools, elimination of the county board of education, the introduction of vocational work, enforcement of attendance laws, more permanent tenure for the county superintendent, increased salaries for supervisors, and good roads.

THE VITAL ISSUES

All issues as suggested in the replies are important. After an intensive study of rural-school conditions, extending over a period of years, I am led to the conclusion, however, individual differences and details aside, but with general application the country over, that the three forces which should come first in order of importance are as follows: (1) the abolition of the district system and the introduction of the county unit of administration; (2) the elective county superintendent to give place to the appointive officer; and (3) special normal-school courses adequately to prepare teachers for rural-school positions. These suggested changes, revolutionary perhaps, are even more urgently needed than more money or consolidation and centralization of schools, important as these matters are. For when we have secured the county unit in administration, have provided for an appointive county superintendent, and offered training that fits the teacher specifically for service in the rural school, we have gone a long way toward solving all the other problems.

THE COUNTY UNIT

It is needless to show here how the district system arose, how it served its day well, and why in this age it is antiquated and inadequate. Those who know schools and have studied administrative problems need not be told of the lost motion, the crossing of wires, the ignorance, the neglect, the lack of telling results incident to the district system. The wonder is that our rural schools are as effective for results as we find them to be. Time and again no member of a board of district trustees has had any education in the schools of this country and mighty little anywhere. One of these men if a resident today of his native land might be considered competent to discuss the shortcomings of the school system, serve upon a school board, or assist in selecting the one to preside over the destinies of the local institution of learning. But transplanted to a foreign soil, where the temper and tendencies of the people are vastly different from those of his own land, where social, industrial, and economic conditions vary as greatly as do training and temperament, a stranger to our ideas and ideals, with only

partial understanding of our laws and a crude hold upon our language—such is the man who, many times, serves against his will upon a local board of school trustees. And this man, well meaning and honest, is fully as well qualified to fill the position as are his fellows in the neighborhood.

But not alone the foreign born and foreign schooled are serving in such positions. In many instances, desire for political preferment, or ambition, leads to election. Men absolutely without knowledge of the requirements of teachers, or the meaning or make-up of the course of study, are expected to select the teacher, direct the expenditure of funds, and pass upon the kind and character of school buildings and equipment.

As a partial remedy for this condition comes the county unit plan. There should be one central board of education for the county, which, in conjunction with the county superintendent and his associates, should select teachers, as do the city board and superintendent. This board should have charge of the finances of the county. It should be composed of not more than five members. Not geography, nor political or church affiliation, nor sex should play a part in their selection. They may be elected by the people at large or may serve by appointment. The service should be for long terms subject to recall. Their only compensation should be for traveling or other expenses, incident to two or three meetings annually.

The raising of standards, the equalizing of opportunities, the economical expenditure of funds, and the securing of more competent teachers will be brought about thru the introduction of the county unit. But the benefits to be derived from the county plan of organization are contingent in no small degree upon the elimination of the elective superintendent. The consideration of the county unit plan leads naturally to the second of the important forces that will make for the improvement of rural schools, namely, the appointive superintendent.

THE APPOINTIVE SUPERINTENDENT

The county superintendent should be appointed by the county board. This indeed should be the chief function of that body. His salary should be fixed by them. As in the case of the city superintendent, he may be brought from another county or even from another state. Under the elective system, the worst kind of politics is practiced. In some states, no adequate educational qualification is demanded, and the man who could by no possibility serve the county as assessor, or collector, or high-school principal is placed upon the tail end of his ticket that some political debt may be paid. In some states where this is not the case, the county superintendent is forced to give much of his time during the last year of his administration to building anew the fences that he must always keep in repair when he should be devoting his energies to the conduct of the schools. He is ofttimes hampered as much as he is assisted by paid professional or non-professional boards, who divide with him the responsibility,

thereby detracting from the serviceableness of the school system. He sometimes works with no assistant whatever, and in any case has never sufficient help to secure follow-up measures in school supervision. The salary received by the average county superintendent is pitiably inadequate. Were it not for wife or daughter who frequently acts as assistant, where one is allowed, the salary would be barely sufficient to keep the wolf from the door. There is scarcely a state in the Union where the low salaries of county superintendents are not a disgrace.

The appointive superintendent should be an expert, by temperament and training qualified for his work. He should be paid a salary commensurate to the position. He should nominate for appointment all teachers of the county, and such nomination should be confirmed or rejected by the board. He should assign all teachers to their respective schools, and changes in assignment should be made by him. He should pass upon schoolhouse construction thruout the county. He should nominate, and there should work under his direction, rural-school supervisors, men and women thoroly trained in the needs of the rural community and in the art of teaching. In small or sparsely settled counties, the money now paid the professional board members should be applied upon the salary of a trained supervisor to act with the superintendent. We are learning that supervision, leadership, follow-up work in the field count for more than trying to direct the battle from a roll-top desk and upholstered chair. No one should be chosen as superintendent or supervisor whose credentials do not entitle the holder to teach in any rural, grade, or high school in the state. This means thoro professional and academic training.

The county should be districted and supervisors should be appointed in such numbers as to guarantee a visit to each school of a half-day at least every four weeks. These rural-school supervisors should hold conferences with the men and women of the neighborhood; they should be able to discuss intelligently, with the teacher, the strengthening of the course of study and the work of each individual student in the school, and to take up with the farmer in the field matters relating to crop improvement, the handling of crops, farm management, transportation, marketing, and the like. They should be able as well to discuss sanitary measures, rural economics, and problems of the home.

Authority should thus be centered in the county superintendent. By holding those in authority for results, and by placing a lay board between the rural districts and the superintendent's office, effort may be expected to result in efficiency. Under such system, there would be less favoritism shown in the appointment of a teacher to a given district on account of her residence there, or her relationship to a school trustee or prominent citizen, without regard to her qualifications for the particular school. Indeed, we should expect as efficient work and as satisfactory results as we find in the city. Approach is thus made to the third important factor.

TRAINING THE RURAL TEACHER

It is not to be wondered at that so many authorities on rural-school education place the proper training of teachers as the most vital force necessary for the betterment of conditions. With the county unit prevailing, and the county superintendent an appointive officer, the next step in progress is to train the teacher for specific service in rural schools. Courses in our normal schools at present are calculated to meet the needs of urban communities. The country school is the teachers' experiment station, and many young girls begin their work in the country. Every normal school, with the exception of city training schools, should offer special courses for rural-school teachers. Whether an institution offers two years of professional training following high-school graduation, or four years' work based on an elementary course, it is necessary to offer practical work covering the subjects of the rural-school curriculum. Method without subject-matter is useless. On the pedagogical side, consideration should be given the vital problems of education—school and classroom management, advances being made, needed reforms, and the tendencies of human nature and their relation to the art of teaching.

This course for rural-school teachers should comprehend a first-hand knowledge of country-life conditions, the problems to be faced in housing, health, sanitation, water supply, the planning and reconstructing of houses, the laying-out of grounds, and labor-saving in the home. It should consider ways and means of taking social situations where they are and elevating them to where they should be. It should train the teacher in the organization and conduct of meetings, in making and carrying out literary programs, in utilizing music and the motion picture in the school and home. The machinery of county organization should be handled and political and civic problems given prominence.

There should be courses dealing with farm mathematics and accounting, rural mechanics, the fundamentals of domestic and agricultural chemistry, applied biology, problems of lighting, heating, and ventilating, and proper seating in schoolrooms. The use of books, papers, and magazines in the school and home should have a prominent place in the course, and, as well, the profitable employment of the leisure hour, including games, sports, and contests. History, geography, literature, reading, oral English and expression, debating, industrial work for boys, home economics for girls, and the fundamental subjects should be stripped of their varnish and veneer, and emphasis placed upon those phases that find application in the world of men and things. Such work alone is cultural whether offered in country or city.

These normal-school courses must be offered by men and women of experience, who are real teachers, not mere theorists. The class of students should be drawn largely from the country. With adequate salary and

working under satisfactory conditions, teachers will cease to look over into the promised land of the skyscraper and the billboard. It is the everlasting change of teachers in the country schools that impedes progress. This affects adversely the continuance of pupils in the school and sends them away to the city. There is too much "back-to-the-farm" bosh talked, and too little "stay on the farm" practiced.

EXPERIENCED TEACHERS TO THE COUNTRY

Inexperienced teachers are frequently forced to the country, not because they so desire, or have knowledge of rural conditions or kinship of interest with life in the open, but because the city will accept as teachers only those with training and experience. Rural authorities have not yet developed the backbone or common-sense necessary to cope with this situation. It is the experienced teacher, not the novitiate, who should go to the country. Experience should be acquired in towns and cities where there are principals and superintendents and supervisors and fellow-teachers to direct and encourage and criticize. There is no rhyme or reason, lack of money aside, in compelling young teachers to gain their experience by main strength and awkwardness at the expense of the country boys and girls upon whom they practice. Until teachers have special training for work in rural schools, the authorities should insist upon experienced teachers and should pay a wage such as to secure to the country the very best. Nothing will help to bring this about as will the county unit and the appointive superintendent.

Money necessary, you say! Yes, indeed! To carry out the plan as outlined, more money must be secured. How to get more money is the problem to which we must address ourselves. But money alone never yet produced efficiency in education. We need legislation, organization, supervision, the centering of responsibility, trained teachers, and a modicum of common-sense. These forces in co-operation will improve rural-school conditions.

II. MARGARET E. SCHALLENBERGER, COMMISSIONER OF ELEMENTARY SCHOOLS, DEPARTMENT OF PUBLIC INSTRUCTION, SACRAMENTO, CAL.

It is not surprising that we have neglected about three-fifths of our school population during the last fifty years, while we busied ourselves intensively with the other two-fifths. Immigration, steady and in increasing numbers, segregated in the urban communities, demanded and received immediate attention; but, after all, it is rather startling when we come at last to look into the situation to find how little we actually know of the life of our rural people. We have had our ideas on rural conditions, but a mass of poetry has woven itself into them, and, thus modified, we have held them for years as little less than sacred. Indeed, even in a discussion like this, where we are encouraged to speak our minds freely, it is with a feeling of

apprehension that one dares timidly to suggest that in the moss of the old oaken bucket that rose from the well there undoubtedly lay lurking the germs of typhoid fever. A sort of "touch-me-if-you-dare" attitude of mind is immediately roused at the mere mention of the little brown schoolhouse, no matter how cheerless and insanitary its quarters may have been, how barren or uncomfortable its furnishings, or how debasing its defacements.

Living independently with means of subsistence at hand, shut off for years from the larger centers by geographical and weather conditions, our rural people have during the last fifty years fallen behind the standards of the cities, which, during the same period, have constantly risen. Even in a new state like that of California, where state aid from the first was given to the humblest district school, one has only to spend a day visiting the one-room rural schools of any county to become convinced that there is a great difference between their conditions and those of the city schools, and that it is a difference that need no longer exist. Railroads, good roads, automobiles, telegraph, telephone, and postal service have connected the rural population to the urban world, and many a Columbus from the cities has gone forth exploring and has discovered strange conditions, surprising conditions.

What the rural people have missed are forces, insistent forces, co-operating forces. The cities have felt them, have been in them and of them, and the school as an institution has had its part in the general uplift of urban life. By means of suggestion, by means of experiment, by means of criticism pro and con from other forces, working toward the same end, and by its co-operation with these forces, it has completely changed its standards and its ideals. The city school, just as the immigration bureau, or the board of health, or the church, or the pure food commission, seeks to help the children, and, thru the children, their parents, to live healthily, to play freely and rightly, to work manfully and happily, to appreciate heartily, to serve loyally. The city school is aided, and its own activities are strengthened, by object-lessons from the other forces: e.g., the immigration commission sends a competent woman to help and instruct the newly arrived immigrant; to show her where and how to buy her food most economically; how to furnish her home and care for it; to point out what opportunities are open to her thru public libraries, public clinics, recreation parks, settlement activities, and the public schools. Not only have the rural communities been deprived of the right sort of rural schools, but all these co-operating forces have been lacking.

Two lines of procedure then present themselves for the rural school: (1) internal change and readjustment of its own ideals, standards, and methods of work, and the putting in operation of certain special forces in accordance therewith; (2) suggestion to rural communities to avail themselves of various forces found helpful in urban communities and to co-operate with them or

with similar forces. These two lines of approach cannot always be kept separate. Indeed, the big emphasis should always be placed upon co-operation of the various forces, whether they be distinctly school bred or not. It is these forces which the rural school must seek and find and foster and attach, if it ever is to be truly effective. Two of these internal changes have already been dealt with: the county unit system of administration, and the training of the rural teacher.

In addition to training for her work, however, the rural teacher, like the city teacher, needs training in her work. It is passing strange that we should imagine we are getting the best service from a teacher when we put her as far away from public opinion and expert supervision as possible. Even a very good teacher does not know enough to fulfil all her task when thus isolated. She needs a special kind of knowledge, which must be brought to her, just as she must be provided with special kinds of textbooks and teaching equipment. She needs a knowledge of the people of the various communities. Every teacher ought to be shown how to make a survey of her district, of its industries, its religions, its amusements, its living conditions, its faults, its virtues, its ideals, its limitations, its possibilities. There is a certain personality about a community that must be understood, and to attain this understanding even trained teachers must have leadership and supervision. The modern teacher teaches children, not subjects. She must know how these children live at home before she can set before them the ideals which she wishes them to project. The school today is judged by its ability to change the conditions of home life. Cities and city teachers have long had this point of view. In rural communities it is far from being attained. Even if we centralize our system of rural education, making the county the unit, we must have helpful, encouraging, inspiring supervisors of the rural teacher. The lazy and indifferent teacher needs the spur of supervision; the mediocre teacher can often be transformed into the good one; while the good and excellent teachers should be given the praise and recognition they have so well deserved. Indeed, it is foolish to expect the best service without it. These supervisorships ought to be filled by men and women who are well-educated and experienced in teaching, having had special preparation therefor. The salaries should be sufficiently remunerative to attract excellent teachers and to make them feel they can afford, when they have not already had such preparation, to give a year or two in a university to the study of school supervision, psychology, sociology, and other co-operative forces. Our first procedure then must be to create, thruout the rural communities and among the teachers themselves, a desire for the schools to be supervised. This first step is of importance, for when a want is sufficiently felt, an effort is sure to be made to fill it.

The district supervisor is the great servant of democracy; he ought to be a great soul. He will change the attitude of the rural child. He will

make him proud of his home, not because of its limitations, but because of its beauty and restfulness and because of its interesting undeveloped possibilities. He will make him proud of being country born, not because he may therefore feel free to be rude and uncouth, but because of special privileges thereby obtained and special opportunities thereby offered. He will, in short, help him to be a real part of the great outside world.

Another internal change, which we ought to encourage, is the consolidated, or centralized, or union school. Union high schools are common and popular in California. There are about two hundred and fifty union high schools. The union, or consolidated, grammar and primary schools are only slowly gaining favor. In many mountain districts, consolidation is almost impossible; distances are too far and roads too bad. Where consolidation has found favor, the results have been gratifying. County superintendents generally heartily approve of the movement, but most of them are not inclined to push it too strongly. Indeed, under our present system of district trustees, it is not always easy for them to push the movement at all. If one could only get all of the people of all of the districts concerned to unite upon the slogan "The children first," union schools would multiply more rapidly.

But whether we build big schoolhouses or small, we ought to build them right. Everywhere we are sadly in need of school architecture. A good many consolidated schools may be comfortable, sanitary, and convenient, but they are very ugly. A good many fairly good-looking schools on the outside are very unhygienic and inconvenient inside. Widespread ignorance exists regarding cross lights, air space, ventilation, lavatories, color of walls, and height and texture of blackboards; while gymnasium rooms, luncheon rooms, manual-training departments, experimental laboratories, reading-rooms, sewing-rooms, etc., are often unheard-of luxuries. Most architects know nothing of rural-school conditions. Space is wasted; material is wasted; money is wasted. We have some information but we need much more. With us in the Far West, there is a strong tendency to build better schools, and in some of the counties we have very fine rural buildings; but, on the whole, the matter is not regarded with sufficient seriousness. When we have a county unit system, with its body of district supervisors well established, the importance of using, very carefully, the goodly sum which we hope will be forthcoming for our new rural schoolhouses will be much more emphasized. The erection of rural-school buildings is a very serious matter. Three-fifths of our school population ought to be in them for about six hours per day. The school building itself, tho really silent, is often conducive from its very appearance to the noisiest sort of anarchy. We certainly need an improved style of architecture as a co-operating force. Given the right school building, equipment is almost sure to follow: Ideals again and standards! When is a schoolroom well furnished?

In rural-school decoration we have made a bare beginning. Pictures, almost without exception, are hung too high, often are badly chosen, many times are covered with dust, cobwebs, and flyspecks; plants, if present, are growing in tin cans; flowers are arranged (?) in bottles and preserving jars; and, over and over again, decorations when once placed are placed to stay. No sense of the eternal fitness of things prompts teachers or children or any member of the community to remove Christmas decorations before Valentine's Day or Valentine's Day decorations before Thanksgiving Day. Again we need knowledge and more knowledge and yet more.

An all-powerful factor in the rural school may be the library. In California, we thought we had an ideal system. From the beginning of its existence, the rural-school library has had its special fund, consequently, as would happen very naturally, there are some excellent rural libraries in California and some almost worthless ones. In the old days, either the teacher or the trustees purchased the books until all the money appropriated therefor had been spent. Today, however, no book may be bought unless it be found upon a list made by the county board of education, so purchases are now more rational; and lately a new law permits any library in the county, including the district-school libraries, to affiliate with the county library where there is one. About half the counties of California have county libraries, and the number is rapidly growing. The books of an affiliating library are turned over to the county librarian, who takes complete charge of them, mending and fumigating, if necessary destroying, and continually distributing. The rural school may have practically any or all books it needs. The teacher sends in her request to this central distributor, and is supplied by parcel post or express, charges paid. Moreover, if the books asked for are not to be found in the county library, the state library has been meeting the demands. This we are finding one of the most effective co-operating forces for the rural school. The state and county libraries are for the benefit of the people and the rural-school children are thus formally recognized as a part of the people. Thru the school, too, the adult population are granted the same privilege and are supplied almost without exception with any books requested. The extension of this method of circulation of materials for school purposes, illustrative material for geography lessons, etc., is being attempted in a few counties with very pleasing results, and J. L. Gillis, state librarian, is contemplating the circulation of musical records for use upon the Victor, Edison, and Columbia machines. If this project is successful it will mean that, in the near future, any school district which will purchase a machine may be allowed to use large numbers of the very best records. No better method could be devised for bringing high-grade music into the rural communities, and no better method could be thought of for giving the country-bred boy and girl appreciation of the world's best musical artists. Is there any reason why grand opera should be whistled in the crowded streets and noisy market place only?

It would sound well in the rustling corn fields and up and down the mountain trails.

Perhaps the fact that rural-school children are comparatively unacquainted with moving pictures is not wholly to be regretted, but it is nevertheless true that, properly controlled, they contain large educational possibilities. Our state librarian has in view also, thru the county library, the introduction of educational moving-picture films. Consolidated schools and union high schools in rural communities often have sufficient space for the necessary equipment. Again, as in the case of musical records, it is planned to permit these schools to borrow the films whenever they wish to do so.

Time forbids discussion of the wonderful possibilities of the playground, of parent-teacher associations, of dramatic and musical clubs, of debating clubs, of scientific investigations, of the use of the school for community gatherings, and of hundreds of other legitimate school and community activities, but these examples of forces already touched upon directly connected with the schools, yet reaching out from them into the great world beyond, are more than enough to point out the trend of the movement. It is bound to grow and to gain in strength and speed.

As for forces outside the school but related to it, they are manifold. Every farmers' club, every good-roads organization, every improvement club, every glee club, every reading circle, every women's society, any force that means education should be fostered by the school. It never knows when it may need that force in its business, the business of training people for right living. The United States maintains a Red Cross Nursing Service, with Miss Jane Delano at its head. Some day each state will have a branch, and some other day a progressive rural-school community will be maintaining a visiting nurse, and a visiting nurse well established in the community would be a great help in planning the new sanitary school building which is to be erected.

It is the co-operation of various forces, rather than the independent activity of any one force, that is going to bring about improvement for the rural school.

In depriving the rural schools of the better educated teachers, we have made rural communities satisfied with low ideals of what the world has to give in art, in literature, and in music, and we have failed to give them any true appreciation of the value of their own setting in life. The yellow primrose to them is the yellow primrose, and it is nothing more. The man born blind does not see black, he sees nothing. Our rural people have been born blind. Thru the co-operation of these various forces, we shall give them vision. Just as our various and better means of communication have brought us close together, so they have given ingress to various and better educational forces, which, rightly directed, will mean for rural communities an entirely different concept of life. The rural school should be the conserver and director of all the other forces.

III. C. P. CARY, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, MADISON, WIS.

The plan suggested by the first speaker as to the central board of education seems unsatisfactory for the reason that no board that meets only two or three times annually as proposed can even approximately understand the conditions or needs of the schools of a county. In order to be effective, the members would be obliged to devote much of their time to the schools to the end that they might become familiar with the actual conditions in each district, the efficiency of the teachers, and with the financial and economic condition of the farmer in every part of the county. By "forces" the speaker seems to mean his proposed county board, the appointed county superintendent, and the schools for giving special normal courses. "Co-operation" means the working together of these forces. Later he mentions legislation, organization, supervision, the centering of authority, and trained teachers as the forces that will improve rural schools. The speaker seems to forget the people themselves and would tie his faith to a system external to the locality immediately concerned.

It seems to me the speaker has too little faith in the people whose children, or whose neighbors' children, are to be educated, and too much in centralized authority. There are three possible methods of procedure in improving country schools. The first is to have the state, or county, take the initiative and force improvement on localities; the second is to have the localities govern their own educational affairs and trust to their good sense in bringing about progress; the third is a combination of these two forces in a helpful, co-operative way. The state may and probably must take the initiative and plan the campaign, using all available agencies, but carrying on this campaign with the people in order that the people themselves may get behind the movement, and thus make the movement for progress their own. A fine and complete organization, while well enough in itself and desirable, is not the most vital thing. Organization must have the breath of life in it. The attempt to force good schools on the people from outside will never work successfully except here and there in isolated cases in which the community is distinctly behind its neighbors in educational progress. The co-operation of an intelligent community, a community that feels its own responsibility, is the thing to be wished. This spells campaigns of enlightenment among the people themselves as to what a good school is, the value of a good school, and the means of securing a good school.

Taking away from local communities the right to manage their schools and employ teachers will deprive the rural schools of the only incentive for keeping alive the community interest in its local school. It is unwise for a democratic form of government to remove the control of its institutions too far from the people. As a remedy, I would keep the district system, consolidating wherever possible, but would have only one member instead

of a board of three, this member to be elected annually. I would also make the county the taxing unit for the purpose of raising the teachers' salaries. By so doing it would do away with financial inequality between the large and the small districts. The money necessary for paying the teachers' salaries may be determined by a committee of the county board of supervisors with a minimum and maximum for teachers in the several grades of schools fixed by law. I would have the people in the local districts elect one member who should have a voice with the chairman of the county committee in selecting the teachers for the school, while the people in the local community should have power to tax themselves for building the school and providing equipment and fuel.

It is highly probable that the establishment of special normal-school courses in schools primarily designed to fit teachers for city positions will not prove satisfactory when it comes to the training of country teachers for the following reasons:

1. Young men and women will not attend such a school at a distance from their homes at their own expense in order to go into the rural schools with the low salaries and all the unsatisfactory living conditions existing in many places in the country.

2. Again such a course will rarely be on a par with the other courses in the larger normal schools, at least in the estimation of the teachers and the other pupils in the normal school.

It would seem to me better to have training courses for teachers in small county training schools and in the high schools of the county, which, by the way, are the colleges and normal schools of the common people. Such courses should be fully and adequately supervised by state authorities.

The county superintendent under present conditions works under a very serious handicap in that he has little, if any, assistance. He stands in need of numerous helpers if his work is to be thoroly efficient. It would no doubt be a great aid to have special teachers employed by the county board of supervisors or by the county board of education who should assist the county superintendent in the inspecting and in training the teachers in the rural schools. These supervisors should have special qualifications on such subjects as English, mathematics, nature study, and industrial studies. Their salaries should be graduated according to experience and success.

The forces that should co-operate are: the people themselves; the teacher; the county superintendent and his assistants; the training schools for teachers; and the state department of education. The last named, as before stated, should take the initiative, at least if the initiative is not taken by others closer to the situation, and exert its influence with each of the other four factors mentioned. If there is a county board of education, it will be of such influence as the good sense, knowledge, and initiative of

the members make possible. I am not, however, an enthusiast for the county board. We certainly need not expect to see the educational millennium ushered in when we get the county board.

IV. ADELAIDE STEELE BAYLOR, ASSISTANT STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, INDIANAPOLIS, IND.

Some of the prominent and immediate forces acting for the improvement of the rural schools are those presented in Miss Schallenberger's paper, each one of which is effective in itself, but more powerful as it is brought into relation to the others and made a co-operative agent in the general advancement of the school.

But the greatest community service that can result from these agencies is that of arousing in the people an appreciation of the value of co-operation in all lines. The great need of rural communities today is an understanding and appreciation, on the part of the citizens, of the spirit of dependence one on another and the value of voluntary association for material as well as mental and spiritual advancement.

It is not so easy for the farmer, living an isolated life that has developed in him the spirit of independence and individual initiative, to unite with his neighbors for the betterment of all as it is for the city dweller, who realizes the truth that community uplift is necessarily individual uplift. Here voluntary unions for the common good follow as a natural sequence; but the inhabitants of a rural district learn the lesson of co-operation more slowly, and, no matter what the strength of the individual teacher and the perfection of the various agencies directly connected with the school, a permanent impress of the longest effect can come only from the co-operation of patrons for the general community good as well as for the good of the school.

An authority on rural affairs has said recently that rural progress can never come until at least three needs are met: (1) farmers must get more than forty or fifty cents for every dollar's worth of produce they market; (2) better help must be procured for farm work and the help must be better housed; and (3) rural credit must be obtained that will enable the young men to borrow on long time at low interest rates. These things can be brought about only thru the co-operation of farmers, and with them will come prosperity, which always means better schools. I repeat, therefore, that the greatest good that can come to the schools, thru the co-operation of those agents directly allied with it, will result when these co-operate in such a way as to educate the community in the lessons of mutual helpfulness thru which, alone, betterment of all institutions will come.

Of the various administrative forces touched upon in Mr. Chamberlain's paper, I shall discuss, at his suggestion, the one of county superintendent.

Where the county is the unit of administration, the great importance of competent county superintendents, with proper qualifications, adequate salaries, and definite powers and duties, cannot be gainsaid.

The speaker suggests that in order to secure competency, adequate salaries, proper powers and duties, and qualifications, the county superintendent should be chosen by an elected or appointed county board of education consisting of five members.

But by whom this county board of education shall be elected or appointed becomes at once the all-important question. At the present time there are almost as many methods for choosing county boards as there are states maintaining such boards. In one state the appointment is made by the governor, in another by the state superintendent, in a third by the state legislators, and in a fourth by the state board of education. In one state, the county court appoints the county board, and in another this duty is intrusted to the grand juries. Occasionally a state trusts the people with the election of this body, and, perhaps, after all, this is the safest plan, for the answer which the vote of an enlightened populace gives to an important question is usually a safe one.

I am somewhat more optimistic about the status of the county superintendent than Mr. Chamberlain, for, in recent years, some marked improvements have been made. In one-third of the states having county superintendents, the term is not less than four years, and in two-thirds of the states some qualifications are required, the minimum, to be sure, not extending beyond those of a voter, but the maximum demanding teaching experience, license qualifications, and graduation from a standard college or normal school. The remuneration, too, has been advanced and changed from uncertain income on sales of lands or amounts of funds expended to a definite salary.

The powers and duties of a county superintendent need definition more than enlargement. The county superintendent can render his most efficient service when he works in co-operation with all other administrative officers, with his duties definitely understood. The state department of public instruction, the state board of education, the trustees and school boards, and the county superintendent are the chief school administrative forces in the state. The co-operation of these forces in the administration of school affairs will lead rapidly to the improvement of the machinery connected with the rural school and all contributing agencies.

Representatives of these forces should meet frequently to determine upon the best measures to be undertaken for the betterment of the rural schools. State agricultural colleges and normal schools should have representatives at these councils, and the specific work and duties of each should be defined. By this means economy of time and energy will be secured, since there will be neither interference nor overlapping of work and there will be union in a common great cause. These forces must co-operate to

administer the affairs of rural schools as such and not to pattern them after city schools.

This democracy needs the rural product—boys and girls educated in a rural school—to assist in the solution of its great problems, and the rural school will be improved and made more potent to the extent that the various co-operative forces act together and not independently for the improvement, not of the school alone, but of the entire rural-community life.

V. DAVID B. JOHNSON, PRESIDENT, WINTHROP NORMAL AND INDUSTRIAL COLLEGE, ROCK HILL, S.C.

I believe that the normal school is, or should be, one of the strongest and most effective of the forces for the betterment of rural-school conditions. It should train teachers for rural schools as well as for other schools.

The efficient country school is the most vital educational need today of this whole country of ours. The whole rural problem, which is probably our most vital problem, is "practically the problem of the country school." The farms are being abandoned by the owners and agricultural progress and production are failing to keep pace with growth in population and with progress in other directions mainly because the country school has failed and is failing to relate its work to the life of the rural community. The startling exodus from the rural districts to the cities all over our country is generally attributed to the lack of proper educational and social conditions in the country which the properly organized and conducted school might have supplied.

It is the patriotic duty then of all good citizens everywhere and of all educational agencies, especially of the normal school maintained by the state for the betterment of the schools by properly preparing teachers for them, to do everything possible to make country schools efficient. But before being able to work intelligently and effectively for efficient country schools, we must know what constitutes an efficient country school today.

The efficient country school which is to improve agricultural conditions and to keep good citizens on the farms and make good citizens on the farms must relate its work to the community life of the people served by it; must educate the children for country life instead of away from it; must teach, therefore, agriculture; must relate universal elements of education to country community needs; must train the children for their future work in the home, on the farm, and in the social life around them; must be a "community center of education, instructing both children and adults in terms of country life and pointing the way to community prosperity and welfare"; and must concern itself with the business and social life of the people, promoting helpful and profitable co-operation and neighborliness.

Someone has called the lack of sociability in the country, the tendency of the countryman to live to himself, country individualism—"the tuberculosis of American farm life."

The efficient country school cannot neglect the health, the recreation, or the social ideals of the people. It must be housed in a properly constructed school building, with good light and ventilation and school furniture and equipment and sanitary closets. The grounds should be ample and properly laid off for all kinds of recreation. There should be gardens in connection with the school to be worked by the pupils, and the school should encourage the pupils to work small gardens at their homes and should supervise them. We are now trying, as an experiment in our state, small demonstration farms in connection with a limited number of country schools in each county.

The efficient country school must interest its pupils and their parents in the boys' clubs and the girls' canning and poultry clubs.

The redirected course of study needed for the efficient country school must be determined by the needs of the community as shown by a social and economic survey of the community. You cannot "hitch up education to life" without knowing what that life is—the prevailing aspirations of the community, "its economic and social resources and possibilities, its deficiencies and needs."

After all is said and done, however, there can be no efficient country school without an efficient teacher. The requirements of an efficient country school determine the kind of training which the normal school must give to prepare the efficient teacher for such a school. The efficient country school-teacher means a teacher trained specially for teaching in the right way a country school—one who is in sympathy with rural life. The efficient teacher for the country school must be not only a good teacher of subject-matter, "giving instruction in terms of the local environment of the child," but also a good community leader. She must be able to stimulate local campaigns for rural progress. Under her leadership there will be road improvement, good farmers' clubs and institutes, and country-school progress. She must be imbued with the spirit of civic service. I believe that permanency of position and adequate salaries will soon follow such service.

Many of the normal schools have recognized the need of special training for country teachers and have provided for it, and it is to be hoped that all will soon do so. At Winthrop College we require all of our normal students to take agriculture, which we have been teaching for eighteen years, and to make and work school gardens; and we require our Seniors to observe and practice in the training school, where school gardens are worked by children. We give two courses for country teachers—the rural-life educational course of four years and a one-year course for teachers still in the field.

It may be of interest in this discussion and may prove suggestive for me to make some mention of some of the things our normal college has tried to do for the rural schools. Other normal schools may have done more and better work.

We have at our normal college an experimental rural school designed to work out a course of study specially adapted to the needs of the children of the country without regard to any traditional course of study. All precedents have been ignored. The thought always in mind is to train the farm children, brought in from the country in a wagon, for their work and life in the country home, on the farm, and in the social life of the country. All of the activities of the school are based upon work in the garden and have grown out of such work. We have a practice home where our Seniors are given practice in housekeeping, gardening, poultry-raising, etc.

The State Rural School Improvement Association of South Carolina was organized among the Seniors of our normal college in 1902. A College Rural School Improvement Association takes charge each year of a country school in the county in which we are located. We have a farm of 144 acres which serves not only to supply the college with fresh vegetables, beef, poultry and eggs, butter and milk, etc., but also to give our students instruction in dairying, poultry-raising, farming, and gardening.

The Conference for Education in the South, held at Louisville, Ky., last April, was devoted to showing "How to Organize and Build up Country Life," and consisted of demonstrations, exhibits, and conferences. Our state normal college demonstrated at that conference the model rural school and the model rural home.

TOPIC: SUPERINTENDENT PROBLEMS

I. JOHN W. CARR, SUPERINTENDENT OF SCHOOLS, BAYONNE, N.J.

Owing to the brevity of time at my disposal, I shall limit the presentation to a few problems of the city superintendent without attempting to discuss any one of them in a thoro manner.

One of the marked tendencies in our educational readjustment is the giving of greater power and authority to state and city superintendents, thereby making it possible for the schools to be administered by professional experts. Along with the bestowal of power has also come the fixing of responsibility. Among the notable examples are the reorganization of the state departments of New York, Massachusetts, New Jersey, and Ohio, and the city systems of St. Louis, Boston, Louisville, and Pittsburgh. A few years ago, Chamberlain found that the authority of the city superintendent was increasing in forty-five out of fifty cities investigated, and in only two cities was his authority decreasing. The authority of the city superintendent was increasing along several lines: appointment of associates; determining the budget; selection, fixing of salaries, and removal of

teachers; choosing of textbooks; arranging the course of study; determining the location of school sites, and the character and equipment of school buildings. "In all legislative and executive functions," says Chamberlain, "the power of the superintendent seems to be increasing." This is particularly true in cities having small boards of education.

But the office of city superintendent is not universally recognized to be one of great importance, neither do all superintendents exercise great power in the administration of the schools. In some places the city superintendent is regarded as a mere clerk of the board, while in others he is almost an autocrat. Between these two extremes, there are all degrees of authority exercised, differing according to the laws of different states, charters of different cities, rules of different boards, and especially the personality of the superintendent and the personnel of the boards of education. The real problem is, "What power should be vested in the city superintendent in order that school administration may be most efficient?" A general survey of the whole field is necessary in order even to approximate an authoritative answer.

The source of power of the city superintendent differs greatly in different cities and often in the same city at different times. Our city schools are a part of our democratic institutions, and, in their development, their administration has been intrusted to boards of education—representatives of the people. Historically, boards of education or school committees antedate city superintendents. The laws of many states give school boards the authority to appoint city superintendents and to prescribe their duties, but do not make it compulsory for them to do so. Under such circumstances, in theory the superintendent exercises such power as the board chooses to give him, but, in reality, he generally exercises power in proportion to his personal force and professional fitness. Where the superintendent is really efficient, and members of boards of education are competent, honest, and reasonable, the plan works well. But the plan failed in many places for various reasons, which cannot be discussed here, but which should be thoroly investigated. The result is that in certain places the superintendent has certain powers given him by law, which he may exercise regardless of the board of education. For example, in Ohio the city superintendent appoints teachers subject to the confirmation of the board. The new code of Chicago gives the city superintendent power to initiate, subject to confirmation of the board, matters of textbooks, courses of study, appointment, transfer, and promotion of teachers, and some other matters. The code provides that it requires a two-thirds vote of the board to carry any such matter without the superintendent's recommendation. Success has been achieved under different systems; likewise serious difficulties have been encountered. The real problem is, "Shall the state or the board of education confer the power exercised by the superintendent, or should part be granted by law and others conferred by the board?"

But whatever may be the powers of the superintendent and from whatever source these powers are bestowed, yet all really efficient superintendents perform many duties—some administrative, others strictly professional—which are of great importance to the schools. In order to perform these duties properly, he must have exceptional personal qualifications and professional attainments of a high order. He must be a man of affairs capable of advising the board on matters of budgets, expenditures, school buildings, equipment, supplies, and the like. He must possess a knowledge of school law and parliamentary usage and be able to advise wisely and understand the proper methods of administration. He must possess tact, insight, patience, persistence, and sound judgment, which will enable him to deal with members of the school board, principals, teachers, pupils, representatives of business houses, and the public in general effectively and so as to arouse the fewest antagonisms, promote harmony, and secure the best results. He must understand educational principles and be able not only to employ them himself but to lead others to do so. He must be familiar with other city-school systems as well as his own, must understand the strength and weakness of his own system, and must know how to remedy defects without destroying the parts that are good. He must know his community and be able to adapt the course of study to local conditions. He must be a real supervisor of teachers, capable of correcting, inspiring, and helping. He must have at least a general knowledge of statistical measurements and scientific management and be able to apply these intelligently and effectively to classroom activities as well as to statistical and financial matters. The really efficient superintendent must know and do much more than is suggested above. A problem of prime importance is, "How can a sufficient number of persons be obtained to superintend the city schools, and how can the inefficient be kept out of such an important position as that of city superintendent?" I shall not attempt the solution of so important a problem, but will venture two suggestions:

1. That a strictly professional training of at least four years be required by law in order that an applicant may be eligible for consideration for the position of city superintendent. This course should be in addition to a minimum entrance requirement such as is now the case for the training of lawyers and physicians. This course should be followed by a thoro examination by state authorities.

2. That from two to four years of practical experience, as either teacher or principal or both, under efficient supervision, be a further requirement. This would insure a minimum of actual experience, which is so necessary to the successful superintendent, and allow time for the maturing of his powers.

But you say such a law would disqualify many who are now successful city superintendents, and, besides, there would not be a sufficient number of trained persons to superintend the schools. My answer is, that I would

not make such a law retroactive, but would set a definite time in the future when it would become effective. Some states may not be ready for such a law but I believe that many are ready, and that the setting of such a standard would do much toward making teaching a real profession. It certainly would stimulate the educational departments of our colleges and universities.

But who is to choose the city superintendent?—the people at a popular election, the board of education, some central state authority, or is there still some other and better way? If I am correctly informed, in only two cities—Buffalo and San Francisco—is the superintendent chosen by popular vote, which goes to show that this method has never appealed to many American cities. It is open to so many grave objections that it may safely be dismissed as not the best way to choose a city superintendent. The most common way is for the local board of education to choose the city superintendent. This has not always proved to be a satisfactory method but with certain modifications is perhaps as good a method as has yet been devised. Some have advocated the appointment by the state superintendent or by the state board of education or by some other board or commission. This would remove the appointing power so far from the people that it is hardly worthy of serious consideration. So while the selection of a city superintendent by the local board of education may not always be the best method, yet it is doubtful if any better method has been devised. The chief objections to this method are that members do not have wide enough acquaintance with school men, or are sometimes influenced by politics, religion, or something else which frequently causes them to make a poor choice. Perhaps the greatest handicap to the local board in making a wise choice is the fact that the members are not capable of judging of the strictly professional qualifications of the persons under consideration, but make the selection on account of personal appearance and other non-professional qualities. If a strictly professional training were required of all applicants, such as suggested above, there would be less likelihood of boards choosing poorly trained persons. The average board that really wanted to choose a good superintendent would have but little difficulty in doing so, provided it was not compelled to limit the choice to local applicants and was able and willing to pay sufficient salary to secure a competent person.

The problem of tenure for the city superintendent is an important one, and apparently but little progress is being made toward its solution. Some think that conditions are really becoming worse.

"Of the 4,620 cities and towns of the United States having a population of 1,000 or more," says Bruce editorially in the last number of the *School Board Journal*, "at least 900 will change superintendents during the coming summer vacation." This means that practically one-fifth of the urban schools of the country will change administrative heads during this summer.

Certainly school supervision in cities and towns can never be placed on either a sound business or professional basis so long as changes of superintendents are so frequent. What are the causes of so many changes and why is the tenure of superintendents so insecure? Of course there are many reasons for the insecurity of tenure; some of them are good reasons, but many of them are trivial and unworthy reasons.

There is small inducement for a person to prepare thoroly for the position of city superintendent if his tenure is insecure, and he is likely to lose his position for the most trivial reasons, or for no valid reasons at all but simply at the behest of some petty politician, or on account of some disgruntled member or members of a school board.

Educators and many other thoughtful persons are giving serious consideration to the solution of this difficult problem and many suggestions are made. Draper once said, "The superintendent should be as secure in his position as the members of the Supreme Court of the United States in theirs." Cary indorses this statement but adds: "He should be secure, however, only when he is efficient." State Superintendent Morrison, of New Hampshire, says: "From the standpoint of the conduct of the schools, the annual election of the superintendent is a thoroly vicious proceeding. Tenure during competency and good behavior is the thing." Superintendent Poland, of Newark, believes in long tenure, but prefers that it should be at the "pleasure of the board." He likes this plan because it puts the board as well as the superintendent on trial—the board must justify itself to the community in case of its removal of an efficient superintendent, and the superintendent must justify to the board his right to be retained.

Personally, I believe that the first or trial term of a city superintendent should be long enough to enable him to study his problem, formulate plans, put them into operation, and then have time to demonstrate whether or not the results are satisfactory. After the initial term, he should have definite fixed terms of from four to seven years each, or should be employed during efficiency and good behavior. His removal should be only for cause, after a statement of the reasons has been furnished to him and he has been given an opportunity to be heard. Such a tenure would give the superintendent such a standing in the community as would command respect, and would enable him to devote his time and energies to his professional duties.

There are other important problems relative to the office of city superintendent, some of which I shall enumerate but not attempt to discuss. There is the problem of the proper relation of the superintendent to the board of education. Friction between superintendent and the board is a frequent cause of trouble; harmony and co-operation usually spell success. There is the problem of effective supervision of principals and teachers so as to secure "teamwork" in carrying out a definite policy with intelligence and enthusiasm. There is the problem of choosing textbooks so as to secure the best for the schools without truckling to publishing houses or

engaging in warfare with them. There is the problem of informing the public of what is going on in the schools, and of educating the people so that they will appreciate the best in education and will be willing to support the schools financially and otherwise. There is the problem of a professional code of ethics, which will set forth the proper relation of one superintendent to another, and of the superintendent to principals, teachers, and the public in general.

Indeed, so many and so important are the problems relative to the school superintendents—state, city, county, and district—that I believe this great Association should make a thoro study of these problems thru a committee of its members and prepare and submit a report, setting forth the best practices in different parts of the country, with definite recommendations as to the best method of solving each problem considered.

II. LLOYD E. WOLFE, FORMER SUPERINTENDENT OF SCHOOLS, SAN ANTONIO, TEX.

In this paper I shall attempt to offer constructive solutions to some of the greatest school problems that have confronted me during the last twenty-five years as superintendent of town and city school systems. These problems are:

First, the selection of teachers on merit. No superintendent can conscientiously and intelligently state to his board that a teacher recommended by him is the best available applicant for the salary if he has confined his search to the applicants who have voluntarily applied and his tests to an examination of the applicants' diplomas, certificates, and testimonials. He should, by circular and thru the press, reach the teachers within reasonable radius, stating that all vacancies would be filled absolutely upon merit, and that, during a four weeks' vacation school for teachers, all applicants would be required daily to develop, chiefly by question and answer, assigned portions of the course of study, teach classes of pupils under the supervision of a critic teacher, and pass a written examination on the course of study, including the special subjects. When, at the close of the vacation school, applicants are recommended to the board, they have the indorsement, not of the superintendent alone, but of all the supervisors and principals who have taken part as instructors. The teachers whom I have selected in this way have never ranked below excellent. Graduates of the city training school should not be recommended for positions unless they are as strong as the applicants attending the vacation school. This will prevent dangerous inbreeding and put the training school on its mettle.

Related to the selection of teachers on merit is the promotion of teachers on merit. I believe that, in attempting to promote teachers on merit, we must more and more take into consideration, not only the teachers'

scholarship and teaching ability as judged from our observance of recitations, but measured results in subject-matter and character-building. The percentage of pupils promoted by a given teacher is not a reliable index of results, for the teacher in practice is the main factor in determining promotion. If a teacher is not critical in her instruction, she will not be critical in her examination of manuscripts and her estimate of the pupil's fitness for promotion. A remedy lies in more oral testing and more grading of manuscripts by the supervising force.

My second problem is the professional growth of teachers in the employ of the board. In normal schools, city training schools, and the educational department of colleges and universities, large sums are being expended in training a small percentage of the teachers needed. At the same time, in the cities and towns of this country there is a great army of able superintendents, principals, and superior teachers who are not being used to one-tenth their capacity in the professional improvement of the teachers in service. Few cities and towns lay out a definite course of study for their teachers and give credit for its completion. The teachers having no definite course of study to complete quite generally begrudge the time given to teachers' meetings. No one would be foolish enough to attempt to hold the interest of pupils and secure adequate growth without definite requirements and corresponding credits. Why should we kill time in our teachers' meetings in aimless discussion, when the work should be as definite and critical as that of the normal school? It is also high time that it be universally recognized that teachers cannot be lectured or entertained into scholarship or professional power. The completion of the course of study should lead to a higher certificate, higher salary, or possibly to credits on a certificate or diploma from a normal school. The work should be along lines that are vital to the daily recitation. The time given in the recent past and even now to that kind of psychology and pedagogy which cannot be used by the teacher should be devoted to securing a critical knowledge of subject-matter in its relation to past and current thought and achievement and to the experiences of the child.

Only a small percentage of our towns and smaller cities have regular city training schools. In the cities and towns with no training schools, a very difficult problem is to give a practical, inexpensive training in the course of study to the graduates of secondary schools who desire to prepare for substitute work. The most satisfactory solution of this problem that I have found is to organize my supervisors and principals who have most time at their disposal to instruct these young people at their respective buildings a week at a time in succession. This practical training by instructors who are in daily contact with actual school work has, after many years' trial, succeeded beyond my expectation, in the improvement of both the members of the training class and the principals and supervisors giving the instruction. This comparatively inexpensive training class also makes

it possible to select substitute teachers on merit. Likewise, the vacation school for the testing of applicants gives instruction to members of the training class and to inexperienced and weak teachers, and uses retarded pupils for practice teaching.

After mature deliberation I am satisfied that the best combined solution of testing applicants, improving teachers in service, and instructing retarded and exceptionally bright pupils is a four to six weeks' vacation school for pupils conducted by the most efficient teachers in the schools, and a vacation school for teachers attended by all the teachers who are neither instructing in the vacation school for pupils nor attending a first-class summer school for credits—provided that, on the recommendation of a physician, a teacher may be excused from all vacation work, forfeiting the salary for the time excused.

My next problem is effective supervision. As Moses lifted up the serpent in the wilderness, so should there be lifted up in every schoolroom in the land, as the great pedagogic goal, the stimulating, finished recitation—not the memorizing of general abstract statements about the recitation from some book on pedagogy, but a flesh-and-blood recitation constructed pedagogically upon a given body of subject-matter. Hundreds of times during the last quarter of a century have I interrupted applicants in their glib recitals of general statements on pedagogy to ask for the development of a given portion of subject-matter, only to find them floundering like a vessel without compass or rudder. While the teacher must keep a few great principles in view, he will acquire skill in constructing recitations by constructing them under constant, critical, helpful supervision. Likewise, the organization of samples of subject-matter for recitation should constitute at least half the examination for county and state certificates. There is no greater stimulus to the teachers of a system of schools than the knowledge that each member of the supervising corps is studying every part of the course of study, and devoting practically all his time to critical, helpful schoolroom supervision. My solution of this problem of supervision has been to prevail upon my board of education to require the superintendent, assistant superintendent, supervisors, and principals to devote all available time at their disposal to observing complete recitations, and to report to the board the complete recitations observed, giving subject and teacher's rank in each. One of the great enemies of efficient school work is the office principal and the office superintendent. Much time is wasted by superintendents and principals on clerical work and on refractory pupils who should be put under special teachers or in special schools. Thru failure to limit and systematize the telephone calls within a school system, the principal may be kept answering the telephone much of the time. One of the most difficult things I ever undertook was to get principals and other supervisors to make a critical study of the curriculum and to supervise efficiently. This would be easier if most of the professional improvement

work among teachers were centered upon the recitation and the course of study.

My next problem is the course of study. The best solution I have found for this problem is to organize my supervisors, principals, and superior class teachers to co-operate with me in modifying the course of study, from time to time, in accordance with the social-needs theory, always taking care to revise cautiously and to make certain that the teachers can handle one revision well before attempting a further revision. The more the supervising and teaching force can have to do with the revision of the course of study the more practical the course will be and the greater will be the probability that the course will be successfully carried out.

But I must pass to what I consider the two most urgent and far-reaching reforms in the course of study. The first of these is the substitution of a many-book course of study for the present few-book course—at least six times as many books as now, embodying such rich detail as will result in a maximum of social efficiency and a permanent taste for thoughtful books. Instead of our one-volume United States history, a stimulating book on each period of American history. In place of our one-volume physiology, a number of entertaining, thought-provoking, and social-service-provoking books dealing vitally with hygiene, sanitation, children's diseases, etc. In geography, ample reading matter richly illustrating the definition, "Geography deals with the earth as the home of man." In arithmetic, instead of abstract problems divorced from their concrete setting, several books giving concrete transactions out of which the problems arise.

Our fundamental educational aim, as related to the printed page, is to give pupils such a taste for solid reading that they will continue their education, thru the reading of good books, during life. However, in practice, it is rare to find a pupil who, during life, reads much in amplification and continuation of his school course. Therefore, notwithstanding our increasing outlay for education, the chief interest among our rising generation is the exciting and sensational in fiction, the theater, the picture show, and the newspaper. The theater, the press, and the novel are commercial enterprises, and will improve only as pupils leaving the public schools have a taste for something better. The rational way to form this desired life-habit is for the pupil to read in school, as it is desired he shall read in life, not two or three pages at a lesson to be memorized, but twenty-five pages or more. This many-book course would so kindle the interest of the pupil that more of the essential facts would remain with him, and he would be a greater power for home and community betterment.

The second of the two great reforms in the course of study is: the training of boys in cities, towns, and villages, in habits of industry and thrift thru the making of minor repairs in the home and the school, and the use of back yards, vacant lots, and suburban tracts for vegetable, berry, fruit, and tree culture; the training of girls in habits of industry and thrift thru

the systematic use of the cooking, sewing, millinery, sanitary and general household plants in the home; the training of both boys and girls thru the study and extermination of disease-carrying insects, and thru beautification and sanitation in the home, the school, and the community. This field of industrial education is in no sense open to the objection of stratification; it yields a valuable commercial product, continues thru the dangerous vacation of idleness and dissipation, and uses ready-made industrial material that can be had for the asking. Is it fair to the already heavy-burdened taxpayer for educators to be organizing campaigns for expensive industrial plants when no determined, systematic efforts have been made to use the free plants in the home and in the community? With two thousand boys gardening at Memphis, Tenn., I demonstrated that four hundred dollars' worth of vegetables could be raised on an acre. Among the happiest hours of my life have been those I spent from 7:30 to 9:00 A.M. with groups of boys in school gardening. The universal adoption and perfecting of this industrial policy would add at least a hundred million dollars annually to the wealth of our cities, towns, and villages and would be invaluable in character-building. The school, the home, the pulpit, the press, and the platform should unite in creating that sentiment which will make a boy as proud of earning and saving as of making a home run or a touchdown, and a girl prize excellence in domestic duties as much as she now prizes leadership in books or in society. Altho educational expenditure has practically doubled during the last decade, our enlarged jails and penitentiaries are full, and criminal costs, divorces, suicides, and calls for charity are on the increase. To me it seems criminal for us who are looked to for educational leadership to be indifferent onlookers while four million adolescent boys and girls in cities, towns, and villages are growing up in comparative industrial helplessness, idleness, and thriftlessness.

The failure to put the doctrine of this article into general practice costs the people of the United States enormous sums annually. This loss is chargeable to the lack of educational vision, to lack of courage, to selfishness, and to civic obtuseness on the part of superintendents and board members, and to the widespread indifference and lack of information on the part of the people. A nation-wide movement on the part of this Council and the National Education Association, persisted in for years, would go far toward giving educational vision, courage, devotion, and civic insight to superintendents, board members, and the people. Our schools and municipal, state, and national governments can be run even approximately for all the people only thru keeping the people thoroly informed and alert.

Finally, cannot this Council and the National Education Association take prompt constructive steps to organize all the educational agencies and instrumentalities in this country for the reasonably early solution of problems that go to the very foundation of popular education and national

prosperity? I should like to see our Secretary authorized to labor systematically to induce the county and city school systems, the state educational departments, normal schools, and educational departments in colleges and universities, to co-operate in a nation-wide movement to solve vital and pressing problems agreed upon by the Council and the National Education Association. It should be his further duty, thru a representative of each state teachers' association, systematically to educate people, thru the press, upon the great problems whose solution was being sought.

There are probably few school systems in this country where the interests of the children are not being, to a greater or less extent, sacrificed to some selfish interest. While we shall probably always have spineless superintendents whose paramount object is holding their positions, and weak or selfish board members who will sacrifice public interests to private and personal interests, an enlightened and aroused public sentiment must ever be our chief reliance to reduce these evils to a minimum. The leading educators of this country are primarily responsible for the character of the education the twenty million children shall receive. During recent centuries, in the most civilized nations of the world, millions of human beings have been deprived of liberty and life for appropriating small amounts of another's property. If thru self-interest, want of courage, or want of vision, we cause a loss to these twenty million children many times greater than the sum total of all these centuries of petty thieving, may it not be less tolerable for us in the Day of Judgment than for this army of petty thieves whom human courts have punished?

III. WALTER R. SIDERS, SUPERINTENDENT OF SCHOOLS, POCATELLO, IDAHO

To teach a man to live with his fellows has been the problem in all ages. The home trains according to the ideals of the parents. Some agency is needed to socialize and nationalize the people. The history of education shows most people establishing schools as an instrument of the state to train boys and girls to their own peculiar national ideals. Our present school system has inherited many things from previous generations which train for the ideals of an age and for a citizenship no longer existent.

The superintendent's largest problem is to bring the school system to meet the demands of this age. The aim of education is social. Its purpose is to fit an individual to be a useful citizen, conforming to the standards of the world and of society. Modern education demands more than intellectual training. It requires, among other things, physical training; moral, ethical, and religious training; civic training; social training; and emphasizes vocational training that each may earn his livelihood and not be a burden to others, at the same time preserving a just balance between vocational and cultural work.

If there were no schools, what sort of an agency would the state be compelled to create to train its young people for future citizenship? The curriculum would be found in the training necessary to give that special knowledge, that culture, that vocational training, and whatever else this age expects to find in its citizens. The teachers would be found among those persons fitted by nature and by training to prepare young people for present-day citizenship. These teachers would come from the trades and the industries as well as from the professions. The organization would be whatever would bring the teacher into contact with the pupil in such a way that the desired ends might be reached with a minimum of friction, with a minimum loss of time, and with the elimination of all unnecessary waste. Such an organization, to be effective, would be held where the instruction might best be imparted, in the field, the forest, the mine, the factory, etc., and in the schoolroom for abstractions.

If we were able to disregard absolutely the traditions and inherited intuitions and plan a new school for new needs, we should have an ideal plan to set in parallel with our present scheme of things; we should be able to determine what there is in our present curriculum, in our present teachers, and in our present organization which is adequate to our needs and usable; and we should find what may be abandoned as no longer suited to this present time. Were such an adjustment made today, it would need readjustment tomorrow. As Dewey has observed: "The school is but a phase of the social movement of the race." The world will move on; the schools must keep pace.

The above-outlined, never-ending problem brings the superintendent face to face with his greatest problem, which is himself. To keep his school a live, modern, efficient citizenship factory demands that he have all knowledge, all wisdom, all art, all morals, all ethics, all of everything, in order that he may bring to the school a full understanding of life and of all that life means, that he may be sympathetically fitted for the appreciation of all natures and of all ambitions. The demands of the situation are impossible to any one man. They are possible in the accumulated wisdom, experiences, and foresight of all educators. These things can be brought to pass by a more liberal exchange of educational ideas. The school man shall be not only more of a student, but more of a writer and speaker.

Another problem, the solution of which would add materially to the superintendent's success, is how to be recognized as a man of affairs, as a man among men, as a man whose opinions are as worth while as those of other men. The lawyer speaks as one vested with authority; the doctor is supposed to give utterance to the certitudes of science; and the business man to speak with unfailing accuracy, because he is accustomed to the precision of percentages and discounts. The amount of public support which can be brought to the schools is often the measure of its success. If the school man seems unreal and unlike the rest of mankind, it is his

problem to be seen more often in the forum and in the market place to learn if he may there find an answer to this problem.

With all of his problems a school superintendent needs to be much of a man, conquering himself that he may lead others. His stock of patience must be inexhaustible. But patience is a virtue and not a problem. This leads me to believe that the work of the teacher is much like that of the fisherman. Fishing, you know, is an act of faith performed before a large body of water. And teaching? Teaching is an act of faith performed before a body of growing people, performed in the hope that there is something there to take hold of what is offered.

IV. JOHN MACDONALD, EDITOR, "WESTERN SCHOOL JOURNAL," TOPEKA, KANS.

The superintendent and his problems in eight hundred words! Who is sufficient for these things?

Superintendent Wolfe in three thousand words has done his best under the five headings he has selected. It may be assumed that he has in view only superintendents who have the qualifications the apostle Paul prescribes for bishops. That is to say, the superintendent must be blameless, vigilant, sober, of good behavior, apt to teach, not greedy of filthy lucre, not covetous, having a good report of them which are without. If he has not these apostolic requirements in some visible degree, his solution of problems is not likely to accelerate the progress of the race.

In the selection of teachers Mr. Wolfe would not limit himself to voluntary applicants. He would go out as in the scriptural parable, into the highways, for teachers of worth. The superintendent should take more latitude and longitude than the political party of our day which says to its adherents: "This is our candidate, made so by his own volition; vote for him and the country is safe, otherwise it will be forever lost." "But," ventures the voter, "can we not look around and perhaps find others even much more worthy than this nominee?" "No remarks from you, brother or sister, this do and thou shalt live."

Then, too, the superintendent, searching for the divinely fit, will disregard the clamor of parents and friends that to the graduates of the local high schools belong the spoils. What serious damage is done by the inbreeding process in education cannot be computed here; time is so brief, and our eight hundred words are vanishing as if on wings.

Mr. Wolfe has, in his discoursing of training schools, the promotion of teachers, the course of study, and school gardening, preached sound doctrine, and I well know he is not a mere theorist. He has successfuly carried out wherever he has had opportunities all the plans and policies he has this afternoon so ably set forth, and so he speaks from experience and with authority.

But how, it may be asked here in passing, can any superintendent solve problems if he follows every will o' the wisp that glimmers in the marshes and every distracting call from the wild which may strike his ears?

Have you ever made a list of the movements for the regeneration of our schools which have come and gone say in the last forty years? Do you remember the "Quincy system"? It made as much noise in its day as the Montessori method does in ours. Superintendents, teachers, and other "learned seigniors" from every state in the Union, and from many other lands, made pilgrimages to Quincy as to a Mecca. At national and state meetings papers were read on the system or method and the discussions were fast and sometimes even furious. In several gatherings of young persons in training for teaching, I, this year, asked the question: "What was the Quincy method?" and there came but silence in response, and not a great deal of that.

The system, like many others that you and I could name, had its day and ceased to be. When the inspiring personality of that great-hearted man, Colonel Parker, passed, Quincy disappeared from the map. The good imbedded in the colonel's methods has remained with us, and that is true of many plans which are preached to teachers as educational gospel, which must be followed or disaster and even destruction must follow. So, while it is not always wise to refer to every new message preached from the housetop as a fad, fancy, or fake, it is sane for a superintendent with problems in front of him urgently demanding solution to "prove all things" and to hold fast only "that which is good." He will also prayerfully ponder the words of another apostle: "Beloved, believe not every spirit, but try the spirits whether they are of God; because many false prophets are gone out into the world."

These also "have their day and cease to be."

So the divinely gifted supervisor—and none other is fit for the work—while refusing to follow the devious ways of every passing wind, will not fail to keep his auditory nerves attuned to the heavenly harmonies, and he will welcome with joy every new light upon his problems. But in front of false prophets and spirits he will courageously stand "four-square to all the winds that blow." His vitality and energy are to be conserved for the duties which must be done. He will add cautiously and sanely whatever it may be found profitable to extract from the new, but he will give earnest heed to the scriptural injunction: "Remove not the ancient landmark, which thy fathers have set."

The eight-hundred-word deadline is on the near horizon; the president looks intently at the gavel and at the speaker, in sorrow, however, more than in anger.

The speaker is by no means certain that he has in these remarks contributed anything "profitable for doctrine, for reproof, for correction, for instruction in righteousness," but he is certain that the Bible truths inserted

here and there will illuminate the path and strengthen the heart of every superintendent in the solving of any problems.

The speaker now, doubtless greatly to your relief, will take his form from off your floor.

V. EDWIN S. MONROE, SUPERINTENDENT OF SCHOOLS, MUSKOGEE, OKLA.

This paper followed the lines of the Report of the Committee on Tests and Standards of Efficiency in Schools and School Systems before the National Council of Education at its Salt Lake City meeting in 1913. This report will be found in the *Proceedings* of that meeting.

VI. DAVID FELMLEY, PRESIDENT, ILLINOIS STATE NORMAL UNIVERSITY, NORMAL, ILL.

The general problem of the superintendent is to organize and direct his school system in such a way as to turn out efficient citizens for the commonwealth, citizens equipped with the knowledge and skill, the interest, the social virtues, the culture, and the spirit of altruism vital to efficient living. When the large problem is analyzed into its elements there appear at least ten important problems to which the modern city superintendent must give attention. In these I do not include the method of choosing the superintendent or his tenure of office, both of which are problems for boards of education and not involved in the functions of the superintendent.

His problems are problems connected with the administration of the schools; they are problems that are shared with the board, which he serves as expert adviser and executor.

His first problem is to manage his board. I do not use this phrase in any invidious or disrespectful sense. A good superintendent will not let things drift; he will formulate policies and devise plans for carrying them out. He must give to these plans such coherence, definiteness, and persuasiveness that he will win the confidence of the board, and their hearty acceptance of his guidance and leadership.

His second problem is the problem of revenue for the schools. While here the board, as direct representatives of the people, must levy the taxes, superintendents are expected to mark out the annual budget and must sometimes themselves carry the needs of the schools to city councils and state legislatures.

His third problem is the course of study, the series of experiences thru which children are to gain their social efficiency. Our courses of study everywhere are a patchwork composed of traditional elements long established, often obsolete, and new elements designed to meet the needs of the twentieth century. Periodically we revise our courses, lopping off some of the old and giving a larger place to the new. Few superintendents, if they had the knowledge and the courage, could put into effect a real up-to-date

course because of the conservatism of parents and the public. The problem of the superintendent is then to eliminate the old, to ring in the new, to blend them into a consistent, organic whole. Not only must he modernize the course but he must in some way adapt it to the needs of boys. In every school system the over-age pupils are mostly boys, the slow pupils are mostly boys, the pupils who drop out by hundreds after the sixth grade are chiefly boys. They say the girls are smarter, more docile and tractable. The fact is our schools are feminine institutions taught by women filled with the ideas and sentiments that women especially cherish and appreciate. The boy has his rights; the course of instruction should be adjusted to his needs. In this reconstruction of the course of study there is danger that we shall be guided by the actual present knowledge of so-called successful men. At Springfield, Ill., eleven prominent citizens, politicians, business men, and professional men, recently took a seventh-grade examination. They didn't average 30 per cent in spelling, arithmetic, geography, and history. This experience raises the question: "What is success?" Are we to take our Jim Hills and our Rockefellers as the type—a type for a few of whom the world has room—or some type of efficient and wholesome living that may be attained by the millions? The course must contain cultural elements that add to the joy of living, that give breadth of view and sympathy and other elements that serve to explain and rationalize the practical knowledge upon which men build business success.

Along with the course of study is the question of the textbooks that must give it content. Shall the superintendent and his teachers be permitted to make the selection unhampered by the activities of the publishers?

The fourth problem is really a part of the third but of such magnitude as to deserve separate consideration, the problem of vocational education—its content, its organization, its co-ordination with outside work in home and shop and store.

The fifth problem is the effective organization of the parents, the business men, the churches, and social organizations to co-operate with the school in its work.

The sixth problem is the school plant—how to select sites and plan buildings, laboratories, shops, gymnasia, playgrounds that shall be convenient, hygienic, altogether suited to their function, and then to secure these with proper equipment.

The seventh problem is the question of attendance. School boards appoint truant officers, juvenile courts pass upon the delinquencies of parents. Yet it is safe to say that nine-tenths of these officers are so indolent or so indulgent as to be of little service to the schools. The superintendent must have the courage to grapple with this question. When we investigate individual cases we find that the chief cause of the retardation that cripples the efficiency of our schools is not poor health, poor teaching, or congenital dulness. It is irregular attendance.

The eighth problem is the selection of teachers. Even if the members of the board will keep their hands off and will employ no one unless recommended by the superintendent, and will further refrain from suggesting good candidates to the superintendent, there is still the pressure from church and politician, and all sorts of interested friends. In the absence of this pressure, there are the further facts that there is not in the country today a sufficient supply of competent teachers, and that no reliable method has yet been found for distinguishing the competent from the incompetent in advance of actual service.

The ninth problem is the organization of a supervisory and office force that shall, like the nerves and brain in the human body, collect and register needful intelligence of the working of every part of the educational body and shall stimulate and energize every languid organ.

The tenth problem, most important in many respects, and unique in that all school boards are here willing to give the superintendent free rein, is the problem of improving teachers in service.

Poor teaching is to be found in every system. Without undertaking to enumerate all its varieties, it may be said generally that teachers talk too much, that their teaching consists too largely of the assignment and hearing of lessons, that they question so as to cause the child to remember rather than to cause him to think. They do not know how to conduct drills effectively. They give little thought to the function of each branch of study, and to the educational values to be derived from it.

The superintendent may, by friendly visits and private consultation, do much to correct particular faults. He may, thru teachers' meetings and institutes and the discussion of model lessons, point the way to the correction of common errors. He may organize a reading circle for the reading of professional books; he may arrange for his teachers to visit other schools, provided they have previously discussed the points to be observed and go equipped with a sort of formula of observation.

But all of these are more or less unsatisfactory for the reason that they do not develop in the teacher a permanent and comprehensive plan for professional improvement nor supply a sustaining motive. We are all social beings and crave direct social recognition for our efforts. Few of us will pursue a systematic course of study unless in school with the comradeship and rivalry of other students and the recognition afforded by grades, credits, and diplomas.

The summer schools at the state normal schools and other institutions in which the regular courses are taught are today the most effective agency for the professional growth of teachers. Six thousand Missouri teachers, five thousand in Illinois and in Iowa, and proportionate numbers in other states are now in the summer schools. When to this we shall add extension courses during the winter months, conducted from the normal schools and receiving due credit, teachers will be stimulated

to better work by their new insights and by the constant suggestion of more rational procedure.

It has been said in this Council that five years of experience marks the summit of the teacher's power, that after that period the losses thru the hardening of routine, the loss of freshness and enthusiasm, more than balance the gains from added maturity and knowledge. To avoid the deadening effects of routine the teacher must continue a learner; the school or university with its opportunity, its guidance, its companionship, its stimulation may be almost as effective in the professional growth of teachers as in the elementary education of childhood.

There are still other problems for the modern city superintendent—the problem of keeping in touch with the individual pupil, the problem of the wider use of the school plant for civic and social and educational purposes, and still others that may occur to you; yet I believe that all or most of these may be fairly included under the ten heads already discussed.

PRESIDENT'S ADDRESS

ROBERT J. ALEY, PRESIDENT, UNIVERSITY OF MAINE, ORONO, ME.

I take this, my first opportunity, to thank the members of the Council for the very great honor conferred upon me in choosing me as the presiding officer. One year ago when I was elected, I was elated with the honor, now I realize it is a position of service, calling for very hard work. I shall not shirk the work, but will try to measure up to the responsibilities and duties of the position. During the past year I have had the very generous support of the members of the Council. I feel sure of like support in the future.

It has been the custom of the Council to require its president to deliver a brief address at the first annual meeting of his term of office. It is because of that custom that I appear upon the program at this time.

The Council has a number of important committees at work upon subjects of educational importance. The Committee on Rural Schools has made preliminary reports, is still at work, and will present to the Council at some later meeting the results of its study. We are encouraged to believe that this committee will give to the public a report of inestimable value. The Committee on Health Problems is making commendable progress. This committee already has the support and co-operation of the American Medical Association. It now seems very probable that many state and city boards of health will also help in investigations and publicity campaigns. Already a number of special reports have been issued by the committee. Other reports of far-reaching importance are in process of preparation. The Committee on Economy of Time, with allied committees of other organizations, has done some important foundation work. At this meeting of the Council discussions of the published reports will occur.

It is hoped that upon the splendid foundation already laid we may be able to build a definite structure of value. Saving of time and the better using of time are topics of perpetual interest.

In this present age of great activity in educational work, it is dangerous to select topics and predict their value to the future. However, it is necessary that selections and predictions be made or progress will cease. In the hope that this body may continue to lead in educational work, I desire to suggest certain problems.

It seems to be rather generally believed by the colleges of the country that the young men and women who enter from the secondary schools do so without sufficient definiteness of purpose, and also without the ability to hold themselves continuously to assigned tasks. To state it another way, the indictment of the college against the secondary school is that the latter, in its response to modern demands, allows the student to spread his energy over so many subjects that he fails to learn how to concentrate his mind upon anything. The secondary school will not go back to the old curriculum that was once so satisfactory to the college; namely, the study of Latin, Greek, and mathematics. The enlarged secondary curriculum is with us as a permanent possession. It is not yet doing for the boys and girls what it ought to do. The problem worthy of our best effort is how the modern secondary school can give to its pupils more definiteness of purpose and greater power of concentration.

An almost fundamental difficulty in all governmental and administrative affairs is the credulity of the people dealt with. Careful and competent European critics regard American credulity as one of our great weaknesses. It is possible, however, that we are no greater sinners in this respect than the people of other nations. However that may be, it is certainly true that many of our troubles, whether in the little neighborhood, the school, the church, the municipality, the state, or the nation, are traceable to our willingness to believe, without proper evidence, practically everything we hear. The school from the nature and age of those coming under its influence is in a better position than any other institution to destroy credulity and replace it by faith based upon real evidence. This has not been generally done. Here and there a school succeeds in impressing upon its students the need of knowledge as a precedent to judgment and action. The great majority of people, however, decide and act long before they have any adequate basis for doing either. Many troubles besides those of business are psychological. No good method has yet been devised to counteract this almost universal tendency to believe without evidence. The determination of principles and methods that could be used in reducing credulity is a worthy job for the best among us.

It is realized by all thinking men that progress in the sciences and arts, in government, in morals, even in civilization itself, rests upon obedience to fundamental laws. The very generosity of nature in our country has

made us careless in searching for law and certainly very careless in our obedience to law. In a most improvident way we have used and are using our natural resources without regard to the ultimate effect upon our future. The principles of democracy have been taught so carelessly that as a people we are lawless. If we are to continue as a free people and are to meet our physical necessities, it is quite evident that we can do so only if we come to know fundamental laws better and form the habit of obedience to them. A great problem in agriculture today is the problem of finding out the law of plant and soil, but the greatest problem is to induce those engaged in agriculture to have faith enough in the law when found to apply it in actual practice. What is true in agriculture is true in every other industry, altho in many other industries the conservatism of those engaged is not so marked. That there are fundamental laws that ought to guide in government, behavior, social relations, and civilization is believed by our best students of these subjects. It would be of very great value to us as a people if we could know these laws, have them taught in the schools, and fix in the youth the habit of obeying them. How to create a faith in law is a problem that must be solved, or the rate of progress will be retarded.

The school as an institution can do more than any other to prevent distorted vision and to give good perspective. Nothing is more destructive of good than the inability to see things in their right proportions. Our courts of justice are kept busy annulling laws that have been placed upon our statute books without any regard to their proper relation to other laws or to fundamental principles of right. Business enterprises fail because those directing them have not adjusted them properly to other things. This principle is true everywhere. Life at its best is a process of adjustment so that all its activities may occur in right proportions. The wrecked theories with which educational history is strewn are signs that these theories were advanced by men who failed to see clearly. The National Council of Education ought to stand, and I know will stand, for a proper evaluation of all educational matter, and will work to bring the whole into proper relations.

I have tried to present the following problems:

1. How may the secondary school give more definiteness of purpose and train for greater concentration?
2. How may credulity be reduced?
3. How may faith in law be increased?
4. How may individual perspective be improved?

HISTORY AND ACHIEVEMENT OF THE NATIONAL COUNCIL OF EDUCATION

JAMES M. GREENWOOD, ADVISORY SUPERINTENDENT OF SCHOOLS, KANSAS CITY, MO.

In a paper limited to three thousand words, my remarks will be restricted to two phases of the Council's work: (*a*) a short sketch of its history; (*b*) its spirit or inner life. A complete history of its proceedings would make a volume of more than a thousand pages.

I. THE HISTORY

It was said of Diderot by one of his contemporaries that he always had ideas fermenting in his busy brain, but none hatched. This remark is not applicable to the man who, thirty-five years ago, wrote and printed an editorial in the columns of the *National Journal of Education*, in the issue of July 24, 1879, suggesting the organization of a National Council of Education in this country. Thomas W. Bicknell in this article set forth various reasons for the formation of such an educational congress in which he outlined a rough draft of a constitution of such a representative body, holding annual or biennial meetings, at which should be discussed questions involving the principles and philosophy of education, and sustaining advisory relations to state and national systems of education.

In subsequent issues of the *Journal*, editorials appeared setting forth more fully the scope of the proposed council and soliciting the opinions of American educators. Articles also appeared from distinguished correspondents in different sections of the country, indorsing the movement and offering suggestions as to the plan, scope, and relation of the different fields of education and methods of organization. During the following autumn, several state associations adopted resolutions urging the establishment of such a Council. The movement was ably indorsed by many leading educators in all parts of the country, including such notable men as William T. Harris, of St. Louis; Emerson E. White, of Ohio; William T. Phelps, of Minnesota; Samuel Eliot, of Boston; John Hancock and A. J. Rickoff, of Ohio; William E. Sheldon, of Boston; B. G. Northrop, of Connecticut; James P. Wickersham, of Pennsylvania, and many others.

Such a deep and widespread interest had been awakened in the subject that Mr. Bicknell was invited to read a paper before the superintendent's section of the National Education Association to be held in Washington, D.C., February, 1880. The *Proceedings* of the meeting state that the paper read by Mr. Bicknell was not furnished for publication. In the expectation that the paper would be available, no notes were taken at the time. The writer of this paper, however, defined and explained what he understood by a National Council of Education and suggested reasons for its organization. He did not go much into details, nor commit himself

as to the number or qualifications of members; how they should be chosen and by whom; compensation for their services, and if so, how much, or by whom paid; or whether their acts should be regarded as advisory or mandatory; or what should be the exact scope of their powers and duties. But he argued in a general way in favor of establishing some national authority to which the great body of educators might appeal as a court of last resort—a body competent to formulate principles and courses of study, and to give safe counsel. This paper closed with a resolution intended to draw out an expression of opinion from the department as to the advisability of constituting such an advisory body.

At the conclusion of Mr. Bicknell's address, Superintendent H. S. Tarbell, of Indianapolis, moved as an amendment that the Department of Superintendence be charged with the duties of the proposed Council. Following this a lengthy and interesting discussion took place in which several gentlemen participated.

The object of the National Council of Education is better set forth in the "Preamble to the Constitution" than in any other published statement; it is thus expressed:

> The National Council shall have for its object the consideration and discussion educational questions of general interest and public importance, and the presentation, thru printed reports, of the substance of discussions and the conclusions formulated. It shall be its object to reach and disseminate correct thinking on educational questions; and for this purpose it shall be the aim of the council, in conducting its discussions, to define and state with accuracy the different views and theories on the subject under consideration, and, secondly, to discover and represent fairly the grounds and reasons for each theory or view, so far as to show, as completely as possible, the genesis of opinion on the subject. It shall be the duty of the council, in pursuance of this object, to encourage from all its members the most careful statement of differences in opinion, together with the completest statement of grounds for the same. It shall further require from the chairmen of its committees the careful preservation and presentation of the individual differences of opinion, whenever grounds have been furnished for the same by members of the committees. It shall invite the freest discussion of the reports of its committees, and whenever such reports are not so amended as to embody the new suggestions developed by such discussion, any member making such suggestions or objections may put in writing his view and the grounds therefor, and furnish the same to the secretary for the records of the Council. It shall prepare, thru its president, with the aid of the chairman of the several committees, an annual report to the National Association setting forth the questions considered by the Council during the previous year, and placing before the Association, in succinct form, the work accomplished. It shall embody in this report a survey of those educational topics which seem to call for any action on the part of the Association. The Council shall appoint, out of its own number, committees representing the several departments of education, and thereby facilitate the exchange of opinion among its members on such special topics as demand the attention of the profession or of the public.

The membership was soon increased from fifty-one to sixty members, and at the Cleveland meeting in 1908, thru an amendment formally introduced by Superintendent Carroll G. Pearse, it was increased to one hundred and twenty members, the method of electing members remaining unchanged.

It was never the intention of those who organized the Council that it should become a large public body, but that it should consist of a limited number of earnest men and women interested in the consideration and investigation of the most fundamental questions in education, and who would conduct research work either individually or thru special committees, and report the same to the Council.

From the organization of the Council in 1880, there was virtually a cessation of effort until the meeting of the National Education Association held at Saratoga in July, 1882, when Thomas W. Bicknell submitted a paper on the National Council of Education in which he reviewed the steps leading up to the organization and the opinions of those who had participated in the discussion of the subject at the Washington meeting in February, 1880. It does not appear that this contribution elicited any discussion. No report was made in 1883, but at the Madison meeting in 1884 the Council had an elaborate program. At this session twelve standing committees were appointed, each committee having a special department of educational work assigned which would provide for careful investigations and reports on all phases of education. Nine of these standing committees were composed of five members each and three of three members each. From this date to the present time, full reports may be found in the volumes of the *Proceedings* of the National Education Association.

II. THE SPIRIT OR INNER LIFE

There have been but few conventions in this country governed by the same singleness of spirit as the National Council. The first one was when the delegates from the different states in 1787 met to amend the Articles of Confederation, but instead framed a new Constitution for the United States. During the secret deliberations of that convention, copious notes were made from day to day by different members, which have since been published, and from these individual opinions we have, instead of a colorless constitution, the innermost thoughts of the men who framed that instrument, and from the various opinions expressed in the *Madison Papers* and other notes we are much better prepared, not only to understand, but to interpret, the palladium of our liberties. In a certain sense, this is true of the proceedings of the National Council. For years sessions were conducted in a small room. When the chairman of a committee submitted a report, a printed abstract containing all essential points was handed to each member and frequently to visitors. The chairman took his seat near the presiding officer, and the members questioned him on the thesis submitted, which he defended or it was defended by members of the committee. One member was selected to report the discussion, and at the next session the report of the discussion was read, which became a part of the printed proceedings. The opinions expressed by this body of educated men and women for the past thirty-four years constitute the most valuable contribu-

tion to educational literature that our country has yet produced. The membership of the Council of that period boasts the names of men and women of very high scholarly and practical attainments, corresponding somewhat to the membership of the Institute of France, but a more open corporation. The National Council has centered its energies not so much on the development of great departments of learning, but more particularly on those subjects connected with the leading questions of the theory and practice of instruction, based on the safest philosophy drawn from the laws of nature and of mind, and confirmed by the experiences of the leading nations of the world. Particular emphasis has been placed on the physical, intellectual, and moral welfare of children and much wisdom displayed in working out a sound financial system of collecting and disbursing public revenue for physical equipment and sound instruction.

It was never the intention to formulate programs to be followed blindly, as decretals issued by some superior authority, but to present opinions leading to broad generalizations. Two essential ideas entered at the beginning of the organization, tho not definitely stated, that have exerted a controlling influence—perhaps the most elegant and most authoritative known, and possessing a validity that gives more than the binding force of law properly expressed under the words—"urbanity and exactitude." Yet no member has ever asserted that he came forward, however strong his thesis, with the gift of prophecy which none dare dispute. It cannot be affirmed in the years past that there has been a sudden or brilliant outburst of educational genius bubbling up from this body and startling the educational world for a season, but much solid and enduring work has been done in maturing wholesome thought, destined to shape the welfare of our national life. It has not been the home of any particular school or philosophical system, but it has opened its doors wide to men and women of talent from every school of thought, doctrine, or method. It has commanded the most brilliant, most polished, and the keenest pens and tongues in the profession, but at no time have these been employed for ignoble purposes. The decorum in debate has not been surpassed even in the Senate of the United States. The men and women were keenly sensitive to the elevated character of the work in which they were the recognized participants, in an age of great intellectual alertness which touched all angles of society. They toiled unremittingly in the work intrusted to their guardianship, believing that a more general diffusion of sound educational ideas among the teachers of the country would form a philosophic basis for legislative enactments, and a well-modulated system of practice for the preservation of our institutions. They felt themselves to be not only the torch-bearers, but the illuminators of the science of human development for our type of western civilization. These men and women stood as the very highest expression of the soul of honor and professional courtesy and detested every species of trickery and self-seeking notoriety. They believed in the endless progress of the human

race, yet fully recognizing the material and mechanical tendencies of the times. They placed the achievements of the spirit in the domain of scientific discovery and invention next to those lofty heights attained by liberally trained minds. They stood on the loftiest eminence and viewed the oncoming generations of this country with all that solicitude that the mother feels for her child as it goes forth on the journey of life. The character of work done by these supreme master-builders and the solidity of the structure upon which it rests, whether in the fields of original educational research, on philosophic grounds, scientific utility, classic beauties, profound study of the great institutions underlying our civilization, or in the departments of finance and administration, are well known. They placed for our instruction and stimulation some of the grandest life-ideals ever conceived by the human mind. Herein lies the superiority of that noble band of men and women who organized the Council and shaped its policies for a third of a century. They worked for the cause of humanity, with no sense of pecuniary remuneration, but from the pure love that comes to those who have tasted the pleasure of laborious study in the service of mankind.

It is not claimed that the Council represented all the different phases of talent embodied in the nation, but it represented, and still represents, the sanest and safest educational thought in the American nation of the past and present age. The members have always been selected on account of their achievements along certain lines, or because of their general grasp of the entire educational situation, thus setting a public example of distinguished devotion to a great cause on account of special fitness.

As I call up from memory's chamber the earnest faces of that generation of men and women who once sat in this organization and shaped its policies, and as I have gone over their contributions to the educational literature of our common country, I regard this vast storehouse of knowledge and wisdom as one of the most precious inheritances that can be found in any language. For the encouragement of sound learning, based on a broad and self-sustaining culture, reinforced by a keen practical insight into human motives and experiences as they have been developed under different forms of government and permeated by the highest conceptions of duty, no other similar group of men and women in America have wielded a deeper or more lasting influence in molding educational thinking for the highest ends of intellectual and spiritual development. The noble simplicity of this group was their crowning glory. They represented pre-eminently the power of deeds and the power of thoughts, and as torch-bearers they have passed on to others a mightier domain of real achievements in all the spheres of philosophy, ethics, culture, and the duties of practical and political life, a higher code of living for all conditions of society, than had ever been done before or imitated since. Thru them we stand linked to a past that we wish not to change. Their splendid powers we appreciate. Their purity of

motives we revere, and the great lesson—devotion to duty, in a materialistic and mechanical age—may become shattered and displaced, yet one of the brightest and cleanest pages in American history is that of the achievements and aims of the founders of the National Council of Education. The thoughts of these circle about us as the gentle breezes of springtime. Their influence hovers over us as the steady light that comes to us from the fixed stars in the firmament. Calmly and serenely these devoted men and women performed a perpetual service to the consecrated ideas of their lives. Their object was the exaltation of humanity thru the spirit.

SOME POSITIVE EDUCATIONAL GAINS IN THE LAST DECADE

JOHN W. COOK, PRESIDENT, STATE NORMAL SCHOOL, DEKALB, ILL.

In what I say I shall submit little of statistical information. Such information, and from reliable sources, underlies every statement, however, and may be taken for granted.

The dominant keynote of the time is "conservation." The public mind is awakening to the folly of the deplorable waste that has characterized so much of our American life. But the lesson that our industrial enterprises have learned in the hard school of competition is beginning to approve itself to the public mind in the management of national, state, and community affairs. The idea of following effort and investment to their outcome and of estimating results in the light of their cost has been very slow to find its way into the schools. But the movement is on and the economic specialist is beginning to scrutinize our educational machinery. In consequence there are some positive educational gains and their achievement is within the last decade for the main part.

1. There is a disposition to obtain a just estimate of the value of the education which our children are receiving as measured in terms of life efficiency. Thus far the results that have appeared in the inventory are unsatisfactory. There is an impression in many minds, amounting to a conviction, that the enterprise as a whole is not well managed and that, in the language of the street, we are losing money. To succeed in the arousing of a sensible critical attitude is a positive gain.

2. There is a clear and positive educational gain in the deepening conviction that the public welfare is tied up by an irresistible logic with the outcome of the schools.

3. An opinion is slowly but surely gaining ground in the minds of men of affairs that, as we are to compete in the modern struggle for a good rank among the nations that have strong central governments instead of confederacies of states, we can no longer afford to rely entirely upon local initiative, local enterprise, local willingness for taxation. We must have larger resources, greater unity of plan, vastly increased intelligence in a

specialized leadership, a far wider scope for the school, and a national interest and national aid.

4. Men are recognizing it as an exhibition of exalted patriotism to establish great foundations where the highest order of talent and scholarship may devote itself to the solution of educational problems. More and more members of the national Congress are giving themselves to a study of the educational situation and are projecting legislation that, if wisely worked out, will have the most far-reaching results. It is a safe prophecy that within a few years Congress will co-operate with the states in providing a specific system of instruction that will greatly modify existing systems of agriculture and others of the industrial arts. The wealth of the nation is to be immensely increased thru the assistance of the school.

5. What I have attempted to say in this series of propositions may be summed up in the statement that the principle of conservation is being extended to the supreme resources of a people—the potential possibilities that lie in undeveloped human capacity.

Now that education is coming to be regarded as the main reliance of our civilization, we are beginning to look at it as a business proposition and are, therefore, taking account of stock. We are to be greatly disillusioned within the near future as to our boasted superiority in educational affairs. To be more specific:

1. The schools will not educate the children of the people unless the children of the people attend them. It was long ago demonstrated that reliance could not safely be placed upon the parent for securing the daily attendance of the child. Compulsory attendance laws seemed to conflict with the genius of our democratic institutions. Doubtfully and timidly legislation felt its way in the matter. Slowly but surely public opinion has dropped into line and the principle is firmly established as a practical working proposition. Within recent years the age limit has been raised, additional states have enacted compulsory laws, and, with the exception of a few of the southern states, the country presents a solid front in the requirement that the children must meet the school long enough and continuously enough to acquire the rudiments of an English education. The child labor laws have reinforced the compulsory attendance laws by raising the age of employment, and, at the same time, at least in some of the states, conditioning the employment of children upon their educational qualifications.

2. Not satisfied with the education of the normal child, our humanitarian impulses interest us deeply in the attempt to ameliorate the condition of defectives, so far as they are capable of improvement. Is it another exhibition of the operation of the principle of conservation that we are endeavoring to save from the human scrap-heap even the vestige of possible intelligence that may be acquired by those to whom has been denied the priceless boon of reason?

3. Of a piece with this movement is the resolute effort to contrive some method of keeping the stragglers along with the main column. There is a positive educational gain in the investigation of the causes of the marked falling out of line exhibited in many communities and in the earnest endeavor to reduce it to a minimum.

4. Allied to this endeavor is the remarkable growth in the effort to conserve the physical health of the young by expert medical examinations, to put the environing conditions into conformity with the last word that scientific sanitation has to say, and to scrutinize with untiring zeal the condition of every child as he moves thru the successive grades of the public school.

5. In no other field has there been so great advance as in the vocational training movement. We have been slow to attempt to fit the young for specific callings in the public school. The prepossession of our engaging theory of individualism has stood in the way. There is not one of us whose hair is touched with white who cannot remember how diligently we argued for manual training from the disciplinary point of view or from the doctrine of interest or from the attitude of the sense realist. But now we are stepping on far and fast and we are no longer afraid. We are practically accepting Spencer's theory of the unity of the practical and the liberal.

There is slight space for detail, yet I must be permitted to dwell for a moment upon one of the most significant of these positive gains. As life begins in the home and takes its coloring from the home in the early years of childhood, so it remains in the home as its permanent abiding-place. The young leave the homes of their parents only to re-enter homes of their own. That the new home is to be the product of scientific skill superadded to all the promptings of affection is one of the most inspiring of modern achievements. The elevation of the household drudge into the trained specialist whose work aligns her with the chemist in his laboratory, with the physician in his rounds of mercy, with all of the ministers of health, with the frugal conservers of resources, in brief, with all of those scientific workers of the time whose office is the promotion of human welfare is enough to signalize an age.

Akin to this positive educational gain is the growth in agricultural education. The land area is definitely limited. Population steadily increases. When the arable land finally is occupied, the increase in production will be in proportion to the increase in fertility of the existing soils. To conserve the producing energy of the land and thus to create a permanent agriculture is a primary duty. The statistics indicate a quadrupling of students of agriculture within the last ten years. This new and fundamental science is not only one of the most utilitarian in its sweep, but, because of the variety of interests involved and the number of contributing sciences, it is also one of the most valuable and cultural. Who will venture to make any predictions respecting its richer development within the next ten years? Let

instruction in this subject typify the similar widening of the curriculum in other vocational subjects.

Any discussion of the vocational trend of the school would be imperfect if it neglected to consider the efforts at vocational guidance. The idea is old but the effort to systematize this guiding influence so that it may proceed far more wisely and thus more efficiently is new. The establishing of the Boston Vocation Bureau in 1909 is an additional evidence of the solicitude that society experiences respecting the welfare of the young. The advance of teachers as to the selection of occupations should be of material help. As a preparation for giving such advice, a careful survey of the situation was made in New York City. It was very illuminating and emphasized the idea that actual knowledge of conditions is immensely better than any amount of theory based upon mere opinion. It further developed the fact that it is not so much vocational guidance as vocational training that is most needed. A positive gain, however, lies in the extension of the assistance that social organizations are undertaking in the welfare of the child after he leaves the school. He must not be lost sight of, society is beginning to say, until he is established upon a self-supporting basis. He is entitled to the advice and protection of agencies maintained by public taxation, where parental assistance is lacking, until that duty has been discharged.

In the same spirit the continuation school is being extended in its scope. The evening school is an old friend. It began its beneficent work more than a generation ago. But the modern continuation school does not limit its function to evening schools. The plan of interrupting daily work by school attendance instead of trying to teach pupils wearied with toil is a radically different proposition. The curious will find the subject exhaustively discussed in Arthur J. Jones's *Bulletin No. 1* prepared for the Bureau of Education in 1907.

Another positive educational gain on the same line is the interest which the railroads have manifested in the further education of men in their employ. *Bulletin No. 10*, 1909, by J. Shirley Eaton, gives a comprehensive presentation of what has been done.

The significant growth of the public high school is a matter of such obvious importance as to demand attention. The secondary school, as it appears in America in the public high school, has certain characteristics that give it a peculiar individuality. It has been called "the peoples' college" and it richly merits the designation. It has had its struggle for existence but its day of triumph is at hand. It is one of the richest manifestations of the progressive democratizing of education. It is free; it furnishes an education quite as liberal as that afforded by the early colleges; it is sensitive to the needs of the people and answers to its environment; it is especially open to the invasion of the modern scientific idea; it is escaping from the bondage of university control and is developing a life of its own; the

university is increasingly inclined to acknowledge its autonomy and to consent to an equating of values; it is also increasingly popular, as is indicated especially by the growth of the township high school in several of the western states, where a large unit of taxation thereby becomes possible and where rural communities are able to avail themselves of superior educational facilities.

It is an old saying that "as the teacher so is the school." As we must look at last for positive educational gains into the classrooms where the actual work of instruction is going on, so the critical question now must be, "What of the growth of a professional teaching class?"

It is clearly manifest that the normal school has made its case. On every hand there is abundant evidence that the unprepared candidate for teaching is rapidly going to the rear. This is demonstrated by the marked increase in the number of state normal schools, by the large additions to appropriations for their support, by a most gratifying gain in the character of their buildings and equipment, by the increased salaries paid their teachers, and especially by the higher qualifications required for admission. Equally convincing are the great popularity of teachers' colleges, the growth of county normal schools, and the utilization of the high school for pedagogical ends. The latter movement is not for the purpose of substituting an inferior preparation for that which the normal school can give, but to popularize still more generously the idea of trained teachers and to start young people who desire to become teachers on the road to adequate preparation. To this are to be added the fuller recognition of normal schools in the granting of certificates on the part of certain of the states that have been sad laggards in this respect and the addition of professional requirements as a prerequisite for teaching. The fight has been prolonged thru wearying years in some parts of the country and has but recently come to a triumphant conclusion.

Another and most significant advance in the recognition of a permanent teaching class is the development of the teachers' pension. At the beginning of the present century there was no provision in this country that was backed by state appropriations. Certain enterprising localities had secured the passage of laws enabling teachers to provide pensions by voluntary contributions thru a long period of time. The movement is at last on foot to substitute for this clumsy method the providing of a fund by public taxation. The people are becoming familiar with an idea that met with the most resolute opposition when first proposed. State systems of pensions are on the way. Their coming is but a matter of time.

The most brilliant of educational gains in the history of education has been realized since the beginning of the present century. The disposition of the rich to put their wealth at work in the accumulation of useful knowledge and in the advancement in other ways of educational interests marks an epoch in the history of mankind. The story of recent foundations and

funds sounds like a story out of *The Arabian Nights*. The Carnegie Institution of Washington with its twenty-two-million-dollar endowment; the Carnegie Foundation for the Advancement of Teaching with its fifteen-million-dollar endowment; the General Education Board with its fifty millions and more; the Russell Sage Foundation with its comfortable ten millions; the Anna T. Jeanes gift for the improvement of rural schools for negroes, with its million-dollar fund; the numerous other gifts from generous givers to promote the usefulness of existing institutions—all combined aggregating in the first decade of the century more than two hundred millions of dollars—unite to proclaim the advent of the "age of gold" in educational equipment. The imagination is bewildered in its efforts to picture the gain to mankind by this outpouring of donations. They have made a new profession possible, the profession of boundless research. They have advanced by decades and perhaps by centuries vast movements whose sole purpose is the uplift of the masses of mankind. They have set in motion stimulating and achieving enterprises that will change the complexion and spirit of civilization. Add to them such promotional agencies as the Cecil Rhodes scholarships and the age exhibits a scene of intellectual activity unanticipated by the vision of the most enthusiastic seer.

I submit, in addition to the foregoing, the following condensed statements of educational progress. As would be expected, the most notable changes have taken place in that part of the country where education has had its most difficult problems. Within ten years the following progress has taken place in the South:

1. The length of the school term has increased about a month.
2. The number of high schools has more than doubled.
3. The number of high-school teachers has increased about 150 per cent.
4. The number of students in the high schools has increased by nearly the same percentage.

These are matters in which there will be no falling-off.

There has been a notable gain in the education of the Negro, the lead established by Booker T. Washington being increasingly followed.

Education among the disappearing wards of the nation has also taken forward steps, the most notable being the movement to merge the Indian schools into the state school systems, the organized effort to follow the pupils after they have left the schools in order to prevent their relapse into tribal conditions, and such practical conservation of health conditions as will protect them in a far greater degree than ever before from the destructive effects of those diseases to which they are most sensitive. The task of improving sanitary conditions among them and of advancing in all possible ways their physical welfare is demanded by all considerations of humanity and is making those positive gains which warrant its mention here.

Great improvement has come to rural schools by a system of standardization which has greatly stimulated communities to adopt modern

systems of heating and ventilation, to seek expert advice in the construction of buildings, to decorate interiors, to care for school grounds, to provide school gardens, and to employ superior teachers. Nothing else, however, compares in effectiveness for the advancement of rural education with the consolidated school, which has made notable gains within recent years.

May we not count among the most promising of modern movements the thorogoing surveys that are now in progress? The New York City experiment was an epoch-making event, whatever partisans may think as to its outcome. The Ohio volume showing the results of the commission's investigations is a notable addition to educational literature, as are the reports of similar commissions elsewhere. At last we are really to know what is going on in the schools, as seen by those who are appointed to conduct the investigations. Opinion is to give way to actual knowledge.

Altho I have pressed hard upon the space limits allotted me, if I have not already surpassed them, I must be permitted to raise one pertinent question: "Is the moral tone of the nation advancing with the increasing intellectual and vocational capacity of our people?" Life is greatly heightening its speed. The automobile is not an unfit type of modern living in its multiform aspects. Are those of us who plead for a slower pace, for a return to something of old-fashioned frugality, for a conscience in all matters public and private, for a lessened regard for wealth and an increased regard for simple living and good repute—are we only pathetic survivals of an age that is gone never to return? May we not hope that in the scientific surveys that are now having their day in the public eye we shall find an encouraging answer to my question as to the tendency of the age?

TOPIC: HARMONIZING VOCATIONAL AND CULTURAL EDUCATION

I. JOSEPHINE C. PRESTON, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, OLYMPIA, WASH.

The twentieth century is demanding a new ideal in education. It is setting forth the new ideal as equal opportunity for each and every child in our land. A grave responsibility is resting upon us as a nation to show that ethically democracy is not an idle dream. The twentieth century finds our great American people realizing that the public school is the hope of progress. A feeling of confidence is manifested in the possibilities of the wider use of the school plant to the extent that laymen are looking to it to cure all of the social, industrial, intellectual, and physical ills. The leading students of political, social, educational, economical, and other public problems are alive to the tremendous importance of the undeveloped resources in the wider uses of the public-school plant. Intelligent social adjustment cannot exist without social knowledge.

In the transition that has been taking place in our constantly modified courses of study, we have been forced to listen to criticism of each change. The conservative element, otherwise known as earnest advocates of so-called cultural education, decry the encroachment of the practical upon the cultural. They urge that twentieth-century education fails to discipline, to train the faculties, to give accuracy, power of judgment, and reason. We give a smattering of everything, a thoro mastery of nothing. The doctrine of formal discipline or of general mental training still offers chief support to these critics in their claim for supreme value of classical and mathematical studies. The well-trained, cultured, thoroly capable product of the old-time school often, in fact too many times, judges others by himself and concludes because others fail to measure up to the ideals of the old classical school that present-day education is failing. He sees no other way to educate the citizen and takes no lesson from the fact that thousands of our boys and girls in every part of the United States are dropping out of school annually at the compulsory age limit and others after the eighth grade or during the first years of high-school work. The conservatives claim that their ideal in education is the only way to develop the whole man—the model citizen.

On the other hand the business and industrial world claims that our schools do not connect with life, that they educate away from the farm, the shop, the trades, thus leading to an overcrowding of the learned professions and causing the ranks of our workmen to be filled with the ignorant and the untrained. The progressive educators urge (in their effort to give a vocational coloring to our school work) that "vocational education is an educational problem of large social and economic importance." Education if effectively solved will add enormously to the economic productiveness of a community; it will add greatly to the number of independent, self-supporting families; it will add to the average income of the wage-earner and wage-worker; it will add to the number of exchangeable commodities in the community as a whole. It will tend directly to the enrichment of the life of the individual and to the enrichment of the life of the community; not only in a moral and social and political sense, all of which are highly desirable, but, also, in a material, monetary sense, which is not in this case by any means to be despised. These earnest advocates of vocational guidance and vocational education point out the small number graduating from our high schools and the large number of untrained who join the army of the working class each year. They say that the old-time classical school has not met the needs of the large majority of the boys and girls who are leaving our schools long before they should.

We are here this morning facing the facts in the case, having fully awakened to the force of the criticism from both the progressives and the conservatives. Many of us value highly the old-time scholarly product of the classical school, who stood apart as a superior because he knew books

even tho he may have known nothing of men and of life. We value the trained type of mind of the so-called cultural school. But America stands for equal opportunity. We are not providing equal opportunity when we provide an education which attracts or is possible to only the 28 per cent and leaves the 72 per cent with nothing. We do not desire to take away from the 28 per cent the classical education which they want, but we do need to give the 72 per cent the education and training which will fit them for life and its work.

The twentieth century is demanding that we develop individuality and efficiency, not in the few but in the many—that we develop thinkers, citizens who can adjust and adapt and apply themselves to conditions as they exist. The success of the twentieth-century education will lie in the strength of the intelligent purpose it develops in the boy and the girl to do the work of the world efficiently. We want to take our young people in our respective states and guide them in learning life in an effective way by making use of their talents, tastes, desires, and needs in order that, when finally they leave the structure provided for their education and training, they shall be able to take their places in the world's work as citizens and to perform their parts in a way that is economically worth while.

Vocational education must be so conducted as to contribute to the making of the citizen as well as to the making of the worker. Vocational education is not in conflict with liberal education but is a supplement to it, and may be expected to reinforce it. The social studies, history, economics, and civics, are the best links of cultural and vocational education. All students in the schools must become citizens no matter what their occupation may be, and the supplying of definite training in citizenship focuses the attention of students upon the common life which they must lead in the state. If in addition to the so-called cultural education of the few we educate the many, thru vocational education, we have given to the world an educated and efficient citizenship and we have produced harmony because each will have been guided to his place or work in our Maker's great plan of life.

Many of our present sticklers for culture would be too cultured to take the stand they do if they understood the original meaning. Originally culture was the ability to get the most selfish enjoyment out of leisure. True culture is coming to mean the ability to enjoy good literature, to sympathetically take part in real life, and to know the past's best achievements. Vocational work is cultural then, because:

1. It gives the pupils a purpose early in life. This purpose has an organizing, systematizing power over the mind, which makes up for mental strength, discipline, or culture. Even tho the child prepares for farming and later decides he has a call to preach or wants to become a lawyer, he will have a mental vigor that will pull him upward more effectively than if he had been drifting or mentally loafing his high-school and college days away.

2. Putting the vocational question up to the child early leads him to serious thought regarding his gifts and his desires. Self-knowledge is one of the poet's three requisites for a life of sovereign power.

3. The mind is clearest and most vigorous after periods of purposeful physical labor. Therefore, pupils will grasp ideas from books and lectures and retain them with better mental appetite if they spend part of their time in vocational work.

4. Mixing vocational and informational work creates greater respect for each. Hence, the shop-worker will not feel that he must throw books aside as not for him just because he has chosen a life work of manual labor. Therefore, he will grow in culture and influence all his life. For if the hands are skilled, the heart is trained; and if the heart is right, there is no limit to the possibilities for public service in the individual.

5. Much of the world's best accomplishments has been for practical utility. No one has so accurate a knowledge of a piece of real work as one who has tried it for himself. Hence the practical work of life may furnish some of the most essential elements of true culture.

We are not responding to the call of the twentieth century unless we educate all of the children of all of the people in citizenship and character.

II. HOMER H. SEERLEY, PRESIDENT, IOWA STATE TEACHERS COLLEGE, CEDAR FALLS, IOWA

What should constitute an effective, well-balanced education for an American citizen is a proper question for discussion in such a constructive educational organization as this Council. Naturally, there must be much difference of opinion among those interested in such a problem because there has been much difference in training and in experience of the persons who confer, and hence there must be much difference in the kind of judgment possessed and in the definite conclusions reached.

The alleged conflict between so-called vocational and so-called cultural education should be considered more one of adjustment and of interpretation than one of controversy and debate. Much of the supposed contention that is inferred is more imaginary in character than real in substance; it is a struggle more for the recognition of greater ideals and more remarkable accomplishments than for supremacy of authority in management or in control. Every generation must seek to improve and to perfect the education of the youth of its time, in accordance with the actual needs and with the existing standards recognized, because, as civilization advances and expands, education and training must be modified and reorganized. The harmonizing of the different schools of thought that have held sway in the history of civilization and the adoption of the more permanent contributions that they have all made to the education and to the training of mankind for efficiency, adaptability, and happiness are therefore the main

tasks assigned all those who seek to keep education as represented by the schools and by society in happy co-operation with the popular demand.

The terms "vocational education" and "cultural education" have meant different things in different ages and among different peoples because they always represent in language relative distinctions rather than absolute distinctions. What was practical and practicable in any century was dependent upon many conditions and individual actual requirements. Hence all vocational education in the nineteenth century was essentially a different undertaking from vocational education as needed in the twentieth century. It was but a few years ago when the sciences and the classics were supposed to be real contestants for place and power in the education and the training of the young. Then it was that the sciences representing the latest thought in the practical trend of educational endeavor were urged consistently as more than a fair substitute for the older scholarship represented by the classics. In a very similar way the modern languages were accepted and approved as a reasonable and a permanent substitute for the work accorded the ancient languages because they were deemed more suitable for the practical preparation of certain actual classes of students who were in the secondary and higher educational institutions.

The results that followed all these expansions in the newer knowledges that were deemed worth the while to study by the past generation did not prove destructive either to the standards or to the quality of effective scholarship. It is well known that every increase in opportunity had the single effect of multiplying the students who decided to be partakers of the scholarship and the training of the institutions of learning because of the liberality afforded by the more modern lines of study and investigation.

Enlargements of opportunity also came, by the founding of special educational institutions, to give training for special service. This movement became necessary because it was impossible to do all that civilization demanded in the general educational organization that first appeared. Hence there came the state normal schools, the state agricultural colleges, the institutes for industrial and practical education, the manual training high schools, the technical high schools, the commercial high schools, and the many other vocational schools. All of these have found a place in popular favor, all of these are genuine evidences of progress, all of these are having a large part in developing the true enlightenment of the race, and their coming, while vocational in spirit, has not militated in the least against the accepted cultural education of the former days. The theory of universal education has become the accepted policy of all true democratic peoples. They insist that education should be so varied in type and so expansive in adaptability that there is an actual place for everybody in the system of popular education for the training of men and women for life.

There can be then no limitations by law or by custom to the work that should be done to place the youth of the land on the shoulders of the race

in mental power and in abundant service. The movement toward vocational education is not of temporary character or of uncertain direction. It carries with it the welfare and the success of the masses. It is not a panacea for the ills of society. It is not an absolute substitute for, or an adopted equivalent of, the education of the past. It does not seek to eliminate or to annihilate culture and taste. It is no enemy of the great province held by the education of the older days. It does not claim to be more valuable or to be more necessary than such education. It simply urges that the many be considered and remembered without forgetting the benefits and the ideals of the few. These undertakings are not mistakes, they are not errors of judgment, they are not unwise and unreasonable notions of training; they are full of reality, of sincerity, and of efficiency, and they should be welcomed as factors in making a more complete people in a more complete civilization.

In coming to these conclusions, it is necessary to say that men and women are everything and that systems and plans are nothing; the personalities must be conserved, the machinery may be disregarded. Humanity is so large in its promise, so varied in its outcome, so remarkable in its development, and so recent in its everyday undertakings that the education and the training of today are but a suggestion of what the next generation shall be called upon to undertake and to accomplish.

III. G. W. A. LUCKEY, DEAN, GRADUATE SCHOOL OF EDUCATION, UNIVERSITY OF NEBRASKA, LINCOLN, NEBR.

Students of education are well aware of the ferment and disturbing conditions thru which we are passing. Our educational system is changing —old elements dying, new elements entering. This restlessness and uncertainty have never been more pronounced. But on the whole it is a healthy condition.

As is well known, the system of education under which we are working was planned primarily for European conditions, where class distinction is an essential element of social life. Our forefathers did not create a new school system but established one after European models. Their first thought, in higher education, was training for the ministry and later for public and official life. It was a training of the head and not of the hand—class education of doubtful value. Years later when education became more general the same system was accepted as fundamental for all.

It is this system of education borrowed from bureaucratic Europe that is breaking up, and out of it must come a new educational system created for, and fitted to, the needs of a true democracy. No democracy can long live and thrive whose children are fed continually on the ideals that tend to produce class distinctions and autocratic rule. An essential of true democracy is individual freedom. The family that is at the bottom today

may be at the top tomorrow and vice versa. This desire for larger freedom is one of the strongest instincts of the human soul. It begins with youth and continues thruout life. It is the principal cause of the social unrest and when rightly nourished furnishes the best and truest products of civilization. Education should not thwart it, but should stimulate and use it to the highest ends of citizenship.

We have been slow in constructing an educational system of our own—one representing the interests of a true democracy, adapted to our needs and susceptible of future progress. The scientific spirit which is producing such marked changes in agriculture, industry, social life, and even political life is just beginning to be felt in education and the teaching process.

To understand and truly direct the growth of a plant or an animal, one must become familiar with its life history. This is more true when applied to the education and development of the individual. How seldom is such proficiency reached even in our best teachers! Too often it is the blind leading the blind. We misjudge the yellow leaves as a need for water when it is a canker at the root. To build truly we must discover and use right standards of measurement. This is no child's play, but it can and will be done. We are too prone to accept the ideas and methods of the leaders of the past without digesting them and without realizing that we live in a different age and under far different conditions. Much of the history of the past has been proved false but since it has shaped experience it needs to be known and rightly interpreted in order to understand the individual of today. The history of education when properly studied acquaints us with racial evolution, while the study of the child furnishes an excellent corrective and gives us knowledge of individual development. The ideals and methods of the past, tho true, are valuable only when worked over and adapted to the conditions of the present. To illustrate, the more commonly accepted definition of liberal education today is that given by Aristotle over two thousand years ago when slave and serf, mechanic and tradesman were not considered a part of the educational system. Again, education is not infrequently defined as the acquisition of knowledge or the training of the intellect, especially that part of the intellect known as the memory. It is evident we must enlarge our views. How then are we to harmonize vocational and cultural education? In the first place we must work out a complete system of education fitted at every stage to meet the wants of the natural and inherent development of the individual. Education will be conceived as the process which enables the individual to acquire, understand, appreciate, and use his social inheritance, including also the product of such experience. In directing the child thru the richness of his social inheritance the teacher should not overlook the physical inheritance and natural capacities. The education will be richer and more dynamic if the teacher observes the natural order of growth and feeds an instinct when it is ripe. Education as well as culture is an acquired product and both must be

learned anew by each generation. In a democracy every child falls heir to the best in the social environment and should be encouraged to enrich his life to the extent of his time and capacity.

We will differ in our definition of culture, but, for the present, I shall consider it as that training of mind and body which enables one to see, appreciate, and use the best things that have been thought, said, and performed in the world's history. Such a definition limits the degree of culture only to the capacity, opportunity, and ambition of the individual. Culture is not a veneer, not something added on but something worked in. It is dynamic, a growth and development from within, an insight and appreciation of the best things. It may result from any or all activity that is worth while. Every essential occupation and calling has both a practical and a cultural value. These cannot be separated without injury to the character and efficiency of the individual. The hand, the head, and the heart of every individual need developing, and the education is more effective when the three processes are made mutually interactive. Anything short of this is incomplete and unworthy of the educational system of a democracy. There cannot be two separate common-school systems in a republic, nor can a democratic state consistently support separate class schools. Individuals differ but slightly in physical inheritance. The difference we see is due to social inheritance and education. But in a democracy there should be the opportunity of the free movement of the members, especially when the aspirations are toward higher levels. The children of the professional class need the poise, certainty, and strength that come from the training of the hand, as the children of the industrial class need the perspective, insight, and appreciation that come from the cultivation of the mind. Who knows but that in the next generation they shall have changed places and be the stronger for the change?

To harmonize and make use of the vocational and cultural elements in education, we must recast our public-school system, adapting it to the natural development of the individual, and give place to both ideas. Probably slowly, but I think surely, we shall reduce the time of the elementary-school course to six years, which coupled with the first two years of the high school will be, in the main, common to all. At this point in the course the common education will be broken up into many paths. Tho even in elementary education, while the subject-matter will be largely the same for all, the opportunity will always be present for developing individual differences.

Time will not permit me to give in full my thought. But in brief we must bring the individual into right relations with his physical and social inheritance. To do this we must organize our teaching to make proper use of the three important stages of education: (1) informal; (2) formal; (3) a broader, richer, and more dynamic informal, or education thru constructive activity which in general is vocational and in the truest sense

cultural. Thru the various processes of informal education the child becomes acquainted with the simple social activities which man has found essential to his highest comfort. These activities may be imparted thru the home, but they can be made richer if imparted thru the school. They give in a large measure common-sense, accurate judgment, and solidity of character. Stated briefly these activities are: gardening, care of body, cooking, cleaning, sewing, weaving, knitting, molding, modeling; constructive work with leaves, paper, cloth, leather, wood, metal; observation trips, care of animals, slight individual responsibility, acting or dramatizing, story-telling, playing, drawing, painting, singing, etc. These are the subjects that lie at the foundation of civilization and of individual development. They are learned thru direct contact, thru imitation, and thru suggestion. It is here the child learns to do by doing, to share by sharing, to speak by speaking. It is an exceedingly important part of every child's education which humanistic education tends to neglect and industrial education tends to narrow to but one or few lines. The school of the future must make use of this rich field either before or along with the formal education.

With the beginning of language and records came a new era in the process of education necessitating the learning of characters and forms in which the thought is clothed. Before one can read or write, he must know the symbols used and the effect of their combination in producing thought. Every subject of study has thus its formal side which must be learned before its content can be acquired. This period represents formal education and in most cases covers the entire school life. Its method should not differ materially from that of informal education, tho it is far more complex and needs more careful organization. Formal education puts the individual into command of the tools or instruments of thought, as informal education gives command of those of industry. Hoeing and chopping, as reading, writing, and drawing, are not ends in themselves but only the means to more remote ends. Too often the work of formal education is made an end in itself and the rich social inheritance which lies beyond is never reached or seen.

If the continuity between informal and formal education has not been broken, and if formal education has continued the natural processes of learning to do by doing, to read by reading, to write by writing, to draw by drawing, etc., the individual will enter upon the third stage of education thru constructive activity with a richness, and hunger, and interest which will mean the acquisition of most if not all the best things in his social inheritance. Man's culture must come thru his work and can come in no other way. It should be cumulative and should continue to grow from birth to death. We can harmonize vocational and cultural education by combination, at least thru the period of elementary education. Give a larger place in the public school to the vocational, and, thru the best in such activity, a deeper meaning to the cultural.

IV. JAMES W. CRABTREE, PRESIDENT, STATE NORMAL SCHOOL, RIVER FALLS, WIS.

I am requested to discuss the question of harmonizing the vocational and cultural. First of all, permit me to ask whether the vocational and cultural are not really the best of friends when left to themselves and whether the lack of harmony is not entirely in the minds of the people who assume to attach more importance to the value of one than to the value of the other. May it not be stated as a fact that the vocational is also cultural in a high degree? Yet some people do not know that to be true. Is it not a fact also that the cultural has its value in the practical as well as in the theoretical? Still some people do not fully appreciate that fact. The vocational and cultural overlap and intermingle. There is no inherent opposition of the one to the other. The people who talk about these subjects are the ones who quarrel and fight.

Part of this lack of harmony in the views of the people naturally grows out of the fights between the men who work and the men for whom they work. Just as long as the laborer looks with suspicion upon the business dealings and views of his employer, that long will he look with suspicion upon the educational notions of his employer and that long will he fail to approve of the cultural studies. Just as long as the more favored class looks upon labor as menial or upon vocational training as inferior to other forms of mental attainment, that long will there be a lack of harmony between the teachers and friends of the vocational studies and the teachers and friends of the cultural studies.

The college has been a handicap to the movement of harmonizing the vocational and cultural. It looked with favor upon the advisability of having professional studies in the college but it was unwilling at first that vocational studies should even be placed in the high school. It only reluctantly consented to allow vocational studies to count on college-entrance requirements. As a rule, the few college men who broke thru the walls of tradition early, and who espoused the cause of the vocational, held the view that these vocational studies were important only in preparing men for earning a living. They attached little, if any, importance to their disciplinary value. The people, not the college, put vocational studies in the grades and in the high schools; and the people and not the college forced colleges and universities to offer some of these vocational lines of work themselves. Is it not true also that the people and not the college, at the present time, attach equal importance to the vocational and cultural subjects, as a part of a well-rounded education? This college discrimination against the vocational is only further evidence of the hold that tradition has on our highest institutions. Tradition is the leading cause of practically all of the differences in opinion of educators as to the value of all newer studies. Tradition is a force with which ordinary educators are not able

to cope. It is dictatorial and headstrong. It kicks on recognizing new things. It loves ancient history, the ancient languages, ancient philosophy, and mathematics. It has no use for manual training, domestic science, or agriculture. It lives in the past. It does no present thinking. It gets hold of some good people and fills them with fear that the vocational is dangerous to higher education and an enemy to human happiness. Its hostile manner of meeting opposition stirs people to anger. It is the one thing which above every other prevents educators from getting along well with each other.

Do you question the fact that this time vocational studies are here to stay? Twenty years ago, people forced manual training and domestic science into the schools, thinking in so doing they were getting vocational training into their courses of study. Let us see what happened. Before accepting manual training and domestic science, tradition systematized them, devitalized them, squeezed out of them all the truly vocational. This time the people make more certain by forcing vocational studies into the courses under the name "vocational training." They are also forcing the vocational element back into manual training and domestic science. The people are, therefore, harmonizing the vocational and cultural, a thing which tradition and the Carnegie Foundation would hardly permit us teachers to do under present plans of survey and standardization.

V. JOHN W. COOK, PRESIDENT, STATE NORMAL SCHOOL, DEKALB, ILL.

There seems to be a disposition to wander away from the central idea under discussion. It is unwise to attempt to wipe out the distinction between the cultural and the practical in education. Such a distinction must have existed in the mind of the president, or he would not have suggested the topic. The cultural is characterized by certain broad and universal features, the practical on the other hand is characterized by particularity, rather than by universality. The former tends to unite men; the latter, to separate them.

It goes without saying that there must be two features at least as marks of a stable nation which is at the same time a growing nation. In the first place, there must be a uniting principle which makes for harmony. In the second place, there must be an active principle of diversity, or otherwise there would be no richness to the civilization or development under the form of healthful growth. A cultural element will make for unity because of its universality. A practical element will make for richness and effectiveness because of its particularity.

There is only one way then in which these two elements can be harmonized and that is by having them both present. Every individual, therefore, should be sure to encounter a cultural element in his education in

order that he may be united to his fellow-men by a common bond; likewise, every individual should receive a practical education in order that he may find his place as a useful and contributing factor in the complex of our civilization. The latter element analyzes him out into a special calling, the former element reunites him to his fellows. It will tend to save him from the greatest peril which besets our modern life—the losing of himself thru selfishness and thru devotion to a single element and thru the consequent loss of that large-minded patriotism which should forever make him keep in view the common welfare.

TOPIC: ECONOMY OF TIME IN EDUCATION

I. FRANK STRONG, CHANCELLOR, UNIVERSITY OF KANSAS, LAWRENCE, KANS.

It is time now to set ourselves to the task of determining what best may be done in regard to the problem of economy of time in education. That a good beginning has been made must be evident to all who have read the report of the Committee of the National Council of Education on Economy of Time in Education. My own judgment is, from a reading of the report, that the question has been handled with wisdom and with a lack of exaggeration and destructive criticism that is unusual in considering a problem toward which a committee must take a critical attitude. There is a refreshing lack of the antagonistic element which often creates doubt and uneasiness at the very outset.

The conclusions of the whole matter as given on pages 18 and 19 of the report are well stated. The first, namely that the period of general education should be shortened at least two years, is the crux of the whole problem. If that can be done without seriously weakening the American schools as they now stand, the matter is far along toward a settlement. My own experience agrees with what I understand to be the mind of the committee, that the problem must be attacked thru a process of elimination in the elementary school and the readaptation of elementary and secondary education. To this should be added the readaptation of the American college so that the first two years of the college course may be of the same general character as the secondary school and the last two years of university grade. This seems logical and reasonable, but the real question is, "Will it work in practice?" There are many things, therefore, to be considered and there is much to be gained by sitting down to count the cost of such a change.

Where does the real trouble lie? Is it in the waste of time, or is it in the lack of thoro work, or is it in both? Surely we do not now get any better results or any more mature preparation than we need for entrance to university or professional work. But it probably may be said with truth that it is an advantage of itself to eliminate waste, for waste leads to desultory work. Then it is true that several classes of pupils are to be considered.

That this elimination would be an advantage to the great mass who go into trades and business and do not finish the course, whether in the high school or the college, there can be little doubt. Yet they are not the only persons who deserve consideration, for after all a system of education must be judged to a considerable degree by its highest output and by the quality of leadership that it develops. Therefore, those who persevere thru the preparatory training and enter graduate work and the professional schools must have large consideration. If, therefore, this change were made without any compensatory gain in thoroness and the development of power, we might find ourselves worse off than we are now.

While it is true that the nominal age for completing the secondary course in European schools is the same as at our high-school graduation, it is probably impossible in the United States for students to pass directly from the secondary school into the university for graduate or professional work. It was not so long ago that students did pass from the high school into the professional school. It is true no longer in standard institutions, with a few exceptions. The change has been caused by two things: First, the training of the elementary and high schools proved an insufficient basis for real professional work. Second, the students leaving high school proved to be too immature to profit most by strictly professional work. For that reason a few professional schools have required a full college course prior to entrance to the professional school, while the majority require two years of college work as a preparation for professional work. But even now our young people at twenty are not as capable of undertaking professional work as we could desire. Here we have to reckon with the rigid and increasing requirements set up by professional schools themselves. We have to reckon again with the rigid requirements of standardizing agencies whose demands compel professional schools to a rigid enforcement of exacting rules. Are professional schools to continue to increase without limit their requirements for entrance, and are standardizing agencies to continue to increase without limit their requirements for the recognition and crediting of professional schools? If so, attempts to solve the problem of economy of time in education on the basis proposed are likely to prove futile.

It has never been true in America, so far as I know, that students might enter real university work, or in other words what we call graduate work, from the high school, and that does not enter into the present discussion with relation to the secondary schools. If the age of twenty is to be the point at which entrance to professional or graduate work should be placed, the situation for many colleges and universities will not be changed so far as the professional schools are concerned, for the reason that many of them already require two years of college work as a basis for professional work. It would alter the situation, however, as to graduate work, for the reason that at the present time all institutions, so far as I know, found it upon four years of college work.

The relation of the degree of doctor of philosophy to the scheme proposed by the committee is, therefore, perhaps worth consideration. Under the present system the student graduates from college at about twenty-two years of age. If he goes into a graduate school for his Doctor's degree he perhaps receives it at about twenty-five years of age. Under the scheme proposed, as I understand it, he would arrive at the end of his graduate period at about twenty-four years of age, a difference of one year. For purely graduate training of a severe character some considerable maturity of mind is necessary. What effect the difference of one year in age would have in this respect only experience would tell, but it is safe to say that the loss of time would have to be compensated by an appreciable increase in the mental grasp and severity of training of the student.

As to the college, many universities have already begun the reorganization recommended by the committee. The division line at the end of the Sophomore year has long been recognized, and the first two years of the college have been administered as belonging to the secondary group. Most of this work is required and large election is not allowed until the end of the first two years. In addition, a considerable part of the professional work is based upon this same arrangement. In the institution with which I am most familiar, admission to the school of medicine and the school of education is conditioned upon the completion of the Sophomore year in the college of liberal arts. Admission to the school of law is conditioned upon the completion of one year of the college and soon will be upon the completion of two years. The reorganization of certain courses in the school of engineering also practically requires one year of college work, and soon, I hope, all professional work will be based upon two years of college work. The difficulty does not arise in the college, therefore, in connection with students who at the end of the Sophomore year branch off into their various vocational or professional lines. It arises in connection with those who pursue two years more of general training. The difficulty with the American college of late years has been precisely here, that the general training seemed to hang upon nothing and to lead to nothing. So far as our experience in the University of Kansas is concerned this has been largely obviated by the fact that now most students in the college of liberal arts have some definite aim in view, even if they do not enter organized professional schools. In other words, they begin the systematic study of journalism, which is a part of the college of liberal arts, or they are training themselves for a general business career, or they are going into some form of social or economic service, or they enter courses in domestic science, all these courses being organized on the basis of two years of college work. In other words, the class, fairly numerous in past years, looking for a general training with nothing specific in view is becoming less and less.

This question is also largely a financial question. It involves better teachers and smaller number of pupils per teacher. It involves an increase

in the school budget and the standardizing of the requirements of the school for laboratories, libraries, and machine shops. Such a change will have to deal with the immense inertia residing in a system once solidified and will have to cope with the undoubted fact that in many towns and cities school expenditures are already high. It will have to deal with the taxpayer and the uninformed citizen who are so hard to convince that education is the greatest business that a community or a state can engage in, that in education false economy is the greatest extravagance and true liberality the highest economy.

But the greatest difficulty in the way perhaps is the present mental attitude of the student and of the American home itself. Our whole American life discourages accuracy, attention to detail, subjection to discipline, and readiness to undertake drudgery. Here, to my mind, is the real difficulty in the whole problem. If the years now given to formal study were filled with a rigorous discipline, if they led to real intellectual mastery and sound mental training, the time given might not be too much, but the truth is that these fruits do not grow always upon our educational tree. If, therefore, we cut down the time and do not improve our work, we may be no better off than we are at present. But if our students can be subjected to rigorous discipline and trained to obedience and to high mental endeavor, we shall have made a real gain.

I agree most heartily with the opinion of the committee in relation to vocational education.

In this connection there are at least two things that ought by all means to be considered. In the first place, any arrangement of American education that shall lead to stratification of our population by which one class is turned perforce in one direction and another in another would be a national calamity. No such stratification as has occurred in Germany could be tolerated in America. No teacher or administrator must ever have the authority to say to one boy that he may go on into the high school and prepare for college and issue with all that the college or university can give him, and to another boy that he must go into a trade school and issue as a hand laborer. There must be absolute freedom for the choice of the individual and the road must be open from the kindergarten to the university for every boy or girl who has any aspirations for the highest training. Then again, if we are to deal with this great multitude in our schools in an adequate fashion, vocational guidance must go with vocational training. There must be adequate supervision; there must be adequate suggestion and guidance by which boys and girls may be made acquainted with the different trades, industries, and professions and given some adequate insight into the purposes and requirements of each, so that they may have not coercion but assistance in arriving at the task in life that each desires to perform.

That there must be great difficulties attending so tremendous a task as that of reorganizing a system of education is evident. The committee

has attacked the problem with candor and good judgment and put us well on the road toward a thoro discussion and a final adjustment of one of the greatest questions confronting American education.

II. HARRY B. WILSON, SUPERINTENDENT OF SCHOOLS, TOPEKA, KANS.

It is perfectly evident that time may be economized in public education either by doing more work in the time now consumed or by doing approximately the same amount of work in less time. Doubtless economies will be accomplished in both ways. In the following discussion, I wish briefly to consider three sources of waste and therefore three possible avenues of economy.

In the first place, a large amount of waste results from attempting to train children of all types of ability in the same classes. Professor Thorndike wisely says:

> Specialization of schools is needed, not only to fit pupils for special professions, arts, trades, and the like, but also to fit the schools to original differences in the pupils. Specialization of instruction for different pupils within one class is needed as well as specialization of the curriculum for different classes.

It is a well-known fact, however, that until within the last decade the existence of these widely deviating children was either unknown or ignored. Consequently no special provision was made for their education. Indeed, special provision for their adequate training is yet the exception rather than the rule except in a few of our leading school systems.

The number of these children in any typical school and the consequent resulting problem are scarcely appreciated by those who have not made them subjects of special study. In *Bulletin No. 461* of the Bureau of Education on "Provision for Exceptional Children in the Public Schools," a discussion of this subject may be found.

Unfortunately, there are no experimental data which measure quantitatively the gains which are possible thru segregating the children requiring special classes for adequate treatment. Common-sense, however, makes it evident that each class profits from the separation when such is possible. While no survey has shown that the normal children do the work expected by the course of study in less time, the studies of retardation and elimination, in those systems where adequate provision is made for special classes of children, indicate that there is less slow progress, less over-ageness, and less elimination. This is what we should expect to find. With the special classes of children assigned to another teacher, the teacher of the average normal children is left free to devote her time and energy to seeing that each member of the class realizes his opportunity and succeeds in his work, thus earning promotion. Abundant evidence might be cited showing the gains to the special classes, whereas mentally deficient and subnormal children make almost no progress when assigned to classes with normal children.

Upon assignment to a special class, small in number, taught by an expert teacher, they immediately begin to show what is readily recognized as rapid development for them along the lines in which they can do work. In fact, many children who have been considered hopelessly deficient have developed under individual instruction to a plane where it seemed wise to return them to a regular class for normal children. The rapid progress which gifted children make by being separated from the average normal children is remarkable indeed. The survey of the Baltimore schools showed that the gifted children were expected to cover four semesters of seventh- and eighth-grade work in three semesters, thus saving one-fourth of their time.

It is evident that the principle which should be recognized in every school system is that of providing for each type of child in such a way that all children may realize the largest development possible in the least amount of time. With this in mind, the classes of children in every system must be carefully sought out by the supervisors, and provision for the adequate treatment of each class must be made. As the children advance in age and in their progress thru the school, these groups must continue to be studied and recast as the development of the individual members shows it to be necessary. In the promotion of children likewise, we must make sure that the good of each individual child is carefully considered and served. In making promotions, the main question should not be to what extent a child measures up alongside an absolute passing standard. The matter of greatest importance is not what a child knows of what he has learned, but it is what he can do. It is not a question of what instruction he has had but of what he needs most for his development in the matter of opportunities and instruction.

In the second place, a large amount of waste results because of the fact that the course of study contains much obsolete matter. This subject-matter functions neither in interest on the part of the children at the time of learning nor in service to society after they have left the schools. Abundant evidence that this material does not interest the children may be had by any thoughtful visitor who will spend a day in visiting any classes, particularly in grades above the second. The evidences of interest are alertness, keenness, anxiety, and thoughtful questions on the part of the children, the proposal of additional things to be done and of additional ways of doing. These evidences are absent when the children are asked to work upon subject-matter which is lacking in value and significance for them. Rather their chief characteristics under these circumstances are sitting, looking, listening, and answering when pumped. That this obsolete subject-matter does not function in service to society is becoming increasingly evident from recent investigations. Leonard P. Ayres, of the Russell Sage Foundation, was probably the first investigator to employ methods for testing in any adequate, careful way the social value of the content of the course of study.

If the Committee on Economy of Time in Education from the Department of Superintendence, together with its co-operating investigators, find it possible to recommend to the next meeting of the department so much of the content as should be retained in each of the various subjects of study in the elementary schools, in the interest of equipping the output of those schools with the knowledge essential to social efficiency, a distinct advance will have been made. If it is able to add to the present content important and significant material which is now omitted, another gain will have been made. Undoubtedly, the thing most needed by the schools to render them attractive to children is a socially significant content in the course of study. As a result of its establishment will come those economies in time which are desirable, as well as pleasure and enthusiasm on the part of the children in the pursuit of their work.

In the third place, great waste results from the failure of teachers to employ a technic in teaching which is appropriate to the subject-matter under study and to the results desired in the children. The first large source of this waste arises from the fact that children are not trained in proper habits of study. They do not acquire from grade to grade and from year to year effective methods of working and pursuing the tasks which are set before them. Nor will children employ these methods except occasionally by accident until teachers consciously strive to have them do so.

Not as much reliance may safely be placed upon the example of the teacher's own logical procedure as should be possible. Not only are the vast majority of teachers not so trained that they employ the factors in logical study in the mastery, organization, and presentation of the work they teach; but, what is even worse, their procedure does not require thinking and mastery on the part of their children. Rather, it requires merely reciting and reproducing the work of previous class exercises or the thought, often the very words, of the textbook. A recent investigation of public school 188B, in Manhattan, by the Bureau of Municipal Research, showed that in eighteen stenographically reported recitations, the teachers were doing the thinking and the talking rather than the class. As a result, they used 18,933 words while the pupils used but 5,675 words. In their recitations, these pupils gave 420 one-word responses, 208 one-sentence responses, 96 phrase responses, and 20 extended replies. There were 622 "what," "when," and "where" questions and but 138 "how" and "why" questions.

Miss Earhart's investigation of the ability of the children to employ the factors in logical study led her to the conclusion that when children are not properly trained to study there is "great waste in studying." In her test to determine what the children did in studying, nearly one-fifth of the number tested showed that they did not know what to do either by doing nothing at all or by doing something not required. In the test to see if children knew what to do to find the answer to a question, a very high per-

centage of the children expressed their ideas so indefinitely that the meaning could not be determined. The greatest difficulty experienced by the pupils was in trying to find the most important thing in the lesson and give reasons for considering it the most important.

The second large source of waste which arises from employing poor teaching technic results from the failure of teachers to see clearly the results which are desirable and possible from the study of any given subject-matter or from the pursuit of any series of exercises or activities and to employ a teaching procedure which is adapted to secure the desired mastery of the subject-matter and the results sought in the children. We wish the children to come from the schools equipped with certain specific habits, ideas, facts and principles, ideals, standards, tastes and prejudices, attitudes and perspectives. The subject-matter of instruction, together with the resulting experiences and exercises, should be sufficient to equip the children with such a body of the aforesaid results as are essential to social efficiency. Certain phases of the course of study should be so taught that they result in specific habits. Other phases will be primarily valuable in equipping the individual with ideas, facts, and principles, or knowledge. Other phases of subject-matter and experiences will be valuable in the development of ideals, standards, and tastes. Not only does the subject-matter which is adapted to accomplish a given end vary, but the technic of presenting the subject-matter that it may secure the result desired varies with the end sought.

The teacher must be trained to employ the technic which is adapted to secure a desired result. Specific habits in writing, spelling, reading, and arithmetic result primarily from the employment of the drill exercise in teaching. The drill lesson, however, will not accomplish the results sought unless the essentials in good drill teaching characterize the work as it moves forward. A good drill teacher sees that the child knows what he is about to master, and, if possible, has him enthusiastic to accomplish its mastery. Secondly, she has him repeat the thing to be mastered with the maximum of attention, gradually increasing the lapses of time when she recurs to it till it is so well fixed that no errors appear and his responses are immediate and automatic. This type of lesson is suitable for use in the mastery of those skills and activities and facts which should become automatic.

If the result desired in the class is the discovery of a principle or rule, or the formulation of a definition, generalization, or concept, the type of lesson which good teaching will employ is the inductive lesson, in which the children first see clearly a problem vital to them for solution. Following this, the data pertaining to the solution of the problem are noted. The data are then compared with the aim of noting the like elements, that the common truth or principle which they suggest may be seen. Following this comes the statement of the principle or rule or the formulation of the definition or generalization. The teacher should employ the inductive

lesson when she is teaching children for the first time how to solve problems in addition of fractions. They arrive at the method to be employed inductively. After a principle or method has once been mastered, the future experience of the children will show them it has many applications.

The application of the principle or general truth to the interpretation and understanding of data and situations to which it is applicable brings into use in teaching the deductive lesson. If the children should meet the question, in the study of the geography of Utah, as to why the desert region lying between Salt Lake City and Los Angeles is not thickly populated, they would be able to answer it from the knowledge which they have gained in their study of geography of the influence of climate in determining the population and industries of a region. It should not be necessary to work out inductively the solution of their problem. It is sufficient to apply the knowledge which they already possess to the interpretation of the condition from the standpoint of civilization which they find in this region.

There is much material, particularly in literature, history, and music, which the children do not need to master thoroly in view of the results desired in them. Indeed, its thoro mastery is beyond them. Yet much of this material may possess certain values which are necessary in accomplishing the results desired in children at a given stage of their development. These ideas may be brought to the children by presenting the material thru the appreciation lesson. For example, the change from haughtiness in the knight in the "Vision of Sir Launfal" to an attitude of humility and charity may be brought to a third- or fourth-grade class by an artistic teacher thru the presentation by reading and telling of this story. What they require is an appreciation of the significance of this wonderful story. The tool for securing these results is the appreciation lesson. Many selections in music, of which the children should feel the uplift, may be brought to them thru the appreciation lesson long before it is possible to teach the same selections thoroly. Many critical and interesting periods in history may likewise be taught to the children thru the appreciation lesson, that they may lend atmosphere to those aspects of the work which the children are attempting to master thoroly. In a corresponding way, the appreciation lesson may render service in the teaching of geography and other sciences.

These tools of the teacher—the drill, the inductive, the deductive, and the appreciation lessons—with which she secures the desired results in the children, when properly employed on right subject-matter, are not interchangeable. One may not be used effectively and economically in place of the other any more than a saw may be used when an auger is the tool required. To proceed, lacking in the knowledge of the available tools and of the suitability of each to accomplish its ends is to blunder and stumble and accomplish less than should be, and therefore to waste both energy and time.

The third large source of waste resulting from poor teaching is due to the lack of adequate motivation of the work and activities of the children. Adequate motives should underlie and permeate all of the work and activities of the school. This assumes, of course, that only such subject-matter is provided by the course of study as is significant and meaningful to the children because (1) it answers questions which naturally arise in their experience, (2) it solves problems which they naturally meet in the course of their development, (3) it supplies needs which they have felt in the process of their normal development. The school's work and activities are not adequately motivated for the children so long as foreign, non-significant material is so prominent in the course of study as at present. When the children are occupied with significant material, they are alert and aggressive for its mastery because it is rendering service to them which is just as real as winning a successful case in court is to the practicing attorney. Adequate motives render easy of direction the whole problem of study and experimentation on the part of the children. They also make it easy for large strides to be taken in the class exercises. Adequate motives render it easy to accomplish more work and thoro mastery in less time. Their absence means a dull class, lacking in enthusiasm, and consequent slow progress and loss of time.

The responsibility for the adjustments which are essential to accomplishing the improvements in the schools which will eliminate the waste above set forth rests with the supervisory force. Not one cent of additional expense need be imposed upon any school system for the improvement of its course of study or the technic of teaching employed in its schools. Some additional expense may be necessary if the needs of the subnormal and feeble-minded children are to be adequately met. There are ways, however, well known to all of you, of serving their needs relatively well without great additional expense. The gifted and talented children may be very satisfactorily cared for, even in the same school, with the average normal children by providing additional significant work which they may pursue. The supervisory officers in every system must face squarely the burden of this responsibility. There is no defense for supervision at heavy expense unless its provision insures rational, hygienic work in the schools and also more work of better quality or the same amount of work of better quality in less time.

III. FRANCIS G. BLAIR, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, SPRINGFIELD, ILL.

A railroad official has recently given us a new figure of speech. In considering the recommendations of the government for increasing the efficiency and service of our railroad systems he replied: "How can you unscramble eggs?"

Of course, you cannot answer an argument with a figure of speech, yet it is sometimes true that such a figure directs attention to the very heart of the difficulty involved in the proposal. Every proposition to change the form of our present system of public education to insure a greater economy of time brings us face to face with this difficulty of unscrambling scrambled eggs. We have presented to us a condition representing one hundred years of experimentation, some of it intelligent and some of it blind. Our school system did not spring full-fledged and efficient from the brain of an educational Job. It came into existence more after the manner of Topsy—"just growed." The condition is a badly mixed one. It is not an easy matter to separate the tares from the wheat.

I agree, however, with the committee in its efforts to reconstruct the system along the lines of greater efficiency and economy in time. There are two general methods proposed for effecting these changes. One deals mainly with the larger readjustments and reorganizations—a more economic arrangement of elementary, secondary, and higher education. The other has to do with working economies in the smaller units which compose the system. Gabriel Tarde, in his great book, *The Laws of Imagination*, says that the most effective way of reforming any social institution is to begin with its primary elements. If we modify these primal elements we have made permanent progress. Any permanent improvement in the public-school system must rest upon a change in the primary elements of that system.

The first one of these primal elements is the recitation. While the term has different interpretations under different systems, its meaning is well understood. Anything that this committee can propose for effecting a greater economy of time and energy in the recitation will promote the general cause of economy of time in the school system. What can be done to stop the waste in passing to and from a recitation? How can we rid it of the intellectual daudling and pedagogical inflations? How can we make the connection between the child's mind and the point in question more direct and complete?

A second primary element is the teacher. No lasting economy in time will be effected until our teachers are prepared to organize these units of instruction in an economic way. More time is wasted thru poor teaching than thru any other source. If this committee, thru its labors, can assist in a demand for a more thoro preparation of teachers for their work, a better equipment for effective, direct teaching, it will have worked one of the greatest economies in time.

The last primary element which I shall mention is that of the supervisor or superintendent. What a vast waste of time occurs annually thruout our public-school system because the separate parts are not wrought into a living organic unity! For instance, the time required in developing the habit of rapid, silent reading and good oral reading can be greatly reduced

if the supervisor or superintendent knows how to articulate the work of the teachers in the various grades. Too often the work of one teacher counteracts or interferes with the work of the teacher of the lower grade. If, however, a definite line of work is planned by a supervisor or superintendent and all the teachers concentrate their efforts upon this plan, a great economy results, not only in time, but in the expenditure of energy and in the results accomplished. Let us stand strongly for expert supervisors and superintendents as great time-savers.

IV. L. D. HARVEY, PRESIDENT, STOUT INSTITUTE, MENOMONIE, WIS.

It is apparent that the Committee on Economy of Time in Education has in its report held quite closely to what it states as its primary idea, that of dealing with the educational problem for those who cover the whole period of either general or special education. Since at least 90 per cent of the young people of this country do not complete "the whole period of general or special education in their entire extent," it appears that this report deals "primarily" with the reorganization of our educational system in the interests of less than one-tenth of the school population.

I do not mean by this that the report ignores the nine-tenths, but that its emphasis is put upon the necessities or apparent necessities of the smaller fraction. It must be apparent that the proposed modification of the entire school system, primarily in the interest of one-tenth of the school population, must secondarily at least consider, and consider very seriously, the effect of this modification upon the remaining nine-tenths of the school population, and, to justify the reorganization, it must clearly be apparent to those who are to bring it about, as well as to those affected by it, that it would be of advantage to the nine-tenths as well as to the one-tenth.

The recommendations of the committee based upon its conclusions that at least two years' time could be saved in our educational scheme of work clearly imply that we have been demanding more work of students than is necessary for completing a general or special education which a school should give; or that we have been demanding work not contributing to these ends; or that our modes of administering the work have been faulty; or that there has been a combination of some or all of these defects. I believe the report of the committee in its entirety warrants the conclusion that the committee's view is that there has been such a combination of these three defects, a conclusion with which I agree most heartily.

Assuming that these three defects exist, the practical question is, "What must be done to remedy them?" We must first ascertain what work has been demanded either in the cultural field of general education or in the technical field of special education, which, tho having educational value, has less of such value than the experience of life during the period required for this work would have for the individual. Second, we must determine

what work has been demanded that has practically no value in developing efficiency either in the general or special education of the individual. Third, we must determine what is essential in the organization of what may finally be deemed necessary in order of presentation and what modifications shall be necessary in methods of instruction in order to produce the best results with the greatest economy of time and effort. To arbitrarily cut off the last two years of the existing elementary course is certainly no solution of the problem. The attempt to crowd into the first six years of school life all of the work now attempted in eight years is an absurdity. No one will deny that much valuable work is now required in the last two years of the elementary course even tho a portion of it might very properly be eliminated, and I think those people who have had most to do with the teaching of elementary pupils will agree that for a majority of the pupils some of the work now required in the seventh and eighth grades cannot profitably be given to sixth-grade pupils. Under the proposed scheme, if this work is to be given at all, it must find a place in the first two years of the proposed six-year secondary school. The existing high-school work cannot be pushed down into the seventh and eighth grades and allowed to crowd out the valuable features of that work as now offered. In other words, the proposed six-year secondary school cannot begin where the present four-year secondary school begins; it must begin where the sixth-grade work as reorganized ends and must carry the essentials of the present seventh- and eighth-grade work with material modifications of the existing high-school courses of study. These modifications will necessitate material modifications of present college-entrance requirements and necessarily of college courses themselves, and such modifications will necessitate similar modifications of university-entrance requirements and possibly further modifications of requirements for completion of these courses.

As already indicated these modifications must be along the line of the three defects previously noted.

The whole problem, then, seems to resolve itself into the applying of the principles of scientific management to the organization and administration of the school system. The development of our school system up to the present time affords a striking illustration of the failure to apply the principles of scientific management. In productive industry these principles demand a very definite knowledge of exactly what is necessary for the most economic results in production—an elimination of every non-essential, either in material or in process, and the introduction of the most direct and effective processes in doing what is to be done. Applying these principles to the organization of an educational system, we must begin with the elementary school and seek to determine what that school can do for its pupils in the way of instruction and training that will make them most effective in their succeeding work whether in school or in life, in the way of knowledge, of power in thought and action, and of character. These are

no mere glittering generalities to be lightly dismissed. The expert in scientific management spends months in investigating and experimenting to determine exactly what motions, what order of these motions, and what periods of rest are necessary to carry a ton of pig iron, pig by pig, one hundred feet in the least time with the greatest economy of effort on the part of the workman. It will take more than some months to determine and formulate the information which the pupil in the elementary school needs and which is to be acquired thru study of the different subjects in the curriculum. It will take more time to determine and formulated the kind, the amount, and the order of training to develop power in thought and action always with reference to the capabilities of the pupil. It will take no less time to determine and formulate what is essential in the development of character and what must be done to secure that development. It will take more time than we have yet used to determine the best methods of instruction and training in these various fields. The same line of procedure will be necessary in dealing with the secondary schools, with every subject that finds a place in the course of study. The same necessity exists for similar work with the course of study of the college, the university, and the special school. We shall never get any adequate reorganization of any phase of our system of education until we attack the problem from this angle. This means that the individual to be taught and his needs become the central point of consideration. What does not contribute to these needs must be eliminated both in matter and in method. This means quality rather than quantity and quality as related to the needs of the individual to be educated. The quantitative idea has been the dominant one in the development of our system up to the present time. It has been a question of how much and how long rather than what value and how quickly.

How many teachers of algebra have any definite idea or have ever given any thought to the question of what the study of algebra does for the pupil in ministering to his real needs for his future work? How many superintendents and principals have ever considered that the needs of the high-school student studying algebra who intends to take the college course are different from those of the high-school student studying algebra who expects to leave school before or at the end of his high-school course? How many have ever studied the relative values of algebra and other subjects for either of these two classes of students? How many teachers of geometry have ever determined how much knowledge of arithmetic and how much skill in arithmetic and what knowledge of algebra and what skill in its use are necessary in order to master the work in geometry? How many teachers of trigonometry have ever thought how little of algebra or geometry is essential for a working knowledge of trigonometry? In a similar way we might go thru every other subject taught in the secondary schools, elementary schools, and higher institutions, asking the same questions,

and the answers to these questions if correctly given would throw a flood of light upon the whole problem.

I realize thoroly well that the demand for a determination of the relative educational values of different items of knowledge for the pupil at any given time and for a determination of the kind, amount, and character of training best adapted to the needs of the pupil at every stage of his development is a most difficult one. I have no doubt that many will say that it is impossible to make these determinations accurately, but if it be impossible to make them with perfect accuracy that does not relieve from the necessity to make them with the greatest accuracy possible. There is no other safe basis upon which to build an educational system. Every intelligent effort in this direction will accomplish something and will make the next step easier. Failure to enter upon an intelligent effort and continue it will make the present bad condition worse.

The recommendations of the committee, if carried into effect, not only will save two years of time for the individual who completes a college or university course, but also should give better educational results and save in time all along the line, for the great majority of pupils who do not complete a college course.

We must not forget that we have no national system of education and no central authority either national or state upon which we may depend to carry out the recommendations of the committee. To carry these recommendations into effect I believe that the following requirements must be met:

1. A reorganization of the courses of study all along the line from the elementary to the professional school.

2. Superintendents and principals with better training than they now have for the work of organization and administration from the professional viewpoint.

3. Men in sympathy with the idea of securing greater economy of time and effort in education thru the work of the schools.

4. Men with initiative and possessing analytical power, imbued with the earnest desire to adjust educational activities to the needs of the pupils; men who will subordinate system to these needs rather than develop system with little regard for the pupils.

5. Men willing and intelligent enough to study the existing system to determine its faults and when they have discovered those faults courageous enough to apply the remedy and tactful and forceful enough to secure a public sentiment in their locality that will insure the success of the remedy.

6. Men who are less concerned with holding their jobs than they are with doing the jobs so well that the job will hold them; men who can realize that the best man is not the one who can hold his job but the one who puts so much intelligence, conscience, and enthusiasm into his job that he can secure a better one.

7. Men who know thoroly well what constitutes good teaching in every stage of the work under their direction and who possess the professional insight necessary to enable them to continue the training of the teachers who are working under their supervision.

8. Men in the secondary schools who will be less concerned with college-entrance requirements and the commendation of college authorities than with the requirements of the majority of the people being taught and trained and the commendation of these young people and their parents.

9. More thoughtful, better-trained teachers all along the line, even in the colleges, the universities, and the special schools, and as a corollary better training schools for teachers of the elementary schools, and better organized and manned departments of education in our universities and other institutions where teachers are prepared for work in advance of the elementary schools.

10. Successful experiment in single systems and individual schools and institutions, and systematic and conscientious effort for an awakened and enlightened public interest in the accomplishment of what is proposed.

11. Recognition of the fact that conditions vary so widely in different communities that every community cannot undertake to adopt the proposed scheme in its entirety.

V. E. E. SCRIBNER, SUPERINTENDENT OF SCHOOLS, ISHPEMING, MICH.

This is a period in the history of our wonderful country when it is popular to "knock"—a time when the speaker or writer who discredits present conditions secures an attentive hearing. To me the most consoling feature of this critical age is the fact that the most active critics are those who have the least practical knowledge of that which they so vigorously criticize. Those who attack business and criticize business methods are not those who give their time and risk their money in a commercial enterprise, but theorists who endeavor to make a living by advocating methods of business procedure which sound plausible and which seem to the uninformed to be correct solutions of the problems which perplex those in charge of the commercial and economic enterprises of our country and those who are directing our social and political institutions.

The public-school system has received its full share of this unwholesome attack. Some writers go so far as to state that

> there is genuine cause for distrust of the entire system of public education—that there is apparent and imperative need of reconstruction and readjustment; that something should be done in the way of inauguration of a system of public education which would really educate our boys and girls for successful careers in the lives they are to lead.

That quotation reads well and the author of it shows powers of expression, acquired under the present system of public education, that make his charge seem plausible, but we cannot help noticing that he fails to state or even suggest the particular work said boys and girls are to do in living out

"the lives they are to lead." Why? Because he cannot, for the simple reason that no one knows. If the parent could send with the child, the day he enters school, a statement which would give the teacher the child's mental caliber or even an intimation of the place in the world's work for which he is best fitted by temperament and native ability, the problem of educating the child for that place would be comparatively easy of solution, for then the children could be grouped and classified in the same manner that material things are grouped and classified in a commercial industry. Take the mining of iron ore as an illustration. Chemical analysis of the ore enables the producer to grade it so that its value in the market and the particular use in the iron world for which it is best adapted are almost exactly determined. Trade conditions regulate the quantity of the various grades which it is wise to mine, and organization and careful management determine the efficiency of the labor employed to mine and market the ore at a profit. Economy is the watchword, and ordinary bookkeeping enables the company to determine the efficiency of its operations and its financial status at any time. But how different is the business of the public school! There is no analysis which will determine the value of the individual pupil it is to work upon, nor is there any fixed system of bookkeeping which will enable anyone to determine the efficiency of the work as it is done day by day.

The schools are given the indefinite task of educating the children of the masses, not each for a definite work or an unchangeable place in society, but for some position in life, unknown to the parents, to the teachers, or even to the students themselves. It follows, therefore, that the school is compelled, by its peculiar position and the cosmopolitan nature of the material that comes to it, to endeavor to develop or educate in a general way the whole child, hoping that he may be prepared by such education to fit into a place in life where he will work and be happy and contented. Experience had taught us that whatever the field of human activity, success brings contentment and failure brings unrest—that unrest comes to all when success is so indifferent that living conditions are hard.

The efficiency of our school work cannot justly be compared with that of Germany or any other European country because social and political conditions there are very different from those in this country. First, a democracy should not attempt to build society by education but thru society should attempt to build the individual. We hold that the state is strong in the proportion in which every individual is free, large, and independent. European countries have a better educated upper class than we. They have, without question, deeper scholars in greater number than we have. They have institutions compared with which ours are puny. Why? Because they are educating the top while we are educating society from the bottom to the top. We are not attempting to lift favored classes higher. We are not attempting to give to those who already have. We are attempting to put our hands under the foundations of human life and lift everybody up—the

foreign born with the native born, the son of the doctor or lawyer or scholar side by side with the son of the miner or the son of the common laborer.

That is a much slower process but it builds up the intelligent citizenship which alone can insure the perpetuity of our democracy. American education should aim first to reveal to the pupils the condition of their prosperity and the civilization of the age. The immediate course of all prosperity and the stimulant to all advancement is industry. Economic aims, economic pursuits, and economic achievements occupy the attention of most of our people. Thru industry in these fields all of us, directly or indirectly, acquire food, raiment, and shelter, and thru success in them attain that happiness and cheerfulness of mind which tend to develop the noblest part of our nature; or because of failure some become discontented, morose, and too often a vicious menace to society. Training for economic industry should be the watchword of every teacher, the aim of every school system.

That we can economize in time there is little question of doubt. I believe that the greatest waste in time and effort which can be charged to education today comes from want of organization on the part of school authorities. The entire system is loose. There should be a strong, powerful national educational bureau holding a portfolio in the President's cabinet. This bureau should be given the power by Congress to direct the educational forces of the nation, elementary, secondary, and advanced. The departments of education of the several states should be required to work in harmony with the national bureau. They should give their attention, first, to establishing uniform standards to determine the qualifications of teachers, school superintendents, and members of school boards, having in mind the importance of securing permanency of employment or administration to those who attain that standard. No business can attain the highest productive efficiency by often changing its management and reorganizing, but under present conditions we all know that change and reorganization are the rule rather than the exception in the business of education in the United States.

With permanency of employment secured to the educator and administrator of educational forces, they would attack the problem of education with the ambition that every conscientious worker employs in his life work; that is, a determination to make each year's success a little better than the last. I have said that there is no analysis which will determine the value of the individual pupil. I wish to modify that statement by saying that I believe that co-operation on the part of the teacher and the parent, after the pupil has been a few years at school, should enable them to determine, in a general way at least, the kind of work for which the child is by nature fitted. Some believe that psychology has now reached the practical point where its principles can be consulted for the purpose of guiding a youth to the vocation for which he is best fitted by natural endowment. If that is true much time can be saved by adding to the faculty of every

school system an expert psychologist who would classify the school material according to the capabilities of the pupils. We all know that much time is wasted in trying to teach boys, whom nature endowed for the trades for the professions. Again there is a great waste in spending months if not years in the elementary school in teaching subject-matter which has little if any disciplinary value and which could be learned in a few days if the pupils were more mature.

But however much we may theorize upon and debate the educational problem, hoping to decide upon some plan whereby some of the youth of our land may acquire the tools of education and enter the factories and shops and become efficient workmen and loyal, intelligent citizens, while others become trained for the professions or administrative responsibilities, and others go on to become the scholars and leaders of intellectual thought, the paramount educational problem still remains that the ideal school should develop the young to their highest possibilities.

When the student has determined upon his life ambition, it will be easy to save time. Then he will be amenable to instruction and inexorable in self-discipline. The school can teach him to be quick, ready, resourceful, and self-reliant. He must learn to endure hardship, both to spurt and to stand a long heavy strain as circumstances require, putting every ounce of energy into his job and learning to combine individual initiative with the habit of co-operation, thus subordinating personal ambition to the common good. All these qualities can be secured by proper training, tho, as all young people are variously endowed with natural gifts, some will make greater successes than others, but all who acquire thru education those elements of character will succeed in their life work.

Saving of two years of time in securing general or advanced education in the schools of the United States without loss in preparation would mean the saving of a great fortune each year to the taxpayers and those who liberally contribute to the educational facilities of the nation and would add two years to the working period of every student thus educated. I do not believe it can be done by renaming the grades so that the high school will occupy six years, but I believe it can be done, as I have said, thru organization of the school forces, which would insure permanency in school administration and superintendency and higher standards of scholarships and professional training on the part of the teaching force.

But notwithstanding the attack the American educational system has had to meet in recent years, I wish to say in conclusion that I consider that the schools have a wonderful record. "By their fruits ye shall know them." What a school system is, is to be determined by the kind of men and women it produces, and I unhesitatingly defy the whole world in time past and time present to show so vast a proportion of citizens so well off, so contented, so remunerated by their toil, as is to be found in the United States of America today.

DEPARTMENT OF KINDERGARTEN EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—CATHERINE J. TRACY, Ethical Culture School.....New York, N.Y.
Vice-President—LUCY T. ELLIS, director, Phoenix Kindergarten.....Phoenix, Ariz.
Secretary—

FIRST SESSION—TUESDAY FORENOON, JULY 7, 1914

The Kindergarten Department held its first session in the Central Presbyterian Church, and was called to order at 9:00 A.M. by the president of the department, Catherine J. Tracy, of the Ethical Culture School, New York, N.Y.

The following program was given:

"The Readjustment of the Kindergarten and Primary Grades to Conform to the Same General Principles"—Philander P. Claxton, United States commissioner of education, Washington, D.C.

"Adaptation of the Work of the Kindergarten to the Needs of Individual Children"—M. P. E. Groszmann, educational director, National Association for the Study and Education of Exceptional Children, Plainfield, N.J.

After the program came a discussion which was participated in by the following: Lucy T. Ellis, director, Phoenix Kindergarten, Phoenix, Ariz.; Joseph S. Gaylord, professor of psychology and pedagogy, State Normal School, Winona, Minn.; Anna I. Jenkins, director of Roosevelt Kindergartens, Pasadena, Cal.; and M. P. E. Groszmann, educational director, National Association for the Study and Education of Exceptional Children, Plainfield, N.J.

The following persons were appointed as a committee to nominate officers for the ensuing year:

Mrs. A. O. Ware, president, Training School, South Bend, Ind.
Anna I. Jenkins, director of Roosevelt Kindergartens, Pasadena, Cal.
Myra M. Winchester, educational director, National Kindergarten Association, and special collaborator, Kindergarten Division, Bureau of Education, Washington, D.C.

SECOND SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

The department met in the Auditorium at 2:30 P.M., and was called to order by President Tracy.

The program announced as the first speaker Luella A. Palmer, assistant director of kindergartens, public schools, New York, N.Y., but owing to the absence of Miss Palmer, her paper on "Problems versus Subject-Matter as a Basis for Kindergarten Curricula" was read by Miss Tracy.

The following songs, all with the exception of the "Moon Song" suitable for kindergarten children, were then presented by Ida C. Knapp, formerly supervisor of kindergarten music, Detroit, Mich.:

"The Shepherd's Idyl," "Swinging Song," "Boating Song," "Bob White," "The Screech Owl," "The Robin," "Blacksmith Song," "Lullaby," and the "Moon Song."

Myra M. Winchester, educational director, National Kindergarten Association, and special collaborator, Kindergarten Division, Bureau of Education, Washington, D.C., spoke on "What the United States Bureau of Education Is Doing for the Kindergarten."

Discussion: Margaret E. Schallenberger, commissioner of elementary schools, Sacramento, Cal., and Mrs. A. O. Ware, president, Training School, South Bend, Ind.

The Committee on Nominations submitted the following report:

For *President*—Anna M. Stovall, supervisor and normal instructor, Golden Gate Kindergarten Association, San Francisco, Cal.

For *Vice-President*—Myra M. Winchester, educational director, National Kindergarten Association, and special collaborator, Kindergarten Division, Bureau of Education, Washington, D.C.

The committee recommended that the power to appoint a secretary for the department be given to the incoming president.

The report was unanimously accepted.

WINIFRED OHR, *Secretary pro tempore*

THIRD SESSION—FRIDAY FORENOON, JULY 10, 1914

The department met in joint session with the Departments of Special and Elementary Education in the Auditorium, and was called to order at 9:00 A.M.

The following program was presented:

"Standardizing the Work in the Kindergarten and Elementary Schools"—Georgia Alexander, supervising principal of schools, Indianapolis, Ind.

"A Practical Experiment with Backward Children"—John W. Carr, superintendent of schools, Bayonne, N.J. (For this paper, see Department of Special Education.)

"Reading and Arithmetic as Tests of Mental Ability"—Clara Schmitt, Child-Study Department, public schools, Chicago, Ill. (For this paper, see Department of Special Education.)

"The Montessori Message—True Education the Basis of a New Civilization"—Louise Dixon Boyle, New York, N.Y. In the absence of the writer, this paper was read by the secretary of the department.

W. E. TAYLOR, *Secretary*

PAPERS AND DISCUSSIONS

ADAPTATION OF THE WORK OF THE KINDERGARTEN TO THE NEEDS OF INDIVIDUAL CHILDREN

MAXIMILIAN P. E. GROSZMANN, EDUCATIONAL DIRECTOR, NATIONAL ASSOCIATION FOR THE STUDY AND EDUCATION OF EXCEPTIONAL CHILDREN, PLAINFIELD, N.J.

Is the great educational reform about which we have been talking for years a happy reality in our schools? I fear it is not, and we have been slow in carrying our theory into practice, imprisoned as our thoughts and habits have been by the fetters of tradition. Our schools still produce too many failures; too many children fall behind or leave school before they have received the training they need; too many drift into idleness, shiftlessness and even delinquency, who might have become useful citizens. So there must still be too much uniformity.

In fact, the slogan of uniformity has assumed a new guise. We are now talking about "standardization," even of the mental tests by which we measure the efficiency of a class, or a school, or an individual child. As if we could approach any two children in exactly the same way, or as if the conditions of any two classes or schools were exactly alike!

When the kindergarten was first introduced into this country, it was justly hailed with enthusiasm as a new gospel of freedom from scholastic

narrowness and pedantry. It gave a new outlook upon the possibilities of child development. It took advantage of those valuable formative years which had been neglected by the traditional school in which education was held to be synonymous with book learning. It led the educator back to some realities in child life. And it recognized the symbolic stage in the development of the child mind.

It is hardly necessary to enter here into a discussion of the history of the kindergarten movement in this country. It is equally unnecessary to dwell upon the criticisms hurled against it. But two great mistakes which have been made must be discussed here: The one is that in the general kindergarten practice the original Froebel Gifts and Occupations and Games and Songs have been adhered to without modification, in a stereotyped form, and with the exclusion of everything that might have enriched and broadened the life of the kindergarten children. Thus there was a relative paucity and one-sidedness of educational material which left many a child of that age unprovided for and unappealed to. For the newer appreciation of genetic psychology has taught us that the child is a much more complex being than was known at the time of Froebel and that the laws of the development of the individual cannot be understood without a knowledge of race psychology and biology.

Again, the rigidity of general practice makes itself felt in the tendency toward uniformity. Group work is the rule; individual work, the exception. All children in the same group are supposed to do the same thing practically in the same way at the same time. Individual differences in execution, which, of course, cannot be avoided, are as far as possible discouraged so that a uniform standard of perfection may be attained.

The children march and sing at the same time, they dance and play in a prescribed and imitating fashion when the program requires it; they weave and model and draw and lay sticks and build at the same time in a formal way and following conventional, traditional patterns.

It has been, in a measure, a misfortune for the kindergarten that it has succeeded so well in this country. In its own native home it has never been fully recognized in the public-school system, and private initiative, adapting itself to local and special needs, kept the kindergarten idea freer from formalism than was possible here. As soon as the kindergarten became a feature of public-school education, in the American system, it partook of the faults characteristic of that system. It ceased to be a *kindergarten* and became a classroom arrangement. It imprisoned the children indoors and became a matter of chairs and tables and order and discipline and quiet and co-ordination. However, the young child is repeating, in his life instincts, his games, his experiments with the world about him, the experience of early race history. He wants to play on the floor, not to sit orderly, for any length of time, on a chair; he wants to play in a sand heap, not on a sand table; he wants to be dirty, not neat; he wants to play

with water, and wade, and throw, and climb, and drop things, and play hide-and-seek, and use a stick, and do all sorts of primitive things. The child who easily conforms to the routine of an orderly kindergarten is either abnormal or subdued.

Again, the young child is not naturally a social being. He is individualistic, just as his remote ancestors were who saw in every other individual a competitor. True, this independence must be converted into a realization of the social conscience. But this is a growth which cannot be forced, or else it will be an artificial thing, and the child so constricted will harbor an everlasting resentment against a social order which curtails his freedom. No wonder that we have so little community spirit among our grown-up population. The time comes naturally when the child, seeking companionship for the projection of his own personality into other lives and enlarging his own personality by making others a part of his own emotional and mental being, will socialize himself. Then the rights and privileges of community life, as well as the duties and functions involved in it, will enter into his consciousness.

It is here where the so-called Montessori methods have hit the kindergarten hard. These methods and suggestions are by no means original, having been used for a long time in a progressive reconstruction of school and kindergarten systems. They have characterized our work for the exceptional child in particular and had been formulated long before we heard of Montessori. It is, however, interesting to note how the American public, as soon as a foreign voice was raised in iconoclastic enthusiasm, immediately clamored for the recognition of principles which it had so long considered with distrust. Now, all of a sudden, teachers discover that it is really possible to have a group of children under much greater individual freedom than had been thought feasible. In the light of these principles the teacher is first of all an observer. She studies the situation and acts accordingly; she does not approach the child with a preconceived idea of system. She realizes that obedience is a sacrifice of self on the part of the child, a sacrifice that will be made more readily when the child not *knows*—for that is impossible at that stage—but *feels* the necessity for it, thru the confidence his educational leader and his comrades inspire in him. This is certainly the manner in which a normally vigorous child in the home is educated. Force and punishment, fear, and even an artificially stimulated desire to please will never develop a child's best, innermost faculties. He may become a conformer, a pattern, a hypocrite, a coward, a prig, an "average" child, but never a character.

The Montessori movement suggests another thought. It represents an effort at educational reform largely adapted to the children of Italy. Some of the singular omissions observable in the system, some of its surprising features, yea, even the very extremes to which it goes in the matter of freedom, must have their cause and origin in the conditions under which

it was developed. It is not, strictly speaking, an international system, at least not in its details, if it may be so considered in some of its general principles. These conditions are racial and historical. For this very reason it cannot be merely copied in America; just as little could the Binet scale of intelligence, "made in France," be applied to American children without many modifications, some of them being adjusted even to the children of a certain locality. It is not possible to enter here into a discussion of these conditions; suffice it to say that here is a field of fruitful study and discovery. But what we may learn from these facts is this: In applying any educational system or method we must consider racial differences. There is a difference in racial atmosphere and attitude, life habits and emotional response, even in cultural development. What appeals to one race will not appeal to another. In our country, with its mixture of raw material cast upon our shores from different countries, it is absurd to think that kindergarten practice can be the same in the Italian sections as in the ghettos, in the Polish districts as in those inhabited by families of German or American lineage. And where, in any individual kindergarten, there is a conglomeration of racial types, the work will have to be carefully differentiated to meet the needs of native instincts and ideals.

Further, even within the racial groups, there are different culture levels. To quote from a previous paper of mine:

> We have the condition of geographical isolation, as is the case with our "contemporary ancestors" in the mountainous backyards of Virginia, Tennessee, Kentucky, and the Carolinas. . . . . These fragments and relics of bygone times have been left untouched by the progress of civilization above and about them. They represent to this day mediaeval and even primitive life conditions and instincts. The great modern improvement in the means of travel and the new migration of peoples have begun to mix these various layers of human material together to some extent, and to distribute them all over the world, without essentially changing them at once into modern elements of culture.

To all these elements the kindergarten holds out its hands and says: "Let us live with your children!" Must, then, its work not be adapted to their special needs?

It is almost superfluous to add that further adjustments of the daily routine must be made to suit the needs of individual types of mind. Do not say that the young child does not present such a variety of problems. Quite the contrary: It is essential to make distinctions at the early age so as to start the child right on his career. I admit that the finer individual differences, such as represent an accumulation of family traits, imitations of environmental conditions, and special endowments and preferences, manifest themselves fully only at the period of adolescence. Yet, even in the baby, difference of type is clearly recognizable.

There is, first, the difference in physical and mental growth rate. Not all children of three or four can wear garments of the regulation size or react upon stimuli in a uniform manner. Their sense perceptions and

reactions will show wide differences; their motor co-ordination, their balance, their imitative and constructive ability will vary within wide limits. Their endurance, their concentration, their ability to learn from errors will show a multitude of differences. They will progress with a very great diversity of speed. Some will still need the large gifts and to work in their occupations on a large scale when others will have proceeded to be able to cope with rather minute adjustments. Some will still be satisfied with the symbol when others will want realities. There are similar differences in the older ages. Age is a very relative thing. The condition of a child at any given chronological age is determined by a number of growth factors, physiological, psychological, mental.

Further, there are distinct differences in mental attitude and aptitude. Some children are born individualists, born leaders; others are naturally conformists and want to be led. There is the child who is afraid of nothing; and the other who shrinks from publicity and competition. There is the one who is always original and inventive and who hates to merely imitate; others have no spark of originality and depend absolutely upon models and patterns. Should you not consider these differences, among many others? You will surely not say that it is one of the first duties of the kindergarten to curb the forward child, to check the impulse of leadership, to mold the heretic thought and non-conformist method into the form of conventionality. The history of the race is so full of bloody struggles against orthodoxy of all kinds that we should guard against the stifling of souls in the beginning of their growth. Not oppression, but wise guidance, on the basis of a real understanding and appreciation of underlying motives and conditions, is what is needed. It is only too often the bright child, the child of initiative, that is made the victim of the leveling efforts of the school and kindergarten, so that his career is hazarded from the first. So few of us have the faculty, or the patience, to enter into the intentions of little children. Their actions are often gravely misunderstood, their motives unappreciated, their minds and morals undervalued, their emotions misrepresented. A gulf will then open between the teacher, or parent, and this budding soul, a gulf difficult of bridging; and the young heart will shut itself in, and the young mind will be warped.

To illustrate, I will refer to a very common practice. The kindergarten teacher will draw houses, tables, cats, and other things on the blackboard or show these forms in the way of stick-laying; or develop sequences with the building gifts, illustrating steps, bridges, and other structures; or punch holes in sewing-cards for the sewing-out of conventional and life forms, etc.; and the children are expected to imitate these things in the regulation way. This presupposes that they see the things represented in the same symbolical form the teacher sees them, which form is intended to contain all the essential features of the objects thus delineated. But a study of the spontaneous drawings and structures of children shows that

this is a mistake. Children do not see things in the regulation way. To them, features quite different from what the teacher thinks should be shown in the reproduction seem essential.

The blackboard forms of houses, cats, etc., are nothing but pictographs, picture-writing, hieroglyphics, as it were, symbols of the real things, and the child uses them as such. In the ordinary practice, whenever he is asked to draw, or lay with sticks, or build with blocks, or what not, a certain object first so presented, he will always reproduce the original symbol without any freedom of deviation, or any attempt to express what is really in his mind. Thus, a conventional method is introduced which counteracts the natural instinct of the child to represent things in his own way. The ordinary exercises perpetuate this conventionalization. Individual attitudes and visions are entirely lost sight of, and much opportunity is lost to study and understand what is really in the child's mind or where his aptitude lies.

Imitation is said to be one of the fundamental instincts of the child at early stages. True enough; but imitation rightly understood. As said before, there are children who can do little more than imitate; but they must not set the pace for all. As soon as the teacher leads the child into stereotyped form she is on the wrong track. She must always first appeal to the child's own method and merely assist him in expressing himself. In this connection, I am, as often, reminded of the paradoxical saying of the late Dr. Harris: "Of course, the teacher must be an example; but she must take care that none follows it." In other words, while she should be an inspiration to the child to find the right path, she must never be a pattern after which he molds his own individuality.

It may be of interest to quote here from a report of the kindergartner of Herbart Hall, our institute for atypical children, the contrasting cases of two boys. A is older than M and of an entirely different type of mind, altho both were very backward when they came and are really beyond kindergarten age, so called.

A showed in his Gift work a preference for small material, dull colors (always chose the brown tablets instead of the red and blue and yellow), and accurate details in construction. His natural diffidence called for an encouraging method. I used at first the free play, then combined it with imitation and suggestion. Toward the end of the year he had acquired confidence in his own powers, and, in response to any given suggestion, would bravely choose his own material to carry out an idea.

In many cases the suggestions came from his little school-fellow, M. This child has a powerful imagination and at the same time a marked tendency to utilize the things he can get hold of. Once, while building with the Sixth Gift (large size), he found that his train was so tall that it could not pass under a four-block high bridge. He then brought two loads of boxes (8) from the cupboard and made a fine bridge. When A saw what M did, he took the cover of a cardboard box and improved his house.

As a rule, A would spend the full Gift period in making and perfecting one construction, while M would build ten different things, in a careless, rapid way. A's perseverance in his work is quite remarkable. One day he tried to build a castle with the

tablets of the Seventh Gift. As the task seemed too hard he tried to make a tunnel. When told that the tablets were not intended for that purpose he begged to be allowed to try. And altho he spent thirty minutes in trying (the tunnel came down twelve times), he finally succeeded in showing me a smooth, carefully finished tunnel about ten inches long.

Examples might be multiplied. And I wish to have it understood that I believe in the possibility of all these things in a real kindergarten. All the Gifts and Occupations, all the Games and Songs, and all the traditions have their legitimate place. But the kindergarten is more than all that. It is a *principle* and around that principle we may assemble a multitude of means and methods among which we may discriminate for the sake of reaching the individual child.

A kindergarten should have the wide scope of a well-regulated home in which each child may live his own life and share the life of his fellows. There should be presiding over it a motherly spirit of large sympathies and of fine discriminative power, with large resources as to self-adjustments to ever-changing situations. There must be the atmosphere of freedom and encouragement. There must be readiness of a true interpretation of all manifestations of the budding infantile minds. There must be open-air work, in a garden, in a yard, with sand piles, flower beds, climbing-ladders, swings, and puddles. The room of the kindergarten must be a paradise of toys and activities. Add the workbench, and the multitude of really educational toys and occupations which are so abundant nowadays, to the traditional gifts of the kindergarten. Break up the monotony and the routine of the orthodox program and introduce the child into a world of real life. There are numberless songs and games that can be safely adopted into the system. Let the children express their own feelings in free rhythm, in dance, and song. Do not tarry over the songs of the shoemaker, blacksmith, and carpenter, but take the children to the workshops to see the men at work. Take them on excursions to the country instead of merely singing and talking about the farmer and sowing and reaping and thrashing. Let them have miniature garden-farms and shops of their own, with real tools and spades and wheelbarrows and work that will give their growing bodies exercise such as mere calisthenics will never provide. There should be more virility in the kindergarten, not merely girlish notions of butterflies and dandelions and chickadees. Do not for a moment forget that even very little boys are real boys after all. Then there will soon be a wonderful activity and bustle, and the individual aptitudes will manifest themselves for you to observe and study and make use of—use, not for the individual child alone, but for the child community which will profit by this sharing. And the sharing will react in a socializing way upon the individual. Break up the lockstep in the kindergarten and set the example for our elementary and high schools, so that they also may set the child free and give the different types opportunity to grow unfettered but wisely guided.

After all, we can do our best only when we can act in our own way and be ourselves. Then we shall also appreciate other selves and enter into genuine altruistic relations. A community built up by enfranchised individuals who care not for convention, nor tradition, nor precedent, nor fashion; whose judgment is not affected by fear nor false ambition; who strive for the best that is in them and feel sure of an appreciation of their motives will be the strongest on earth.

WHAT THE UNITED STATES BUREAU OF EDUCATION IS DOING FOR THE KINDERGARTEN

MYRA M. WINCHESTER, EDUCATIONAL DIRECTOR, NATIONAL KINDERGARTEN ASSOCIATION, AND SPECIAL COLLABORATOR, KINDERGARTEN DIVISION, BUREAU OF EDUCATION, WASHINGTON, D.C.

The Bureau of Education has always had a warm interest in the kindergarten as a form of education. Today that interest has developed into a definite effort in behalf of kindergarten progress in the United States.

The statutory function of the Bureau of Education is to "collect and diffuse" educational information, to the end that educational systems in the several states and territories may benefit. A legal prescription of this sort means little or nothing unless vitalized by a policy. In the case of the Bureau of Education and the kindergarten division within the Bureau that policy is one of simple service—the desire to serve the public for which and by which it was created. The Bureau belongs to the public, and unless it serves the public it is not fulfilling its function.

In pursuance of this function and this policy of service, the Bureau has compiled and published much-needed statistics of kindergartens; it has furnished information gathered in this and other investigations to the thousands of school officials who have sought aid; and it has supplemented the bare information at hand, wherever possible, with that constructive suggestion which is the justification for statistical work of any kind. Thruout this task of compilation and distribution, the Bureau has endeavored to maintain that intimate sympathy for kindergartners and the kindergarten that makes information welcome and advice eagerly sought.

Whatever their wont elsewhere, in kindergarten work statistics have a habit of soaring above the commonplace of tabulation and totalization. The life is in them. The inquiry blank ceases to be a mere tool in the mechanics of investigation. For one it symbolizes the aspiration of a struggling kindergartner; for another it is a spur to better things, a stimulus to higher standards; or again, in the aggregate, it seems to reveal the romance of the race—as out of the sifting, sifting, sifting of the dead forms comes the living image of higher and nobler ideals in education.

Nor does the Bureau judge of kindergartens only thru the meager record of the questionnaire. The information thus gained is constantly checked up and supplemented by direct communication with real teachers in real schools; by constant conferences with those to whom the problems of the kindergarten are everyday practical things that must be solved, not merely theorized about; by frequent attendance at educational meetings to hear kindergarten questions discussed, not merely by the friends of the kindergarten, but by those who have as yet failed to know its power or would seek to replace it with some newer claimant for the task of teaching young children.

No one who does not see the work from day to day can realize the varied opportunities that come to spread the tidings of the kindergarten; to help in special cases, here, there, and everywhere; to make kindergartens grow where none grew before. One state's law becomes another's inspiration; a simple answer to a simple question starts a chain of kindergarten interest little dreamed of by the inquirer or by the person who phrased the reply; lists of books, handed on from one worker to another, find new soil and make a new growth of the Froebelian spirit. Frank, unprejudiced comparisons of kindergarten work with Montessori and other methods; the problem of the two-session kindergarten; the reorganization of training-school courses—to furnish accurate information and enlightened opinion on such points as these is to stimulate interest in kindergarten education in a hundred new channels and advance the cause accordingly.

What are the methods by which the Bureau gets its information out to those that need it most? First of all, there is the Bulletin series, originated in 1907. *Bulletin No. 6* of the 1914 series was devoted solely to kindergartens—a statement of present conditions, statistics, opinions of school superintendents, and contributions from the meeting of the International Kindergarten Union. This is the forerunner of a line of bulletins to be issued on kindergarten work. By means of these bulletins school officials everywhere will have their attention directed to the problems and possibilities of the kindergarten.

The annual report of the Commissioner of Education contains a chapter on kindergarten progress, and copies of this are also reprinted separately for pamphlet distribution. A number of shorter leaflets will soon be issued; and, in order to reach all kindergarten teachers, a special series of kindergarten letters will be prepared, to be mailed at regular intervals to kindergartners, school superintendents, university professors of education, editors of school journals, and others. An address list of individual kindergartners is being prepared for this purpose.

Some of the most valuable work the Bureau does, however, is not thru its printed material, but by correspondence. The highest school officials are constantly writing for information not readily available in printed

form. The kindergarten division receives a large number of such inquiries from most important sources, and the information given in reply frequently forms the basis of a new state, county, or city policy in education. This information is invariably impartial; it is furnished to both sides, without fear or favor, in a local discussion; and it is frequently the deciding point in a controversy.

The whole question of the application of the material printed and furnished by the Bureau is a fundamental one. If the work of compilation has been worth while, the actual publication is only the beginning of a long career of usefulness. In the case of a bulletin on kindergartens, for example, the ultimate value depends on the use to which it is put; it depends on the recipient. The wide-awake kindergartner, school superintendent, interested citizen, or whoever he may be, will find that he can institute fruitful comparisons between his own community and others similarly situated; between his own state and other states; between his own newly aroused ideals and the conditions he finds around him. He can see how his own community measures up; he can make plans and start a campaign on a basis of fact and experience; he will be able to utilize the information furnished him by the government in the way it was intended to be used—as a guide to local educational development.

A word as to the Bureau's plans for kindergarten work during the coming year. A careful study of the two hundred kindergarten training schools will be completed and published. Another bulletin will take up the fundamental problem of the integration of kindergarten and primary grades. A briefer bulletin or leaflet will give practical advice on the equipment necessary for starting a kindergarten. The series of periodical letters will keep individual kindergartners *en rapport* with current problems and experiments. Two other studies will be under way before the close of the year—an analysis of the supervision problem in the kindergarten and a general survey of all forms of education for children below the normal school age.

STANDARDIZING THE WORK IN THE KINDERGARTEN AND ELEMENTARY SCHOOLS

GEORGIA ALEXANDER, SUPERVISING PRINCIPAL OF SCHOOLS, INDIANAPOLIS, IND.

The first epoch-making book on standardizing of education, *Laggards in Our Schools*, by Leonard P. Ayres was copyrighted in June 1909. It is not to be wondered that in five years we have not wholly found our way, and it will doubtless be many a "five years" before there is any settled agreement as to what is standard education. But we must confess that we have known for a long, long time that children do not get what they

should and could get from the common schools. It is to our shame that these efforts to better education by more scientific methods were not made by teachers engaged in the practical everyday school work. There seem to me two reasons for this. First, we consider ourselves as mere teachers or instructors and do not realize that we are also citizens with a responsibility which no one else in the country is so capable of bearing. The second reason why teachers have not been leaders in this work is that the daily routine of the schoolroom crowds out, as it should not, the study of the theory of teaching.

The effort to standardize public education is appearing in three forms, mutually interdependent: surveying school systems as wholes; standardizing the physical conditions under which children work; and, last, testing the various mental attainments of pupils under existing conditions, with a view to establishing an average of what is being accomplished in the best schools of the country. Let us look briefly at these in turn.

Since 1910, twelve cities, according to a report by Superintendent James H. Van Sickle, have ordered thru their boards of education a public survey of the work of their local schools. The public has the right to demand an accounting of the money it is spending as well as an appreciation of the value of the training we are giving future citizens. Such surveys will on the whole be beneficial. They will both educate the public and serve to stimulate school officials to progressive policies. The men who have helped on these surveys already made are among the leaders of education in the country. They have been earnest and honest in their efforts. But an examination of the personnel of these committees betrays a weakness that invalidates much that they have to say about the instruction in the various cities. Of the twenty-four men listed by Superintendent Van Sickle, eight are city superintendents and fifteen are educational psychologists. The twenty-fourth man I have not been able to trace. The theorists outnumber the practical men two to one. Again, of the eight city superintendents, how many have ever taught a primary class, or could? It is the exceptional superintendent who did not arrive at his position by way of the principalship of a high school. Most superintendents make no claim to be experts in kindergarten or primary instruction, and yet 60 per cent of all the pupils in school are in these grades. If practical school men know so little about this department of public education, what about the educational psychologists?

It happened in one week this spring that I saw two first-grade classes working under as nearly similar conditions as might be found. Children in both classes came from homes of cultured people. They were, without exception, healthy and well developed. Several children in both classes had attended kindergarten. Their school work had been a joy. Both teachers were experienced and skilled in management. Class A read at

sight a lesson from the last pages of a second reader and made an impromptu dramatization of it. They had read one other second reader. Class B did not yet know all of the sounds of the letters and had finished two primers only. Class A could write interesting original stories two pages in length, in fair penmanship and other mechanics. Class B could not make all the letters in script. Class A could subtract without pencil 47 from 91 and have the correct result in thirty seconds. Class B had had no number work except some work in indefinite measuring. In short, Class A had more than doubled the work of Class B in three subjects, during the eight months of school. I visited Class B in company with a professor of psychology, one of the ablest and most sincere men in the country, who had with him a class of university students about to go out as teachers. During the later discussion of the lesson that we had observed there was no mention of the progress which the children had made since September, and the teacher received only the warmest praise for her work. This professor takes classes year after year to observe the work of this same teacher, and as he has no data as to rate of progress because he sees no other teacher at work he is not aware of her serious defect. Not knowing that the children are comparatively behind, he cannot of course seek the cause. The eye of the trained supervisor would immediately detect what is familiarly known as "show work." Yet so important is this subject of progress that the National Education Association three years ago appointed a Committee on Economy of Time in Education. This committee reported in February last that at least two years can be saved in the time now given to elementary instruction. The great trouble in all our work, trite as the remark may seem, is that theory and practice go separate roads. If I have carried you with me, may we not conclude then, in regard to these surveys, that, before any adequate judgment can be passed upon the instruction the schools of the country are offering, the board of examiners must include not only city superintendents who know about administration and educational psychologists who know about aims, but also experts who know what elementary instruction ought to be? And the last will be chosen from the women teachers who are handling the practical problem.

In regard to the movement to improve the physical conditions of children, there is little but praise to be said for the medical profession at whose instance medical inspection has been installed. Our greatest need here is due to the lack of legislation to enforce the proper care of children after the trouble is diagnosed. Until the school nurse has a vote, she will not be popular with a health board under political domination as most of our boards are. You and I know enough half-blind children to make a great City of Darkness, purely because their parents, after being told that the children need spectacles, are too indifferent to buy them.

I must not close this part of my paper without a word as to what we, as teachers, are not doing for the health of the children, in some ways the greatest indictment that can be brought against us. Our rooms are too hot and the air is vicious. Theory and practice not together again! Because of this we are losing 50 per cent of the mental efficiency of the children. The only complaint one really hears against the children who have come from the kindergarten is that the first-grade teachers have trouble in getting a child who is used to moving about in a schoolroom to compose his little limbs in rigidity by the hour. With the help of the kindergarten and the reduction in the size of classes, and the open-air school and the books on hygiene, and ourselves, perhaps we may make some advance.

As to standardizing classroom instruction, the theorists have had the courage to make the start. Whatever criticism follows is therefore not to be construed as an attempt to minimize the value of the pioneer. The failures are due to the fact that the pure theorist in education, working as he does in isolation, works only with mind as intellect—a thing that never exists. Even tho he calls to his aid persons engaged in actual schoolroom practice, yet his judgment remains faulty, for no one can wholly make his own the experience of another. The same is true in the medical world; the pure laboratory man never directly affects practice. The great saviors, such as Koch and Pasteur, as heads of great hospitals where thousands of cases were handled yearly, kept theory in practice and thus made it of true service.

Perhaps from the better known tests I can give you some examples of this total ignoring of the child's mind as emotion and will.

One of the requirements in the Binet test is to ask the subject to tell what he would do should he miss a train. There is but one way to give that test and have the entire mental response, and that is to have the subject miss a train. Another requirement is to ask the subject to say as many words as possible in three minutes. A boy in one of our defective schools said over two hundred. College professors and others trained to logical thinking have broken down at one hundred. Words to them are dynamic, which, when properly grouped, propel ideas. The mind, therefore, develops a hotbox when reciting disconnected words and stops entirely. The test thus puts the premium on the illogical.

The tests in penmanship by Ayers and Thorndike are interesting and make a scale by which copybook penmanship may be rated. But alas, a child's penmanship in his copybook is far better than his penmanship on other occasions. So any scale that measures penmanship in which there is no emotional stress or purpose is of little help to us. What we need is someone to supply our pupil an incentive so stirring that we may get in the school his real penmanship to measure and improve. In other words, there is little use in testing results that are as artificial as school penmanship is.

The same criticism may be applied to the tests given in Buckingham's monograph on spelling.

I find on examining the compositions offered by Hillegas that he does not appreciate this necessity for life any more than the other men mentioned. In my opinion not one of the ten samples given in his scale of measurement (and only six of these were really written by young people) has any actual invention in it. The literary merit of the sentence construction, together with the mechanics of writing, form the basis of the grading.

I must not close without saying that the Courtis tests in arithmetic are serving a very useful purpose in measuring what is being accomplished in that subject under present conditions. But that is not setting a standard. What we wish to know is, given ideal conditions, What might a class attain in the light of our present knowledge?

If state and federal governments build model farmhouses, why are they not creating model schools? The need for these is infinitely greater. In my opinion, it is because we have not yet demonstrated what public education should be. The theory of which we hear so much at teachers' gatherings is a thing not yet in practice in any one school nor indeed in any dozen schools. I grant that the wisdom of Minerva would be dragged in the dust had she to teach school in conditions under which many teachers work. The crying need, therefore, is for the practical demonstration. Then the public will quickly recognize what we are doing. Montessori, within three years, is able to get her very defective system taken over by the Swiss government merely because she showed some practical results. Mr. Wirt's plan for vocational work in connection with the industries of the city of Gary has attracted attention that is nation wide.

Benjamin Franklin says that "sensible people will give a bucket of water to a dry pump that they may afterward get from it all that they have occasion for." I have this proposal to make:

The permanent fund of the National Education Association, according to the last report of the Treasurer, amounts to $186,602.50. I propose that we show faith in ourselves in the hope of establishing a larger public faith by using this money to establish twelve demonstration schools in the various sections of the country which should seek to show in practice the best thought in education. These schools should be known as the Demonstration Schools of the National Education Association and should work under a large committee whose chairman should be the United States Commissioner of Education. The members of the committee should represent all classes of educational workers, and half of them should be experienced women teachers. The plan would ideally include kindergarten, elementary, and high schools. Each kind of community, both manufacturing and agricultural, should have its special curriculum. For this last Dr. Claxton has already outlined the model farm school in his report for 1913. Of course $186,000 will not finance the project. It is but the bucket of water that

we give to the dry pump. There is not a community under the stars and stripes that would not rise to the opportunity to give all the money needed to have such a school for its very own. Let me close with a quotation from Professor John Dewey taken from the *Educational Situation:* "The American people believe in education above all else, and, when the educators have come to some agreement as to what education is, the community will not be slow in placing at their disposal the equipment and resources necessary to make their ideal a reality."

DEPARTMENT OF ELEMENTARY EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—M. E. PEARSON, superintendent of schools.....Kansas City, Kans.
Vice-President—J. W. CRABTREE, president, State Normal School .....River Falls, Wis.
Secretary—FRANCES JENKINS, supervisor of elementary grades, public schools ....Decatur, Ill.

FIRST SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The Department of Elementary Education met in the Central Presbyterian Church, and was called to order at 9:00 A.M.

The following program was presented:

Topic: "The Individual Child and His Individual Needs: The School Life of the Child":

a) "Self-Expression in the School"—J. W. Searson, professor of the English language, Kansas State Agricultural College, Manhattan, Kans.

b) "Self-Protection by the School"—Elizabeth Hall, assistant superintendent of schools, Minneapolis, Minn.

c) "Preparation for Service thru the School"—Neil C. Macdonald, state inspector of consolidated, graded, and rural schools, Valley City, N.Dak.

SECOND SESSION—THURSDAY FORENOON, JULY 9, 1914

The department was called to order at 9:00 A.M. in the Central Presbyterian Church and the following program presented:

Topic: "The Individual Child and His Individual Needs: The Home Life of the Child":

a) "Self-Expression in Society"—Julia F. Walker, manager, Educator-Journal Company, Indianapolis, Ind.

b) "Self-Protection thru Knowledge and Habit"—Margaret E. Schallenberger, commissioner of elementary schools, Department of Public Instruction, Sacramento, Cal.

c) "Constructive Civic Agencies"—Edward J. Ward, Chief, Bureau of Civic and Social-Center Development, University of Wisconsin, Madison, Wis.

The Committee on Nominations presented the following names:

For *President*—Margaret E. Schallenberger, commissioner of elementary schools, Department of Public Instruction, Sacramento, Cal.

For *Vice-President*—Adelaide Steele Baylor, assistant state superintendent of public instruction, Indianapolis, Ind.

For *Secretary*—Mary E. Foster, superintendent of Cass County Schools, Plattsmouth, Nebr.

The following resolution was passed:

WHEREAS, In the early history of the public schools as places for the instruction of children, there was trial of unpaid and voluntary service in teaching, but very quickly it came to be seen that for this use of these buildings to become general, systematic, and continuous, there must be definite authorization and remuneration of the work of teaching and

WHEREAS, The recent rapid developments of the use of schoolhouses by adults and older youths for civic, social, and recreational activities have demonstrated the parallel fact that for these uses to become general, systematic, and continuous, there must be definite authorization and remuneration of the school principal or other person who serves as civic secretary and director of recreation in each district, be it

Resolved, That arrangements be made for the definite authorization and remuneration of the school principal or other responsible appointee of the school board for service

as civic secretary and director of all noncompulsory uses of the public-school properties which may be approved by the community.

FRANCES JENKINS, *Secretary*

THIRD SESSION—FRIDAY FORENOON, JULY 10, 1914

The Department of Elementary Education met in joint session with the Departments of Special and Kindergarten Education, and was called to order in the Auditorium at 9:00 A.M.

The following program was presented:

"Standardizing the Work in the Kindergarten and Elementary Schools"—Georgia Alexander, supervising principal of schools, Indianapolis, Ind. (For this paper, see Department of Kindergarten Education.)

"A Practical Experiment with Backward Children"—John W. Carr, superintendent of schools, Bayonne, N.J. (For this paper, see Department of Special Education.)

"Reading and Arithmetic as Tests of Mental Ability"—Clara Schmitt, Child-Study Department, public schools, Chicago, Ill. (For this paper, see Department of Special Education.)

"The Montessori Message—True Education the Basis of a New Civilization"—Louise Dixon Boyle, New York, N.Y. In the absence of the writer, this paper was read by the secretary of the department.

W. E. TAYLOR, *Secretary*

PAPERS AND DISCUSSIONS

TOPIC: THE INDIVIDUAL CHILD AND HIS INDIVIDUAL NEEDS: THE SCHOOL LIFE OF THE CHILD

A. SELF-EXPRESSION IN THE SCHOOL

J. W. SEARSON, PROFESSOR OF THE ENGLISH LANGUAGE, KANSAS STATE AGRICULTURAL COLLEGE, MANHATTAN, KANS.

Expression, in its largest meaning, is the only final evidence of life and the only means of growth. The self-expression of the child is the child's own life in process of fulfilment. If, therefore, we would deal with the child as sensibly as the scientist deals with the grasshopper, we must know the life history of the child. It is not enough that we know the story of his physical development or the processes of unfoldment of his psychic life. We must know the character of the environment he is to enter; we must have an intelligent conception of the great world of men and women in which, under guidance, he must be prepared to do his part.

In this man's-world, two words have been of paramount social significance—"conservation" and "efficiency." In the life of the child as in that of society, there is a word fraught with far larger meaning than that of either conservation or efficiency—a word which is an exponent raising every individual to a higher power—the word "adjustment." The seers in education and life have come to see that, if the school is to do its share, all self-expression of the child in school must finally culminate in the rational adjustment of the adult to the conditions to be met in all his social relationships. Potentially, the school is government, church, family, and workshop.

The larger business of the school is to take the child as he is and to develop him by directing his powers of self-expression until he is fitted to adjust himself readily and properly to all the changing conditions of life.

When the child enters school, he is a veritable bundle of spontaneous reactions. Full of life and joy, he revels in imagined freedom. He is an autocrat in the world of his imagination until stubbed toes and bee-stings, or parental guidance and restraint, teach him there is a world of law in which he can work, in which he can play, and in which he may win praise or blame. With these elemental work instincts and play instincts and with the desire to win approval, he comes serious-minded to the school.

Once he enters the school, compulsory attendance laws and truancy laws force him to attend. A prescribed course of study, dealing with matter largely foreign to his dreams and reactions, awaits him. A teacher tells him where to sit, what to do, and how to do it, and plans and patterns all his conduct. He is entertained, lectured to, questioned, inspired, and, in the moment of his greatest enthusiasms, he is examined by tests which least of all reveal his power to react. He is made conscious of failure, becomes discouraged, negligent, and finally drops out of school to do less arduous child labor on the farm or in the mill or factory. Miss Jean M. Jordan, state factory inspector for Louisiana, at the annual meeting of the National Child Labor Conference, said: "The most potent reason, in my opinion, why the children are in the factory is our school system."

A study of genetic psychology has given the educational world a fore-dream of true adjustment. "The child is father of the man"; he is truly the man in miniature. In the world of the grown child, no compulsory attendance laws will force him to join the threshing gang or attend the barbecue. He is free to choose his own occupation. Conditions compel him to get on with his employer. He receives pay for his services or bears the brunt of his own negligence. After work hours he seeks whatever recreation he desires. At every stage of work and recreation he is challenged naturally to act on his own initiative. He must adjust himself rightly and quickly to each new situation, else another person will take his chance. No reward or punishment could hold him so steadily to his task as does the consciousness that, if he fail, a hundred other men stand ready to carry on the work. At every turn, the world of industry offers perpetual motivation and challenges in a normal worker the highest possible development of initiative. Similarly, the school world should offer the child every incentive to develop those forms of self-expression which will enable him to react properly in active life. It is estimated that more than 80 per cent of the strictly vocational training of the country is offered in private schools, and that practically all those who drop out of the elementary schools either enter homes or the industries or pursue their education further in some type of vocational school. Business colleges, trade schools, private normal schools, apprentice schools, private boarding-schools, academies,

schools of dramatics and oratory, private manual-training schools, military schools, and a thousand and one special schools for boys and for girls have all been the beneficiaries of a delinquent public-school system. Such results could not obtain were the public schools encouraging the type of self-expression which makes for the proper adjustment of the individual to his work and to all other social responsibilities.

How, then, can our public schools encourage that self-expression of the child which makes for true social adjustment in the man? In general, the school must be organized and conducted on the fundamental principle that the child is self-acting, and that he himself, by his own reactions, must become moral and religious, an upright citizen, an honest, capable worker, a true servant of his country and of his kind. False school standards must give way to true life standards. Artificial school methods must be replaced by the methods of nature and life.

To this end, the dominant interest and industries of a community must have a leading place in the course of study. All our present-day studies, when first admitted into the course of study, were purely vocational. Rhetoric and dramatics were admitted to develop orators and actors; music and dancing, to train the chorus and entertainers; Latin, to train priests and scholars; geometry, to train navigators; and penmanship, to train scribes and amanuenses. The entire history of education is dominated by the vocational idea. The proper introduction into our public schools of agriculture, homemaking, business training, and trade information and practice will diminish the tendency of boys to run away from "doing" simple "sums" in order to plow corn, join the threshing gang, or drive a dray wagon. Necessary corollaries of the enriched course of study are: true vocational guidance, which leads the child to an intelligent choice of his life work; recreational guidance, not merely supervised play; and common-sense sanitation applied concretely in community life. A study of the sources of milk supply and of the consequences of using impure milk, a study of the disastrous results springing from infected water supplies, and a study of the means of preventing contagion will cause the child to respond with interest and enthusiasm, for these things are worthy the consideration of the strongest men. "Swat the fly" is a majestic recognition of the principle of self-expression as applied to sanitation.

Moreover, our school standards must be squared with life standards. When a child fails to solve a problem in arithmetic and is given half-credit for trying, he knows he has become an object of charity, and all incentive for proper self-expression in that field is removed. If he is assigned twenty words in spelling, he knows he deserves nothing if he does not spell all the words correctly. He is working on contract and not by the piece. He knows that no messenger boy receives half the pay if he carries the message only half-way to its destination. On the other hand, the child does not want to be measured by the impossible. Grading his writing on the

standard of a stereotyped copy and hinting that his conduct should square with that of the hero of the story of the hatchet and the cherry tree are equally unjust and depressing. Neither can he be inspired to do his best writing by having his paragraphs measured according to the standards of Addison, the Bible, or even a Hillegas scale. The world asks: "Can he do the work?" or, "Does he get the results intended?" When the school asks either more or less, it drives him—still red-blooded and unafraid—to face life tests; for in meeting the tests of life his highest powers of self-expression are called into action.

Again, the methods of nature and school methods are widely different. Nature permits the child to see, to investigate, and to discover things for himself. She makes of him a problem discoverer. School compels him to be a problem solver. The problem discoverer is self-acting, self-developing, and supremely happy; the mere problem solver is a slave without hope.

Specifically, the teacher should play the accompaniment and not sing the solo. The child must be wisely guided to practice self-expression. A teacher in the fifth grade once placed the following code on the board the morning of the first day of school:

RULES

1. Scraping shoes on floor.....Stay in 5 minutes
2. Whispering.....Stay in 15 minutes
3. Talking out loud.....Stay in 10 minutes
4. Dropping books.....Stay in 5 minutes
5. Kicking or cuffing.....Stay in 20 minutes
6. Marking desk.....Stay in 20 minutes
7. Turning in seat.....Stay in 10 minutes

For many days she wondered why her pupils violated every rule before the first intermission.

Not only school discipline proper, but every subject well taught, offers the pupil limitless opportunity to grow by means of self-expression. The child's growth is permanent and rapid if haply he discover the relationship between history, arithmetic, geography, language, and the world life he must live. Of all the subjects in the curriculum, language alone offers the universal means of perfect adjustment. In the home, on the playground, in the recitation, or at study, language is an ever-present necessity. Language is mind embodied, just as is a painting, a piece of statuary, a sky-scraper, or an aëroplane. To write well and to speak well are, therefore, supreme credentials.

If the language work of the elementary school were carried on in such a manner as to encourage spontaneous self-expression, the average child would be, not a mere clam, but an even more responsive being than he was his first school day.

In the formal work of the elementary grades, there are three fundamental steps in the development of the pupil's language, each of which, to

be effective, must be supplemented by the child's self-expression. First, the teacher must tell to the child good stories. These stories must be the best in the folk-tales, fables, myths, and legends of the race. However exquisitely they are told, the stories lose their effectiveness in awakening initiative and in developing the power of expression, unless they are reproduced by the child. Story-telling and story-reproduction are the foundation of all subsequent language and reading development. In a primary room recently a gifted story-teller was asked: "Why don't you have the children tell you the stories?" She replied: "They can't tell stories well. They have all they can do to listen." Later teachers who despair of ever teaching these poor creatures formal reading, oral language, and penmanship will wonder how little living things ever came to be sewed up so tightly. Self-expression is the law of growth and this law must be permitted to operate from the first.

Following story-telling and story-reproduction are memorizing and declamation. It is usual to have the child who memorizes a selection speak his "piece." If he memorizes the selection accurately and speaks it well, he has laid within him the foundation upon which oral and written composition is naturally constructed. The child who can reproduce good stories, or who can recite selections from memory, will naturally desire to write from fact or from imagination.

The third step is dramatization. In dramatization, the child does not, as many suppose, really live the character he impersonates. He merely gets the truth impressed from another angle by means of vital motor experience. The mere fact of acting a part does not imply self-expression. Self-expression comes only when the truth discovered sinks into the soul and becomes embodied in life and practice. There is no other foundation for the development, either of composition as creative art or of the appreciation of good literature, comparable to that laid in the dramatization which finds its self-expression in embodied truth. Here, too, is the foundation of reading with appreciation, of interpretative reading and literature, and of the cultivation of good taste and fine discrimination. In all language training, it is clear that not what the teacher does, but what the child does in response to suggestion, is the final measure of adjustment.

Neither enriched courses of study nor improved methods can avail, unless the child is kept self-acting, daily exercising his powers of discrimination, and habitually making right choices. The richest course in agriculture, the best-planned work in homemaking, and even the finest courses in manual training are powerless to educate the child, save as the child responds to such instruction under the spell of genuine enthusiasm awakened by the conviction that these exercises contribute toward the fulfilment of his highest dreams. Many a child has turned out, in the shops, a perfect piece of work, which was merely the self-expression of the teacher. Many a child has been apparently perfect in conduct, when his conduct was the

self-expression, not of himself, but of the teacher. How the child naturally reacts is seldom determined by how he is made to react at home or at school, but how he habitually reacts, thru right suggestion, in all his daily relationships.

Adjustment in all social relationships is the keynote of true education. Rational self-expression encouraged in the humblest school tasks and lived in the whole daily life of the child is the only effective means by which the schools can get the answer to society's problem in terms of the child's life raised to a higher power.

B. PREPARATION FOR SERVICE THRU THE SCHOOL

NEIL C. MACDONALD, STATE INSPECTOR OF CONSOLIDATED, GRADED, AND RURAL SCHOOLS, VALLEY CITY, N.DAK.

It is, first, the primary duty and high privilege of the American common school, that is, the elementary school as represented by the first eight grades, to prepare the youth for service as honorable and upright citizens, and, secondly, it is the secondary duty of this school to prepare the youth for service wherein they shall earn a good living in an honest way and spend it in a wise manner. In this connection let it be definitely understood that it is the duty of this common school to teach the youth that all useful labor is honorable and that all unnecessary idleness is dishonorable. Let it be firmly impressed upon the mind of the youth that enforced idleness is a misfortune, that voluntary idleness is a crime, and that useful toil is a sacred right and a high duty. But let us not forget it is not the chief duty of this common school to provide a system of vocational education. Skilled workmen we must have and we will have, but not at the expense of a boy's or a girl's opportunity to acquire in youth while in this school good ideas and high ideals regarding free government and its responsibilities. These workmen will come thru the high schools, trade and continuation schools, colleges, and actual experience in the field of industry, but whatever else we do we cannot afford to turn this common school into a mere apprentice shop for any occupation or profession. To do so can only mean national decay and dishonor.

Of course, this common school, as has been said, can furnish high ideals and create wholesome interests in useful toil, and it can also provide for an introductory system of vocational adjustment wherein some of the wholesome vocational interests of the pupils may be directed into proper channels. But no system of vocational education in its entirety that may seem to serve some of the countries of Europe having monarchical systems of government can ever promote the welfare of the individual or community in democratic America, and any attempt to superimpose here such a system should be repelled with abhorrence as totally un-American.

And again let it be made plain that the first and chief purpose of this common school is to prepare for righteous citizenship wherein the youth shall be so trained that they shall appreciate highly and participate intelligently in the various common governmental activities. This has been from the foundation of the government the principal function and chief end of this common school. In reading over that excellent bulletin by the bureau of education, entitled *Expressions on Education*, in which forty-five leading American statesmen and publicists are quoted, it will be found that the consensus of opinion therein expressed is that the system of education in a republic is for the primary purpose of training for citizenship. Woodrow Wilson is quoted as follows:

> Without popular education, moreover, no government which rests upon popular action can long endure. The people must be schooled in the knowledge and, if possible, in the virtues upon which the maintenance and success of free institutions depend.

The majority of the school children of the country never receive any scholastic training beyond that furnished by this common school. Thus it is vitally important that lofty ideals of civic righteousness be installed in the young minds of these future citizens in those days when the most lasting and deepest impressions can be made. In training for citizenship in the common school, it is primarily a matter of teaching the appreciation of ideals, their creation, and their necessity. No nation can long endure or long advance where there is no vision. Permit me to quote these beautiful lines written by the soldier-statesman, Carl Schurz:

> Ideals are like stars; you will not succeed in touching them with your hands, but, like the seafaring man on the desert of waters, you choose them as your guides, and, following them, you reach your destiny.

The principal ideals to be taught should be those concerned with equality, fraternity, liberty, union, preparation, and service or industry. In equality the ideal is equality of opportunity and equality before the law. In fraternity the ideal is of the brotherhood of man, looking forward to the time when righteous peace shall prevail between labor and capital and among the nations of the earth. In liberty the ideal is liberty of speech and freedom of press. In union the ideal is not only a united nation, but a union of labor and capital working together, not for the greatest good to the greatest number, but for the greatest good for all the people. In preparation the ideal is one coming to his daily work with the best training possible. In industry or service the ideal is useful work for all and all at work.

How prepare for this service? From what has been said it has been gleaned, I hope, that this common school is not only the storehouse but it is the power house wherein are created ideals of civic conduct that shall carry forward the Republic to a new plane of civilization. The question is, How shall it be done? The answer is, As it is being done in a hundred thousand schools thruout the Union. The chief agencies in the creation of

these ideals are well-trained teachers, modern courses of study, and adequate compulsory school attendance laws.

The chief factor in the success of this common school, and any school for that matter, is a well-trained teacher. This calls for a teacher who is at least a normal-school graduate, possessing good health and high ideals of conduct. To be sure, the majority of teachers in the common rural schools are not even high-school graduates, and well may we pray: "God save the Republic." But even in this field there is a change for the better, for normal schools, high schools, and colleges are awakening to the great opportunity to supply this field. The consolidated school is the institution in the rural field that is doing the most to encourage the preparation of these better-trained teachers to prepare the youth for a life of larger service in the civic-social field. Let us again be reminded, however, that the well-trained teacher is the one who holds the key to the situation.

The course of study has been enriched in many quarters by the addition of music and drawing, domestic science and art, manual training, and elementary agriculture. This is well, and particularly so when the emphasis is laid upon music and agriculture, both of which contain so much of valuable material out of which to fashion noble ideals of civic conduct. Another important feature of the enriched course of study is the provision for organized play. This is first to preserve health and, secondly, to teach the lessons of loyalty and co-operation. There should be in every school some provision to satisfy the play activities in youth, and, in passing, it may be said that there is no group so much in need of the benefits of organized play as the country children.

But it must be remembered that the civic ideals to which I have referred in the preceding paragraphs must come largely from a careful study of civics and history, reading and literature—provided these subjects are well taught by well-qualified teachers. Around these subjects must be built that edifice, the temple of righteous citizenship, not made with hands but eternal in the minds and lives of boys and girls. If this is not done in the common school, for very many it will never be done.

In order to preserve to the youth his sacred right to hours of wholesome play and years of valuable study, adequate compulsory attendance laws should be rigidly enforced to make sure that every boy and every girl shall receive a common-school diploma before attaining the sixteenth year. These laws should be so formulated and so administered that the sweatshops of the farm and the sweatshops of the city will be forever eliminated from the child life of the Republic. In some states the sweatshops of the farm are doing greater harm than the sweatshops of the city. There never have been and there never will be any high ideals of civic virtue and integrity under such adverse conditions wherein less than 20 per cent of the country boys complete this common school. The preparation for service herein required is an ideal to be realized wherein there shall be no child labor

thruout the length and breadth of the land for any child until at least this common school is completed or the sixteenth year is attained.

Let us remember that this is an age of machinery; that we live in an age intensely materialistic. This being true, it behooves us, as guardians of the youth committed to our care, to see to it as never before that we do all within our power to prepare these children for a life of genuine service in the field of civic rights and duties.

TOPIC: THE INDIVIDUAL CHILD AND HIS INDIVIDUAL NEEDS: THE HOME LIFE OF THE CHILD

A. SELF-EXPRESSION IN SOCIETY

JULIA FRIED WALKER, MANAGER, THE EDUCATOR-JOURNAL COMPANY, INDIANAPOLIS, IND.

When Kate Douglas Wiggin's book, *Children's Rights*, appeared, many persons were shocked. Parents of the puritanical type could not believe that such a book should have a place in the library of good parents and good teachers. They asserted that the children had their rights, American children had anyway. Then came individualism, and now it is self-expression. This term is equally misunderstood. Some parents who wish to be right up to date, who see in the term a loophole thru which they may escape the tedious and exacting duties of parenthood, who are ignorant, and who take the term to mean that children are to be turned loose without self-restraint, are advocating, to its disadvantage, the idea of self-expression.

Those who really know and who advocate the idea of self-expression in society are not the ones who ignore all the laws of men and angels, but they are the ones in whom have been awakened a feeling of interdependence which invigorates the disposition to deviate from the type only in those cases where the rights of others are not affected, or where deviation is not simply the result of a desire to draw attention to one's self.

Dr. Harris said:

> Self-expression can take two directions. First, that of resistance to the influences or demands of a social whole. This development makes for disobedience at school, makes a criminal in society, and converts a career into a zero by attracting against it the organized forces of the community.
>
> Secondly, the development of self-expression may take the normal direction of mastering the motives and purposes of the social whole and growing into a leader of some one of its manifold interests. Self-expression anywhere depends upon two things: first, clear thinking done in sincerity of purpose; second, opportunity under natural conditions for free expression.

Clear thinking comes from attaining skill of hand and from attaining thru letters a knowledge of science and philosophy, which are social aggregates of observation and reflection; a knowledge of history, which shows the nature and behavior of social organization, especially of the state and

church and civil society; and an acquaintance with literature, which reveals the depth of emotion and feeling and shows how feelings become conscious thoughts and actions, literature in this respect being the study which gives a knowledge of human nature.

Before the school gets the child, there has been laid the groundwork for thinking. Whether it is straight clear thinking or not depends upon the home. To develop this much-desired asset, the child in the home must have an opportunity for self-expression under guidance; to some extent this is conscious guidance, but largely it is by imitative effort.

In the beginning of this discussion, it was stated that self-expression allows a deviation from the type in those cases where the rights of others are not affected, and it was just shown that this first effort at self-expression should be made under guidance. Therefore, when obedience becomes not second nature but primary nature to the individual, then we are sure that the rights of others will not be affected. A child can come into obedience only under intelligent guidance.

You know that if the child came to school with the right training in obedience much of the so-called discipline and formality would disappear. Often we hear such expressions as this: "She is so gracious, so unselfish," and we call her a person of charming personality. This personality is largely the result of the desire to not interfere unpleasantly with the rights of others.

Too many times the pupil has to be shown that the teacher means what she says, because at home sometimes he has to obey, and sometimes when he has not obeyed he has been made much of—in fact, he has furnished amusement to his parents by his disobedience. When he advances a step socially, therefore, he does not know just what is expected of him. The child must be taught to obey, not because someone wishes to be in authority, but in order that the rights of others may not be unpleasantly affected. Therefore, one of the hardest tasks, and one that has the greatest influence on the normal form of self-expression, is that of obedience. We need not argue further the necessity of it; rather let us find some way by which we can impress the parent with the value to the child of obedience and teach the parent how to guide the child into obedience.

In the home society, the child is to be taught to reverence the great world in which the will of others prevails; the world in which the child can make a place for himself, but must also learn that every place occupied by himself has its limit.

It is necessary, for example, that small children accustom themselves to good behavior at the table, and if, every time an act of naughtiness is repeated, the child is immediately taken away, he will soon learn that whosoever is disagreeable to others must remain alone.

We do not mean by obedience that a child should be ordered about in a disagreeable way, but we are begging that he be trained in a consistent

way, so that he may, all thru his social life, understand his independence and freedom, and that these come largely thru his conduct which in no way interferes with the rights of others.

Another valuable asset which must be gained under conscious guidance is the habit of steady work and the love for it. This is primarily the product of home training.

There is nothing that delights the teacher more than to see a child come into the schoolroom and begin to work at something in a business-like way. Some will say that the delight comes because the teacher is relieved of the burden of setting the task, relieved of the responsibility of watching the child to see that he behaves. Not at all. The reason is that she takes pleasure in seeing a characteristic in the child that she knows is going to place him many paces ahead of his fellows. When you have been at the business for twenty years, taking the children out of the home and starting them on their way, it is so easy to know whether the child has had any guidance at home. Parents should know that when such training falls to the lot of the teacher it comes a little late for their child.

When the child has a direct share in the work of the adult, in the real labors of the family or the community, then he will come to school with the habit of work, and because of this there will be given to his life unity, character, and strength. Every child, if he is to express himself normally in society, must be assigned to real home occupations, tasks must be done consciously, given work arranged for week days and holidays without oversight; in every case where the child can he must help himself.

A mother told me that when her children were little they were always under foot, always in the way about the work, trying to help, but now that they have gotten to the place where they know something and have strength enough to help they do not want to do anything. Her complaint is all too common, and she with other parents must be taught that the desire on the part of young children to help with the work is very important. Froebel recognized the universal desire of childhood to be of help in the work going on around it, a rare tendency for co-operation with its fellows, and he repeatedly warned parents and teachers against discouraging, rebuffing, or checking the very important instinct. Creativeness alone is a great power, but co-operative creativeness is a much higher ideal.

The school has realized that the home has neglected to give its children this great power of knowing how to work and of loving to work. As evidence of this recognition, we need only to turn to the effort that is being put forth to teach the manual and domestic arts in schools. In teaching these arts, the school frequently does so at the expense of the child's normal self-expression, because, when the spectacular enters in, then the deviation often is a desire to draw attention to one's self, and that is negative self-expression.

Two years ago, the Indiana legislature passed what is called the vocational law, and since that time we have been struggling to find out just what this means and have been making an honest effort to teach agriculture and the manual and domestic arts. Even with the greatest care upon the part of those who administer this law, much spectacular work has been given. In many schools the children have gained skill, they have gotten certain valuable habits, the things which they have made have been unusual, yet there is a question whether development in this work has been such as to make for the right sort of self-expression. Many schools have exhibited fine big red farm gates. These gates have been displayed upon every occasion, pictures have been taken and published, boys have stood by, realizing that a red farm gate makes a good show in an exhibit. But when you follow these boys upon their fathers' farms, the gates drag and are unpainted. Now when we have solved the problem and have given the right training along with this work, these boys will not be content to exhibit a red gate until a beautiful one swings in every place where it is needed upon each one's father's farm. And so with the girl who bakes bread at school and when company comes, but refuses to do so when there is no chance for attracting attention to herself by so doing.

Obedience and work—two words that are unpopular, words which have a harsh, unfriendly sound, words which the young resent and which many of you think are directly in opposition to freedom, yet these are the two elements which the home lets escape to the school; but they must be built into a young child's life if he is to express himself in society normally. Thru work, literary, artistic, or constructive, we are always able to see the individual; the most personal inner life of the worker is shown in his work. The habit of obedience and work is given to the child under guidance, but his self-expression will be a result largely of the imitative effort which he puts forth.

I asked a mother who has had a wonderful experience in study, in travel, and as a teacher to give me her idea of self-expression. She put her hand over her head and said:

> There is no such thing as self-expression. My two boys imitate everything which they see their father do or hear him say. We have let go of all the books and most of our theories and are trying to be good examples before our children, because of the law of imitation.

The law of imitation is not so well understood in many homes; therefore, if we believe, as Dr. Harris tells us, that self-expression may take two directions, and, further, if the child is to receive much of his guidance thru an imitative effort, it is somebody's business to have the home understand the law of imitation equally as well as does the school.

We are plainly admonished on every hand to shape environment so as to contribute best toward ideal results. Because children are such imitators of one another, they are unconsciously securing some sort of education. The

great educational question is how to select wisely copy that is worthy of imitation. Care must be exercised to exclude undesirable companions, those with either physical, mental, or normal defects. An old proverb says: "If you live with a lame man you learn to halt." Parents should be almost as deeply concerned about educating their neighbors' children properly as they are about their own, for in the widest sense an individual cannot be educated properly without suitable environment. It is at once evident that a force so potent in shaping thought and action, whether we will or not, should be considered in regulation of thought and conduct.

Thru imitation the child is to absorb many of the most valuable lessons of life. All the elements that go to make up what we term "bearing," "personality," "self-expression" are largely products of imitation. To some extent one's character is determined imitatively by the company one keeps. It is frequently true that ideals of life and conduct are imitative reflections more than particular intellectual acquisitions. Attitudes toward life and its various problems are taken thru inoculation when the reasons thereof are not at all apparent. What the child imitates, he is trying to understand, and a very large portion of the knowledge that a child has when he enters school he has gained thru imitation, and much of his first work which he does in school is imitation. How can we bring the parents to understand that their money, their position, their power amount to very little in the education of their child compared to their conduct, their attitude, and their expression? Every act of theirs has its influence upon their child as well as upon themselves.

I have tried to show in this paper that the basis on which rests normal self-expression, meaning by that the power to master the motives and purposes of the social whole so that one may grow into a leader of some of its manifold interests, comes thru the conscious guidance of the parents and the imitative effort of the child.

The home, which Pestalozzi regarded as the most valuable adjunct to the education of the children, and which is the society in which the child expresses himself first, must take up again all of the valuable old things which it has let slip out to the school. It must take up a thousand new things before the child will be able to express himself in society normally. The co-operation of the home with the school is necessary, each with a keen appreciation of the other, the home taking into account the necessity of giving the child certain training before he is able to do much for himself, believing in the necessity of an appreciation of the great law of obedience, taking advantage of the wonderful instinct of co-operative helpfulness with which the child has been endowed, and having an understanding of its responsibility because of the great law of imitation. When this comes to pass, homes will be maintained where souls as well as bodies may be nourished, from which will come children endowed with the power of normal self-expression in society.

B. SELF-PROTECTION THRU KNOWLEDGE AND HABIT

MARGARET E. SCHALLENBERGER, COMMISSIONER OF ELEMENTARY SCHOOLS, DEPARTMENT OF PUBLIC INSTRUCTION, SACRAMENTO, CAL.

Every child born into the world has marked out for him in his physical make-up the boundaries of his activities. Given the conditions of his existence, no power on earth could have stretched the boundaries. He is what he is. It is finished. The mistakes and successes, the faults and virtues, the weakness and strength of centuries of ancestors have found expression in him. And yet, notwithstanding this finality, which outlines the area of his activities, he is largely a potentiality. He is what he is thru heredity; but he becomes what he will be thru environment. Possibilities, latent, undeveloped, are present waiting for means of expression, needing direction. Differences in adult methods of direction of children during the period of childhood result in differences for them of their own human lives. Blind leadership means wrong judgments, lost opportunities, wasted efforts, dead ambitions, unexplored areas. Each of us is what he is, conditioned by heredity and environment, but not what he might have been if perfectly directed in childhood.

From these facts, it follows logically that one of the most important functions of environment is the keeping alive of beneficial possibilities. In other words, environment should tend thruout the whole period of existence to keep the human race young.

Physical and social conditions are tremendously important. The two chief factors in a child's environment are the home and the school. We all know how, little by little, the great responsibility has been thrown upon the school, how its ideals have been changed and its standards raised, until now, even when the school finds itself well placed in cultured communities, it has always a message to send to the home; for, at the last, the school's efficiency is always judged by its ability to project its ideals, its standards, its methods of thought and action into the home. Indeed, this very discussion at this very time and place of what the home ought to do for the individual child and his individual needs is a concrete illustration of the trend of the movement. In outlining, therefore, what self-protection thru knowledge and habit the home should give to the child, the writer is not unmindful of the fact that very few homes are able to give him any of this protection, and that the school must continue to take its part in teaching the home its privilege and its duty in this respect. The school will be doing a better work if it can show the home how to assume certain responsibilities than if it attempts to carry the child independently of the home. With all its own demonstrated capacity, the school ought never to minimize the importance of the good home as its ablest co-worker. In its attempt to improve home conditions, it will not be held wholly responsible however. Its responsibility will be shared with the immigration commission,

social settlement organizations, boards of health, and numerous other civic, sanitary, and ethical societies aiming to help people toward right living. While enormous emphasis should be placed upon the education of the young, yet not all adults have lost all their youthful possibilities; some are still teachable, and the homes themselves need present and future help in order that the lives of children may be more speedily and more advantageously affected.

The healthy body as a living organism is full of beneficial possibilities. No human being can afford to lose any of them. Clearly it is incumbent upon the home to give the child as soon as he is able to care for himself—and that age is younger than was formerly supposed—command over his own body. He should have knowledge of the different parts of his body and concrete lessons in their care. The preservation of the healthy body merely for the sake of the enjoyment it brings to the possessor is a sufficient reason, if there were no other, for giving the children early knowledge concerning it. The first knowledge, therefore, that is essential for the child, if he is to hold his own in a world artificially conditioned, is a knowledge that will enable him to protect himself from the ills that flesh is heir to. In the home he should have his first lessons about the care of his body, and this knowledge the home should continue to give in more and more detail as the child grows from infancy thru youth to manhood.

If the schools in the large are the teachers of the home in the subject of child hygiene, one feels like asking, "Should the blind lead the blind?" for, no matter how much time and thought have been put upon it, only here and there are the schools making even a bare beginning. One has only to read some of the more recent books on child hygiene, e.g., Lewis M. Terman's book, *The Hygiene of the School Child*, to become deeply impressed with this truth. It will be a long time before we can hope to depend very much on the home to do its part, manifestly its part, in the care and culture of the child with relation to his own body. Dr. Terman states and proves that "popular notions regarding personal hygiene are little better than a seething welter of ignorance and superstition, not all of which is confined to those who are confessedly uneducated."

The home offers special facilities for this very teaching; it can be made a better laboratory than the school; and it can begin its treatment and its teaching at a much earlier period of life than the school. With the school pushing this responsibility upon the home, helping her as she herself gains knowledge, and with all the other above-mentioned co-operating forces acting with her, the home will in time give the child, as soon as he is able to understand them, definite, clear-cut, simple laws of hygiene. Some homes are doing this now; they will tend to do it more emphatically; the movement will spread; and some day our people will be wiser. We might run thru the whole gamut of self-protecting health knowledge, outlining a course in child hygiene for the home as definite as and far more practical than can easily be concretely applied in any school course of the same nature.

It goes without saying that the home is the place for self-protective knowledge to be given boys and girls regarding the difficult, much-discussed subject, sex hygiene. Again the home needs wisdom. Whether or not the schools should give this knowledge and how and when and where is not the topic under discussion. It is true beyond all question, however, that homes in general could render, and some day will render, to society invaluable service in giving self-protection thru this knowledge to the youth of the people.

Self-protection that will strengthen the moral life must come largely thru the affections or feelings—using these words in a technical sense—mere knowledge is not sufficient. In fact, mere knowledge is never sufficient. "Socratic" philosophy to the contrary notwithstanding, all knowledge to be effective must have expression in motor response, and all the knowledge in the world regarding personal hygiene will serve no protective purpose whatsoever unless it has frequently and regularly and attentively been acted upon. If the moral life is to be strengthened and the child self-protected, the child possibilities for hate and disgust and fear and anger ought to be kept very much alive, but carefully directed. Knowledge of what is right and what is wrong must continually be taught, and fortunate is the child in whose home right living is the rule, where daily examples of generosity, sympathy, truth, justice, honesty, courage, patience, accuracy, promptness, cheerfulness, obedience, and loyalty find expression. On the other hand, strong feelings of hate must be attached to lying and stealing and cheating; of anger to cruelty and cowardice; of disgust to vulgarity and filthiness. The school will, of course, work along the same lines, but the home offers many opportunities never found in the school and they are opportunities of a different nature.

Much of the question of right conduct might be summed up in the words "right habits." If, however, "popular notions concerning child hygiene are little better than a seething welter of ignorance and superstition," what shall we say of popular notions concerning child psychology? Popular notions concerning child psychology are, for the most part, a hodge-podge of various philosophic theories that, when put in practice, do not come true.

Some day popular notions will be right and true. Habit is a product of environment. The child comes into the world provided with instincts, but his habits are formed during his life. A large number of them that have been found from experience to be distinctly useful ought to be learned in the home very early and made automatic. Among them are order, neatness, personal cleanliness, obedience to authority, numerous forms of courtesy, promptness, responsibility, carefulness, truthfulness, dispatch, table manners, and best ways of doing things in and around the home. The home having opportunity to understand intimately the individual child and his individual needs is fitted, so far as conditions are concerned,

to be the ideal teacher of a goodly number of useful habits with which the child could protect himself all thru child life, nor would he lose them probably ever, and here again the home is none too wise. Some day—may it not be too long deferred—the average man will know a few fundamental facts about the working of his own mind and that of his child. It seems such a logical statement that it must be true. When the home has learned a little about mind, school children will have more and better habits. A child entering school with a stock of fairly well-formed, good habits is furnished with a protection worth more to him than was the coat of mail to the mediaeval soldier. Secure in his own lines of action, he is invulnerable both to direct temptation and to indirect suggestion. A small boy, so carefully trained at home to protect himself from suggestions of stronger minds that he had formed a habit of resistance, entered school one day and immediately was subjected to temptation. A new situation presented itself. Because of his training and this habit, he was equal to the occasion and proudly reported to his mother in the evening these facts: "That big boy with the black eyes said to me in class today, 'Hi there, mister!' but I gived him a look and he leaved me alone!" Even the simple habit of being able to take care of his own small possessions would protect the child from many a heartache and much loss of his own and other people's time. Homes have little appreciation of the extreme value to the child of this training or of how difficult it is to teach the child thus to protect himself when he enters the school handicapped by bad habits from a home in which he will have little chance to be helped in breaking them and forming right ones.

There are three rules of habit formation all parents should know: (1) The centering of consciousness upon the act being performed; (2) Repeating the act with attention; (3) Allowing no exception to occur until the performance has become habitual.

Habit-forming begets habit-forming. It is easy to teach the formation of additional good habits to a child who has already on hand a stock of good habits; and a child, as he grows older, can be taught how these acquired automatic reactions are effective, how they save his time and his strength by protecting him from disturbing attempts to form new judgments upon old situations. If the habit is formed in early childhood of truth-telling, who can estimate the protection it gives by settling hundreds of mental arguments pro and con in regard to almost identical situations?

The child can be led to be interested in the formation of habits, in their actual mechanics, and is greatly impressed when he discovers that the rules work. If he has some knowledge regarding the formation of habits and in addition has his ambition deeply roused toward the reaching of some distant goal, he will greatly enjoy the outlining of methods of procedure in habit formation that will lead to the desired end. Habit-forming is as interesting to older children as playing a game, and no game is so valuable.

And the home can, if it will, give the child the protection of a certain sort of self-knowledge, a knowledge that will lead him to think independently. Too many good men and women are drawn into the whirls of various big or little movements. Confronted by a new situation they seem to have no ability to adjust themselves to it and are carried along by the movement as if they had no power of resistance. The home, because the child is present from the beginning, has every opportunity to encourage him to test his judgments, but not to follow them always, because they are not ripe. A certain responsibility can quite early be suggested regarding the possession of an opinion, upon what it is based, and whether or not it is valuable. Little by little he can be taught to realize that he must think, that thinking is a function of the mind, and that if he learns to think for himself he is protected from the mastery of other minds.

The laws of suggestion are of great protection. Mind is very open to suggestion. The child who knows this understands why he cannot play with his mind. Boys and girls are interested in these facts because of their personal application. Protected by this knowledge the books they read become all important, as well as the friends they form, the music they hear, the pictures they see, the jokes they laugh at. Fear should not be eliminated. There are certain dangerous actions that fear should inhibit. It is absolutely certain that if older children had more definite knowledge given them concerning the tendencies of their minds they would be afraid to place them under conditions so unfavorable as to detract from their usefulness now and forever. Some day the homes will give this knowledge. Meantime it is comforting to reflect that many forces are co-operating toward that end, and that foremost among them is the common school.

C. CONSTRUCTIVE CIVIC AGENCIES

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In the early history of the public schools as neighborhood houses for the instruction of children, there was trial of unpaid and volunteer service in teaching. But very quickly it came to be seen that, for this use of these buildings to become general, systematic, and continuous, there must be definite authorization and remuneration of teachers. The parallel fact that for civic, social, and recreational use of these buildings by adults and older youth to become general, systematic, and continuous there must be definite authorization and remuneration of the person who serves as civic secretary and director of recreation in each district has been fairly and fully demonstrated by the experience of Wisconsin in its beginning to make full use of its equipment of community buildings, as indeed it has been demonstrated in other parts of the United States where a similar beginning has been made.

WISCONSIN LAW SATISFACTORY IN ITS DEFINITE PROVISION OF THE COMMUNITY PLACE FOR CIVIC ASSEMBLY

Three years ago the law was passed in Wisconsin by which school boards are directed to make provision for the free, gratuitous, and convenient use of public-school buildings for periodical meetings of the citizens in each district where the deliberative organization of the voting body of the district is affected and where a request is made by such community organization for the use of the building. This mandatory section of the law is followed by a permissive section in which school boards are authorized to make provision without charge for other community uses of public-school buildings and grounds. This permissive section of the statute has amounted to very little in bringing about the full community use of the public-school plants. The reason why school boards have not taken advantage of this law permitting them to make provision for other uses of the school plants than those of citizenship deliberation is the same reason that explains why the use of this public property for organized presentation and discussion of public questions has been sporadic. This law makes no provision for the appointment and remuneration of a person in each district who shall be responsible for the work of organizing and directing the community uses of the public-school plant; and school boards are properly hesitant about having the public property under their charge opened for use without responsible direction. On account of this cautious attitude on the part of one Wisconsin school board which refused to provide for the public use of a school gymnasium upon the request of citizens who desired this provision, the legislature at the session of 1912–13 amended the law to read:

> Where the citizens of any community are organized into a non-partisan, non-sectarian, non-exclusive association for the presentation and discussion of public questions or for the promotion of public health by giving instruction in any topic relating thereto or in physical culture and hygiene or by the practicing of physical exercises and the presentation and discussion of topics relating thereto, the school board or other body having charge of the schoolhouses or other public properties which are capable of being used as meeting-places for such organization, when not being used for their prime purpose, shall provide, free of charge, light, heat, and janitor service where necessary and shall make such other provisions as may be necessary for the free and convenient use of such building or grounds, by such organization for weekly, biweekly, or monthly gatherings at such times as the citizens' organization shall request or designate. All such gatherings shall be free to the public.

This legislation, in its main feature of directing school boards to make provision for the use of public-school buildings as public forums for the presentation and discussion of public questions wherever the citizenship of a district is organized as one all-inclusive deliberative body, has been amply justified in two important respects. It has been largely responsible for doing away with the old practice of turning over the public-school buildings for use under private, partisan, and sectarian auspices which, in times past, led to more or less confusion and misuse of these buildings. And, wherever

advantage has been taken of this provision for the use of the community building as headquarters of civic deliberation, this use of the building has proved not only feasible but altogether beneficial.

PROVISION MERELY OF PLACE FOR CIVIC ASSEMBLY INSUFFICIENT

In the three years that this law has been in operation in Wisconsin, there has not been a single case of disorder or injury to property in the use of the public schoolhouses as headquarters of civic deliberation where the body using the building has been a genuine community organization such as this law contemplates. But notwithstanding the unanimous indorsement of the movement for citizenship organization for deliberation by national and state leaders of every opinion and affiliation in public affairs, and the earnest indorsement of the plan by educators everywhere, and notwithstanding the fact that, in their work of promoting social-center development, the state department of public instruction and the university extension division have had the co-operation of individuals and societies thruout the state, actual social-center development has begun in not more than three hundred districts in Wisconsin; and, in the districts where a beginning has been made but where no authorization and definite remuneration of district secretarial service has been provided, the development has not only not gone on to include the organization of the young people for training in self-government and the provision of wholesome recreational opportunities, but the community assembling of adult citizens for deliberation upon public questions has generally begun to languish after a time, and, in many cases, when the limit of volunteer willingness (usually of the school principal) to perform public service for nothing has been reached, the community civic assembling has been abandoned.

A very different record is shown in those communities where civic secretarial service is made responsible by being definitely remunerated.

REMUNERATION OF CIVIC SECRETARIAL SERVICE GUARANTEES GENERAL, SYSTEMATIC, AND CONTINUOUS SOCIAL-CENTER DEVELOPMENT

In those Wisconsin communities where provision has been made of secretarial service for the assembling of adult citizens and of direction for the use of the schoolhouses and grounds by youth for civic training and for recreation, and where the responsibility for this work has been definitely placed by being remunerated as public service—there, social-center development has proved continuous and increasingly beneficial.

In Milwaukee, for example, where the beginning of systematic social-center development made three years ago thru the co-operation of the university extension division was followed by the administrative organization of the work of district secretaries and recreation directors on a basis of definite remuneration, and where Harold O. Berg was engaged to supervise the work for the city, the development has been steady and continuous

until that city now has eight buildings, open an average of five nights each week, with a total attendance of 320,000 for the past season, and during this summer will have nineteen out-of-door centers of organized and directed recreation.

VOLUNTEER SERVICE THOROLY TRIED

The necessity of responsible and remunerated secretarial service for systematic social-center development that includes adequate provision for the training in self-government and the wholesome recreation of youth is absolute. The necessity of definitely remunerated secretarial service for the use of the schoolhouse as headquarters of regular and systematic deliberation on the part of citizens is no less real.

As a result of a plan suggested by the state superintendent, we may tell just about how much less than general, systematic, and continuous efficiency in organized civic deliberation may be expected so long as no provision is made for the recognition and remuneration of the school principal or other responsible person for work as civic secretary. At the request of the state superintendent, a letter was sent to more than eight hundred school principals thruout the state, which read in part as follows:

You may remember that last season a list of questions was sent to each of the Wisconsin school principals asking for definite information upon the wider uses being made of the schoolhouses, and asking for the school principal's frank opinion upon the social-center project and suggestions for its realization. The response to that questionnaire shows that in the past two years there has been an increase of nearly 100 per cent in the use of Wisconsin school buildings for every phase of social-center development—polling-place, civic discussion center, lecture hall, library, and recreation house.

The final query in that questionnaire was this: "What do you suggest as the best method of developing the social center?"

From the answers you would suppose that most of the school principals were Yankees, for most of the answers were not answers at all, but were simply handing the question back and asking the framer to answer it.

All right, we will do our best; but our suggestions as to method and program will be useless, even tho they be carefully prepared, except as you recognize that we, and indeed the whole state department of education here at Madison and the whole university extension division, as they co-operate in this, are seeking simply to aid and assist you in this work for the community.

Inclosed with this letter is a brief outline of this season's suggested program. As you will see, it is made up of four series, the first night in each month being given to a topic of local, the second to a topic of state, the third to a topic of national, interest, and the fourth night taking on a recreational or social character.

If you are willing to try to have this plan, or part of it, realized in your community, fill out the inclosed card and return it. We shall then send you suggestions as to how to begin, a suggested constitution, and special suggestions for October, and then shall supply you, before the beginning of each succeeding month, suggestions as to speakers and material for making that month's meetings interesting and successful.

In addition to this general furnishing of material, we shall, of course, be glad to aid you in every way possible in meeting the peculiar problems of your situation by bringing to you the experience of other districts.

In your service for the community,

(Signed) EDWARD J. WARD, *Adviser*

ONE-FOURTH PROMISE—ONE-SIXTEENTH FULFIL

In response to this letter, notwithstanding the practically unanimous approval of the social-center idea by school men and women, and notwithstanding the fact that the program, which was suggested, included the constitutional amendments on which Wisconsin people are to vote at the coming election, but two hundred cards were returned. Two hundred responded to this call for volunteers to undertake, without remuneration for it, important but difficult public service. This was about one-fourth of those to whom the opportunity was presented. Two hundred said they would undertake the work. They meant to do what they promised; and they tried to do it. But only about fifty achieved any real success. That is to say, about one-sixteenth of the whole number to whom the opportunity to perform public service without remuneration was presented actually rendered the service.

Why? The head of the bureau of social-center development in the extension division sought the answer by asking that question, not only by letter, but in visits to more than thirty towns. And, while there were other minor explanations, the answer appeared to lie in practically every case, largely if not entirely, in the fact that the secretarial service of the school principal was not recognized as actually and officially belonging to his function as a public servant.

For the sake, not only of the money, but primarily for the support of the school principal in efficiently rendering this service upon which effective community organization depends, it is necessary that this work of civic secretaryship be definitely recognized as public service and remunerated as such.

DEPARTMENT OF SECONDARY EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—OLIVER S. WESTCOTT, principal, Waller High School.....Chicago, Ill.
Vice-President—I. M. ALLEN, principal of high school.....Wichita, Kans.
Secretary—E. C. ROBERTS, principal of high school.....Everett, Wash.

FIRST SESSION—TUESDAY FORENOON, JULY 7, 1914

The meeting was called to order in the Auditorium at 9:00 A.M. by President Oliver S. Westcott.

In the absence of the secretary, the president appointed Charles H. Perrine, assistant principal, Wendell Phillips High School, Chicago, Ill., secretary *pro tempore*.

The following program was presented:

"President's Address—The Old and the New"—Oliver S. Westcott, principal, Waller High School, Chicago, Ill.

"Bishop Grundtvig and the People's High Schools"—Edwin G. Cooley, Chicago, Ill.

"The Value of History of Art as a Study in Secondary Schools"—Mary S. Mac Murphy, Derry, N.H.

John D. Shoop, assistant superintendent of schools, Chicago, Ill., not being present to give his paper on "The Utility of Parent-Teacher Organizations in Connection with Secondary Schools," it was read by William H. Campbell, principal of D. S. Wentworth School, Chicago, Ill.

SECOND SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The meeting was called to order in the Auditorium at 9:00 A.M. with President Westcott in the chair.

The following program was presented:

"The Progress of Industrial Education in Cleveland, Ohio"—R. L. Short, principal, West Technical High School, Cleveland, Ohio.

"Some Things Worth While in Industrial Education in Secondary Schools"—E. G. Allen, head of the mechanical department, Cass Technical High School, Detroit, Mich.

Discussion: M. H. Stuart, principal, Manual Training High School, Indianapolis, Ind., and Frank H. Ball, director of industrial education, public schools, Pittsburgh, Pa.

The following officers were elected for the ensuing year:

For *President*—George E. Marshall, principal of high school, Davenport, Iowa.

For *Vice-President*—Emma J. Breck, head of English department, high school, Oakland, Cal.

For *Secretary*—Claude P. Briggs, principal of high school, Rockford, Ill.

THIRD SESSION—FRIDAY FORENOON, JULY 10, 1914

The department met in joint session in the Madison School with the Department of Vocational Education and Practical Arts and the Department of Science Instruction and was called to order at 9:30 A.M.

The following program was given:

"The Adjustment of the High-School Curriculum to Modern Needs"—John H. Francis, superintendent of schools, Los Angeles, Cal.

"The Tendencies and General Status of Courses in General Science"—William H. Timbie, head of department of applied science, Wentworth Institute, Boston, Mass., and Fred D. Barber, professor of physical science, State Normal University, Normal, Ill. (For these papers, see Department of Science Instruction.)

"Applied Science—Its Relationship to Shop Work and the Rest of the Curriculum in an Up-to-Date Technical High School"—Adelbert H. Morrison, head of science department, Mechanic Arts High School, Boston, Mass. (For this paper, see Department of Science Instruction.)

Discussion: P. P. Claxton, United States commissioner of education, Washington, D.C. (For this discussion, see Department of Science Instruction.)

FOURTH SESSION—FRIDAY AFTERNOON, JULY 10, 1914

The department met in joint session with the Department of School Patrons and was called to order at 2:30 P.M., in the Auditorium.

The following program was presented:

"The Responsibility of School Patrons in Regard to the Teaching of Sex Hygiene"—William B. Owen, principal, Chicago Normal School, Chicago, Ill.

"The Responsibility of the Teacher with Regard to the Teaching of Sex Hygiene"—Ralph E. Blount, instructor in physiology, Waller High School, Chicago, Ill.

"Some Experiments in Sex Education"—James E. Peabody, head of department of biology, Morris High School, New York, N.Y.

CHARLES H. PERRINE, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE OLD AND THE NEW

OLIVER S. WESTCOTT, PRINCIPAL, WALLER HIGH SCHOOL, CHICAGO, ILL.

In the presence of an audience representative of the Secondary Department of the National Education Association one would naturally be inclined to preserve a respectful silence, but the custom, not to say the absolute requirement, of the organization, that its President shall give an opening address, prevents his following his natural inclination.

When unwittingly one has been thrust into a position like the present one, it must be that the agents in the performance had the idea that the person thus projected into conspicuity had a message pining for deliverance. It has therefore been my preliminary task to endeavor to ascertain what could have been the expectation of these agents. As I naturally belong in the rank of what are now called reactionaries, being a product as it were of a former generation, it may have been anticipated that my message would be in line of a going back to the "good old days" about which hangs a halo before the eyes of most persons who have passed the meridian of life. It may have been suspected that I might not be altogether in sympathy with the trend of the greater portion of the present work in the secondary schools. Such a surmise would not be far wide of the truth. The new fields of educational activity which have to do only with the possibility of a human being's acquiring a competency after a reasonable length of time spent in

his particular department of the world's work could hardly expect to receive my complete allegiance.

The establishment and the expansion of the secondary-school system as the lineal descendant of the academy of a century or so ago were necessities born of the needs of the children of the Republic. The curriculum of the academy was largely, almost entirely, composed of material deemed necessary for the induction of its pupils to the college. With the growth of the nation, such a curriculum was found inadequate to meet the demands of our social, our political, our professional life. Courses of study have been extended. Public schools have largely superseded the former academy until the latter has at present but a comparatively feeble existence, tho it has in some sections managed to outlive, as some say, its usefulness. We all shall no doubt soon be ready to bid it an affectionate farewell. But we should not forget that it was once a power and an exceedingly beneficent one. To it, either directly or indirectly, we owe a debt which can hardly be overestimated. Its faith in culture as a preliminary to a useful and a happy life, if not to a financially successful one, deserves the fullest commendation. The student's ambition was not for a report indicating by figures that he was regarded as excellent or superior. That is a modern ambition. His was a personal satisfaction in the accomplishment of a task, many times self-assigned, the result of which was a broadening of the intellect and an increase of mental power, at once recognized, at once cherished.

It will be impossible to discuss, perhaps hardly possible to enumerate or even discover, all the elements of the category which make up the absolute needs of the present hour. Two or three decades ago every new thing introduced into the public schools was a fad. Music was a fad; physical culture was a fad; cooking was a fad; sewing was a fad; manual training was a fad. All these things and many more once-called fads have evidently come to stay. Athletics and household arts will no doubt maintain their present supremacy for a long time to come.

Our program for the present meeting has been arranged so as not to ignore any of the more recently developed phases of education. We shall have the modern schools of the other continent discussed and advocated by their well-known expositor; we shall give the much-abused subject of sex hygiene a prominent position; physiology as regards high-school adolescents will thus have consideration; and the neglected subject of art instruction will not be overlooked. In a word, the effort has been made to bring forward what is being done in various sections of the country, rather than to make prominent the theories of anyone who is looking forward to an impossible Utopia as regards the secondary schools of the nation.

All these things should we do, but we should not leave undone certain other things. With all the mass of educational material now in operation, it is perhaps not unreasonable to inquire whether we are not in danger of giving too slight consideration to things of equal or even greater importance.

With the influx on every hand of every conceivable topic of interest into the curriculum of the secondary schools can we expect anything but intellectual dissipation? The old simple curriculum of Latin, Greek, and mathematics, while from our present standpoint apparently sadly limited in extent, nevertheless did by its various suggestions insure constant research in various directions. There was thus induced an intellectual broadening which was far wider in scope than what we always get from a modern curriculum with so much material ready to hand. College graduates sometimes assert that they have forgotten all their Greek and Latin and lament that they did not have modern manual training or something of the sort on which to have spent the time they assume to have wasted on these studies. If they had had such opportunities, many an excellent professional man, be he lawyer, clergyman, physician, or teacher, might have become but an indifferent carpenter or machinist or other artisan.

For one I am reactionary enough to be sorry that Greek has so nearly lost its foothold in our scheme of education. It has sometimes been asserted that a modern language—French, German, or Spanish—if properly presented, would produce equally satisfactory results. The experiment has often been tried, but the experimenter himself has hardly dared to claim for his work a pronounced success. In the autobiography of S. S. McClure, recently published in his well-known magazine, he makes the statement that he regards the old-fashioned classical course, in which Greek was obligatory, as "the soundest preparation a young man can have and that Greek was the most important of his studies." This statement from so well-known a successful business man is certainly worth noting.

For the student who wishes to know his own English from an etymological standpoint, and its proper and authorized pronunciation, without constant reference to a dictionary, the time spent on Latin is far from being wasted. Students in science thus equipped would never be justly amenable to the criticism of Sir James W. Barrie, who is reported to have said that "the man of science appears to be the only man in the world who has something to say and he is the only man who does not know how to say it."

It is strange that modern influences are so strong that advice is not infrequent that even a normal-school graduate shall be turned out without any foreign language and with mathematics limited to elementary algebra. And he is alleged to be well equipped for teaching English and mathematics. This is even depriving his future pupils of the influence for general culture always engendered by the potency of an ever-present example. And what an unspeakable loss to the teacher! Not only is his sphere of usefulness immeasurably contracted but his own satisfaction in life is curtailed, especially after the close of his teaching career. Talleyrand condemned to an idle and useless old age the man who in his youth had failed to learn to play whist. When so trifling a thing could point so strong a moral, what may not one say of the superannuated teacher who knows no

foreign language, no Latin, no mathematics but the most elementary and yet must continue to live?

Far better than to limit the scope for the teacher's energies would it be to follow the motto of the old Roman philosopher who said: "Nihil humani me alienum puto." Thus should the modern aspirant for a high place in the profession of teaching say emphatically, "Nothing of the world's knowledge do I deem it wise of me to disregard as unimportant or useless to me as an efficient teacher."

Why indeed should the state take into consideration the question of educating the individual? Doubtless reasons might be found in that it is desirable for each person to be able to earn his own living and so not become a charge to the community. In this land of alleged equality it may be incumbent on the state to see that each individual has a good opportunity of becoming at least the equal of his fellows. It is further desirable that he shall become a useful citizen in bringing up his family properly, in being able to administer satisfactorily any office to which he may be called, and, in general, to be of special service to other members of the community with whom he may be brought in contact. There is, however, another not altogether unimportant reason why each person should demand such education as a personal right. He should be fitted to enjoy his own life to the fullest extent, and in particular that part of it which remains after he has retired from active business pursuits.

The question hence naturally arises whether the modern trend toward vocational instruction and vocational guidance does for the coming American all that the state should be bound to do. He may be well equipped to perform satisfactorily some special line of work, but in what way shall he occupy his hours of freedom from labor? If he has not in school become imbued with a spirit of laudable curiosity with regard to things outside of his immediate line of work, the school has not done its duty by him. It is a great pity that some modern writer has felt justified in saying that the present semi-illiteracy among business men must be tolerated, since the business is carried on successfully, notwithstanding evident limitations even as to accurate English, and the end thus obtained must justify the means. It is not fair to our young people to provide for them school courses with absolutely no broadening cultural studies. It is not fair to send out into the world the boy or the girl equipped for only one thing. It should be declared the duty of the state to provide something which would lead to a fuller conception of life and its duties. In the words of Dr. Klopper, the secretary of the Northern Child Labor Committee, "We are in danger of jumping from the academic extreme to the vocational extreme and of forgetting that the real purpose of education is the development and the discipline of the intellectual and the moral faculties."

Many times during the half-century last past the right of the secondary schools to exist, supported at public expense, was under discussion. Only

by the most vigorous efforts on the part of its supporters did the secondary school succeed in maintaining this right. Even at the present time, there are to be found those who maintain that schools supported at public expense should have their work limited to the three R's, supplemented possibly by a trifle of United States history. It is not altogether strange that there are many such people. The old education, limited almost entirely to Greek, Latin, and mathematics, did not commend itself to the shrewd, hard-headed business man, whose opportunities in youth had been few. And yet it needs not the repetition of names in a long list of American worthies to assure us that the so-called one-sided education was far from being a failure. The orators of our legislative halls for the last one hundred years built well upon what now is regarded as a marvelously narrow foundation. Their forensic abilities were easily supplemented by methods of acquiring familiarity with whatever might be needed in handling important matters in forum or in court. Who shall venture to say that the limited curriculum was inferior to the broader one of today which possibly induces a scattering of energy and breeds a personal weakness hard to overcome?

In the academy of five or six decades ago the distractions were comparatively few. If a student were ambitious and had leisure, it was permitted him as a favor to enter another class in Latin and so shorten his time in completing the usual curriculum. He was exceedingly fortunate in not being enticed away from his intellectual work by any one of the protean forms of modern alleged physical culture. School spirit was then promoted by scholarship, by an ambitious and commendable scholastic rivalry, not, as now, by an absurd howling on a school campus or an equally foolish rah! rah! rah! in or around school buildings where peace and quiet should prevail. The persistent students of those days are the men of the present generation. If they are inadequate to the tasks facing them, be they political, social, economical, or what not, then let the blame attach to the misdirected energies of their youth. The lawyers, the doctors, the clergy, the teachers of the present seem to be as well equipped as the fledglings who are preparing to take their places. Our legislators seem to be active as yet, and I suspect that Woodrow Wilson has not lost his affection for the old regimen of his studious youth.

A recurrence to the old education at least in part might today be accomplished with the possible disadvantage of the student's being relieved of the attendant alleged drudgery. At my elbow stand two editions of the *Iliad*. One is by Professor Felton and is the one largely in use sixty or more years ago. There are four brief notes on the first ten lines. The other is by Professor Sterritt. On the first ten lines there are forty-three notes involving mythology, geography, history, and the peculiarities of Homeric Greek. In using the Felton, fortunate was the boy who could acquire a copy of Crusius' Homeric lexicon. Now the Sterritt edition of the *Iliad* contains not only the voluminous notes aforesaid, but a full vocabulary and a digest

of the dialect of Homer covering fifty-three octavo pages. Such a book three score years ago would have been looked at askance by the teacher of those days as possibly more deleterious to the discipline deemed necessary to accurate scholarship than the tabooed Anthon's edition of the Latin classics. Such an edition of the *Iliad* makes the study of Greek absolutely enticing. But we can hardly expect to resuscitate Greek in our secondary schools. More's the pity! Let us hope that modern ideas will not also drive out the Latin. We need it for culture, if not for immediate returns in money. Emerson's remark is often quoted: "The man whose eyes are nailed, not on the nature of his act, but on the wages, whether it be money, or office, or fame, is almost equally low." Let us give the so-called "almighty dollar" at most but secondary influence in regulating our educational curriculum. Let us not fail to remember that a time comes when man lays aside his vocation by reason of inefficiency on account of age, and that during the remainder of his life it will be well for him to have resources of his own for comfort and happiness in his declining years. Football, baseball, even reminiscences of business success will not altogether answer the purpose, but a familiarity with the science and the literature of the world, in whatever language written, will give him a field in which to browse with the greatest satisfaction for the longest old age that can possibly be vouchsafed to him.

BISHOP GRUNDTVIG AND THE PEOPLE'S HIGH SCHOOLS

EDWIN G. COOLEY, CHICAGO, ILL.

At the middle of the last century, Denmark had reached perhaps the low-water mark of her history. Politically, she had been defeated by England and Germany; economically, she was near bankruptcy; her commerce had declined; the old Viking culture seemed to have disappeared and to have been forgotten by the people themselves; the national language had been displaced by bad German among the educated classes; while the speech of the country folk was dissolving into a group of dialects without standard or stability. A Danish prime minister even proposed to substitute German as the written language of the country.

At this critical hour of need arose the great man, Bishop Grundtvig. A bishop, a scholar, the representative of the aristocracy and of the intellectual and the spiritual life, he saw clearly that a great awakening was necessary to save the country and its people from stagnation and decay. He had made a life work of the old national ballads, and he hoped to replace the humanistic education of his time, which was utterly foreign to the lives of the people, by a revival of the old Northern culture as it flourished after the exploits of Viking days and to build upon this, as a basis, an active and creative national life.

As early as 1832, he raised the question of the need of a liberal education for the great mass of the people, as a counterpoise to college education. As a scholar, he believed in college education; but he felt that it tended away from the cultivation of the life of the spirit into mere book learning. He realized that research was essential to keep any education from becoming superficial polish; but the education that he wished to be given to the whole people he felt must be much more than a mere preparation for college. It must be independent, self-contained, a "real spiritual power," he says, "thru which the life of the present may establish its absolutely necessary rights—rights which the learned so often misunderstand." And the very center from which the school work should branch out in all directions, which should assemble and organize all educational activities, must be the fatherland itself.

It is interesting to see how his threefold experience as churchman, scholar, and educator appears in the theory that he then developed. He believed that "young manhood and young womanhood is the formative time of the spiritual nature, when great hopes and visions come into being and foreshadow the mature life, when the soul reaches out for the cloak that fits it." With Rousseau he was anxious to preserve the rights of childhood from the demands of mature life. He emphasized the need of physical development during the years between fourteen and eighteen, the hobbledehoy period; and held that school for every boy and girl during these years should mean physical activity—tempering the body and the sensual nature by actual work and by free exercise in all kinds of sport.

He set the eighteenth year as the time when ideals can best be established, when the steps can be built up which young people will go to "the work of life as if going to a feast."

For this stage of development, then, he proposed specially organized schools which should put real poetry into the life of the young people, should keep them from straying after false ideals, should control the desires which so easily overflow the banks of reason, and should give them a real foundation for helping themselves and others. To this end, his idea was to take them out of the industrial world for a short time, keep them largely away from vocational activity, not to emphasize book learning and lessons by rote, but to awaken their power of idealization and to broaden their mental and spiritual outlook, at the same time giving them the groundwork necessary for success in all vocations, whether the work should be done with ink and paper, with plow, needle, hammer, or anvil. The bishop sarcastically deprecated the idea of "producing mere professors, public officials, or candidates for the poorhouse." In other words, this new education was to be at once general and practical. He says further:

> The chief aim is to teach young people to understand noble, active, human life with its wonderful laws. Our national culture must rest upon the enlightenment of all classes, and if education is organized as if everyone were to be an official or a gentleman of leisure,

the entire people will die of hunger. It is not a question of what will be serviceable for the officials or leisure class but for those who will be neither the one nor the other. Our aim must be to provide a liberal education which will make the whole people fit for their work and happy in their situation.

The high schools established on this theory admit only pupils of eighteen years or more, who have usually chosen a vocation and know something of it. They aim to make each one return to his work with greater interest in it and with a clearer perception of the social and economic conditions surrounding it, with a thoro knowledge of what has been accomplished by the Danish people in the past, and with a desire to take part in their future achievements. Further, they aim "to fill up the gap between the educated and the uneducated; to bridge the boundless abyss which the hierarchy, the aristocracy, and the Latin schools have built between almost the entire people upon the one side and a handful of the so-called educated and enlightened upon the other."

Grundtvig, who himself had written more than thirty-eight thousand pages of printed matter, was emphatic against mere book learning. He said: "I love books, for they form a bridge that connects me with the past; I hate books, for they set up a wall between me and the present." Therefore he wished these schools, not merely to give needful information, but to train the emotions and the will, not by means of books but by word of mouth—as he calls it, "the living word." He was at once the preacher and the lover of old ballads which are handed down orally from generation to generation. He knew that the common people, unused to the printed page, learn what they learn by oral transmission, and, during the few months they are in attendance at these high schools, the only strong appeal that is possible to them is thru the living word.

As this idea is the very foundation of Grundtvig's pedagogy, it will perhaps bear elaboration. In explaining the effect of the "living word" as passed on from master to pupils, he says:

> I am convinced that it not only expresses this or that fact, but in its earnestness gives something that may be called inspiration; that in the breast of each human being there slumbers a higher life power, which, unless we stubbornly close our ears, when it finds adequate expression in words carries us along with it. This higher kind of speech, these winged words, I have learned to know and admire and to wish for myself, and thru this I was carried back to faith in the living power of the invisible, in the spirit and spiritual world as something that is real; indeed, that has a stronger and higher reality than those things that we see with our eyes.

The first condition of teaching, then, in these schools, is that there should be a direct, an immediate appeal from the teacher to the pupil; that the teacher's words should be neither technical nor oratorical but should have in them "a deep undercurrent of feeling that penetrates the heart and rivets the attention."

On this theory, examinations are unnecessary and have never been introduced. Alfred Povlsen, the director of one of the largest of these schools, says:

> They are not established to lead directly to better pay, more profits, or better positions as such. There must not be any advantage gained from attending such a school except that which can be neither weighed nor measured, and on which no pecuniary estimate can be placed. No other profit must be derived from this instruction than the increase in inner worth which all good learning gives.

The instruction given may be divided into: (1) Danish language, literature, and history; (2) physical culture and singing; (3) science and a few other subjects. Practical work, vocational training proper, is the exception, not the rule. Perhaps 65 per cent of the time is given to the Danish language, literature, and history, with all the emphasis upon the method of teaching and the personality of the teacher, rather than upon the subject-matter. "The aim is not to learn this or that, much or little, but to prepare for the teaching of life." If the schools of any country can really do this, the problem of vocational education will be greatly simplified.

In the study of the mother-tongue, the aim is to get free and natural expression. The pupils are not tormented with formal grammar and rhetoric; but the masterpieces of Danish literature are used "to awaken the spiritual life and to create ideals" in a race that, as Grundtvig said, "had been brooding in stupid materialism."

From the time of Grundtvig, song has been much used in teaching the mother-tongue. The old bishop said, in a letter written in 1841:

> Among the teachers of a high school there ought to be at least one who is master of the mother-tongue, not only as it is found in books, but as it lives in the nation; at least one who knows and loves the history of our fatherland and is able to picture it vividly in words; at least one who knows and loves our national songs in their old form as well as in the new, and is able to lead the choir himself; at least one who has seen much of our fatherland and knows the nation, its trades, and resources; and, finally, one learned in the law is to be desired, one who can give the youth a true and vivid apprehension of our fatherland's constitution and laws as they were formerly and as they are now.

He also claimed:

> Denmark would be ten times happier if the beautiful Danish songs, which were then only on paper and never sung except on state occasions, echoed in all our school halls and resounded in fields and forests. These songs constitute a connecting link between the youth and the glorified spirit of the people as expressed in their literature. It is only the lack of this necessary link which causes the people to become more lifeless, dull, surly, and without hope, while their literature overflows with life and the fulness of glorious recollections of the past and illuminating anticipations of the future.

In these schools singing is more than a subject or an art; it has become an atmosphere, a feeling, an interest that embraces everything else in the high-school teaching and is inseparable from it. The pupils sing one or two songs before each lecture and very often afterward. When I expressed surprise at the large amount of time given to singing these national songs,

I was told that they brought a unison of spirit that was conducive to good work.

The greatest stress, however, is laid upon history as a character-forming study. The theory is that the race reveals itself in the words and deeds of individuals; all human wisdom is fundamentally historical, and knowledge of the past is the only way of understanding the present and of making judicious plans for the future. As history is cumulative experience—an experience of which no individual, conditioned as he is by time and place and circumstance, can compass more than a minute portion, even in the longest life—and as young people themselves are totally lacking in all such experience, it is history that can best supply their deficiency in this respect.

A Danish writer says:

> Instruction in history is vital when it causes life to be felt, consciously or subconsciously, as a stream rising in the remote past and rushing to the sea of eternity. We are in this stream; its waters are all about us so that we feel ourselves a part of it and are borne up by it, in joy and sorrow, even to eternity.

In this instruction are included the old legends of the people which relate the most noteworthy events in the history of the fatherland. As Grundtvig says:

> The depth of the love of a people for the fatherland can be measured by the living stream of their recollections of their fathers and their glory. It would be foolish and a betrayal of faith to substitute for these treasures a critical investigation of history with boys who do not know what an investigation means.

History, then, in every form, the history of the world as well as of Denmark, the history of religion and of civilization, is the controlling study in these high schools, and when the pupils are familiar with the past the teacher discusses in a popular way current conditions and problems in society, the state, the church, or the school.

Hollmann sums up the theory as follows: (1) history is the center of all education; and (2) in teaching history, it is the vivid spoken word that is all-important.

Such instruction must necessarily be given thru lectures, not thru textbooks. As Mr. Bredzdorff of the Roskilde People's High School says:

> The historical lecture has become the very pulse of the high schools. Here, past, present, and future make one living whole. The countless generations are not disconnected fragments drifting and vanishing in the stream of time. No, generations follow the course of generations, and unite us in one great communion of the people, those in the graves living still in that spiritual beat of the waves as they move forward thru the ages.

Grundtvig held also that the high schools should give some attention to the statistics of the country, its constitution, and its legislative and administrative, national and communal, organizations. He wished the organization of the state to be presented in the right light, but he did not wish these schools to be involved in politics. He did not wish them to become a battleground of political opinions, but he hoped the youth would

receive there enough understanding of political affairs to be able to form opinions for themselves and not fall helplessly into the hands of the political agitator. They should be instructed as to the meaning of legislation, and it should be made clear to them that legislation is not an arbitrary matter but an emanation of the people's will. The schools must be intensely Danish. Grundtvig did not believe in the cosmopolitan: he might walk erect upon two legs and have a nose in the middle of his face, but he could have no soul. Each nationality, he said, like kinds of wood, had its own grain; and the cosmopolitan was mere sawdust. Hence, an understanding and love of the fatherland must be the very core of the work in history.

Some attention is paid also to the economic life of Denmark, altho no attempt is made to teach economics scientifically. The idea of combining technical, agricultural, and industrial training with the work of these schools has often been suggested. About thirty-five of them (out of eighty) have some agricultural instruction, but most of them have kept to their original basis of a liberal education. Pupils are urged to put in a winter at a people's high school before entering a winter agricultural school. On the monument to J. C. LaCour, who founded the agricultural winter school at Lyngby, is found the following inscription:

> The Danish agricultural school is the daughter of the Danish people's high school, and must, like these, build upon the foundation of the faith and life of the people.

Grundtvig's idea was to have near each high school a well-conducted agricultural plant and shops in which the pupils might see practical work; but he did not believe in introducing technical instruction into the schools themselves. His purpose was, in connection with the lecture work, to provide opportunities for direct acquaintance with many features of economic life.

So thoroly does the historical method dominate all teaching that even science is presented largely as connected with the investigations of great men. For instance, a lesson in electricity might turn on the work of Franklin; in botany, on that of Linnaeus. Naturally, this lends an immediate human interest to the subject. It may be noted that this movement toward connecting science with history has begun in other lands and that several books have been written to encourage this type of instruction in American schools.

In my own observations I was impressed with the freedom and naturalness in the relations between teachers and pupils. I saw no machinery for discipline. The students seemed happy and at the same time intensely interested. I was impressed by the tone of earnestness of the teacher's lecture and the attention given by the students. In one case, in Roskilde, I almost sprang from my seat at the opening sentences of the teacher's address. His call was like the sound of a trumpet, or like the Marseillaise, which is not music but a battle cry.

In the gymnasium at Askov, the students preceded their hour of exercise by marching about the hall and singing a hymn to the Danish flag; after the exercise, followed another march and another song. I have never seen anything of the kind outside of Denmark. I found my hands clenched and my heart in my throat. I felt that I understood a little of the Viking spirit.

The teacher asked me whether I had seen the monuments at Skibelund, and added that they were a part of the patriotic education of the students of Askov. At this same school the principal told me of a conference of representatives of the churches of Denmark to be held at Askov that very day, to discuss the question of the separation of church and state. I saw them drive in, about seventy or eighty men, from the little railway station two miles away. What impressed me most was the fact that this important conference was held, not in Copenhagen, but in a little country high school, two miles from nowhere. It showed that the schools are an integral part of the social life of Denmark, when they are considered to furnish the proper atmosphere for settling so momentous a question.

The next morning I set out in the rain for the monuments at Skibelund. They were on the edge of a little bluff looking down over the German frontier. On the west end was a national amphitheater, with raised banks of turf, and a pulpit in the center, near one end. This amphitheater would seat three thousand people. Around the amphitheater were a series of monuments of prominent Danes—no soldiers, but teachers of the people's high schools, prominent men in the co-operative movement, writers, and so on. Over the edge of the bluff, near the frontier, was a little schoolhouse, where the children of Danish parentage, in Schleswig, come in winter to study the Danish language and sing the Danish songs.

A little farther along the bluff was a granite monument of a female figure, personifying the Danish language and literature, with busts of two famous Danish poets by her side. Her arms were stretched out to her brothers in Schleswig. Still farther along the bluff was the battle monument. It was a huge granite triangular block, representing the old Norse battle formation. King Magnus was at the fighting angle, his warriors with their battle axes forming the sides of the triangle. Above, cut in the granite, were the three ravens of Odin and three bells, the bells of the old cathedral of Trondhjem in Norway, hundreds of miles away, which the soldiers heard cheering them on to victory over the heathen Wends. On the back of the monument was a spirited inscription, expressing the hope that Denmark would again come to her own as against the Prussians (the descendants of the heathen Wends). To this place come students from all the high schools of Scandinavia to hear patriotic speeches and sing patriotic songs.

Altogether there are about eighty of these high schools, with about ten thousand students, nearly all from the country. The usual time of

attendance is one winter. It is estimated that more than 30 per cent of the young men in rural districts have been pupils; and of these many have been encouraged to go on to the winter agricultural schools. The schools are in session from November to May for boys, and during the summer for girls. The course of instruction is much the same for both, and many of the teachers are employed for both terms. The students live in the school, but the charges are low. Board and lodging and tuition cost about $9.45 in winter and $8.64 in summer. Deserving poor students get government assistance; and each school itself receives about $810 a year from the government. Teachers and students take at least one meal a day together. This living in common is held to be one of the important parts of the school program, as it is believed that it has developed the capacity shown by the Danish people in later life for working together in business affairs. It is certainly true that the Danes lead the world in co-operative farming.

The teachers are not required to pass an examination, but are appointed by the director of the school. The school itself is almost always his private property or belongs to a high-school association; and the state, on account of the smallness of its contributions to support, exercises a very limited supervision. Under these conditions of freedom, fully half of the schools quickly go to pieces; but those that continue are very much alive. Only persons with a special gift for the peculiar kind of teaching required and good executive ability can hope to succeed.

What have these schools done for Denmark? A German leader, Dr. Madsen, sums up the benefits as follows:

> The advantages are both material and intellectual. First, the school has been an exceedingly important factor in the economic life of the country. Only an enlightened and active class of farmers could pass so quickly and so completely from one branch of production to another as the farmers of Denmark did in the eighty's. At this time, in order to avoid a crisis, at one stroke they passed from the production of wheat to the production of butter and raising of cattle, and introduced organizations of co-operating creameries and slaughterhouses. The high schools have exercised a great influence in making this possible, and many believe that without their instruction it could not have been brought about.

The people's high schools have always striven to develop and perfect gardening and farming, the principal industries of Denmark. They encourage and assist agricultural schools connected with them. Some of these schools for the small farmer give instruction on every phase of agricultural or rural life that will be of benefit to the country people. Courses of from five days to six months are given in them at small expense. Finally, some of these schools undertake to provide technical instruction for country mechanics. In all these movements the people's high schools contribute a stimulus and support. In all these schools the same general method of instruction is employed, and if you ask a Dane which is the most important vocational school in Denmark he will say, "The people's high school," altho they do not give vocational instruction *per se* at all.

The principal thing, however, that these schools have contributed is the new spirit which has been awakened in the Denmark farmer. This spirit they seek to sustain thru the founding of high-school associations, high-school homes, lecture associations, auditorium halls, and gymnasiums in the surrounding parish. The Danish peasants have been called the best informed in the world. Distinction of class or rank among the Danish farmers is disappearing more and more, and not only among the peasants, but generally in Denmark, there is not so deep a gap between educated and uneducated as in many other countries. The suspicious reserve, which in many places is so characteristic of the peasants, is no longer characteristic of the Danish peasants; they are on the whole open, skilful, and active.

"But the most important thing," as Alfred Povlsen says, "is the influence upon the religious and moral feeling of the population." One of the most vigorous opponents of the school has said:

> We must admit that immorality disappears where the people's high school exists. In social circles where the high school has acquired influence one finds neither drinking nor gambling nor the other forms of immorality. Still one must not believe that among the pupils a puritanical severity rules. They love dancing, sport, play, and all other recreations.

In consequence of the entire awakening and inspiriting influence of the high school, one finds a much happier, more intimate, finer, and more conscious family life.

Finally, Dr. Nörregard states:

> While the general cultural tendencies have encouraged a dislike for bodily work, and where they have gained power they have destroyed both the inherent love of work and the modesty inherent in it; on the contrary, it is an uncontested fact that, where the greatest enlightenment of the people's high school has taken root, that tendency is not only abating, but love of work and respect for manual labor have been raised. No work which ought to be done is too small for the man who has been trained in the people's high school.

"Grundtvig is a monumental figure in the Danish cultural and spiritual life," says Madsen. "No one has left behind him such deep and broad traces of Danish life as he; and the life of no other Dane has borne such rich fruit and is still so living among the people as that of Grundtvig."

The schools of Grundtvig have shown the value of liberal education as a factor in the vocational life of a country. These people's high schools have never loomed large in the life of the towns or cities of Denmark, Sweden, and Norway, but they have transformed the country life. In Denmark, alone of the civilized world, the city is not gaining on the country. This is the triumph of the people's high schools. The Danes have made their own the Danish poetry and history, and have acquired a love for the fatherland and mother-tongue, as well as a joyous idea of Christianity, and on the whole the point of view which we call "cultural." The people's high schools are a moral and religious achievement almost without parallel in modern times.

THE VALUE OF HISTORY OF ART AS A STUDY IN SECONDARY SCHOOLS

MARY STUART MACMURPHY, DERRY, N.H.

One of many years' experience in the work of this Association said, upon learning the subject of the paper to be presented by me, "You are unfortunate in the subject assigned you. It is very unpopular."

This remark increases my desire to present this subject. We cannot always speak upon popular topics. Such condition would relegate to the shadow of oblivion many subjects that should be brought before this body of learned men and women, discussed, and their educational fitness considered. What has been unpopular may become popular after proper and careful analysis.

That we may not be in the condition of the two knights approaching the two-sided shield respectively gold and silver, let us agree in the definition of a fine art.

The old Greek saying that a fine art is beauty plus religion has not been excelled. Ruskin's statement that a fine art is one which appeals to the highest faculties of the mind and whose primary object is to give pleasure is, perhaps, more explicit but in sentiment the same. Accepting both, I hold the fine art worthy of study.

It is no longer questioned that history is an important matter to be pursued in our secondary schools. Then the objection to the study of history of art lies in undervaluing the effect of this particular branch of history. While I hold that the benefits of this study to the pupils of our high schools are many, I shall present the three most important: (1) cultivation of imagination; (2) assistance in the study of biography; (3) a powerful aid in morality.

Imagination, God's greatest gift to man, the creative faculty without which the great poets, painters, sculptors, musicians, and architects could have produced no results, the faculty which gilds for us the rough places in life and carries us safely across many "sloughs of despond!"

Mrs. Welby says:

> The twilight hours like birds flew by,
> As lightly and as free,
> Ten thousand stars were in the sky
> Ten thousand in the sea.
> For every wave with dimpled cheek
> That leaped into the air
> Had caught a star in its embrace
> And held it trembling there.

Can the beauty of this stanza be questioned in comparison with the plain statement that it was nearly night and time passed rapidly while there were many stars in the sky reflected in the sea?

All may not possess great creative ability, but to have sufficient passive imagination to comprehend the creations of those having active imagination is a necessity to the student of art and literature. In this practical age, in which the tendency is to regard as unimportant every production that is not to be measured by its money value, is there not great danger of training our young people in a very narrow way? Science is of very great importance. The natural sciences offer many fascinating inducements for research work. Along with this material education, it is of inestimable worth that we should give to these boys and girls intrusted to our training a love of the beautiful. We should, as teachers, give them the power to see the beauty and religion in everything. No study is of greater assistance along this line than history of art. We wish an all-round education. It is needed tremendously now. "Nature abhors a vacuum" is a trite old saying but a mighty truth. Train the imagination. Fill the mind of the boy with beautiful images and there will be no room for degrading combinations. The most trying school age is, you will agree, that of the secondary-school period. I have found this study exceedingly helpful in leading pupils to learn their own powers of creation.

As a general help in society, a knowledge of the works of great artists has its usefulness. It is not pleasing to find yourself mistaking, in conversation, Botticelli for a kind of wine as did the multimillionaire of Chicago, or for a sort of Italian cheese as did the distinguished divine.

To create in the mind of the pupil an appreciation of works of art is desirable, in that it assists him to select the best, to give correct criticism when necessary, to understand a mistake made in ignorance by past collectors.

In the study of Greek art, the scholar must master the myth, must understand that the mythopoeic age was the age of the infancy of the Hellenes. The myths give him the character of the people. Rabbi Hirsch says that if authentic history or the myths must be given up, let authentic history go. It is somewhat surprising how rapidly the well-trained, high-school pupil will grasp the subjective meaning of the Greek myth, the legend of Zeus, the all-wise, all-loving father; of the creation of Aphrodite from the foam of the sea. A right training enables him to see, even in this material age, the beautiful image expressed in the myth, to find the germ of truth which is always there.

No biography is of more interest to members of a class in history than that of a great artist. To arouse the curiosity respecting the life of a man who has not been a great warrior, to lead the young to know that a Phidias, an Angelo, a Raphael has done as much for civilization as an Alexander or a Napoleon is lifting the pupil to a higher plane of thought.

The moral effect of this study is acknowledged by all instructors of the young. Works of art about us we know have a powerful influence. They are the silent teachers in a schoolroom.

I can add no thought better than that offered at the luncheon of the art department of the Federation of Women's Clubs, June 13, 1914: "We want an art gallery with exhibitions of works of art in every high school in America, to bring the presence of beauty into the education of the children, and to serve as an art center for the community."

THE PROGRESS OF INDUSTRIAL EDUCATION IN CLEVELAND, OHIO

R. L. SHORT, PRINCIPAL, WEST TECHNICAL HIGH SCHOOL, CLEVELAND, OHIO

A prominent educator has said, "Education is the ability one has of making profitable use of his leisure time." Those who enter the field of industrial education must add to this a second phase and hold that industrial education must develop one's ability to make profitable use of both his business time and his leisure time. Ten years ago men of large interests in Cleveland's affairs began the agitation for education for efficiency along vocational lines. Constant agitation of the subject culminated six years ago in launching in this school system the Technical High School, and one year later the High School of Commerce. Remember that at that time industrial education was practically unknown—Massachusetts, Wisconsin, New York, and other states had not yet passed their laws covering such training. Cleveland was pioneering, and it costs work, blood, and money to pioneer in education. As initiated at that time, the course of study and the work done was largely amplified manual training. One could not foresee demands for more than this, neither could authorities dare more. We were feeling our way toward better training. In the Technical High School, we had a magnificent plant with essentially a manual-training equipment. We worked pupils and teachers longer hours than was customary. Each pupil received a minimum of 33 hours of instruction per week as against the 20 or 22 in academic schools. Teachers were on duty from 8:10 A.M. until 3:30 P.M., with 45 minutes for lunch. They taught from 6 to 8 periods a day instead of 5 or 6. We taught 15 hours of shop, 15 hours of book work, 3 hours of gymnasium. The pupils studied science, mathematics, English, turning, cabinet-making, pattern-making, foundry, forge, machine shop, drafting, printing, applied art, sewing, cooking, millinery. The growth in this type of education has been marvelous and the changes in method, curricula, and results have kept pace with the growth. Despite the fact that the High School of Commerce is handicapped by an old discarded building and lack of room and equipment, results in that branch of vocational work are just as astounding. Perhaps a glimpse of what is now being done at West Technical High School will give you the best view of the situation. East Technical High School, planned for 1,000 pupils, had 700 pupils the first year, 1,300 pupils the third year, and before we could

get relieved by West Tech had 1,600 pupils. West Tech is a plain, factory type of building. It is practically all glass so that maximum lighting is possible. The customary ventilation for public buildings is 30 feet per minute per pupil. This building has 54 feet per pupil. The artificial lighting system laid out by the National Lamp Association is adequate and right. The 4 acres of floor in the corridors and 98 rooms of the building are vacuum cleaned daily. Sanitary conditions are right. The cost? Two-thirds of a million. This includes 12 acres of ground, an out-door gymnasium, a concrete grand stand, a 120-foot greenhouse, an out-door study hall, $100,000 worth of equipment, and a fireproof building. So much for the plant. Now for the school and its activities.

The boy coming in from the grades goes to the drafting-room and at the end of a month begins the working drawings for his shop work. And what does he design? Not tabourets and bookracks, but patterns—tools that are to be cast, and parts of machines. In the shops, from the first day he is making wood patterns. This procedure has many marked advantages: It is easier for the beginner to work in soft woods than in hard. The work must be to within 1/32″ of accuracy. There is added interest in making a pattern for something that is to be cast in metal and become a part of a tool, or a gas engine perhaps. Pattern-making has earning power, cabinet-making has not. The cost for materials is small in pattern work. The only reason we teach cabinet-making is to teach the boy to make joints. A simple table is about as ambitious as we get. We make most of our own furniture. Each boy makes a piece for himself, a piece for the school, and then as many pieces as he wants to sell.

From the pattern shop the pupil goes to the foundry where he learns from actual experience why his pattern is right or wrong. We were told that we could not teach pattern and foundry work to first-year boys. However that may be, West Tech has not bought a pattern or a casting in two years, and the first-year boys keep the machine shops supplied with good castings for both day and night classes. Boys in chemistry analyze the castings from each heat. Using as much scrap as we do, our mixture is always changing. The boys charge the cupola and figure the amount of each material.

As in cabinet work, our forging is a means to an end. We simply teach the heat treatment of iron and steel—eighteen weeks in all. While forging, the boy is studying the chemistry of iron and steel in his chemistry laboratory. The forging done is all practical, tools and machine parts, and the same teacher takes these boys to the machine shop to machine up and use what has been made.

A pupil should not be taught to work with a poor tool. Only a skilled mechanic may work thus handicapped. For this reason our tools in the machine shop are the best obtainable. Repair work is an essential feature of the work. To this end people are invited to send in all kinds of broken

tools and machines. The first-year fellows make drawings, patterns, and castings, and the third-year boys do the machining and assembling.

Electricity must not be neglected. Therefore the boy is placed under an electrical engineer to study electric construction, house wiring, telephone work, motor, generator, and battery building. The city code is our wiring text.

The printing trade attracts some. In our evening classes we have had as many as seventy-five apprentices working at school four nights a week.

You may wonder whether this type of school with its varied activities is of interest to the general public. We are a new school, two years old, with 600 of our 700 pupils in the Freshman and Sophomore years, yet in January we opened the school to inspection by the public. Admission was by ticket and there were 6,000 people who went thru the school in one evening. On a nice evening in June this year, East Tech had 10,000 visitors.

Do not think that in these higher industrial schools general education is neglected. Every pupil gets 15 hours a week in science, mathematics, and English. Dr. Garnett of the London technical work says: "We have no right to use public money to make machine minders." A machine minder without education is tied to his machine. This does away with drudgery of theme work. The topics chosen are usually on some phase of shop work under way at the time. In English work, we insist on the pupil writing on a subject with which he is acquainted and which interests him.

In the art rooms, pupils design their clothing, do interior decorating, develop designs for posters, calendars, book plates, Christmas cards. Large orders are filled for such trade work as this. After a girl has designed a garment in the art room, she goes to the sewing-room and cuts, fits, and makes the garment. Few women know much of fabrics, their cost, what they are made of, for what they are suitable. Because of this lack of knowledge, we give every girl lessons in textiles. She examines the goods under a microscope, studies the weave, material, width, range of prices.

The girl learns to cook, not only to cook from recipe for a few people but to cook in quantity also. With the cooking is given household chemistry. The restaurant is run in connection with the cooking-school and only one outside person is employed. All the rest of the work is done by the pupils—12 to 15 loaves of bread are made at one time, also 28 to 30 pies, and 12 to 15 cakes. These girls cooked and served a turkey dinner to 200 guests at our annual football dinner.

Our aim in athletics is to get every boy and girl into the game. We do not care for interscholastic championship teams. We are interested in all the boys and all the girls. Last year we had 58 basket-ball teams and played from four to eight games daily from 3:30 to 6:00 P.M. After 6:00 P.M. the gym belongs to the night-school people. We believe in clean athletics and in a heavy scholarship and conduct requirement for all participants. Even in our room games the scholarship requirement is rigidly adhered to.

We believe in the great outdoors for study, play, and work. And our pupils share this belief. Even in our small school, where only 100 are eligible for agriculture, 15 have elected to be farmers. For orchard laboratories, we rely on the near-by farmer, and now have contracts for the care of about 1,000 trees. The farmer bears the expense for materials and transportation and pays the boys 25 cents per hour for their work.

And we wonder what this education costs and whether it pays. The academic school costs about $88 per boy for all charges and covers a minimum of 22 hours per week of class instruction. The technical charge is $139 for 33 hours a week of class instruction. So that the cost per hour is nearly the same in the two types of schools. But no matter what the cost, does it pay? It pays if it saves more pupils to the schools, if it makes for better citizenship, if it gives a group of pupils greater earning power.

This table tells the Cleveland story:

ENROLMENT IN THE SEVERAL CLASSES OF HIGH SCHOOLS FROM 1906 TO 1913

	Academic	Technical	Commerce
June, 1906	4,938	.....	.....
June, 1907	5,059	.....	.....
June, 1908	4,989	.....	.....
June, 1909	4,787	729	.....
June, 1910	4,436	1,103	485
June, 1911	5,293	1,366	464
June, 1912	5,326	1,780	752
June, 1913	5,511	2,065	845

This year the technical schools have enrolled 2,371.

Claim has been made that this differentiation creates class distinction. Maybe it does. What of it? Does anyone deny that we have professional men, mechanics, laborers? Why is a man a lawyer? A machinist? A school-teacher? Because he so chooses. And if he chooses to become a pattern-maker why not give him opportunity to become the best of his kind? In Cleveland, a boy has absolutely free choice in his type of high school; he may also transfer to another school at the end of any term. You may think the eighth-grade boy does not know what he wants to do. But he does know. Only 1 per cent take advantage of the transfer privilege.

SOME THINGS WORTH WHILE IN INDUSTRIAL EDUCATION IN SECONDARY SCHOOLS

E. G. ALLEN, HEAD OF THE MECHANICAL DEPARTMENT, CASS TECHNICAL HIGH SCHOOL, DETROIT, MICH.

If we examine carefully the criticisms made against the public schools, we will simmer them down to the statement that the graduates find it difficult to adjust themselves to the everyday conditions of industrial and

commercial life. These criticisms apply as much to the college graduate as to the graduates of the high and elementary schools.

For years we have been studying all sorts of social, economic, and industrial conditions, in an attempt to make education practical. Manual training, trade schools, part-time schools, continuation work, and the reorganization of the school grades have played and will play an important part in this attempted readjustment. But if it is true that in general the students do not know how to use the subjects which they have studied, is it not well for us to ask about these criticisms and insist that those who make them define clearly what they want and give specific cases of failure? This must be done so that those of us who are working along the lines of educational adjustment may have a foundation for the reconstruction of our subject-matter.

For the sake of making our discussion definite, let us consider the criticisms which come back to us about the use of mathematics in workshop and laboratory, as well as those from the commercial fields.

On investigation, we find that ordinarily the criticism hinges around the fact that the students do not handle readily the most elementary facts in mathematics. Common and decimal fractions, proportions, measurement of angles, the use of formulae, the solution of triangles, etc., are apparently vague and far-away subjects.

The chief draftsman for a large automobile factory in the city of Detroit recently said that in the drafting-room he found that, if he asked a recent graduate to compute the dimensions of a piece of machinery which involved the addition of mixed numbers, a statement of proportion, the measurement of angles, or the use of formulae, there were always serious haggling and loss of time, with frequent errors.

The writer has many times had similar experiences with the use of mathematics in the school workshop; for example, in ordering a bill of lumber a boy will order a board 6/8 of an inch thick. When told to reduce the fraction to lowest terms, the boy seems flustrated, and it is often necessary to write the fraction on the blackboard and draw his mind back to the mathematical fact which he well knows but does not recognize when he stumbles upon it unexpectedly. All of us have no doubt observed that if a student is attempting to solve a problem in geometry and comes to a place in the process of the solution where the elements of the problem resolve themselves into an algebraic equation, instead of proceeding immediately on the familiar ground of algebra, he will almost invariably attempt to verify all succeeding steps from the geometric figure. Do we not all think in terms of arithmetic and algebra and geometry and trigonometry rather than in general terms?

Mathematically speaking, it is literally true that in our attempt to be pedagogical and psychological we have factored mathematics and are teaching each factor as a subject by itself. Why is it necessary for us to

teach two years of algebra before we know the definition of an angle or how to handle ordinary geometric facts which occur simultaneously with the algebra? Try as we may, we cannot find an industry or an applied science where mathematics stands out in definite factors as we teach it in the school. Do we not find in this fact sufficient reason for the inability of the student to recognize fundamental elements? On the other hand, we cannot cast aside all mathematical sequence and merely proceed with the solution of problems.

For a number of years, books of shop problems and applied mathematics have been coming into the market every few months; these books have in general gone too far to the other extreme and have ignored all mathematical sequence. This, again, causes confusion on the part of the student, because of introducing problems before he is ready for them. Our object must be, then, to formulate a sequence of mathematics and applied problems, so as to develop the subject in a rational way.

The following lantern slides will, to some extent, give an idea of the outline of mathematics as it is being taught at the Cass Technical High School and in several high schools of similar type.

A series of textbooks has been published recently, which have in general been followed in carrying out this course of study. A large amount of supplementary material has, however, been introduced, in order to meet our own particular problem. Incidentally, the writer believes that this supplementary work, in all courses, is one of the most worthwhile features of reorganized education at the present time.

MATHEMATICS I

FIRST TEN WEEKS

1. Solution of simple equations.
2. Evaluation of algebraic expressions.
3. Angles.
   a) The use of the protractor.
   b) Definitions and equations involving supplementary, complementary, vertical angles, and the angles of a triangle.
4. Positive and negative numbers.

By this arrangement of mathematics, we have in no way disarranged the mathematical sequence, and have paralleled the work in mechanical drawing and the shops.

The knowledge of angles which the student has gained in the mathematics department makes it possible for those teaching mechanical drawing to omit geometric drawing and devote themselves entirely to their own subject.

MATHEMATICS I

SECOND TEN WEEKS

1. Addition, subtraction, multiplication, and division.
2. Evaluation of formulae.
3. Lever problems.
4. Graphing data.

Problems similar to the following are given under this group:

1. The area of a triangle is expressed with a formula $A=\frac{1}{2}ba$. Find A, if $b=82$ *R.D.* and $a=7.78$ *R.D.*

2. Evaluate $2ab+4bc-5cm.^2$ If $A=5$, $b=3$, $c=10$, $m=4$.

3. Find the time of vibration of a pendulum 8 feet long. $T=\pi L/G$. Where $\pi=\frac{22}{7}$ and $G=32$.

4. Find the area of a triangle whose sides are 5′, 12′, and 13′ if $A=s(s-a)\,(s-b)\,(s-c)$.

The sides are a, b, and c. $s=\frac{abc}{2}$.

5. A wheelbarrow is loaded with 45 bricks, averaging 6 pounds each. What force will be required to lift the load, if the wheel is $4\frac{1}{2}$ feet from the end of the handles and 2 feet from the center of the load?

Added to the work indicated in the problems shown above, from two to three weeks at the close of the semester are devoted to proportions.

Mathematics II

First Ten Weeks

1. Problems involving one unknown quantity.
2. Simple fractional equations.
3. Proportions.

Problems

1. If gunpowder were composed of 4 parts by weight of saltpeter, 2 parts of sulphur, and 3 parts of charcoal, how many pounds of each would there be in 200 pounds of gunpowder?

2. What percentage of evaporation is necessary to change a 6 per cent solution to an 8 per cent solution?

3. A motor running at 875 R.P.M. has a $10\frac{1}{2}''$ driving pulley. What must be the size of the lineshaft pulley if it is driven at 180 R.P.M.?

Let x=diameter of lineshaft pulley.

$\frac{x}{10\frac{1}{2}}=\frac{875}{180}$ (The speeds of two belted pulleys are inversely proportional to their diameters.)

$\frac{x}{21}=\frac{875}{360}$

$360x=18{,}375$.

$x=51$: the required size.

Mathematics II

Second Ten Weeks

1. The equations involving two unknown quantities.
2. Graphing equations.
3. Lever problems.
4. Parallel line construction and problems.
5. Simple geometrical construction.

Problems

1. The diagonal of a square is 12″. Find its perimeter.
2. The side of an equilateral triangle is 10 inches. Find its area.
3. The side of a regular hexagon is a. Find its area.

This arrangement of problems and mathematical facts not only establishes fundamental facts of mathematics, but gives the information which

is required by mechanics in all building and metal trades and lays a foundation for the mathematics of the science courses. If at the end of the first year of school a student is compelled to drop out, he will find that he is prepared to handle quickly and intelligently all the ordinary problems of the machine shop, the plumbing shop, sheet metal work, and the building trades. This is a decided advantage even aside from the fact that the mathematics parallels his school work.

At the beginning of the second year, the student in the technical high school begins his work in chemistry. The instructor in the chemical laboratory assumes that the student can handle proportions. If he cannot, then the student is sent to the mathematical department to obtain the required information. Relieved, as they are, from the necessity of teaching mathematics with the chemistry, considerable more work can be done in the laboratories. The writer well remembers his own laboratory instructors who complained that they could not teach physics to any advantage because they were compelled to teach the subject of mathematics.

MATHEMATICS III

FIRST TEN WEEKS

1. Problems involving three unknown quantities.
2. Fractions.
3. Factoring and its applications.
4. Quadratic equations and their graphs.

MATHEMATICS III

SECOND TEN WEEKS

1. Radicals.
2. Square root.
3. Applications of square root.
4. Dimensions and areas of polygons.

MATHEMATICS IV

TWENTY WEEKS

1. Congruency of rectilinear figures and circles.
2. Ratio, proportion, similar triangles.
3. The trigonometry of the right triangle. Natural function.

MATHEMATICS V

TWENTY WEEKS

Measurements of angles. Similarity and proportionality in circles. Inequalities. Areas of polygons. Regular polygons and circles.

MATHEMATICS VI

TWENTY WEEKS

Solid geometry, plane trigonometry, logarithms. Problems involving:

1. Lateral area, total area, and volume of:
   a) Prisms.
   b) Pyramids.
   c) Cones.
   d) Frustums of pyramids and cones.

2. Areas of:
   a) Lunes.
   b) Zones.
   c) Spherical triangles.
   d) Spherical polygons.
3. Volumes of:
   a) Spherical wedges.
   b) Spherical pyramids.
   c) Spherical segments.
4. Areas and volumes of spheres.

THE RESPONSIBILITY OF THE TEACHER WITH REGARD TO THE TEACHING OF SEX HYGIENE

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Every day the newspapers thrust before us tragedies whose plots turn on sex life. When we stop to think, we know that these tragedies are only a small fraction of the sad scenes with identical plots that are enacted on the stage of life with only private spectators. People young and old have need enough of guidance in matters of sex. The need has long been recognized. The effort to meet it is comparatively new and very inadequate. In fact, I know of no place where there is systematic, well-organized means of conveying the information and awakening the moral earnestness needed to bring mankind to a wholesome, happy sex life.

The home has its part in this work, and the school has its part. Neither can take the place of the other. The fact is that parents and churches have always reserved this function to themselves—and have never performed it, and there is no hope that during the next generation at least they will adequately meet the need. Therefore the school must undertake the work, not to the exclusion of the parent, but filling in the blank left by the negligent parent, and supplementing the training given by the careful father and mother.

The recent revelations of the magnitude and the horrors of the traffic which caters to the sex passion, and the discoveries of the prevalence of venereal diseases and their deep, race-destroying effect, have driven into our minds as nothing before ever did the urgency of action to save the life of the race.

The danger which menaces the youth does not appeal to the parent as it does to the teacher. The parent, even if he knows how widespread the evil is, how inimical to every youth, says to himself: "Yet many escape. My son, my daughter will be one of these." This fatuous hope mollifies the feeling of urgency, and the parent lets the matter go.

The impelling force that drives the teacher to action is the terror of disease and vice that threatens to destroy the children under his care. But

the cry of warning against this evil is only a portion of his task. The teacher must establish in his pupils the right attitude of mind toward matters of sex—respectful but not prudish, candid but not flippant. He must give to them all the information that their natural curiosity or the needs of their life demand. He must hold before them the ideals of a clean and wholesome relation between boys and girls, young men and young women. He must present the ideals so skilfully that the pupils will accept them as controlling motives in their lives. He must repress the uncouth familiarities that mark the conduct of ill-bred boys and girls and explain to them the deep respect that lies at the foundation of more courteous behavior. He must teach his pupils that the reproductive function involves the most sacred duty to the whole human race present and future, that it should be used to produce only vigorous children, and that he whose condition precludes such has no right to children.

This is the duty laid upon us. As I go on to outline the method by which the work is to be done, you will see that the parent, even he who is wise and skilful, is inadequate to the full task, and the ordinary parent is hardly able to make a beginning. Still less is the need met by two or three lectures, given under strained conditions, by a physician who is not a teacher—tho even this is better than nothing at all.

The first principle of our school work in relation to sex is that it be not lugged in obtrusively. Everywhere it should fit naturally with the other work as a part that goes to make a perfect whole. For example, in history and geography the marriage customs and family life are discussed in connection with other customs. In biology and nature study the reproductive methods, egg-laying, care of young, etc., are given their place; and in regard to mankind the physiology and hygiene of the process of reproduction are part of the study of the human body and should come right along with other classwork.

Another principle is that sex must not be made too prominent. The prevailing policy of avoiding all reference to sex calls attention unpleasantly to the omission. In the teacher's mind the subject will have to be unduly prominent for the present, because he is not accustomed to it and will have to make special preparation for it. But to the pupil, to whom all the facts of his lesson are discoveries, the wonders of reproduction come with the same ease and simplicity as the other wonders of an interesting world.

All thru the lower grades facts relating to reproduction and precepts for conduct in sex matters come up incidentally. The opportunities must be carefully utilized, not avoided. Sex is so much in evidence all thru life that there are plenty of occasions for its study without specially setting the stage. Please note that, altho intercourse between a male and a female is a *sine qua non* in most reproduction, this act plays but a small part in the drama of the renewal of life, at least in the mind of the uncorrupted child. And if we recognize the relation simply and then pass on to other parts of

the story, we help to keep it in the subordinate position we desire it to occupy.

In the teacher's mind there are two distinct aims in this elementary work. One is to bring the child to the right feeling with regard to the subject—frank, clean, interested, reverent. The other is to teach the main facts about reproduction, including the social relations that depend on sex. The method will be by utilizing the opportunities that arise incidentally in any lessons, but especially in nature study, using live plants and animals as illustrative material, and treating reproduction as only one of the phases of the whole life.

In about the seventh or eighth grade, or in both, there should be definite instruction in sex hygiene in the physiology class. In earlier years the personal application should be made only to those whose practice needs correcting, and then it should be done in private. About the only practical precept required by the younger children is: "Let your sex organs alone." But when boys and girls approach puberty, sex life assumes a new phase. They want to know, and have a right to know, about things that hardly interest normal younger children. It is better to explain the chief points of human sex physiology and hygiene just before puberty rather than just after. During the first two or three years of puberty the child is more sensitive about sex matters than at any other time of life. You conserve this natural modesty and give it a wholesome direction by giving the necessary lessons before it comes. Moreover, your lessons are needed as a practical guide for the child, and it is better to forestall a mistake than to remedy it.

Just what these lessons should be we are not yet prepared to say with any great assurance. Our experience has not been sufficiently extensive. It would seem, however, that the following ground should be covered: How eggs and sperms are produced, their conjugation and the resulting inheritance of qualities from both parents equally, the development of the embryo, birth, the importance of breast nursing, venereal diseases, the various ways in which these are communicated and how they may be avoided, practical care of the sex organs, menses, night emissions.

The conduct side of the subject is even more important than the physiological. It goes almost without saying that we should insist on the law of chastity, one standard for both boys and girls, and that we should use every art to bring them to accept this law as a guiding principle in their lives. With this must go the practice of pure thoughts and clean words. It is a great thing to establish this foundation, but this is only the beginning of conduct training. I would not have our boys and girls assume the circumspect demeanor of grown-ups. Their hoydenish ways are normal and wholesome. But there are many uncouth practices common that are not consonant with the most refined conduct between the sexes. Boys must be taught to exercise a radical self-restraint in every relation to girls. So

many of them think that they are within the law if they stop short of fornication. They must learn to permit themselves no actions that lower their respect for themselves or their reverence for girls. And girls must be taught that, altho a free camaraderie with boys is desirable, a jolly fellowship in work and in play, there must never be permitted the least encroachment on their reserve, the least suggestion of indelicacy or of familiarity of person.

These lessons of sex physiology, hygiene, and conduct, which appeal so personally to the pupils, will be given mostly and perhaps entirely to classes in which the boys and girls are separate. Altho a man might give the lessons to the girls, it would be at some violence to their innate reserve. Altho a woman might, and in the absence of a man should, give the lessons to the boys, a man could do it with more freedom.

What I have said about the work in the seventh and eighth grades makes it unnecessary to dwell long on the instruction in the first two years of high school. The lessons on sex in the elementary grades were incidental. They made no attempt at completeness or at organizing the facts into a consistent and significant whole. The hygienic precepts were such as the child needed immediately for his personal guidance. In the high school the more developed mind of the older child requires a more systematic treatment of the subject. The study of physiology or of biology has made the child familiar with the general principles of life. Reproduction must be explained in terms of this knowledge. All thru biology reproduction is taught in its evolutionary aspects, and the pupil sees the simple processes of the lower forms of life replaced step by step by the more complicated and more efficient forms which prevail in the higher animals, with the culmination of the whole in the mammal; all this, remember, in connection with the other studies of life—food-getting, devices for respiration, protection from enemies, etc., so that no undue prominence is given to reproduction.

The physiology class, after having studied the other activities of the body, quite without any fuss or question, proceeds to study human reproduction. And with this study goes a discussion, as thoro as the age of the pupils permits, of the social dangers and duties that pertain to this function; and also there is made an appeal to the boys and girls, by all they regard most holy, to live the life that will keep them pure souls in sound bodies and bring happiness to those they love.

Boys and girls change rapidly during their high-school life. During two or three adolescent years they grow entirely out of their childish way of looking at sex matters. The subject takes on a personal aspect. They begin to feel the stirring of the tender passion. Courtship and marriage seem very near to them. They are beginning to take the weight of the world on their shoulders. No problems are too big for them to tackle, no crusade too great for their chivalry. The instruction that is sufficient in

the first and second years is entirely inadequate in the fourth. The boys and girls just before graduation need to go over once more the subject of sex life. This time it will be mainly from the standpoint of personal and social needs and duties. If the work earlier in the high-school course was well done there will be little to add to the physiology and hygiene, but there will be much of practical value to add for those who are going into the world to share in its burdens and privileges, to marry and rear families.

I cannot here lay out a systematic scheme for these lessons. I shall merely suggest some of the topics. From the voter's standpoint, there is the alliance between vice and politics; there is the policy of tolerance and attempted regulation versus a strong campaign for extermination; there is the question of what legal methods are most efficient, and what to do with offenders. From the hygienic standpoint there are questions of reporting infectious cases; of forcing into hospitals those who need hospital care; and of how to protect the innocent from germs of venereal disease. Considered morally, how can the debauchery of youth be stopped? How can girls, unwilling victims, be saved from the spoiler?

The questions relating to the personal life of law-abiding young men and young women are of even more immediate interest, are less discussed, and less understood. It is not enough that a young man in love should be warned to observe the seventh commandment. Both he and the young woman should understand the difference between affection and passion. They should be taught how to cultivate a maximum of the former with a minimum of the latter. We have a few rules of conduct that young people pick up in some way or other and observe with more or less care in public, but most of our youth are woefully ignorant of what conduct is wise. They have no rationally established principles that will lead them to act wisely in the particular situations that arise any day. And how are they to learn the principles if we do not teach them?

The number of divorces and the greater number of unhappy marriages bear out the statement that in nothing do we need the help of wise teachers more than in the matter of choosing a life mate. It is unlikely that a teacher will be asked to advise concerning individuals, but the controlling principles in the matter should be established by rational discussion.

Now, I have never followed completely the scheme I have just sketched. But I have repeatedly given the main parts, and, from the vantage ground of experience, I can see wherein my work has been incomplete, and what is wanted to round it out to a perfect whole. So I have sketched the whole, not merely the part we have done.

No one can measure the full effect of any instruction; yet the evidence we get by honestly seeking the truth in this matter is so overwhelmingly favorable that everyone, so far as I can learn, who knows the facts is convinced. Our experience, nearly five years, is not so extended as we could

wish, yet it is worth reams of a priori argument. Let me state a few plain facts that no one can controvert about the way the lessons are received.

The parents in overwhelming numbers favor the work. About 1 to 3 per cent ask to have their children excused. The children, with scarcely an exception, catch the clean spirit in which the lessons are given. They listen eagerly, ask pertinent questions, and show no tendency to distort lewdly any of the teachings.

Now as to the results! Many unsolicited letters are received from the parents testifying to the good effects of the lessons. The only ones who have made derogatory criticisms are those whose children did not attend the lessons. No pupil has been known to express regret for having had the instruction. Many have volunteered expressions of gratitude. When given an opportunity to state their opinions in unsigned letters, the opinions were without exception favorable. The moral tone of the school has improved. One mother who has the confidence of her son called the improvement a revolution. Instead of stimulating conversation on sex matters, the lessons have had the opposite effect—as might be expected when all questions are fully answered and curiosity is allayed. When one sophisticated boy was asked whether the instruction had any effect on the nasty stories sometimes told, he replied: "It has shut 'em all up." How could the boys find any tang of humor in what the teacher discussed with scientific candor? We think we notice a more frank and cordial relation between teacher and pupil as a result of these lessons, which the pupils see clearly are for their good. The teachers who have seen most of this work and are deepest in the confidences of their pupils are most heartily in its favor. Several of them have been converted from an opposing stand. I know of no one familiar with the results who thinks the work harmful.

When you see in the life about us the terrible results that have come from the policy of silence, how can you doubt that scientific instruction coupled with a strong presentation of moral ideals will bring a more wholesome life to the boys and girls? When you see the outcome in the schools that have ventured in this new field of service, how can you hesitate to join the workers and bring a like blessing to the youth in your school?

SOME EXPERIMENTS IN SEX EDUCATION

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Last autumn, while conducting a conference of Massachusetts superintendents, principals, and teachers of biology, the speaker outlined the following series of propositions relative to sex instruction. These were submitted to Charles W. Eliot, president of the American Federation for Sex Hygiene, and were modified in accordance with his constructive suggestions.

These are the propositions:

1. The normal child seeks to know the source of his being and naturally questions his father or mother.

2. The average parent either silences all questions relating to these topics or shuffles in his answers. Seldom does the child get any satisfaction from this source.

3. The child, therefore, turns to other sources of information, and two unfortunate results follow. First, much of the information he gets is untrue; and, secondly, the parent loses a great opportunity to keep in sympathetic touch with some of the most vital problems of his child.

4. There are two reasons, at least, for this "conspiracy of silence" on the part of the parent: first, his ignorance of the significance of the essential facts of the reproductive process, and, secondly, his incapacity to expound this subject, largely because he has no wholesome and scientific vocabulary in which to express himself.

5. Both these needs of the parent of tomorrow should be supplied in courses in biology which treat of the function of reproduction as a universal and beneficent process of all living things. And we might add that biology is the only subject in which these facts can be presented in a normal way.

6. Not only does the child need to know in clean and wholesome terms the essential facts of reproduction, but even more thru the stormy days of youth does he need parental counsel. It is during this period that self-abuse becomes very prevalent. At this time the mother should give wise counsel to the daughter relative to the periodic physiological experiences that are to occur. The father, too, should prepare the boy for the experiences of seminal emissions which frequently frighten the youth and drive him to the quack doctor. The boy should be taught that these experiences, unless they occur several times a week, are perfectly normal and cause no harm. The youth, too, should be impressed with the fact that health and virility are in no way impaired by lack of sexual intercourse.

7. The fearful prevalence of syphilis and gonorrhea is becoming an increasing peril to our civilization, especially in cities. Gonorrhea is said by eminent physicians to be a frequent cause of sterility in marriage and to be the direct cause of many operations among married women. Most of the cases of blindness of the newborn are due to this disease. Of syphilis and its attendant woes too black a picture cannot be painted. Even among the picked young men who enter college, sexual immorality with its constant danger of infection is surprisingly common. Yet the average parent gives absolutely no warning of these perils to either son or daughter.

8. It is therefore evident that in every community the teacher, the physician, and the clergy should do all in their power to arouse the parents of today to some sense of their responsibility in these matters. This may be done by talks with individual parents, by small conferences of interested fathers or mothers, and by a distribution among parents of carefully selected books or pamphlets in which the facts are presented in a thoro, wholesome fashion.

9. In the judgment of the speaker, who has taught biology in the high schools for over twenty years, it is entirely practicable and wise to present in biological courses the explanation of the reproductive processes of plants and of animals even as high as the birds, and the average boy or girl will be able to apply the facts and principles thus acquired to the reproduction of human beings.

10. Sex hygiene, however, is an entirely different matter. It involves discussion of the personal problems of girls and boys, problems which most of them have not discussed even with parents or the family physician. And it is this aspect of sex education which we as teachers hesitate to enter upon in the classroom, at least until a somewhat clearer trail has been blazed for us. Yet it is this very kind of practical instruction that is sorely needed by our boys and girls.

In the first place it may be pertinent to ask why it should be expected that the average teacher, especially one who is young and unmarried, should be any better fitted to give this instruction to boys and girls than are the parents. And even tho the teacher may have received adequate instruction in sex hygiene, the problem of presenting the needed information is most difficult.

In New York City over 46 per cent of the high-school pupils are taught in classes where boys and girls recite together, and in the smaller cities and towns of the country mixed classes are almost universal. But, urge the advocates of sex hygiene, we should separate the two sexes and then give the necessary instruction. If much definite teaching of the subject is to be given in the public schools, this separation must of course be made, but experience has shown that when one part of a division has been isolated for special instruction, unfortunate self-consciousness seems to be the inevitable result.

11. That the subject may be taught in such a way as to influence the life of our boys and girls the instruction must be given by men and women who have high ideals. It was Emerson, was it not, who said, "What you are speaks so loud that I cannot hear what you say"? It is useless and worse, then, for a frivolous mother, or immoral father, or a characterless teacher to attempt to enter this field of sacred duty. For to be successful here mere knowledge is not enough. Who knows more of the great facts relative to the transmission of life than does a doctor? But do we go to the medical school for high ideals of virtue? Even the churches, alas, are not always free from sin in these matters. The problem, I repeat, can be faced successfully only when parents, pastors, and pedagogs co-operate wholeheartedly in this great movement.

I shall take for granted that the majority of my hearers agree to these eleven propositions that I have outlined, and shall not, therefore, take time to defend them. Instead, may I first ask your attention while I give some account of the method of sex instruction we have followed with the children in our own home? Later, I should like to discuss some of the work in the biology classes in the Morris High School and some of the conferences that have been held with groups of our older boys and girls outside of school hours.

In our own family we first met the problem of sex education before the children were five years old. Fortunately, when they were reaching this questioning age, we were spending the summer on a New Hampshire farm when the dog, Fido, had her litter of puppies. The eager interrogations of the children were answered frankly and as fully as seemed necessary, and their natural curiosity was satisfied. After their return to the city, on learning of the birth of a little child in a neighboring apartment, they said, in the most matter-of-fact way, "Oh, yes, just like Fido!" and so the essential facts of maternity had evidently become sufficiently clear to the little people.

Soon, however, came the insistent questions relating to fatherhood, and these interrogations were answered for the eight-year-olds by an interesting agricultural experiment that we carried on all unwittingly. We had built our home in a suburban community where there is ample space for the typical commuter's garden. The small boy wished to do a bit of gardening on his own account, and so he secured from the United States Bureau of Agriculture, at Washington, some choice popcorn which he planted, hoed,

and tended in his own corner of the house plot. Not far away his father sowed the sweet corn needed by the family. When the autumn came and the two crops were gathered, there was an astonishing mix-up of kernels; for we found sweet-pop-corn and pop-sweet-corn, and seemingly all possible intermediate stages.

The material needed for teaching the boy the significance of the paternal function was now right at hand, and the boy and his father spent a Sunday morning in interpreting the experiments. Pollen was shown under the microscope, and the processes of cross pollination and of fertilization of egg cells were discussed in a simple fashion. The sex relations in the poultry yard were referred to, and the necessity of male birds to insure fertile eggs was made clear. The attention of the boy was then called to the characteristics of eyes, hair, and complexion which he himself had inherited from each of his parents and grandparents, and emphasis was laid upon the fact that the organs set apart for the transmission of life must be kept clean and sacred for the function for which they were intended. Later came the counsel as to possible seminal emissions and the dangers of sensual indulgence even in unclean reading, pictures, or thoughts. The response of the boy has been only what any father who has kept his boy as a boon companion ought to expect, and no greater reward could be sought or received than his oft-repeated exclamation: "My father and I are pretty good friends."

In a similar way the daughter was prepared by her mother for the physiological experience of menstruation. When it came and the brother was told its significance, a far more chivalrous care of his sister became evident in his conduct. All of this is perhaps so simple and commonplace an experience in many of your homes that you may think it not worth the telling. But if the experiences with our children convince even one of my doubting hearers that the parent who would have and hold the confidence of his child must cast aside the "policy of silence," then the last few minutes will not have been spent in vain.

Shall we turn now to a consideration of the aspects of sex education that may well be presented in the school? In this discussion I shall confine myself to the high-school period, for I have had only a limited experience in giving biological instruction either in the elementary school or in the college.

In the New York City schools, biology is required thruout the first year of the high school, and just as much time in the curriculum (namely, five periods per week) is assigned to this subject as is given to English, mathematics, or a foreign language. A similar time allotment is becoming more and more the rule thruout New York state. In outlining the course in elementary biology, our committee of teachers has constantly aimed to bring into the foreground the relations of biology to human welfare. Hence, we are spending relatively little time in teaching these young people com-

parative morphology, microscopic anatomy, and theories of evolution. Instead we emphasize the functions of all living things—food-getting, digestion, assimilation, respiration, and reproduction—and we devote a large amount of time to the economic importance of plants and animals, to the necessity of tree preservation, insect extermination, bird protection, to the hygiene of the teeth and skin, to healthful diet, efficient ventilation, prevention of disease, and to hygienic habits of study. That our students on the whole are thoroly interested in this subject is evidenced by the fact that when over three hundred of those in the first part of the second year were asked which of their four first-year subjects they enjoyed most, the answer of 53 per cent was "biology." Only 34 per cent, however, stated that biology was their easiest subject.

We have just introduced a new elective of five periods a week for our third- and fourth-year students which is devoted to comparative physiology, personal hygiene, home and city sanitation. In our own school there are seven divisions of students, over 160 boys and girls, who are following this course, and here we have abundant opportunities to be of service in the training of those who are to be the teachers and homemakers of tomorrow in the wide applications of biology to human welfare.

Such is the field that has opened up to us biology teachers. And in presenting the subject we believe we are helping our boys and girls to answer some of the deepest questions of their lives—namely, those that concern the perpetuation of life. In the plant study we lay a broad foundation for the study of reproduction and introduce terms like sperm cell, egg cell, fertilization, and embryo, which later are employed in considering the reproductive processes of insects, fishes, frogs, and birds.

In the elective courses we can carry on this work more in detail, and even in mixed classes our students discuss in scientific terms, and apparently without any self-consciousness, the function of reproduction in all groups of animals including the mammals. In this connection we emphasize the deep meaning of the home as a prime factor in evolution, the importance of right choices in marriage, and the tremendous significance of heredity both to the individual and to society. No part of this study makes a deeper impression than does the contrast between the heritage in the Jonathan Edwards and the so-called Kallikak family. Many have been the expressions of appreciation for this frank presentation of human problems that have come to us from our most thoughtful boys and girls.

But classroom instruction specific even as this does not touch the real heart of the sex problem of the adolescent boy; and some of us, remembering the experiences of our own boyhood, have long felt that we ought to go much farther with some of the boys whom we had come to know rather intimately. For the past ten years I have been in charge of the school printing squad, and another of our biology teachers, Mr. Mann, has been coach of the most successful high-school gun squad in the United States.

Here we have a group of fifty to sixty picked boys who know and trust us. Last year we divided these boys into groups of eight to fifteen each, and invited them to meet us in one of the laboratories after school hours. There we reviewed the whole process of reproduction from the lowest organisms up thru the flowering plants and the lower vertebrates to man; we told them the meaning of menstruation and of seminal emissions; we warned them of the dangers of sensual indulgence and of the perils of venereal disease; but thruout all our discussions we emphasized the splendid calls to chivalry in the treatment of the opposite sex, and the rewards that are open to those who live clean, manly lives.

The boys in these conferences have always responded in the finest kind of fashion. In not a few cases they have told us of their terrors on reading quack advertisements, and of their feeling of relief on learning that occasional seminal emissions are only normal experiences. Several of them have frankly told us of their fights against self-abuse, of their temporary defeats, and of the victories they have won. If any of you know of a business that pays greater dividends on the investment than that of helping a tempted boy to make a man of himself I should like to hear of such an opening. Until I hear of such a job, I shall stick with supreme satisfaction to the one I now hold. In all this work we are most fortunate in having the hearty support and sympathy of Principal Denbigh, of City Superintendent Maxwell, of Dr. Bardwell, and of others of their associates.

We men teachers could, of course, do nothing outside the classroom to instruct the girls in these matters, and none of our women teachers thought themselves prepared to do this. The girls need this personal counsel perhaps even more than do the boys, and several of those who were taking the advanced biology asked that further instruction be given. We were most fortunate in being able to secure the assistance of Miss Nellie M. Smith, who, as perhaps you know, has written one of the sanest and most wholesome books for girls that has yet appeared—*The Three Gifts of Life*. We told our senior girls that Miss Smith would give her first lecture at 2:45 in one of the study halls. Seventy-five girls appeared and for two and a half hours listened to Miss Smith and plied her with questions. And, if you could have seen their shining eyes as they left the building, you would have become convinced that the problem of sex instruction was solved so far as these girls were concerned. At the second lecture, 175 girls crowded into the study hall and so eager were those who had missed the first lecture to hear it that they persuaded Miss Smith to come again the next week.

Miss Smith, knowing my deep interest in the subject, kindly allowed me to look over the eighty or more written questions that were handed in. Most of them showed real hunger for wholesome information to counteract the misinformation they had received. We count ourselves most fortunate in securing Miss Smith's promise to continue this work next year and we plan to have conference hours when the girls can consult her as to their

individual problems. Can you see any possible danger in this movement? We urge our boys and girls to talk over freely with their parents what they have heard, but not to discuss these matters with their schoolmates of either sex.

The whole problem of sex instruction is so tremendous in a great city like New York, Chicago, Minneapolis, or St. Paul, that any work the individual may do seems likely to be lost in the great shuffle. In spite of the crying need of widespread sex education, however, I am still in doubt as to the efficacy of lectures given by outside physicians or other physiological experts to large groups of students. This method, as you know, was tried out in Chicago and abandoned. The problem is so vital and personal that it needs the individual touch and counsel of those whom students already know and trust.

For most of the plays dealing with the sex problem I have absolutely no use, and many of the moving-picture films are probably even more dangerous. I have never seen but one of the latter and only two of the former, for why, pray, should we seek to get nutrition or enjoyment from sewage? Let me commend to you, however, either *Damaged Goods* or *The Blindness of Virtue.*

I am optimistic enough to believe that at least the next generation of teachers and parents will be trained to deal with the problem far more intelligently and courageously than have we. To this end we need to curb the reckless agitator for compulsory sex education, to give sane and wholesome courses dealing with this problem in all normal schools, colleges, and theological seminaries, to lead our children in the public schools to appreciate something of the far-reaching importance of the process of reproduction, and, above all, to seek in every way to arouse in parents a feeling of the deep responsibility to these children and to society which they have assumed in bringing their children into being.

COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION

MINUTES

RICHMOND MEETING

At the Richmond meeting of the Department of Superintendence the Commission on the Reorganization of Secondary Education held four sessions as follows:

Wednesday Afternoon, February 25, 1914.—The following topics were discussed: "How May the Commission Become a Clearing-House for the Results of Successful Experiments in High-School Teaching thruout the Country?" "Is Such a Clearing-House Needed?" "What Kind of Syllabus Is Helpful When Any High-School Subject

Is Undergoing Important Changes?" Frank L. Boyden principal, high school, Deerfield, Mass., then spoke on "A Curriculum of Social and Recreational Activities in a Rural High School."

Thursday Forenoon, February 26, 1914.—William Orr, deputy commissioner of education, Boston, Mass., discussed "The Aims of the High School in Terms of Social Utilities." This was followed by a paper by Charles H. Johnston, professor of secondary education, University of Illinois, Urbana, Ill., entitled "Proposals for Terminology."

Thursday Afternoon, February 26, 1914.—The following program was given: "How Should the Time Devoted to Social Studies in the High School Be Divided among Community Civics, Survey of Vocations, Economics, and History?"—Thomas Jesse Jones, specialist in United States Bureau of Education, Washington, D.C.; "What Are the Claims of Biology to a Place in the Education of Every High-School Boy and Girl?"—James E. Peabody, department of biology, Morris High School, New York, N.Y.; "Credit Courses in Music and School Credit for Private Instruction"—Will Earhart, director of music, public schools, Pittsburgh, Pa.

Friday Forenoon, February 27, 1914.—The following program was given: "The Use of English Literature in Moral Education"—Henry Neumann, Ethical Culture School, New York, N.Y.; "Health Education and the Bearing of Physiological Age upon the High-School Curriculum"—James H. McCurdy, International Y.M.C.A. Training School, Springfield, Mass.

MINUTES

ST. PAUL MEETING

Wednesday Forenoon, July 8, 1914.—The following program was presented: "Problems Confronting the Commission on the Reorganization of Secondary Education"—Clarence D. Kingsley, chairman of the Commission, and high-school inspector, Massachusetts Board of Education, Boston, Mass.; "Report of the Committee on Modern Languages"—Frederick S. Hemry, Tome School, Port Deposit, Md.; "Report of the Committee on Music"—Osbourne McConathy, director, public school music department, School of Music, Northwestern University, Evanston, Ill.; "Report of the Committee on Agriculture"—A. V. Storm, University of Minnesota, Minneapolis, Minn., chairman.

Wednesday Afternoon, July 8, 1914.—The following program was given: "Report of the Committee on Social Studies"—Thomas Jesse Jones, specialist in the United States Bureau of Education, Washington, D.C., chairman; "Report of the Committee on English"—E. H. K. McComb, Manual Training High School, Indianapolis, Ind.

Thursday Forenoon, July 9, 1914.—The Commission met in joint session with the Department of Science Instruction and the "Report of the Subcommittee on Biology" was presented by James E. Peabody, head of department of biology, Morris High School, New York, N.Y., chairman.

Thursday Afternoon, July 9, 1914.—The following program was presented: "Report of the Committee on Manual Arts"—Frank M. Leavitt, professor of industrial education, University of Chicago, Chicago, Ill., chairman. Discussion: Wilson H. Henderson, director of industrial education, Hammond, Ind.; "Report of the Committee on Household Arts"—Lilla Frick, supervisor of domestic science, Minneapolis, Minn.

Preliminary reports of the various committees of this Commission were published by the United States Bureau of Education, as *Bulletin No. 41, 1913*, entitled "The Reorganization of Secondary Education." Further reports of these committees will be published by the United States Bureau of Education.

CLARENCE D. KINGSLEY, *Chairman*

PROBLEMS CONFRONTING THE COMMISSION ON THE REORGANIZATION OF SECONDARY EDUCATION

CLARENCE D. KINGSLEY, CHAIRMAN OF THE COMMISSION, AND HIGH-SCHOOL INSPECTOR, MASSACHUSETTS BOARD OF EDUCATION, BOSTON, MASS.

This Commission grew out of the attempt made several years ago to help bring about a satisfactory articulation of high school and college. Such an articulation is now in sight, because of the recognition of the principle that secondary education should be planned with greater reference to the normal mental processes of youth from fourteen to eighteen years of age. It is now believed that various high-school curriculums planned carefully in accordance with the psychology of adolescence and guided by the aims furnished by a sound social economy will offer the best possible foundation for advanced general or vocational education conducted by college or technical school. This Commission, therefore, is now confronted with problems arising in the attempt to work out well-planned high-school curriculums.

To accomplish this purpose the Commission contains ten subject-committees, each of which is to formulate the aims in that subject and to suggest appropriate methods and materials to be used in the accomplishment of these aims. The Commission also contains a committee on the articulation of high school and college, which will present to the colleges a statement of the findings of the subject-committees, to the end that college-entrance credits may be secured for those courses which best meet the needs of high-school pupils. The Commission also contains a reviewing committee which will attempt to formulate the general aims of secondary education and in the light of these aims will criticize the work of the various committees. This morning reports will be presented by committees on modern languages, music, and agriculture; this afternoon, on social studies and English; tomorrow afternoon, on manual training and household arts. The committee on science and four of its subcommittees will report tomorrow in meetings of the Department of Science Instruction, the subcommittee on biology reporting in the morning, and the committee on science and the subcommittees on general science, chemistry, and geography reporting in the afternoon.

Each committee, in formulating the aims which should prevail in its subject, has attempted to make these aims specific and to express them in terms of the effect to be produced upon the boy or girl either in the power to execute or in the ability to appreciate rather than in terms of subject-matter to be mastered. This change in aims was recognized a year and a half ago as the guiding principle of the Commission. Stated briefly, the Commission is to think in terms of boys and girls rather than in terms of subject-matter. Thus, subject-matter becomes the means to the end rather than the end itself.

By specific aims we mean aims such as the following:

In English, the ability to write a concise business letter dealing with a definite business situation; the ability to write an interesting friendly letter to fit any occasion; and the development of a background of insight making possible the appropriation of the message of an author.

In history, the appreciation of the development of the rights of the individual as achieved by the Anglo-Saxon.

In biology, the realization of the importance of the various food elements in sustaining plant, animal, and human life.

In civics, a point of view that will lead to co-operation with the local charity organization society.

In household arts, the knowledge and skill that will lead the woman to spend the family income wisely.

Specific aims such as these, thus stated, suggest appropriate methods to be used and assist in the selection of subject-matter, or, at least, open the way for profitable discussions regarding methods and subject-matter.

Affecting the work of all the committees, there are certain general problems with which the Commission as a whole must deal, such as the following:

1. The terminology of secondary education
2. The construction of a general curriculum and vocational curriculums
3. The articulation of general and vocational education
4. The extension of secondary education downward to youth of twelve years of age
5. Concentration in the work of the individual pupil
6. Spontaneous activities to develop appreciation
7. The needs of smaller high schools

TERMINOLOGY

The lack of adequate terminology is one of the hindrances to the solution of problems in secondary education. Confusion is seen in the current use of such a common term as "course of study." This term is used in at least three distinct senses, for two of which it is proposed that other terms be substituted. It is used to cover the entire offering of a given school, for which it is proposed that the term "program" be substituted. It is used to include all the studies pursued by a certain group of pupils such as the "commercial course," for which it is proposed that the term "curriculum" be substituted. It is also used for the work in a certain subject, like Latin for instance, to be pursued by a group of pupils in not more than one year. The last named is the meaning to which it is proposed that this term henceforth be limited.

The difficulty in framing definitions is seen in the case of "high school" owing to the following questions which arise: (1) Should the definition include private institutions or only those supported by the public? (2) Should it include trade schools? (3) Should an institution offering a course of less than four years be called a high school? (4) If the

elementary-school course is restricted to six years, how many years of instruction must a school offer beyond this course in order to be called a high school? (5) Wherever the California plan of extending the instruction of the so-called high school up to the junior year of the college be adopted, should the definition of high school be so framed as to make it possible to include this advanced instruction?

It is important that the terminology of secondary education should be formulated by those who are interested primarily in secondary education, but before final action is taken conferences should be held with those engaged in formulating the terminology of other forms of education. It is hoped that Commissioner Claxton will take the initiative in bringing about such an agreement.

THE GENERAL CURRICULUM AND VOCATIONAL CURRICULUMS

Have we not reached the stage in secondary education when we should plan a general curriculum and vocational curriculums to meet the needs of various groups of pupils instead of simply outlining independent and unrelated courses in various subjects? Is it not now desirable that the general curriculum should contain such practical subjects as manual training, household arts, commercial geography, and agricultural science, and that these courses should be regarded as a part of general education and be distinguished from more technical courses which are definitely organized to develop efficiency in a clearly recognized and sharply defined vocation? If such a distinction is desirable, by what term may the more general courses be designated? "Practical arts" has been suggested and is now used in certain parts of the country for this purpose.

With the understanding that the general curriculum will include courses in practical arts, such as manual training and household arts, is it not true that the majority of pupils up to the age of sixteen will and should pursue the general curriculum? If the majority of pupils under sixteen have not yet made such choice of a definite vocation as to justify them in transferring from the general to a vocational curriculum, then the planning of the general curriculum becomes a matter of great importance in secondary education. This curriculum should furnish those common elements of education that are needed by all members of society whatever may be their choice of vocation; it should help the pupil choose his vocation wisely; and it should provide electives whereby each pupil may secure elements of culture along the line of his special aptitude and ability.

The general curriculum of the future will, therefore, differ widely from the traditional college curriculum. The place occupied by each of the high-school subjects in this curriculum will depend largely on the degree to which those familiar with that subject demonstrate its value in reaching the ends of general education. The present tendency seems to be to give greater place to English literature, English composition, both written and oral,

socialized history, economics, community civics, general science, elementary biology, agricultural science, and household arts.

In planning the work in each subject in the general curriculum, it is important that the pupil who takes only one year in the subject shall secure definite and tangible values; that the pupil taking two years shall spend those years to the utmost advantage and at the same time lay a satisfactory foundation for the work that may follow. Heretofore high-school courses, especially when planned with reference to admission to college, have been conspicuous for their deferred values, altho it has been well recognized that only a small proportion of pupils who have taken these courses have continued their work to the point where those deferred values could be realized.

In organizing vocational curriculums, such as vocational agricultural, commercial, industrial, and homemaking curriculums, innumerable problems arise. Can the Commission assist in the solution of some of these problems at least in so far as such solution may be applicable to all parts of the country?

THE ARTICULATION OF GENERAL AND VOCATIONAL EDUCATION

With the increasing attention devoted to definite vocational education and the recognition of practical arts as a part of general education, many problems arise regarding the articulation of general and vocational education. (1) Should the individual be encouraged to complete his general education before commencing his vocational education, or should plans be worked out whereby these two forms of education will be successfully pursued simultaneously by the individual? (2) To what extent can and should practical arts as a part of general education contribute broadly to the vocational efficiency of the individual? (3) Should vocational guidance be regarded as a part of general education and how may it be conducted so as to succeed in its purpose?

THE EXTENSION OF SECONDARY EDUCATION

The traditional plan of devoting eight years to elementary education is rapidly becoming obsolete. On the one hand, if the committees fail to take this fact into consideration their reports will be defective where the elementary-school course has been shortened; on the other hand, if the committees assume the shortened school course, their reports will be defective where eighth-grade system persists. Consequently it will be necessary for each committee in preparing its report to indicate how its recommendations may be adjusted so as to meet the needs of schools under both plans.

CONCENTRATION IN THE WORK OF THE INDIVIDUAL PUPIL

The Commission should also make a study of the degree of concentration that should exist in pupils' programs. At the present time, there is

wide variation in practice. Many schools are organized on the four-subject plan; that is, the pupil of average ability concentrates his attention upon four subjects in a given year, each subject being conducted by means of daily exercises, part of which may be double laboratory or shop periods. In other school systems, five subjects are carried simultaneously, part or all of these subjects having fewer than five exercises per week. In still other systems, especially in some of the larger cities, the energy of the pupil is divided among more than five subjects. It is important that a study should be made of the comparative results of these different plans.

SPONTANEOUS ACTIVITIES TO DEVELOP APPRECIATION

A problem in the solution of which, as yet, we have very little experience to guide us consists in determining the place that should be given to spontaneous activities designed to develop appreciation of music, art, and literature. In one school every girl is required to belong to one of several clubs, these clubs meeting for an hour at three o'clock four days a week. Each club is under the direction of a teacher who allows the girls freedom in the selection of activities which appeal to their interests. Unless some such plan is adopted, there is danger either that work designed to develop appreciation will be neglected or that it will be conducted so formally as to fail in the accomplishment of its purpose. It is desirable that various experiments should be made in the solution of this problem and that the results should be carefully collected and evaluated.

THE NEEDS OF SMALLER HIGH SCHOOLS

The needs of smaller high schools should receive special consideration by this Commission. It has too frequently happened in the past that reports of national committees have been written with the resources of the larger high schools in mind, because the members of these committees were drawn largely from these schools. This has been due to the fact that capable teachers who commence their work in the smaller high schools ordinarily find their way to the larger high schools, leaving the former schools largely in the hands of inexperienced or less capable teachers. For this very reason the smaller high schools are in need of greater assistance than the larger high schools. In addition to the inexperience of the teachers, the smaller high schools often have to conduct their work with meager equipment, and consequently committees in outlining courses should bear this limitation in mind. In the smaller high schools, it frequently happens that certain subjects, such as physics and chemistry, should be offered in alternate years, and consequently committees should indicate how these courses may be conducted so that the work in one course will not necessarily be dependent on the work in the other.

The efficiency of any teacher is seriously jeopardized when such teacher is required to offer instruction in too many subjects. Consequently in a

small high school with only two, three, or four teachers, it is a matter of fundamental importance that the courses to be taught should be carefully selected and that those selected should be so organized as to meet the needs of as many pupils as possible. Hence the Commission should devote much attention to the organization of courses each of which will meet the needs of many pupils.

CONFERENCE OF HIGH-SCHOOL PRINCIPALS

SECRETARY'S MINUTES

Thursday Forenoon, July 9, 1914.—In connection with the St. Paul meeting, P. P. Claxton, United States commissioner of education, Washington, D.C., called a Conference of High-School Principals. About two hundred principals and others interested in secondary education were present.

Commissioner Claxton stated that he called the meeting because he desired to place before the high-school principals and others directly interested in secondary education the plans that he is formulating to make the United States Bureau of Education of greater value to the secondary schools of the United States. He stated that he desired to have in the Bureau a division on secondary schools to be headed by an assistant commissioner of education. His belief is that such a division could act as a clearing-house for the secondary schools of the country, and that a committee of high-school principals could be of great assistance in arousing public opinion favorable to the necessary appropriation and by indicating the service which such a division could render.

Commissioner Claxton suggested that the meeting organize itself by appointing a chairman and secretary so that his proposition might receive formal consideration.

J. Stanley Brown, superintendent, Township High School, Joliet, Ill. was thereupon nominated and elected chairman. Clarence D. Kingsley, high-school inspector, Massachusetts Board of Education, Boston, Mass., was nominated and elected secretary.

A motion was made that the chairman and the United States commissioner of education should select a committee of seven to work along the lines indicated by the commissioner. After discussion regarding the size of the committee, an amendment was made to the original motion that the committee of seven include the chairman and secretary of the meeting. The original motion as thus amended was carried.

Commissioner Claxton then stated that the idea of calling this meeting occurred to him after receiving requests that the Bureau of Education issue a special series of circular letters dealing with secondary education.

In order to obtain the opinion of the meeting as to the value of such a series of circular letters, Commissioner Claxton asked for an expression of opinion. An informal vote indicated the unanimous opinion that such a series of letters would be valuable. He also asked whether those present would be willing to send news items for such circular letters. An informal vote indicated willingness to co-operate.

It was suggested that the committee to be appointed meet at Cincinnati at the time of the meeting of the Department of Superintendence.

CLARENCE D. KINGSLEY, *Secretary*

DEPARTMENT OF HIGHER EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—C. A. DUNIWAY, president, University of Wyoming.....Laramie, Wyo.
Vice-President—ELLEN C. SABIN, president, Milwaukee-Downer College.....Milwaukee, Wis.
Secretary—NATHANIEL BUTLER, professor of education, University of Chicago....Chicago, Ill.

FIRST SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

The department met in the Y.M.C.A. Hall at 2:30 P.M. and was called to order by President Duniway.

The secretary of the department being absent, the chair appointed George E. Fellows, president, James Millikin University, Decatur, Ill., secretary *pro tempore*.

The following program was given:

"Religious Education in Universities"—Frank Strong, chancellor, University of Kansas, Lawrence, Kans.

"The Media of Religious Impression in College"—J. Forsyth Crawford, professor of philosophy, Beloit College, Beloit, Wis.

Discussion: William O. Thompson, president, Ohio State University, Columbus, Ohio; William J. Kerr, president, Oregon Agricultural College, Corvallis, Ore.; J. W. Cochran, of the Presbyterian Board of Education; Professor Brigham, Concordia College, Milwaukee, Wis.; Professor F. P. Ramsey, University of Omaha, Omaha, Nebr.; Professor Wallace, Macalester College, St. Paul, Minn.; John Ford, of the Colored Y.M.C.A., Louisville, Ky.; Henry F. Cope, general secretary, Religious Education Association, Chicago, Ill.; A. Gideon, professor of modern languages, University of Wyoming, Laramie, Wyo., and others.

The following officers were elected for the ensuing year:

For *President*—Livingston Farrand, president, University of Colorado, Boulder, Colo.

For *Vice-President*—Melvin A. Brannon, president, University of Idaho, Moscow, Idaho.

For *Secretary*—John E. Rouse, head of the School of Education, James Millikin University, Decatur, Ill.

The meeting then adjourned.

GEORGE E. FELLOWS, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

RELIGIOUS EDUCATION IN UNIVERSITIES

FRANK STRONG, CHANCELLOR, UNIVERSITY OF KANSAS, LAWRENCE, KANS.

The late Justice Brewer said that Christianity was part and parcel of the English common law. He meant by this and other like statements that historic Christianity was the basis upon which we have built our

civilization, that it governs our whole life. Governor Baldwin, of Connecticut, also said some time ago in the *American Historical Review* that democracy was introduced into Europe by a man named Paul, meaning that the introduction of the Christian religion into Europe by Paul was the basis upon which the growth of democracy has taken place. To see that this is true in general we have but to consider carefully the great economic and political crises thru which our civilization has passed. When one considers such a tremendous change as the Reformation, he finds that the political, economic, and religious elements are so intermixed that they cannot be separated. To use other illustrations as remarkable as the first, the Puritan Revolution, the growth of millenarian sects in England, and the development of the democratic idea in the sixteenth and seventeenth centuries show the same thing.

If this is all true, our civilization is on the whole a Christian civilization. In fact, we are accustomed to think of Christendom as meaning western Europe and America. If there were a radical change, our civilization would become something other than a Christian civilization. It would take on another aspect, guided by different forces, conforming to different standards, upheld by different ideals. Christianity and civilization in some sense would have to part company and the historic religion of which we are a part would cease to be the great stream which carries along with it the elements of our racial and national life. Undoubtedly we are unwilling to have this change take place. We are opposed to this separation.

Now schools and colleges have for many centuries been the instrument for handing down to coming generations the accumulated experiences of the past. They have been the vehicle for carrying into the future the great achievements of the centuries. This tremendous engine which we call the school is a determining factor as to whether or not succeeding generations absorb and make their own the fundamental ideals and moral and religious achievements of the past. This in turn is going to determine in large measure whether or not historic Christianity is in the future to affect profoundly and guide our civilization. It is going to make a difference to us whether or not the schools are themselves the exponents of a Christian civilization.

Education was for many centuries almost wholly in the hands of the church. The development of democracy, however, as a matter of political theory and practice inevitably took the control of education out of the hands of the church. Most of us cannot reasonably complain about this, for the religious bodies to which we belong, the independent religious bodies so largely represented in America at the present time, were in the seventeenth century directly instrumental in the development of democratic ideas in England which brought about the separation of church and state in America and handed over the control of the schools to the state. We must remember that while the New England colleges were established

for the purpose of training ministers of the gospel, not only Harvard and Yale, but also Columbia and others were in a sense state institutions, being either founded or during their early existence in part supported by public taxation laid on the freeholders of the community. The state or the commonwealth, therefore, very early in our history had a direct relation to education, and in these latter days all education is gravitating largely into the hands of the community or the state.

That church colleges or those on private foundation, almost all of which have had at one time or another important church connections, should consider religious training a part of their work is altogether to be expected; but that state institutions of higher learning should concern themselves directly, if informally, with the religious training of their students has not so easily found acceptance. That denominational institutions do their work in this regard with any greater thoroness and success than state-supported institutions I do not believe. At any rate they do not have the same difficulties to deal with as do state-supported institutions, and the difficult question in regard to religious training in colleges and universities arises largely in connection with those supported by the state.

The moral and religious life of a state university, while just as sound as that in other institutions, is necessarily different. The state university is a public institution. It cannot stand, therefore, as the solicitor for any religious sect or religious belief. Over twenty different religious sects and denominations, running the whole gamut of religious thinking, are represented at the university with which I am most familiar. Each must stand upon its own foundation, justify itself in its surroundings, and make its own way by its own fruits. That is the condition in the world at large. That is the condition of true religious growth, for freedom is absolutely necessary for real religious development. While it is true that the religious elements of a state university are very diverse, it nevertheless remains true that the overwhelming mass of its student body comes from Christian homes and is affiliated with the religious bodies that have from the beginning made up the great mass of historic Christianity. The institution is, therefore, in fact strongly Christian, and its freedom leads to the most valuable kind of religious life on the part of those representing the great religious denominations of our time, while, at the same time, other religious faiths find the same congenial atmosphere for the development of the best side of their life, the combined result being greater tolerance, greater generosity and co-operation, and a sounder religious life on the part of all.

There are many methods of religious education in state institutions. It has often been asked what is the ideal method of dealing with this problem. In answer I would say there is no ideal method. There is no single way in which this can be done to the exclusion of others. There is a place for all sincere attempts to solve this problem. In the first place there are the college Christian associations. This has been regarded by some as the

exclusive method by which this problem should be solved. I believe that experience has shown that this is not an exclusive method altho a very important one. Then there are the Bible chairs, semi-formal educational institutions erected contiguous to state universities to give the religious instruction barred by law from the state institutions. My own opinion is that this method has not proved to be wholly successful in experience. To establish Bible chairs means to set up in a community a separate and sometimes, it is to be regretted, a rival institution of the local church. The church and the Bible chair do not always agree. The leader of the Bible chair proves sometimes to be more advanced in his thought than the denomination that he represents will support. Friction results, a change is made, and the operation is all gone over again.

Then there is the method of establishing a real denominational college contiguous to the state university, which, however, confines itself largely to subjects that the state institution does not or cannot give, leaving the scientific and literary work largely to the state institution. This method has been seldom used and it would seem to be thoroly worth trying. But the local jealousies of denominations and of denominational colleges, the unwillingness to maintain but a part of an institution, have prevented this method's being tried out as it deserves. Apparently it ought to be advantageous for the denomination and the denominational college, for it would greatly lessen the enormous burden that now falls upon many denominations for the support of small and inadequate colleges. It would provide a much higher grade of instruction and scientific and literary training for students in denominational colleges, and, what is of no small importance, it would by its contiguity and influence help to maintain the religious status and the religious life of the state institution.

Then there is a mixed method by which a combination of theological school and denominational college is established contiguous to a state university, leaving nearly all of the collegiate work to the state institution, and giving the theological training along with the collegiate training of the students. This also has very evident advantages, and it would seem likely that the Bible chairs may develop themselves into theological institutions. Such a combination would seem to me to be extremely desirable, since the state, of course, cannot found a theological school. But a theological school is a professional school as truly as a school of medicine or of law, with as high standards and as great historical justification. Why would it not be well for denominations now supporting Bible chairs in connection with a state university to unite for the development of a real theological institution that shall be a true professional school of the university, not organically connected with it, to be sure, yet in spirit and in life a real part of the institution altho supported by the denomination?

Then there is the method of university pastors established in the university communities separate from the local church. Here, again, the

difficulty may at once be imagined. It often proves difficult in a small constituency for the two agencies to work well together and there are signs that this may not prove a permanent method.

The last method that I shall speak of is that of the university pastor appointed by the consent of, and attached to, the local church and under its control. This seems to me to be on the whole the most advantageous method of dealing with the problem. In my opinion, it is a problem that involves the religious bodies most largely represented in the state institution. These bodies themselves must look after the spiritual interests of their own people. They are in all conscience and honor bound to do it, and they are forced to do it or lose their hold on the most enterprising and vigorous of their young people. With all of its mistakes and weaknesses, the church after all has proved to be enormously powerful and long lived. It is the most efficient instrument, and in fact it is the only efficient instrument, for the development of the religious life among men. It seems to me therefore that any method that is to secure good results in connection with university students must be based upon this old, powerful, and tenacious institution, and that the solution of a large part of this problem lies with the local church with the co-operation and support of the organized denomination as a whole. This plan in an organized form is under way in several of the most powerful religious bodies in our country.

The operation of these religious forces in our education tends strongly toward Christian unity. The college man longs for unity in the Christian church. He is grieved and disturbed by divisions in Christendom. He looks with ardor for the time when there may be, not uniformity but real unity, when the substance of Christian faith may be common property and the basis for a common life. Therefore, he is not strongly denominational. We must expect that the rising generation will look less and less upon the importance of denominational divisions. The whole tendency of our education, going as it is into the hands of the state, is throwing together into one great body the Christian young men and women who resort to our universities. They are necessarily trained to a high degree of co-operation, unity, and tolerance. Not only is this true of state universities but it is true in the main of all universities and colleges. In a very real sense there are, with few exceptions, no denominational colleges left in our country. Most of our colleges called denominational, while in truth soundly Christian, are no longer bound by denominational tests. Therefore the whole trend of modern education in America is almost certain to further weaken denominational lines and to assist powerfully the movement toward Christian unity.

THE MEDIA OF RELIGIOUS IMPRESSION IN COLLEGE

J. FORSYTH CRAWFORD, PROFESSOR OF PHILOSOPHY, BELOIT COLLEGE, BELOIT, WIS.

College students receive religious impressions thru various media, of which some are avowedly religious, while others have as their primary end some object not thought of as directly religious. The former include the chapel and other services of the college, the work of Christian associations, religious instruction in the classroom if such is given, and the influence of churches in the community. Among the latter are classroom instruction in other departments, the reading of the student, and the influence of companions.

The worth of these media can be measured only by the impressions actually received by the student. This is never determined solely by the character of the media themselves. The impression which one interested in the religious life of the college supposes to be received is often wholly different from that actually received. The very same chapel service, for example, may under some conditions produce a wholesome religious impression and under other conditions produce revulsion or contempt. Behind all these media, which may with skill be made useful instruments, but are never the primary impressive force, lies the religious spirit of the members of the faculty. It is this fundamentally that determines the kind of religious impression made by these various media.

Our greatest mistake is to forget that these are media. They do not constitute the religious force that molds the student; they are the media thru which that force operates. They are important, of course. It is imperative that they be not wasted or abused, but be used with utmost skill. But, in the end, the actual religious effect of them all goes back almost solely to the spirit of the teachers. It is impossible to evade this. There is no substitute for it. Questions of religious organization, worship, and instruction in college are vital in their place, but they are simply irrelevant until this primary responsibility has been frankly and adequately met. This responsibility rests both upon college teachers as individuals and upon the college policy as a whole.

The personality of the college teacher, if it is to be a religious force, requires a peculiar combination of earnestness and intelligence. Mere religious zeal, without an appreciation of changed religious viewpoints and of the precise problems students must face, renders a college teacher dangerous. Fanaticism in the teacher will quickly destroy religion in the student. But is not the college losing its opportunity unless, on the other hand, its teachers are intensely earnest in doing their utmost to secure a religious experience in students and the wholesome development of their religious life? It may, I think, be assumed in this discussion that some type of religion belongs properly to our civilization. But, if so, the leaders of our

college youth are surely concerned with such a religion. They are bound to enter into it with conviction as a vital experience and to reproduce it genuinely in their students. If he possess vital religious life and enthusiastic religious purpose, the college teacher cannot fail to exert religious power. A faculty of such teachers cannot fail to create the best media thru which to fashion religiously the leaders of the new generation.

Institutional policy also bears a responsibility. If this fundamental issue of religious education in the college is to be met, three things must be done. First, equipment for college work must be such as to produce teachers of this type. The postgraduate study by which men are quite generally prepared for college positions does not for the most part tend to do this. Excellent as it is in so many respects, it places the emphasis elsewhere. It does not strongly tend to turn out men who love teaching for the sake of teaching, who understand students and grip them on the higher side of life, and whose supreme ambition is to help to create religious men and women. As a matter of fact, candidates for college positions, unless they have already served in less technical teaching, or in the ministry, or in social service of some other kind, do not always show this interest or power. Is it not time to consider seriously the preparation commonly offered for college teaching, and to ask if it cannot be better fitted to the needs of college service in this vital respect? Second, the selection of teachers should rest, in larger measure than is sometimes the case, upon such considerations. Does not the requirement of a Doctor's degree degenerate sometimes into a shibboleth? Scholarship, of course, must be maintained; but is scholarship of the prevalent Ph.D. type always the best for the teacher of college undergraduates? Should not a religious personality and a grip on men lie at the heart of his scholarship? Surely so, if the college has any function in molding a civilization with religion at its core. Third, there must be some way found more successfully to foster and encourage these qualities in the college staff. Let the force of religious impression in college be kept vital at its source. Then the media of religious impression will be used wisely and with effect.

DEPARTMENT OF NORMAL SCHOOLS

SECRETARY'S MINUTES

RICHMOND MEETING

OFFICERS

President—J. G. CRABBE, president, State Normal School.....Richmond, Ky.
Vice-President—U. S. CONN, president, State Normal School.....Wayne, Nebr.
Secretary—W. T. CARRINGTON, president, State Normal School.....Springfield, Mo.

FIRST SESSION—WEDNESDAY AFTERNOON, FEBRUARY 25, 1914

The Department of Normal Schools met in the auditorium of the Jefferson Hotel, Richmond, Va., at 2:00 P.M. with President J. G. Crabbe in the chair.

The meeting was called to order by the president.

David Felmley, president, State Normal University, Normal, Ill., presented the first paper, on "The Reorganization of the Normal-School Curriculum."

This was followed by two papers on "The Preparation of Teachers and Supervisors for the Industrial Branches and Other Special Lines," by Lawrence J. Corbly, president, Marshall College, Huntington, W.Va., and J. W. Crabtree, president, State Normal School, River Falls, Wis.

Papers were presented on the subject, "Extension Work in Normal Schools," by Edward T. Mathes, principal, State Normal School, Bellingham, Wash., Harvey C. Minnich, dean, Ohio State Normal College, Miami University, Oxford, Ohio, and Henry G. Williams, dean, State Normal College, Ohio University, Athens, Ohio.

SECOND SESSION—THURSDAY AFTERNOON, FEBRUARY 26, 1914

The meeting was called to order at 2:00 P.M. in the auditorium of the Jefferson Hotel, with President Crabbe in the chair.

The general topic for discussion was "The Twentieth-Century Normal School."

Under this topic, the first paper presented was by John R. Kirk, president, State Normal School, Kirksville, Mo., entitled "The Twentieth-Century Normal School."

Carroll G. Pearse, president, State Normal School, Milwaukee, Wis., then presented a paper entitled "The Twentieth-Century Normal School—New Branches of Study, New Problems, and New Ideals."

A paper on "The Preparation of Teachers for High Schools" was given by Homer H. Seerley, president, State Teachers College, Cedar Falls, Iowa.

This was followed by a paper on "The Preparation of Teachers for Rural Schools" by John J. Doyne, president, State Normal School, Conway, Ark.

W. T. Carrington, president, State Normal School, Springfield, Mo., gave a paper entitled "The Training School."

A paper entitled "Professional Experimentation and Investigation" was given by James M. Green, principal, State Normal School, Trenton, N.J.

W. T. CARRINGTON, *Secretary*

PAPERS AND DISCUSSIONS

THE REORGANIZATION OF THE NORMAL-SCHOOL CURRICULUM

DAVID FELMLEY, PRESIDENT, STATE NORMAL UNIVERSITY, NORMAL, ILL.

The normal schools of the several states were established for the sole purpose of training teachers for the common schools. They are an integral part of the public-school system, and must develop with that system.

Our normal schools now are in the stage of rebuilding—a rebuilding pressed upon us by the rapid changes in the public schools. Fifty years ago the public schools taught little beyond the common branches. The curriculum of the normal schools contained these branches and some courses in mental philosophy, school economy, and methods of teaching.

At this time secondary education in the East was to be had in the private academy; in the West chiefly in the preparatory departments of the denominational colleges. Both of these looked to the colleges for their instructors.

In the decade after the war between the states, the greatest decade in our history in the founding of normal schools, the common schools in the towns and cities of the West were rapidly adding "other branches" to their program. Algebra and geometry, rhetoric, civil government, general history, physics, and other natural sciences, sometimes foreign languages, were thus introduced—at first without any separate high-school organization to take care of these higher studies. The high schools were thus a gradual outgrowth of the common schools, and were everywhere held by the courts a part of the common-school system. The normal schools of this section accordingly placed short courses in these subjects in their curriculums, along with the common branches and courses in psychology and education. The graduates of these normal schools found ready employment everywhere in the public schools, quite as often to instruct in these higher subjects as to teach in elementary grades.

In the East, the public high schools began rather as full-fledged institutions closely imitating the private academies which they largely displaced. From the beginning they sought college men and women as instructors. Accordingly, the normal schools of that section have usually continued as they began, chiefly as girls' schools fronting the elementary school; while in most states of the West they have constantly enrolled a large number of young men destined to be high-school teachers, principals, and superintendents, and have provided a curriculum adapted to their needs. The normal schools of forty years ago seem to have attached an exaggerated importance to method. They seem to have held the doctrine, not professedly but none the less really, that if one were a teacher he could teach anything from the

multiplication table to Hebrew. Knowledge of the subject was of secondary importance—that is, previous knowledge of the subject. The value of extended scholarship was recognized somewhat, but the ideal was not the learned scholar and specialist but the teacher, full of enthusiasm, resourceful in plying incentives, and skilled in the manipulation of methods and devices. The normal-school curriculum—usually three years in length—was the same for all students, whether they were to teach in town or country, in primary grades, or in the high school.

With the development of public high schools with four-year courses, during the last quarter of the nineteenth century, and the consequent influx of their graduates into the normal schools, these institutions gradually adjusted themselves to the new conditions. Fifteen years ago the curriculum had generally assumed a standard form—a two-year program containing studies in psychology, principles and methods of teaching, school management, the philosophy and sometimes the history of education, abundant practice teaching, some music and drawing, with review courses in the common branches intended to organize the material and teach the special method of each. In the western schools there was still maintained, along with this new curriculum, the older three-year or four-year course for non-high-school graduates. Since that date, vast changes have come about in the programs of the common schools. Music and drawing have been extended from the larger cities into every village school; nature study, manual training, the household arts, agricultural and industrial art, specific education for business life, physical education, with definite school instruction and practice, all have obtained a permanent footing in our high schools and to a large extent in the elementary schools. Then, too, we have come to recognize that the equipment of the individual teacher is not to be found chiefly in the mastery of psychology or general method or of the general rules of class management, important as these things are; but that his chief resource is his comprehensive and detailed knowledge of the subject-matter that he is to teach and an appreciation of its educational value. Hence, in the high school and grammar grades is needed a richer scholarship; in the lower grades a minute knowledge of all the arithmetic, geography, history, science, hygiene, poetry, stories, music, drawing, industrial art, sewing, plays and games to be used in these grades, a comprehension of their educational purpose, and a copious stock of the devices essential to skilful teaching of these subjects. We no longer assume that every teacher instructed in general principles will have the wit to apply them successfully in any sort of position. We have talked for some years of lengthening the standard two-year normal-school curriculum to three or even to four years, so that all teachers may be fully equipped to meet these new demands. This is, to my mind, wholly impracticable at the present time. Most of our teachers are young women who will not remain in the work longer than five years. They will leave to marry or to enter platform work, business

life, or other activities for which they have developed special taste and aptitude. Young men will continue to make teaching a stepping-stone to other callings. Two years is as long a period of special professional preparation as we may justly require of people whose teaching career is likely to be so short. It is not good economy on the part of the state to provide them at this stage with instruction for a longer period. The normal schools should provide additional advanced courses in summer schools, in extension work, as well as in the regular school year for such experienced teachers as have decided to prepare themselves for long service in the higher walks of the profession, but should not require this work of the rank and file of normal-school graduates. We must then meet these new demands by differentiating our normal-school curricula according to the intended destination of the teacher in training.

In discussing this reorganization there are three chief questions to be considered:

1. What are the various kinds of school work for which teachers are to be prepared, and what subjects are to be included in due amount in the special curriculum leading to each of these destinations?

2. What is the character of the preparation that normal students have received before entering the normal school?

3. What is the length of time that society, with its present support of public education, may decently demand of the normal student in the way of professional preparation?

The different kinds of teachers for which particular preparation should be made now include in most of our states the following:

1. Teachers of the kindergarten and the first two primary grades.
2. Teachers of intermediate grades.
3. Teachers of grammar grades, including departmental teachers in upper grades.
4. High-school teachers of English and its expression, literature, mathematics, natural science, history and the social sciences, and foreign languages.
5. Special teachers of music, of art and design, of the household arts, of commercial branches, of physical education, of agriculture, of manual training and the trades.
6. Teachers for country schools.
7. Superintendents, principals, and supervisors.

Special programs should be provided for all of these types of teachers. Each program should contain the following elements:

1. A knowledge of psychology and general principles and methods of teaching and management based thereon, it being understood that all upper-grade teachers should include in their curriculum a special study of the psychology of adolescence.

2. A thorogoing knowledge of the subject-matter, the special method and teaching devices to be used within the particular fields in which the teacher is to work.

3. Certain school arts—drawing, singing, reading, speaking—in which all teachers should be fairly proficient.

4. Studies in political and social economy, in science, in history and literature that will keep the student in touch with the world about him, will reveal in increasing measure the function of the school in our civilization, and will nourish the deepening interest of teachers in the social problems of our time.

We should not forget that normal students are men and women who are to play a part, and a large part, in the world of men and women, and their normal-school preparation should not be bounded by the horizons of their childhood and youth.

The public kindergarten, outside a few of our larger cities and communities in which German influence has been strong, has not developed much strength as a feature of our school system. But the spirit of the kindergarten, its recognition of the doctrine of self-activity, of the play and the social and constructive instincts in children, has profoundly affected the primary schools, and every primary teacher should be permeated with this spirit. Accordingly, a teacher of these grades should be familiar with kindergarten theory and practice, should be equipped with rote songs and games and stories and folklore and children's poetry. She should know enough of the natural phenomena about her to be interested in it, to love plants and birds, and to be able to interpret nature to young children. She should be skilled in the beginnings of industrial art and whatever else should find a place in the life of the elementary school.

For the teachers of intermediate grades and for teachers of upper grades there should be provided separate programs, with a common core of studies in education, hygiene, music and drawing, physical training, and English, but separate practice teaching, and separate studies of the specific material in the various branches, peculiar to the grades in hand. Such upper-grade teachers as show special strength in geography, history, mathematics, English, or other elementary-school branches should be afforded opportunity for a long and thoro course in one or more of these as specialties, in order that these teachers may equip themselves for departmental work.

In some states, it is assumed that the work of the normal school should stop at this point, and that the training of high-school teachers, special teachers, and supervisors should be turned over to other institutions. I do not believe this to be wise educational policy, for the unity, harmony, and efficiency of the public-school system are not promoted by training supervisors, special teachers, and high-school teachers in one kind of institution and elementary teachers in another. The supervisors should be trained in a professional atmosphere where the same ideals are set up, the same philosophy expounded, the same principles and methods taught as are taught to the teachers who are to work under their leadership. High-school teachers should have a broad understanding of the needs of children, and of the principles, content, and method of elementary instruction. To train them in a separate school, with different standards and ideals, results in a serious break in spirit, in method, and in the character of work as the child passes to the high school. The special teachers will be more efficient if they study their specialties in vital relation to the other branches of the public-school curriculum. Teaching is a profession calling for a high degree of devotion, patriotism, and altruistic endeavor. This spirit of

consecration is not easily developed in a school whose chief interests are economic or industrial, or whose chief aim is mere personal culture.

The organization of the normal school, its program, its incidental culture and social life, its close personal relations between students and teachers, its modes of class instruction, which are sure to be imitated by the young teacher, its less expensive appointments, the simpler and plainer style of living, its absence of social distinctions based upon wealth or membership in exclusive societies—all of these conditions tend to produce a type of teacher that readily adjusts himself to high-school conditions.

Not only will special teachers of music, art, domestic science, and other special branches prove more efficient when they study their specialties in vital relation to the other branches of the public-school curriculum, but elementary teachers themselves should be trained in the same environment as the often better-paid high-school teachers and special teachers. It is vital to the dignity and self-respect of the elementary school. This separate training begets exclusive educational castes. Our schools are already suffering from the presence of this cleavage between the professional aristocracy of the high schools and the commonalty of the grades.

For these and other reasons that occur to every thoughtful student of the normal-school problem, we believe that the normal-school system of every state should provide somewhere for the training of high-school teachers, special teachers, and supervisors. Where there is but a single normal school, as in Indiana, Iowa, or North Carolina, the one school should provide them all. In states where there has been developed one parent school or teachers' college with other tributary schools of smaller attendance and resources, as in Kansas, Colorado, Michigan, and New York, the teachers' college may undertake the greater part of this higher work. In states containing several schools of approximately equal rank and strength, the work may properly be distributed among them to the best advantage, as in Wisconsin.

Wherever the preparation of special teachers is undertaken, there must be adequate equipment for this work. The two-year programs that we are now providing for high-school graduates preparing to enter these special fields must necessarily devote somewhat more than half the time to the special subject-matter and method of the department; but it is to be expected that the present strong demand for these teachers will soon be satisfied, and that three-year and ultimately four-year programs of study will be provided, which shall provide a generous amount of liberal culture along with the special knowledge required of these teachers. Even with our present short programs, we should provide the same general courses in English and in education as are taken by other normal-school students, and usually in the same classes.

For reasons already stated, I believe most of our normal schools are destined to become teachers' colleges and to maintain four-year programs

beyond the high school. They will continue to grant a normal-school diploma for the completion of two-year programs in elementary or special education, and teachers' college diplomas with degrees in education to graduates of the full four-year program provided for high-school teachers and supervisors. In the junior college should be provided the courses in English and expression, music and drawing, physiology and hygiene, and physical training that nearly all high-school graduates need. We should include here also work in psychology and principles and methods of teaching, in order to make these students early conscious of the problems of the normal school. Half of the time should be spent upon strong courses in special lines of high-school work. In most of our states there are village high schools, unable to secure full college graduates as teachers, which for some time to come will welcome young men and women from the junior college. Practice teaching should be provided in the second year for these students who expect to leave to teach at this stage. A junior college diploma of the same rank as a normal-school diploma may properly be granted to such students.

In the senior college are found at least four classes of students for whom appropriate courses must be provided:

1. A group preparing to teach particular subjects in superior high schools. For these must be provided two-year senior-college courses in their special lines, and appropriate courses in the problems of high-school administration and teaching.

2. A group of elementary teachers—normal-school graduates—who desire to become supervisors, principals, or normal-school teachers. For these must be provided long courses in the history of education, in psychology and ethics, in school administration, with elective advanced courses in other subjects.

3. A group of college graduates from other institutions that feel the need of the special professional instruction, spirit, and life that the normal school affords.

4. In most of our states the normal school must continue to make provision for students who, in native capacity and sympathies, undoubtedly possess marked fitness for teaching, but who have been deprived of proper educational opportunities in their teens. Such students are now too old to enter a high school to obtain their preliminary academic culture. The normal school must open its doors to these people and provide for them a generous academic culture. Because of their maturity and the singleness of purpose with which these students pursue their studies, it is by no means necessary to hold them for four years or the equivalent of a high-school course. I think it is best, for this type of people, to offer two programs of study. For such as are ready to spend several years at the normal school, there should be provided a preparatory program equivalent to a four-year high-school course, but actually covered by three years of time,

this program to be completed before the student enters upon any of the standard normal-school or teachers' college programs.

For such students of this type as may wish to begin to teach in the rural schools, there should be provided a two-year program of studies, including a review of the common branches, studies in elementary agriculture and household arts, music, elementary art, and primary methods, together with the discussions of the problems of country life and of the organization, management, and teaching of the country school. Beyond this should extend a supplementary program for such of these country-school teachers as will re-enter the normal school with a view to graduation.

A thoroly organized and adequate training-school is essential to the efficiency of a normal school. The elementary training-school should accommodate classes in every grade sufficient in number to give at least 180 hours of practice to each student, and opportunity for practice should include every sort of special work undertaken in the normal school. A kindergarten, a high school, and, in most cases, one or more convenient rural schools should be included in the training-school system, and the buildings and equipment and teaching should be of such quality as to make the school truly a model school, for we cannot maintain the patronage and support of parents on any other basis.

It must be remembered that in the first few months of teaching we acquire our teaching habits—the way we prepare our lessons, our modes of assignment, of questioning, reacting upon the students' work, our entire system of classroom technic. The question is, Shall students fall into habits more or less unconsciously, or shall they consciously set up ideals of practice and be held to these ideals by close supervision and thorogoing sympathetic criticism?

Where the training-school is closely connected with the normal school, where the normal-school departments write its course of study and give continuous attention to its work, where the normal-school instructors have themselves had experience as public-school teachers and see the children beyond the inchoate teachers on the benches before them, the training-school imparts to the work of the whole institution a vigor and vitality that can be obtained in no other way.

The scheme presented in this paper is, I suspect, more comprehensive than most normal schools are ready or willing, at present, to undertake; yet it does present what to the writer are the proper lines, not to say the necessary lines, of development of the American normal school in the twentieth century.

THE PREPARATION OF TEACHERS AND SUPERVISORS FOR THE INDUSTRIAL BRANCHES AND OTHER SPECIAL LINES

I. LAWRENCE J. CORBLY, PRESIDENT, MARSHALL COLLEGE, HUNTINGTON, W.VA.

The bulwarks of defense behind which aristocracy intrenches itself, seeking to monopolize the culture, the education, and the comforts of civilization, are slowly crumbling in face of progressive and aggressive democracy. Whatever the claims of the former—and it has its claims and will have them so long as democracy neglects the fundamentals of its creed—universal education and efficiency in the individual—the rapidity with which these claims are being ignored in every quarter of the earth is matter for sober reflection to every serious-minded man, whether he be democrat or aristocrat; for, unless the progress of democracy keep pace with the requirements of its creed, instead of blindly insisting upon rights, privileges, and freedom as yet unearned in the school of severe training, discipline, and experience, there must essentially inhere in the very fiber of our civilization something of the spirit of the mob. To the schools we must look for the adjustment, the conservation, and the direction of the forces of life to the requirements of social organization. A restless and critical public is locating this responsibility with us as school men and demanding that we meet it at once.

The basis for the assumption that the normal school must do at least a part of the work of preparing teachers and supervisors for the industrial branches and other special lines finds its first claim in the fact that the atmosphere of the normal school is, first of all, an atmosphere conducive to the development of the teaching spirit. The dominant tone of the faculty and of the life of the school is that of the teacher. Indeed our worst fault, as I see it, is a tendency to overdo this very phase of normal-school work at the expense of the academic, if not of the liberal, spirit; for the normal school, of all schools, should have the broader and more liberal viewpoint upon all phases of human endeavor.

In such an atmosphere only can the industrial, the commercial, the professional, and the civic in education find the fullest expression of their respective legitimate claims to public sympathy and support. On the other hand, this incorporation into the sphere of normal-school life of these new lines of effort in which the interests and energies of the masses of our fellow-men are daily becoming more absorbed, and which are becoming more and more a vital feature of our civic and social life, cannot but greatly enlarge our field of usefulness to the public and secure for us that hold upon the sympathies of certain classes of public men who, as a rule, have always turned a deaf ear to our appeals for better equipment and better salaries. In short, such a move cannot fail to bring the normal school

closer to the purses of the public, as well as closer to their sympathies—and we need a larger "fund" from both these sources.

As the problem addresses itself to the writer, our first step in the direction of this larger field of influence for the normal school was taken when we included domestic science and agriculture in our courses. The results, so far as credence can be given to report, are that these steps were timely and well advised. We are finding ways to develop these new lines without serious difficulty.

So much for the claims of the normal school as the natural place for doing this work and for the seeming feasibility of the scheme. But what about the method of procedure?

First of all, a small, willing, and aggressive committee should be appointed by this section of the National Education Association at this time, the duties of which committee would be something after the following:

1. Take the matter up with the proper departments of the general government at Washington and get viewpoints and suggestions from that source.

2. Consult several dependable sources of authority where experience has been combined with theory along these lines.

3. Have a personal conference with the National Society for the Promotion of Industrial Education.

4. Get an expression of local opinion as to details from the heads of all our normal schools.

5. Make a brief report of this work for suggestions at our July meeting, at which time the report, as modified by this department, should be put into the hands of all our normal-school men to be adapted as they alone can decide.

6. This committee should also prepare a tentative course of study for each new line of work contemplated, which courses should be submitted to the heads of the normal schools sometime before our July meeting that they may have time to carefully examine it in advance with a view to intelligent discussion at that session.

As to details of a plan, or scheme, or system, for the preparation of teachers and supervisors for these special lines of work, I shall not venture far a-sea in waters as yet but limitedly explored, but content myself and disappoint my audience with but tentative suggestions on this score till fuller dependable data are at command.

"Preparation" essentially involves, in a greater or lesser degree, the problem of "certification," as well as the problems of "qualifications" and "training." But I shall confine myself to the last two.

Under each of these headings, it seems to me, we shall have to keep two classes of teachers in view: namely, the vocational and the non-vocational; and, with most of us, limited as we are as yet in "plant" extension, technical equipment, etc., the non-vocational teacher and supervisor will perchance

be our chief dependence for at least a few years; therefore reference is made in this connection especially to the non-vocational teacher.

Among his qualifications the following are leading and vital:

1. That sympathetic touch with the life and problems of the layman which makes it possible for the teacher to utilize in his classes a large amount of subject-matter drawn from the field and the shop by intimate personal experience therein.

2. That breadth of view and of culture that come from a certain degree of maturity, of study, of experience with men and women in their social and industrial capacities, and from exceptional personal equipment.

3. That liberality of training for his particular work, which makes it possible for the teacher to grasp and to maintain the relative values and co-ordinate nature of himself and of his profession in a general scheme of education. Here is where the average teacher, indeed the average man in any professional, industrial, or other capacity of specialization, falls seriously short.

4. That mastery of academic requirements for his work which cannot well be assured without a lead of two years, at the very least, of preparation beyond the definite exactions of his classroom demands, and certainly not short of a four-year high-school education.

5. That familiarity with the specialized subjects he is to teach, or supervise the teaching of, and the best known methods of presenting them, which come from at least one year of special training in the fundamentals of teaching; better still, by far, as we see it, two years of work consisting of about half and half each, of advanced academic work related to his specialty, and of theories, methods, principles, and the practical applications thereof.

6. Finally, that combination of personal equipment, a genuine and natural desire to teach, and a mind and body and personality peculiarly fitted for that high calling—the *sine qua non* of success measured in terms of a maximum of results with a reasonable outlay of energy.

Under the special head of "training" for this work the following occur to me as of first consideration:

The nature of the work is such as to call for instruction and instructors of a peculiar type. The instructor should be specially versed in the problems of the industrial and trade schools, which essentially present many new phases of applied psychology and pedagogy, indeed which have an atmosphere peculiarly their own, in that they must deal with a peculiar class with its peculiar problems, so distinctly peculiar that only by intimate and constant touch with this class can one become a vital part of their thought and feeling. This training the instructor cannot well acquire without taking a practice and observation course in an industrial or trade school, to which I have referred already. This means, not simply "playing the student of assigned tasks," but studying the school as a whole as well as in detail, its organization, its administration in all its relations.

Just a moment to more specific detail and application of theory to conditions as they exist with most of us at present. What can we do now? This is the real question at issue concerning these new spheres of endeavor for the normal school. How can we insert the "entering wedge" while working for and waiting for more elaborate equipment?

The following seem to me safe beginnings:

1. A capable man at the head of the manual-arts department can readily combine under that general heading, in addition to the usual work in drawing, such new lines as architecture, applied mechanical drawing, drafting, house decoration, design, and construction.

2. A thoroly capable "school carpenter" can supplement the work in the manual-arts department with carpentry repairing, and, by co-operation with a local contractor, can find work for the students in carpentry construction, such as house-building, etc.; and so, by co-operation with the local cabinet-maker, work in this line can be put at the disposal of the students for practice. Practical work under local architects can also be added by like co-operative means.

3. The need of a substantial printing plant elaborate enough to do practically all the work of the school, including the various school publications, examination papers, questionnaires, circulars, reports, and even a part or all of the school catalog has long since been felt by most of us. Such a department under the management of a capable printer would appeal to the school authorities, to the school itself, and to the public.

4. As to other lines of shop work, with the aid of a good non-vocational instructor who would cultivate co-operative work with local shops, additional special lines could be added.

5. As to "domestic science" and "domestic art," certainly the time is ripe when every normal school with dormitory facilities for practice work should be offering, not simply shorter courses for practical experience for the students, but full undergraduate courses for teachers of this science and art.

6. As for agriculture and related subjects, the "school farm" as the practice field, and the physics, the chemistry, the biology, and the other related departments to offer the necessary academic equipment, these new lines of normal-school development are adjusting themselves with gratifying rapidity.

Certain of the foregoing "entering wedges" into the life of these schools may seem somewhat imaginary; but some of them we are testing already in the institution with which I am connected, others are to be begun next fall, and still others are in process of having details worked out with a view to their being incorporated into our courses later. The school located in the village or small town may find the problem more difficult, owing to limited opportunities for practice and observation in the shops of the vicinity; but some of these additions to the normal-school courses will.

for the very reason that the school is thus located, appeal all the more forcefully to the school and to public opinion.

It will be noted that I have assumed that when we begin the preparation of teachers and supervisors for the new lines of work indicated in the subject of this paper, we should begin with the non-vocational instructor; but that we offer, at the outset if possible, more or less of opportunity for practice work for the student; and that I have further assumed that the vocational instructor with the real vocational department should be our aim at our earliest opportunity.

II. J. W. CRABTREE, PRESIDENT, STATE NORMAL SCHOOL, RIVER FALLS, WIS.

Why has the normal school been so slow in responding to the demand of the public schools for specially trained teachers and supervisors for the industrial branches and other special lines? Perhaps history may throw some light on this question.

The normal school met with a misfortune early in life. It lost its father in the death of Horace Mann. This loss came before the normal school had proved by actual results what Horace Mann had proved so conclusively by argument. Harvard College had insistently opposed the normal-school policy of Horace Mann. His unanswerable logic seemed only to intensify the bitter feeling at Harvard. This feeling naturally developed into a fixed prejudice which spread to Yale and other colleges thruout the country and which is easily discovered even today in college faculties. The normal school has, therefore, had a college handicap from the very first. Just how the college happened to take a stand against the normal schools and against professional training is not easily understood, for at that very time schools of law and medicine were being organized as departments of these institutions. There is no doubt but that the opposition was honest opposition and no doubt when it became prejudice but that it was honest prejudice. Still it is unfortunate that weak normal schools had this strong opposition at the time when the way was being blazed and when policies were being worked out. The opposition was thoroly organized and strong. It was not strong enough to do away with normal schools entirely, but it was strong enough to prevent anything like adequate appropriations for their maintenance.

It is no wonder that growth was slow. Leading educators could not afford to accept positions in the new normal school at the salaries which could be paid by them. The normal school was thus forced to prove itself with inferior men and women in the faculty. Now and then some good things were done and some steps in advance taken. But progress was slow.

The first real impetus came when Superintendent W. T. Harris, of St. Louis, began taking teachers from the normal school for positions in his public schools, in preference to men and women who had received their

training in colleges or universities. Oswego and a few other schools came forward with new courses of study and with definite normal-school policies. The awakening spread across the continent. The college gave up its plan of extermination and adopted the policy of limitation. The Oswego course of study and the two-year requirement for graduation were accepted by the college, not as standards to be improved upon in the light of experience, but as maximum standards to mark the outside limit of the scope of the work to be done by normal schools. The normal school was not of a militant disposition. These limitations decided upon by the college were apparently accepted by the normal school. To have college recognition meant something to normal schools of that day. These courses of study and the time limits, therefore, became the traditionalized requirements for normal schools thruout the United States and remained almost identically the same for a period of about three decades.

The time thus came when the normal school had to meet itself as well as the college as a foe to be conquered in order to take a step in advance in keeping pace with the development of the public schools and colleges of the country. The college not only insisted on the observance of these accepted standards but assumed the right of passing on the quality of the work of the normal school and of dictating as to methods of teaching history, English, and other subjects. Tho the university has recently recognized the independence of the public high school, the college still insists in holding at least a sort of protectorate over normal schools.

The college has been consistent in its position, for even tho the president and board of regents have forced departments of education, or teachers' colleges, upon their faculties, college professors continue to throw many obstacles in the way of this unwelcome department for the professional training of teachers. In fact, it seems quite impossible for the departments of education to get the necessary means and co-operation for developing a practice school and for giving practice teaching under expert supervision. In other words, the majority of the college professors continue to question more or less the wisdom of professional training whether done in the normal school or in the university.

Those who have tried to follow college guidance in normal-school affairs have met with embarrassing opposition. The following are some of the college suggestions and requirements:

1. The normal school does not lay sufficient emphasis on scholarship, but it must not add college branches or courses, and, according to the college, it must, under no circumstances, extend the two-year time requirement for graduation.

2. The normal school as seen by the college is entirely too impractical and theoretical, but it must not think of preparing teachers of manual training, domestic science, or agriculture because this work belongs exclusively to the technical schools of the college and university.

3. Again the normal school has become too much of a female seminary, yet it must not think of preparing for principalships or for high-school positions.

There is only one way to do away with college opposition and that is to go ahead preparing teachers for as many lines of service as can be done in an efficient manner and to let those in charge of the public schools and who make use of the normal-school product pass judgment on the work. College opposition melts away as it goes up against the honest judgment of its own graduates who are city superintendents. There is an awakening among normal schools at the present time. The impetus does not come from within. It does not come from the college. It comes, just as back in the eighties, from the superintendents who prefer the normal-school graduate tho limited in scholarship to the college graduate who is limited in professional training.

But the superintendent wants the normal school to add to time requirements and to courses required so as to give scholarship with the professional training. Superintendents also urge upon the college the wisdom of giving work in observation and practice teaching to those seeking positions in the public schools. Especially is this true with reference to the position of the superintendent on the preparation of teachers of industrial subjects. The normal schools are responding to this demand of the public schools. There is hardly a normal school which is not doing some of this work or else planning to begin doing it in the near future. Some are offering only a few special courses as electives. Some are organizing departments with complete courses of study for each phase of special work. All in all a good start has been made.

Since Wisconsin normal schools were among the first to lay emphasis on preparing teachers for special lines of work, the department may be interested in knowing what has been done in the Badger State. In the first place, the Wisconsin normal schools have had the same handicap and the same normal-school traditions to overcome that characterize conditions in other states. The same demand has been coming from the public for the preparation of teachers of special subjects at our normal school that has been made upon normal schools of other states. It is only fair to explain that the big step taken in Wisconsin was not on the initiative of the presidents, for quite likely the presidents would have been satisfied with a few elementary courses along each of these special lines. But our schools are fortunate in having a board of regents composed of exceptional men and women, and fortunate indeed in having as president of the board a man of power and influence, a Horace Mann in his devotion to the normal school, in his grasp of its problems, and in his vision for its future. To him more than to anyone else belongs the credit for placing this work on a substantial basis in our state. His logic and his optimism prevailed over the uncertainty on the part of some of the presidents and regents. The intense

interest of our state superintendent gives a further impetus to the movement. Before this, so-called departments had been established by the board. The new policy required generous appropriations for equipment and for teachers' salaries. It pledged the board to stand for any outlay necessary for placing the department or school on a successful and respectable basis.

The plan was to establish a special department or school at each of the eight normal schools as rapidly as funds would permit and then as necessary to add other special departments at each of the eight schools. The school of manual arts was established at Oshkosh four years ago, and, at the same time, the school of home economics and domestic economy was established at Stevens Point. Each of these special schools was provided with an equipment and a teaching force almost if not entirely equal to that of Stout Institute, so well known thruout the nation for turning out efficient teachers of manual training and domestic science. The school of educational agriculture was next established at River Falls, next a commercial school at Whitewater, a school of art at Milwaukee, and a school of physical training at La Crosse. It being observed that River Falls could not supply the demand for teachers of agriculture, a second school of agriculture was established recently at Platteville. For a similar reason a second commercial school will be opened at Superior next September.

It must be remembered that the director of each of these special schools receives a very much larger salary than other members of the faculty and that there is no discrimination between the salaries of teachers of special subjects and other heads of departments. The school of agriculture at River Falls in its second year adds 125 to the total enrolment of the school. Over half these men are high-school graduates.

Providing the necessary equipment and paying good salaries attach importance to the special school. At River Falls, the purposeful and practical work of the school of agriculture even now permeates the work of the entire normal school. It has agriculturized and industrialized more or less the work in arithmetic, in economics, and in other subjects, giving point and purpose to all our work which we could hardly have secured in any other way. The same is true in other schools.

A recent action of the board of regents, probably due to our experience in preparing teachers for special subjects, was to announce the policy of havi ng courses of study arranged on a new basis. Instead of having the English course, the scientific course, the Latin course, and the German course, we are required to prepare courses for the training of kindergarten teachers, courses for the training of primary teachers, courses for preparing grammar-grade teachers, and courses for preparing high-school teachers, besides the special courses previously referred to. We are instructed to add one year in time to the course preparing for high-school positions. We are further instructed to adapt courses to local conditions.

This action on the part of the regents places heavy responsibility on the presidents of the normal schools, but it certainly gives an opportunity for the normal schools of Wisconsin to do big things. As our regents say: "*It is now up to the presidents to show what can be done, when both the money and authority are all in their own hands.*"

EXTENSION WORK IN NORMAL SCHOOLS

I. EDWARD T. MATHES, PRINCIPAL, STATE NORMAL SCHOOL, BELLINGHAM, WASH.

Let us begin with the statement that not fewer than four vital elements enter into the work of education. These are the equipment, the teacher, the child, and the parent. A nation, like an individual, usually confines its chief efforts to one or two lines of activity at a time, and under this principle the American people during the past twenty years have given most of their attention in educational matters to the improvement of school equipment and to the training of teachers. But what can be said of our efforts to assist the parents in the preparation of their children to get the very best out of our educational system? It is true that we have made some effort to organize parents' associations, but this has usually been done in order to put before the parent what we are doing in our school work and thus secure his interest to an extent that we may successfully appeal to him again next year for more funds to buy more land, to build more buildings, to purchase more equipment, and to raise more salaries. As a rule, these organizations have not been formed primarily to give the parent direct and positive help in the training of his child so that the child may be better able to get out of the school all that the school has to give him.

Personally, I am interested in the extension movement, because it offers the best avenue at present for assisting parents in this great work. A study of extension work as carried on in several of our representative normal schools indicates that these efforts may be classified under four heads:

1. Study by correspondence. This line of work is offered in many institutions, and several widely different methods are used in conducting the work. Instruction is offered, in both academic and professional subjects, and students taking the work are preparing for all sorts of professions. The State Teachers' College, at Greeley, Colo., offers a wide range of subjects in this form of work and has published a comprehensive bulletin outlining this plan.

2. Courses of lectures given on literary, historical, scientific, and semi-professional subjects. These lectures are usually given for general cultural and entertainment purposes and are attended by all classes of people with no thought of securing credit toward graduation from some institution later on.

3. Private study under more or less careful supervision and supplemented by weekly or biweekly recitations and lectures under a regularly employed instructor or lecturer. The courses offered under this head cover a wide range of subjects, but they usually appeal to teachers and others who plan later on to enter some institution and complete some course of study. It seems to the speaker that this form of extension work is the most successful of any line attempted at the present time and is rendering excellent service to large numbers of teachers. The state normal schools at Macomb, Ill., and Kent, Ohio, seem to be leaders in this particular field.

4. The fourth type of extension work has set for its task the improvement of the parent. Just how this can best be accomplished has not yet been made clear in any literature that has come to hand, and the only real progress made thus far has been in the organization of parents' clubs, and it appears, even here in many instances, that the real purpose of the organization is to inform the parent of what is being done in the school rather than to assist him in the training of his child so that he may get the best possible results from the work. Further, this movement can scarcely be called at present a form of extension work, as many organizations of parents have no relation whatever to the work of any institution of learning. The movement may be expected to grow because it is the logical outgrowth of public interest in all problems of health and hygiene and of civic and social reforms. It is rational, because every thoughtful person must realize that there is a most vital relation between the physical and mental development of a child. The great interest, for a season, in physiological psychology at least taught us that food, clothing, shelter, and rest are all vital factors in the physical development of children, and this same school of psychologists has given us scientific proof that there is a most vital relation between the blood and brain action; yet how few parents know the first principle of this relation. If ignorant, how can they rear children and provide them with proper food and shelter? If children are improperly nourished, how can the parent expect to get even a fair degree of return upon his investment? From the standpoint of the teacher, is it fair to hold her responsible for successful work if children are sent to her only 60 per cent efficient? These and other questions present themselves in relation to this problem, and the conviction has for some time been clear in the mind of the speaker that this is the most important field today for extension work. This conviction is not based upon theory, but upon many personal interviews held with parents to secure their judgment regarding the most valuable work that could be presented in extension lecture courses. It is not an easy task to outline a course of work along this line, and no one at present can say just what phases of the questions involved can be presented with the greatest profit; but our limited experience leads us to suggest the following plan as worthy of consideration: First, there are at least four phases of the ques-

tion that may be covered in a course of lectures. I prefer, however, to use the term "a series of conferences." These phases are: (*a*) right physical conditions for growth; (*b*) development of habits of industry; (*c*) training in acceptance of responsibility; (*d*) cultivation of habits of accuracy and honesty.

In order that the work may be definite and reach those for whom intended, it is wise to interest a few parents in a community who will assume responsibility for the formation of a group to take up the study. It is well to require a definite number of parents to sign a roll to attend the whole series, and it is sometimes advisable to limit the membership of the class to parents only, excluding even the teachers of the community, so that problems of discipline, social diversions, school lunches, and the like may be discussed freely and impersonally. The conferences of an entire series may be conducted by one instructor, but usually the work may, with profit, be divided among three or four persons. There is always something gained by contact with different personalities. The work should be eminently practical and should include a discussion of such topics as elements of food and their effect upon physical growth, the need for fresh air during sleep, the influence of clothing upon the child's health and comfort, the relation of the school lunch to order and discipline in the schoolroom, and the vital relation of good blood to successful mental activity in all school work. A most casual examination will reveal that many children enter school with no training whatever in the acceptance and performance of personal responsibility, and parents should be shown that valuable time may be saved in school if their children have already been trained in these essentials. Any child who has been taught to share fully some part of the daily duties in the home is, as a result, better equipped to assume definite responsibility in his school work. The child who is given a small regular allowance for spending money and is required to meet certain personal obligations from this allowance is learning valuable lessons in citizenship; yet how few parents today give their children intelligent training in the sharing of responsibility and in the right use of money. A case recently came to our attention where the small son of a banker was practicing dishonest methods and using bold intimidation to secure the small articles which he wanted from the corner fruit stand, all because his father had vowed that his boy should not grow up a spendthrift. The ignorance of the father was making a common thief of his son, and such a father is more in need of education just at the time than is the small son. But the school system of today makes small provision for reaching such defects in the training of our children, and the extension field seems to offer the only open door at the present time. Just how this door shall be opened in many communities must be left to the conditions surrounding the case, but it may be added that it is an easy door to open in most instances and the field for real service is unexcelled anywhere.

II. HARVEY C. MINNICH, DEAN, OHIO STATE NORMAL COLLEGE, MIAMI UNIVERSITY, OXFORD, OHIO

Inasmuch as extension work is at present largely a proposed phase of the function of the normal school or normal college in America and has not even come into a general state of experimentation, the treatment of the subject is rather a *de novo* performance. This paper is based largely upon the experience and observation of the writer and will, therefore, lack many-sidedness.

The training of teachers for all the phases of education in a state is a stupendous state activity, and not many commonwealths are willing to provide facilities for a complete scheme for such preparation. It would cost Ohio about $2,000,000 annually to give all of her elementary teachers a two-year course beyond the high school. It would cost the students $2,000,000 more. In view of this and the purpose of the state that her training-schools shall make the largest possible contributions to the efficiency of the teaching force of the public schools of the state, there is a reasonable logic for the extension of professional instruction beyond the academic walls of these schools. The forms which this *extramural* instruction may assume as it appears to me are:

I. The improvement of experienced teachers at work, which may be done in two ways:

1. By the organization of classes or centers in the various school communities to which shall be given instruction in methods of teaching, thru lectures, seminars, and conferences. In such instruction, the school problems may be systematized and organized in harmony with the accepted principles of teaching, inasmuch as the general inefficiency of experienced teachers may be attributed mainly to an inability to organize the problems of instructions about the fundamental principle. It may be of value also to give courses to these teachers on sources of material, lists of apparatus, and schoolroom equipment.

2. By conferences with groups of teachers in a system after one or two days' visitation: A professor from the academic or professional department of the normal school visits a group of teachers for several days, and at the close of the visitation holds a conference to suggest improvements and change in methods observed, and to suggest rearrangement in courses of study, sources of information, lists of equipment, etc.

II. The normal schools may aid in the improvement of local schools and school systems as to organization and management:

1. By loan or donation of equipment, lantern slides, seed cabinets, demonstration charts, etc. Usually when lantern slides or demonstration charts are sent it is most advantageous to have a representative of the normal school to give the demonstration lecture.

2. By conferences with board of education and superintendent to measure the value of the various school activities, to establish standards of efficiency.

3. By public addresses in the various localities to create sentiment for the local authority.

4. By bulletins bearing upon the various needs of the school.

III. Courses of the normal school offered for credit on the diploma or degree in various centers have a somewhat different aspect from the foregoing work. The normal-college curriculum proceeds along a line of work which organizes the entire teaching potential of the student, giving data for enrichment of knowledge by the various academic departments, emphasizing the principles of teaching considered of most worth by the education and practice-teaching department. It is not a corrective but a constructive process; it is not supplementary but comprehensive; it is not a corollary but it is the main proposition. Credit extension work is not a new field of operation for colleges and universities and has more or less well-established methods. As usually carried on in Ohio, it involves a group of twenty to forty students removed from the seat of the school and organized into a class or center for the purpose of pursuing college work *in absentia*, a representative of the professorial staff of the school coming to the center or class once a week or once in two weeks and giving lectures, assigning readings, holding conferences, quizzes, and examinations, and at the end of a ten- to twenty-trip course awarding credit to the class upon and in terms somewhat comparable with those upon and in which the credit is awarded to resident students.

Any *extramural* instruction upon such a unit of work should justify itself by the following tests:

1. In all courses of study in technical or professional schools sequence of work is very important. This sequence is quite notable in normal schools. It is not only difficult but almost impossible to plan the courses of such *extramural* classes to articulate with the residence program. The resident students of the normal school spend from 35 to 50 per cent of their time in the class, conference, and laboratory. In *extramural* classes this time of contact with professors and students would be much reduced. Usually no entrance requirements are made of such *extramural* classes and the preparation of the members is too varied to make it possible to adapt the instruction to the mental status of all the members. Again, if the teacher is giving every dyne of her energy to her school, it may not be easy for her to spare ten hours a week of hard work on college credit. It may not be easy for her to fill two intellectual jobs at the same time for one of which she receives full pay and for the other of which she saves expense. It is questionable whether efficient life can be so doubled.

2. If the extension course is to bear directly upon the teaching skill of the members of a class, it must impinge upon immediate teaching need. Where the strength of the teacher in such class is not levied upon in full by her daily tasks in her school, there may accrue to her from such a course some abiding knowledge which will function in her current schoolroom work.

Training for skill in the technic of the school is made possible and easier by the academic and professional courses in a normal school, but the training itself is a matter of very close expert oversight and cannot be directed at telephone or telegraph distances.

3. While no definite evidences are available as to the effect produced upon college attendance by college extension courses, it is fair to assume that many students pursuing these credit courses will continue their courses in residence.

4. In the matter of expense—it will cost the state more and the student less. If we reckon 18,000 student hours the average year's work of a normal-school professor, it will cost the state about ten cents per hour for instruction in residence. Reckoning on an average basis, it will cost the state at the rate of twenty cents per student hour for *extramural* instruction. These items vary with standards set and the size of classes, with standards as to the number of hours a professor should teach, and the distance of centers from the college.

IV. The normal-school graduate begins to teach at about twenty-one years of age. Her theory and practice of teaching have done much to insure her teaching against gross error and waste. She sustains herself from the beginning and develops in efficiency rapidly, but if the influence of the normal school could follow her in some way for a year or two she might come to greater efficiency much earlier.

This follow-up work may be carried on in three ways:

1. By visiting the graduates in their work and conferring with them upon the work at intermission and end of the day. This work should be carried on in a spirit of co-operation and helpfulness. In most of our schools the educational training of the superintendent will be very different from that which the graduate of the normal school has received. The superintendent may have no way of connecting up with the graduate's world at all—and in such cases a conference between them will often lead to an appreciation of the outlook and work of the graduate teacher that the teacher herself could not have effected. Often the trained teacher finds it much easier to fall back upon the routine method of the public schools in which she was educated than to follow methods consistent with the principles and practices of her normal school. The professor from the normal school may be able to aid the superintendent in appreciating the work of its graduates by establishing some common criteria or standards of judgment. In judging the success of a graduate, the professor might use the following basis:

a) Is the school a social unit? (1) Co-operation among the pupils. (2) Co-operation on the part of the pupils with the teacher.

b) To what degree are the pupils motivated in the class work?

c) Do the pupils grasp the curriculum problems?

d) To what extent do the pupils recognize relative values?

e) Do pupils observe order and sequence in their work?

f) Is there freedom of self-activity and initiative?

g) Is there a noticeable satisfaction and pride in the schoolroom achievement?

h) What notable reactions in the school are due to the influence of the community?

i) What notable reactions in the community are due to the influence of the school?

j) Classroom technic: method, mechanics, thought work, control, etc.

k) Result of conferences with superintendent and with teachers.

2. By the establishment of regions among the alumni—the alumni in each region to meet with representatives of the normal college to discuss difficult problems met with in the schools. Here the younger graduates would profit not only by the counsel of the normal-college professors but from the successful experience of those who have been longer in the work.

3. By an annual meeting of the entire alumni to be held at the seat of the normal college, the program of which might be about as follows: demonstration work shown in the practice schools in answer to requests; conferences—presided over by professors and critic teachers; and a formal program of addresses by members of the faculty and representatives from other training schools.

Whatever will contribute to improved teaching in the state is clearly within the province of the normal schools, and where greater efficiency of teaching in the total may be secured thru *extramural* instruction it is evidently the duty of the state schools to conduct such extension work.

III. HENRY G. WILLIAMS, DEAN, STATE NORMAL COLLEGE, OHIO UNIVERSITY, ATHENS, OHIO

The subject before us today for discussion is one which appeals to me as a topic of vital interest to the rank and file of the teachers of this country. There are in this country 485,000 teachers engaged in the public schools. It is safe to say that of this number more than 50 per cent, or at least a quarter of a million, have never had any instruction which may be called professional. It is hardly sufficient to provide only for the training of those teachers who are concerned hereafter to enter the profession, but we must give opportunity at least to those who are ambitious for professional training and have not been paid salaries sufficient to enable them to save up money enough to obtain from two to four years of academic and professional training after having entered the profession. Even if these teachers had money enough to pay for this professional training, the risk they would be running in giving up fairly satisfactory positions for an uncertain location would deter quite a good many of them from making the venture.

There is another reason why teachers who are engaged in active service should have the professional training carried to them. They usually appreciate it more than those who obtain their training immediately following a high-school course. They go from the lectures or lessons to school next day with a new element added to their ideal and a stronger determination to apply in practice the principles they have learned relative to the science and art of teaching. The opportunity for immediate application is usually very fruitful of good results. It has been my experience that teachers thus enrolled in professional subjects offered in extension courses are exceedingly appreciative of the opportunity and also of the value of the instruction offered.

There are still other reasons why the state should carry the college to the teacher. In the first place, the state can render this service at less expense than it can meet the requirements of regular instruction at the seat of the normal school or college. The state can send one professor to a group of forty teachers with much less expense than forty teachers can come to that professor. Of course, I do not mean to say that there is no difference in the value of the instruction offered or in the opportunities presented for classroom discussion and library references. However, my plan for conducting an extension course includes a circulating library based upon the course presented by the university or normal-college lecturer.

For more than three years past, I have conducted extension courses in connection with the State Normal College, Ohio University, Athens, Ohio, of which institution I chance to be the dean. During the past year, I have found the traveling library a positive necessity in the conduct of extension work. I offered five courses on four different subjects at three different centers extending from October 8 until the present time, and it will require a continuation of the work until the latter part of April before the courses can be completed. To prosecute this work satisfactorily, I made up traveling libraries of fifty volumes each on the subject covered by the extension course or on related subjects, covering precisely the same references I would give my classes in residence. There was this difference: students in residence had access to duplicate copies of the same book while students in the extension course had access to but one copy of each. However, the lectures were two weeks apart, and I found very little inconvenience to the students in making assignments to the entire class in case they were all residents of the same town. In cases where members of the class came from distant points in the country, and some of them drove fourteen miles to get to their class, I would assign specific references to each member of the class and require a more detailed oral report on the reading assigned and require the other members of the class to take notes on the reported reading.

I found that these teachers greatly appreciated the opportunity to read fifty books on a related subject in education. It was also an inspiration to the superintendents and teachers who were not members of the extension

class to be permitted to use these books whenever such use did not interfere with the work of the class. In several instances, I am sure, the teachers were encouraged to purchase books on educational subjects, and the whole field of educational literature was thus opened up to them with many startling revelations. Just at the time I was carrying on these extension courses, many of the books we needed were not available from the university library. I therefore took about one hundred and fifty volumes from my own private library and put them into circulation thru these little traveling libraries for my extension classes. I have seen no reason yet to regret this trifling generosity on my part.

The most interesting thing about this experiment is the matter of distance from the State Normal College. A number of the professors of the institution, including myself, had given extension courses in near-by towns which we could reach easily from the seat of the institution and from which we frequently could return the same evening. I considered that that was hardly a fair test of the system. More than that, I contended that it was not a square deal to the teachers of the state. I firmly believe not only in equality of educational opportunity to the children enrolled in the public schools, but in equality of opportunity to their teachers as well. It seemed hardly fair that we should give so much of our time and attention and so much of the resources of the State Normal College to those teachers who chanced to live near the institution, when, at the same time, the institution was being supported by taxes levied upon all the property of the state, personal and real, no matter what its geographical location. I therefore reasoned that this university extension work in connection with the State Normal College should be given to those teachers farthest from the institution or farthest from any institution, for the reason that the attendance at any institution is more or less local and the educational opportunities decrease in proportion to the square of the distance from the institution.

My thought, then, was to go to the most distant points in the territory which the State Normal College was supposed to serve. I selected Portsmouth, a city on the very outskirts of our district in southeastern Ohio. When I explained my plan to the teachers there assembled, a high-school principal from an adjoining county which was not in the southeastern district thought the matter over after he went home and wrote me, saying that they could secure a sufficient number to organize an extension class at West Union. Now, West Union is the county seat of Adams County, a very hilly county with bad roads. It is the only county seat in Ohio not on a railroad and is fourteen miles from a railroad in each of three directions. I thought the problem of transportation would be an obstacle but decided to meet the class and see what they had to say about it. When I arrived at West Union, I found two classes instead of one and nearly every superintendent in the county was present. I found there assembled about forty of the most enthusiastic teachers in Adams County,

and they insisted that the institution with which I was connected was just as much under obligations to them, if not a little more so, than to any other group of teachers in the state. I could not turn down their insistent appeal, so I organized two classes at West Union, one in school management and school law for the rural and grade teachers, and one in school administration for superintendents and supervisors.

The classes at Portsmouth were in the science of education and in the elementary course of study. All four classes started October 8, 1913, and I have met them regularly every two weeks up to this time. I find they do as thoro work as the students of any class I ever had enrolled in the university halls. I find them hungry for inspiration and for knowledge. I find them ambitious and determined to succeed. I find them the very cream of their communities with high professional ideals. The class at West Union put the argument this way: The State Normal College at Athens owes us more because of our unfavorable situation, our distance from any institution, the poor salaries paid in the county, and the low standard that prevails in many communities because they are unable to keep the best teachers. They told me that their people were paying the same rate of tax to support the State Normal College as persons who live in the city of Athens, and that is true.

I became thoroly convinced that extension work in connection with the normal schools and teachers' colleges should spread itself out over the entire territory served by the institution with a possible exception that the county in which the school is located should not be given extension classes.

We charged these teachers only five dollars for a semester's course and we gave them the same number of credit hours as we would if they had been in residence. I require from two hours to two and one-half hours for each lesson. I usually give a lecture of forty or fifty minutes, on which the members of the class take notes. The balance of the time is given to a quiz on the preceding lecture and to a discussion of the readings assigned.

The charge made was merely to cover the actual expenses of the course given, in the way of railroad fare, hotel bills, incidentals, and books that were furnished at the expense of the instructor. I figured that the normal college can send lecturers to these extension centers for less expense per college hour than the state can give the same instruction for if the student comes to the university. I was ambitious to prove that it could be done in the most distant point in my district. I reasoned that if it could be done at any point on the circumference of my circle it could be done at any point within the circle. I was also ambitious to prove to the state legislature that not only was it the duty of the state to offer instruction of this character, but it was an opportunity for the state to get high-grade instruction at a minimum of expense. My figures helped at least to convince the finance committees of the legislature, and we were granted six thousand dollars for extension work for the coming year. The chairman of the finance com-

mittee of the House told me a few days ago that we might just as well have had ten thousand dollars if we had asked for it. This money will be used the coming year exclusively for salaries and traveling expenses of two men who will give their entire time to extension work.

As to the total amount of work students should be permitted to carry in any one year, I think it advisable to limit them to two courses a semester as a maximum. In fact, we have seldom given more than one course each semester. This occasionally means three semester hours of credit for each course, ordinarily but two hours. I would also not permit any teacher to work out more than twenty semester hours in extension courses. If she is taking the regular two-year course following graduation from high school, this would make it necessary for her to carry at least one year of the work in residence, which would be one-half of the course. In case of high-school teachers, the credits would cover but one-sixth of the entire course. The student needs to come in contact with the institution as a whole, with its student body, with its faculty members, with its libraries, with its laboratories, and especially with its school spirit. I would not deny a student these special and very essential opportunities.

To give you some idea of the effort it required on the part of the instructor, I wish to say that I made 15 trips in which I gave about 40 actual hours of classroom service to each class. It required railroad travel to the extent of 385 miles each trip or 5,775 miles for a series of 15 lectures. However, the most difficult part of the travel consisted of a trip of 14 miles from the railroad station to West Union and *at least* 14 miles back! Sometimes I was so tired that it seemed like 28 miles back. This required 320 miles of travel in buggy or automobile. When this is added to the distance traveled by rail we have about 6,100 miles.

I am thoroly convinced that my experiment so far is successful. I hope to see the plan extended until every teacher in my state may have opportunity for voluntary study in an extension course in which she shall have instruction equal to the best in residence, with a traveling library that will afford her ample opportunity to do all the reading required and to permit her to do much voluntary reading. Lack of opportunity for reading I have found to be a difficulty with almost every student.

After the courses were in progress for several weeks, the teachers of Winchester, also in Adams County, appealed to me to organize an extension class there. I did so, and enrolled the superintendent and 20 teachers in it. I enrolled 112 teachers in the five classes and 106 of them have continued faithful up to the present time. I think this is at least as large a percentage of those who continue in the courses as the average college class would show, and I am altogether convinced that the experiment is one of the most worthwhile in education today.

THE TWENTIETH-CENTURY NORMAL SCHOOL

JOHN R. KIRK, PRESIDENT, STATE NORMAL SCHOOL, KIRKSVILLE, MO.

The twentieth-century normal school covers four years in academic and pedagogic studies of college grade. It prepares grown men and women to be teachers in public schools of every grade and kind. It parallels the law school, engineering school, divinity school, medical college, and other schools and colleges whose diplomas guarantee the holders to be qualified to enter their respective professions for permanent service. It is not a preparatory school for the purpose of feeding more powerful higher institutions. Its graduates do not need to be recast or relabeled by any other institution in order to give them professional standing. They enter their professions able to think and act for themselves. They do not need the guidance of an overseer who happens to be skilled in the manipulation of mechanized curricula. They are able to stand on their own feet, go their own gait, do things on their own initiative, and take care of themselves.

The faculty of the twentieth-century normal school is made up of men and women, about half and half. They are vigorous, capable, and constructive teachers, as versatile and scholarly as the best of the college men. Some of them have traveled in foreign countries. They write some books. They appear on many platforms and share in the best productive and constructive thought in education. They are in no sense homogeneous, yet they constitute a working democracy of great solidarity. They think with full freedom and tolerate nothing which smacks of dictation from any centralized power. They share in shaping clearly defined educational policy. Their energies are dynamic and not static.

The twentieth-century normal school is a vocational institution. It is not a college. It is not much like a college, does not intend to become a college, never will be a college. Its work is not duplicated by colleges. It does not interfere with any exclusive function of any college, if any college has any such function. It uses many college studies to give clear insight into subject-matter needed by teachers. It exemplifies teaching as colleges have never done and cannot do. It has a better library, better laboratories, and better facilities on the whole for making studies intelligible than typical colleges can possibly afford. It has an exhilarating atmosphere and a high professional enthusiasm which daily characterize the quick-moving men and women who constitute its students.

The twentieth-century normal school cannot safely be defined and regulated by university inspectors and committees. It is a public utility, and, therefore, retains plasticity to meet substantial changes in public needs. Its undeviating policy is to function in growing public service. Its program is like the railway ticket—"for this day and train only."

The twentieth-century normal school does not get its ideals from foreign countries. It is not bound by the hypnotic hold of any tradition. It

cannot be standardized by any fixed and unchanging rules. It cannot be stratified or devitalized or even sterilized. It reaches into whatever studies may be necessary to make good teachers for the public schools.

The short-course normal school, prematurely and permanently cut off at the end of the second year above the high-school course, is not of the present century and never can lift public-school education above the commonplace. The genuine normal school is not the product of compromise. It is not a mill to grind out semiconscious teaching of automatons thru drilling and "training" in mechanized prescriptions and processes. It is to quicken the wits of intending teachers, to intensify their knowledge, to stimulate constructive ingenuity, to give thru study some professional ideals and thru action some technical skill. It doesn't load consciousness with a diet of predetermined and sterilized methods. It produces the habit of looking into things. It gives power of personal initiative. It enlarges the horizon and produces anxious, clear-minded, self-poised individuals inclined to pry into subject-matter, find its relation to the mental content of those taught, and construct ways and means as necessities arise from ever-varying conditions.

In a period covering about four years, the twentieth-century normal school enables intending teachers to discover themselves and learn what they are good for. It does not classify its students in the Freshman year and then artificially and abnormally force one group into the mold of elementary teachers, another group into the mold of high-school teachers, and another group into some other unnatural and preconceived mechanism. It admits a vast variety of talented mortals. It differentiates them by natural processes and not by premature conventional classifications. It encourages them to select for themselves little by little the grade and kind of school in which they by nature and cultivated capability and personal taste may safely be allowed to teach.

The twentieth-century normal school is a working democracy. It has many student activities, such as the Music Club, Fine Arts Club, Athletic Club, Political Equality Club, Rural Sociology Club, Latin Club, German Club, Browning Club, Shakespeare Club, Science Club, Dramatic Club, Mathematics Club, Y.M.C.A., Y.W.C.A., Student Publication Association, and numerous debating clubs and literary societies. Its representative students take charge of public schools with vim and definite purpose, because they have experience and skill in directing school activities. Their characteristic traits are alertness, versatility, initiative, and adjustability.

We hear that the university is free and self-determining. But it is doubtful whether any human agency is entirely free. Doubtless the university is as free as any human institution can be. But the twentieth-century normal school is equally free and equally self-determining. What does this mean? It means that the university and the twentieth-century normal school are free to keep constantly adjusting themselves and adapting

themselves to the purposes and the needs of the communities by which they are created and supported. The normal school which serves the community effectively is not bounded by any high walls. It is not so standardized as to exclude all people below a certain limit and all people above a certain stature. Universities, colleges, and normal schools get a majority of all their students from a small radius. Hence many well-distributed higher professional schools are essential to universal education.

The twentieth-century normal school will always have some students both above and below those years that parallel the four years' college course. High-school diplomas and Bachelor's degrees can never bound or limit the twentieth-century normal school. For a long time to come there will be worthy men and women in considerable numbers, persons of maturity and large capability, who, in the exigencies of life, will not have high-school diplomas, yet who will have the best of student habits and definite intentions, who will desire to be for short periods and for long periods teachers in the public schools, and who will be willing to make much sacrifice in their mature years in order to become well-qualified teachers. Many such people will always be knocking for admission to the normal school. Others possessed of the Bachelor's degree from colleges and universities will be hanging about and clinging to the twentieth-century normal school because of its rare pedagogical atmosphere.

In the matter of details, all normal schools will have a few things in common, but the normal school in the city and the one in the mining region and the one in the agricultural region will all differ very much from one another in their curricula and in their material agencies for instruction.

Perhaps for some time to come a majority of the greater and stronger normal schools will be adapting themselves to the needs of agricultural, horticultural, and stock-raising communities. Normal schools of this character will have large tracts of land for farming, gardening, and pasturage. Perhaps they will not do much of what is called scientific investigation. Their tracts will not be agricultural experiment stations. But they will exemplify a vast variety of principles and procedures that should be brought within the observational and experimental knowledge of teachers in such localities. In this respect the normal school will co-operate with the state college of agriculture, in which there will be a more intensive study of agriculture, horticulture, and stock-raising, and, even for the purposes of producing teachers, the more highly intensive agricultural studies will always be taken in the college of agriculture, while the phases embodying exemplification and illustration and the pedagogy of the subjects will be found in the normal school.

But the high-grade normal school will never relegate Latin or German. It will always have extensive and well-organized courses in English and in the teaching of English. It will always have all forms of undergraduate courses in history and geography, in mathematics and science, in household

arts, in fine arts, in manual arts, in sociology, in commercial studies, in music, in physical education. It will use all reasonable paraphernalia and all practicable instrumentalities for exemplifying the endless varieties of pedagogical phases of such studies. It will utilize all available knowledge needed by public-school teachers in the elementary schools and the high schools of the city, the town, the village, and the rural community.

The twentieth-century normal school is and always will be a part of community life. It is a nucleus with radii from fifty to one hundred miles in extent. It will always conduct intensive studies, rational experimentation, and never-ending but always varying demonstrations of pedagogical procedures. It will always be among the leaders of productive pedagogical thought in the world.

THE TWENTIETH-CENTURY NORMAL SCHOOL—NEW BRANCHES OF STUDY, NEW PROBLEMS, AND NEW IDEALS

CARROLL G. PEARSE, PRESIDENT, STATE NORMAL SCHOOL, MILWAUKEE, WIS.

It hardly seems fitting that I, so new a recruit in the normal-school field, should presume to speak on the work or the ideals of the normal school. A somewhat extended experience in receiving from the hands of my present fellow-laborers in this portion of the educational vineyard, and using in the public schools the normal-school product, is perhaps the only excuse I can offer for complying with the request of our chairman that I present this paper.

The times change and we are changed with them, says the proverb; and the changes in our national life—changes in industry, in living conditions in our homes, in the demands the home makes upon the school, in the ideals of our society—have produced conditions which have demanded and are now demanding recognition from us who are charged with responsibility for training the teachers in our public schools.

The belief among our people that singing as an exercise cultivates and gives expression to the nobler emotions and sentiments, and as a science gives some power to attack and master new musical compositions, some knowledge of the best music and musicians, and some judgment of good music as distinguished from poor, has made it necessary that, in our public schools, we shall not only teach singing, but shall give at least some knowledge of the elements of vocal music. There is a general recognition of the fact that a knowledge of the art of drawing and the use of colors gives our young people another avenue of self-expression, almost another language in which to convey to others their thoughts and conceptions; gives them also many times a knowledge and a skill having a commercial value; makes them able to select the garments which are becoming to them, and suitable furnishings and furniture and decorations for their homes; and not only renders

them able to see more clearly and intelligently the things about them, but teaches them to enjoy better the beautiful things in nature and better to appreciate the beautiful in art. These considerations have caused drawing and design, including work in clay and in the use of colors, to be included in public-school courses. And considerations equally forcible have caused the inclusion of gymnastics, and of manual training, both that simple sort of manual training which deals with things which little children can make with the use of that ancient hand tool, the needle, and also work with wood at the bench for older boys, and practice in the art of cooking for older girls. The necessity for directing the play of children and young people and of overseeing and assisting in their social recreations calls for teachers and supervisors of these things. And now come the continuation schools, which are to lead farther along the flowery path of knowledge those boys and girls whom stern necessity or unwise haste to join the throng of wage-earners has drawn out of the schools before their time. These demand teachers of special preparation, a special attitude of mind, and special insight into the problems of these schools. Not to particularize as to other demands, all these which have been cited, and many others, require a supply of teachers, and the normal schools must be alert to understand, and promptly ready to meet, the demands which changed conditions are making upon them.

Our ideals may be considered in two ways: The ideals we try to give our students who are to go out into this fine profession of the teacher; and the ideals we shall set for our guidance in the orderings and accomplishment of our own work. This profession of ours can never be pursued most successfully unless the teacher has that quality of altruism, that forgetfulness of self in the work, which we recognize most clearly in the greatest teachers. The teacher must live—must have shelter and clothing and food—food for the body and for the higher life; but having had due care for these in seeking a position and in fixing the details of the service and the pay—"the work's the thing." And if our schools are to do their best for our graduates, not only shall we in some way give to them the knowledge and the skill in arranging and presenting subject-matter, and the power to control and administer a school, but we shall give them also an intellectual honesty and a fixed purpose to study individuals, so as to understand and be able to do the best for each, always considering first the pupil and his welfare, rather than the likes and dislikes or the comfort or the ease of the teacher.

And for our normal schools, can they take, for the new day, a finer or a worthier ideal than that of service? By this is meant a service to the individual young people who come to us for knowledge and for training and for sentiments and ideals; service to our student body as a whole so that all the arrangements of our institutions—the equipment and conditions of our buildings, the terms and details of our yearly calendar, the weekly and daily hours of work, the conditions of entrance—shall serve those who may

be able to profit by the advantages of the school; service to the state in shaping our plans and our methods of carrying these out, so that the needs of the state for teachers of various kinds and degrees of qualification may be best met.

THE PREPARATION OF TEACHERS FOR HIGH SCHOOLS

HOMER H. SEERLEY, PRESIDENT, STATE TEACHERS COLLEGE, CEDAR FALLS, IOWA

The point of view.—What will be said by most educators on the preparation of high-school teachers depends very largely upon their individual point of view. This has been notably manifested during the past decade, while there has been an attempt to define the standards and determine the qualifications of high-school teachers. The liberal arts college, being universally distributed in the United States, has assumed that any other kind of preparation than the kind it affords is unthinkable and undesirable, assuming that it alone gives the special sort of scholarship that is essential for a high-school teacher. Hence, most schools of education organized by universities are uniformly federated if not consolidated with the liberal arts colleges of these institutions. This assumption has been fortified by the organization of several associations of colleges and secondary schools which have as their function the enforcing of this system. It is commonly asserted by them that students of secondary schools must be taught by the graduates of these united colleges if graduates are to be accepted later as fully accredited for college entrance. Whatever variation from this doctrine has been permitted has come from this agreement not being legal or enforceable, since state universities have been liberal in the recognizing of high-school graduates in their own states when the teaching force in the high school does not absolutely comply with this special single standard. For this reason, graduates of technical institutions, of special schools of many kinds, of state teachers' colleges, and even of state normal schools are employed by school boards without full regard for this co-operative system of accrediting and accepting high schools. As a consequence, the college definition of standards as to high-school teacher preparation is not yet in the laws of the states, and the questions involved are still open for discussion.

Who is a high-school teacher?—It seems reasonable to recognize that the definition of what characteristics a high-school teacher should possess ought to depend entirely upon the type of high school under consideration. Since there are many more village, rural, and small-town high schools than there are municipal high schools, the problem is not a single or a simple one. The municipal high school can be a law unto itself. It can refuse to be limited in any way as to function or management because it is justified in regarding its principal and its faculty as the equal if not the superior of many college presidents and college faculties. Such faculties regard their work

as not subordinate in any sense of the word and they properly decline to to give any attention to the formal demands or the specific requirements of these voluntary associations seeking to decide the province of high schools. But for the great majority of the high schools found in all the states, there is by necessity a different condition. They pay meager salaries, they maintain few courses of study, they experience frequent changes in their teaching corps, they occupy a restricted environment, and they grant a limited service. Even with these minor conditions they are becoming, because of numbers, the principal source of student supply for institutions of higher learning and are for that reason of acknowledged importance to those who desire to dictate policies, control standards, approve courses of study, and decide the preparation of the teachers. College-educated teachers are not certain of success, as experience has shown, hence school boards find it necessary to require experience and training as well as scholarship.

The normal-school product.—If normal schools are to be a factor in the preparation of high-school teachers, they must recognize the minimum standards approved in the states where they are located and maintain a course of study and training that is superior to such qualifications. They can hardly claim to be fully capable unless they grant every opportunity that education and training can give. The students who come to normal schools do not know their possibilities and prospects professionally when they first begin their work. They need to find themselves, and many of them will learn that they are better adapted to high-school teaching than to other kinds. They should be allowed to differentiate and to prepare for the right field of teaching. The students in such a school are of many types and their individualities deserve recognition. College graduates are just as variable and as individualistic. Some of them could work with distinguished success in primary schools, others with equivalent capability in elementary schools, others in high schools, and others in executive positions. The normal school has the best atmosphere to give a teacher the largest opportunity, and its very organization and spirit give it a great chance for a large service, if it has the means, the faculty, and the standards that the age demands.

The public school as an institution.—The public schools are not dissected parts to be treated differently; they are an institution as a whole. They cannot be subdivided into divisions and conducted as if they require a different attitude toward life. The unity of the work of a public school is the greatest need of the present period of development in educational progress. Teachers are not better or more useful because they occupy different places in the system. It requires just as much talent, just as thoro preparation, just as competent manhood and womanhood to be an elementary teacher as it does to be a high-school teacher. In fact, if there are any special difficulties and special needs that require superior gifts and superior mental development on the part of the teacher they are to be pro-

vided for in the earlier years. There needs, therefore, to be a higher valuation of the years of childhood. They should not be considered inferior to those of youth. Special premium should not be placed upon high-school teaching in any way whatsoever. Inferiority has no proper place anywhere in these mighty undertakings, and aristocracy has no rightful recognition in a democracy.

The North Central states.—For forty years there has been some form of accrediting secondary schools in the North Central states. The system of admission by certificate has become universal and is highly approved as successful and reliable. In 1895, the North Central Association of Colleges and Secondary Schools was organized by the more prominent schools of both classes, and an annual meeting is held in Chicago to consider problems and receive the report of the commission on accrediting collegiate and secondary institutions. In 1914, there are approximately eight hundred high schools listed as accredited, and every state has a system of inspection. There are, at the same time, hundreds of small high schools that are not registered by this association because they are not large enough to become members or because they do not or cannot comply with the technical standards required. The graduates of these smaller high schools are usually accepted by the colleges in the states where they are located. Many well-organized and well-conducted colleges are not members of the North Central Association and hence are not compelled to enforce the regulations adopted. This condition grants to these small colleges a source of patronage thru these graduates that is very acceptable and gives them talent in studentship and strength of promise that is not second to the fully accredited graduate. A valuable report, including many tables of statistics, covering these eight hundred accredited high schools of the North Central states has been completed by Walter A. Jessup, of Iowa, and L. D. Coffman, of Illinois. This report has been published by the National Society for the Study of Education in the *Thirteenth Yearbook*, and is an enlightening contribution on the subject of the high schools of this part of the United States.

It was ascertained that a very large percentage of high-school teachers in these most favored high schools were teachers of limited experience; 13 per cent had one year, 20 per cent had two years, and 29 per cent had three years of experience. The smaller cities were the practice schools for the larger cities, as their better teachers soon found employment in the larger districts. It is easy to infer that the non-accredited high schools in these states were below this standard of experience as they pay smaller salaries and have less favored conditions for permanent workers.

The North Central Association has always required that the high-school teachers in the accredited class should be college graduates or the equivalent. This report shows that one-fifth of the teachers in the eight hundred high schools are not college graduates, some cities having as many as fifty teachers who are below the standard. Of the 7,095 teachers thus studied,

1,040 were normal-school graduates only, 5,109 college graduates only, and 946 college graduates after they were normal-school graduates. Of the 7,095 persons thus classified, only 4,856 had degrees of any kind, indicating that even the term "college graduate" did not have a uniform meaning among teachers.

The most important lessons of this able report are:

1. Standards determined by definition are not uniformly applied in practice.

2. The problem of administering a system of schools varies in complexity according to the size of the community, the enrolment of the school, the size of the classes, the number of the classes, and the character of the teacher.

3. Professionalization in teaching rests at present with the more experienced teachers in the largest places.

With these facts before us, it is evident that the last word is not yet said on the training of teachers for high schools, since the need exceeds the supply and the development of the country at large precedes the endeavors of all the higher institutions of learning.

THE PREPARATION OF TEACHERS FOR RURAL SCHOOLS

J. J. DOYNE, PRESIDENT, STATE NORMAL SCHOOL, CONWAY, ARK.

It is generally conceded that education is the result of influences brought about by environment and association. But little choice is given to the child as to the character, quality, or extent of its education. Outside agencies are responsible largely for the outcome of the school life. It is true that these agencies may so act upon the inner life of the child as to bring about a harmonious development of all its faculties; unfortunately the reverse is also true. Much, therefore, depends on the teacher: the broader his outlook; the more thoroly he is aroused to the importance of his work; the more alert he is to his opportunities; and the more ready he is to take advantage of the work he is doing, the more will his students approximate more nearly an ideal development in body, mind, and soul.

Propagandists may advance theories, the course of study may be enriched—a doubtful phrase—much enthusiasm may, for the time, be aroused, but the education that counts is that which best fits one for relatively complete living in whatever position he may occupy.

At the basis of all successful teaching there must be a reasonable degree of scholarship. That this scholarship for the teacher in the rural school need not be so profound or so extended as is necessary for the teacher in schools of high grade may be admitted, but certainly it should be every whit as thoro and as much at his command. More than this, it should be definite and fitted to the needs of the taught.

The great fault with many graduates of high schools and colleges who essay to teach in rural schools is that their education is top-heavy. While

this is not the case with those teachers who have had simply a training in elementary courses in rural schools or poorly graded town schools, a serious trouble confronts the latter also, in that they are unable to decide on courses of study that will meet the conditions under which they are to labor. A training to meet problems of this sort and to handle them successfully is all-important. What subjects in the course of study shall be stressed and what parts of given subjects shall have special attention, considered from the needs and the environment of the rural-school pupil, should have special consideration. The teacher in the rural school is expected to do the work covered by a course of study issued by the state department of education or adopted by his board of trustees. Too frequently he has no voice in the making of this course of study and yet is held responsible for its being carried out in his school. In the main, these courses of study, as far as they include the elementary subjects, have merit. They must be taught, and it is important that the training of the teacher in these subjects should be especially thoro and exact. The ability to write correctly an English sentence is worth more to him than to be able to translate indifferently an ode from Horace. It is more to the point to be able to interest a class in practical problems, such as finding the cost of fencing a tract of land, than to be able to teach them to find the value of *pi*. It is better that the teacher know the geography and history of his own vicinity than that he can readily name the seven wonders of the world. It is better that the teacher know how to formulate and utilize a course of study adapted to the needs of his pupils than that he shall be able to give them instruction so varied in its character that it shall educate them away from their environment.

The training of such teachers, then, must include a review of the main essentials of the elementary branches; a study of the best methods of enlarging on the textbook content, or curtailing the same when expedient; the presentation of a general, and in some instances a special, plan for using such illustrations and devices as shall fix the instruction in the minds of the pupils; and the stressing of the best methods to be employed in conducting the general work of the schoolroom.

Peculiar problems confront the rural-school teacher. He will find in the rural community a degree of independence of thought and action on the part of the residents which is not to be observed in the centers of population; a disinclination to abandon set customs and to adopt suggestions that may have a tendency to change in any way their system of living; a degree of contentment or resignation to conditions which it will be hard to overcome; a seeming lack of time for the higher amenities of life when the daily tasks have had their share of attention; a helpless attitude toward hardships, inconveniences, and deprivations, wrongly credited to destiny, which they make but little effort to improve; an absence of that perspective which would give them vistas of ideals which may, thru their efforts,

be wrought out into the actual; an isolation which in many cases makes the home a petty sovereignty; the existence of petty neighborhood jealousies and prejudices which have engendered factional strife such as prevents unity of sentiment for the common good. Since the rural-school teacher is to be a leader in molding sentiment and in planning and executing, in an effective way, needed reforms, his training should be such as shall acquaint him with social and economic problems related to rural life, develop his power of initiative, call for the exercise of originality, strengthen habits of self-reliance, encourage a spirit of helpfulness, and inspire an ambition to be indeed a leader in school and community advancement. Much of this applies to his work in the community, as it seems evident that his success in the schoolroom will depend largely on the extent to which he identifies himself with the home and community life. Since his patrons are mainly of the farming class, his knowledge of agrarian conditions, restrictions, and possibilities of improvement should be continually on the increase. Agriculture should, therefore, be a part of his curriculum, studied from both the theoretical and practical standpoints. Opinions and generalizations such as he may form and express, gathered from cursory readings, will not suffice. It is not the man who has heard of things or has read of things, but the man who has seen them and can do them, if called upon, who has the decided advantage.

It may not be advisable to introduce vocational studies into the country schools just now; for but few teachers are prepared to teach these subjects successfully and yet do justice to the cultural subjects, when the character of the student body in the average country school is considered. There is too great a variation in the extent of knowledge, there are too many classes to be looked after, and too little time to be allotted, to allow for much work other than that embraced in a well-ordered course of study. Besides, the country lads and lassies already know, after a fashion, how to look after the many things incident to rural life. What they especially need is training in how to improve on their methods, and thus save time, expense, and energy; how to conserve what nature has provided and to use to the best advantage the materials and opportunities at hand. Thus life presents to the pupils a new aspect; broader fields of endeavor have been opened to them; an inspiring conception of their own power and possibilities has been aroused; the desire to achieve has been awakened; and the erstwhile commonplace assumes new and inviting phases. These lessons must come from the practical vocational training received by the teacher, a training not necessarily extended in character, but certainly one capable of adaptation to school and community needs. It need not be confined to the pupils alone; but the patrons themselves may gradually be won to the teacher's point of view and thus become willing to risk his judgment and direction. When he has secured this concession a broad field of usefulness has opened to him.

The study, therefore, of the economic life in rural communities becomes important in his training. The problems that are to be found in one such community are, in the main, to be found in all, and preparation should be made in advance for anticipating and solving them. The limits of this paper preclude even a passing reference to these conditions, but their existence is patent to all students of rural life. If the training-school for the teacher is so fortunate as to have as an adjunct to its work a model rural school, under the direction of one who knows how to handle a school of this character, and the student-teacher is permitted to observe and to participate in the work of this school under competent direction, he is receiving a degree of preparation for the work on which he must soon enter such as will prove invaluable to him. Along with this division of his work should be given sane plans concerning the study of school architecture, schoolroom decoration, heating, ventilation, sanitation, and such other subjects as will doubtless demand his consideration and his best efforts toward improvement when he shall assume charge of a rural school. As these matters are controlled largely by the directors and patrons of the district, it seems that the development of ability on the part of the teacher to present his views with convincing clearness and exactness should be a feature of his training. The mere studying of textbooks on these subjects or listening to lengthy dissertations from instructors will not suffice. If there be subjects of debate that should especially engage the time and attention of the teacher who is preparing to do rural-school work, it seems that those above mentioned are peculiarly apt. The training here secured should develop a facility of expression and an extent of knowledge which will prove a valuable asset to him in his talks with the individual patrons or in meetings held for the pleasure and profit of the masses.

Thus far consideration has been given mainly to the material, the really extraneous features, of the teachers' work. This has been done since it is considered all-important, in order that successful teaching may be done, that the surroundings be of such character as to place the child in the best possible attitude for receiving instruction. Admiration for the beautiful grows with association with that which is attractive; appreciation of the convenient is a natural sequence to the utilization of those things which make for one's comfort and lighten one's tasks. Love for the intellectual depends for its growth on the means employed to develop its interest and keep alive its enthusiasm.

He who would make disciples, however, must show forth in his life and practice the merits of those teachings he would inculcate. Thus the training of the teacher of the rural school should have in it much that shall tend to soften his asperities, cultivate due familiarity with those simpler devices that lessen the drudgery of home and vocational life, and create a longing for those attributes that fittingly adorn and dignify the cultured citizen. Thus it may be said that the best sort of training in this respect

for the rural teacher is that which appeals to the aesthetic, the utilitarian, and the idealistic in his nature. When this trinal development has taken place, then he is in a position to urge the claims of these qualities on those who may come within the limits of his influence.

If it be expected that the teacher in the urban school will look well to his dress, his habits, his language, and his general bearing, how much more necessary is it that the teacher in the rural districts shall be equally circumspect. Would it be amiss, then, to say that lessons in morals and manners may not be out of place in his training? While it is true that the virtues and characteristics of a gentleman may be largely inherited, training may do much to develop, to modify, and to adapt them to social conditions. The dependence of the city upon the country has had much mention, and song and story have lent their aid to stress this relation; but the day is at hand when the dependence of the country on itself shall receive notice. When once it awakens to a realization of its inherent worth and power of self-development, then the golden age of prosperous and contented country life will have been ushered in.

Again, the entire training of the teacher for the rural school should be directed toward a training for leadership. For ages the continuous drafting of the best brain and brawn of the country to the city has been a serious menace to the welfare of the former. Talent is more readily recognized by the urbanite than by his more prosaic brother in the country. Inducements, often specious in their character, lure the youth from his peaceful, tho circumscribed, environments and invite him to enter the absorbing struggle for place and prominence. He grows more and more dissatisfied with the monotony of his life and goes unwillingly to his tasks, now become a drudgery. He hears of the occasional successes that have been the fortune of those who have made the venture and longs to enter the lists, to engage in the contests, and to hear the plaudits that shall proclaim his triumphs.

Against these inroads on the best wealth of the country, the rural-school teacher must wage successful warfare. "Back to the country" need not be his slogan; but "stay with the country" should be his appeal, and his training should be such as may enable him to gain audience, to convince with his earnestness, to win adherents, and to start a crusade which shall transform existing conditions and bring back the old-time peace and contentment, modified by present-day advancements and improvements, which once marked in his simple state the dweller "far from the madding crowd."

THE TRAINING-SCHOOL

W. T. CARRINGTON, PRESIDENT, STATE NORMAL SCHOOL, SPRINGFIELD, MO.

We prefer to call the normal-school laboratory in which methods and management of schools are tried out the "training-school" rather than the "practice school." As this school is operated in connection with the Missouri State Normal School of the Fourth District, it is perhaps more an observation school than it is a practice school. All practice teaching is preceded by a term's work in observation. This consists in spending at least two hours each day for twelve weeks with some one of the several supervisors in the school. The main work consists in helping the teacher in managing the children, in taking care of the materials, in keeping them in place and ready for use, and in co-operating with the supervisor in making definite plans for all the work of the school. This supervisor handles a small group of teachers, from six to eight, at one time. They make observation of the supervisor's teaching, and, from time to time, each in turn takes charge of some class, and the others, including the supervisor, become the critics. This term of observation follows a careful study of general method and principles of teaching, and it, in turn, is followed by one term of practice teaching. This practice teaching consists in taking full charge of one class for a quarter of a day during twelve weeks.

We have also a high-school department in our training-school. It is handled much the same way as each of the eight grades is handled, with this exception: No one is given work to do in the high school who has not had at least a term of observation in some grade. With young and inexperienced teachers, a term each of observation and of practice is required of those who would do practice work in the high school.

There is one definite policy which we have adopted in dealing with mature and experienced teachers. They are required to do both observation and practice work. The amount of each in every case is determined by the efficiency. We have found it impractical to require the same amount of every teacher. It is believed that this method of handling individuals has had the very best of results. Necessity drove us to experimenting in this line, for our attendance has been much larger than our facilities for handling.

We consider this training-school work the most important work of the normal school and one of the most difficult problems to handle.

PROFESSIONAL EXPERIMENTATION AND INVESTIGATION

JAMES M. GREEN, PRINCIPAL, STATE NORMAL SCHOOL, TRENTON, N.J.

Professional experimentation and investigation in our department must be considered from the viewpoint of the normal school. The normal school is not essentially a place for original research or scientific investigation—

it is rather a place for selection, definition, and adaptation. The normal schools have established themselves in the confidence of the country because of their direct and practical service in common education from the beginning up. It is their function to select from the body of knowledge that which is peculiarly essential to the people of their respective districts and adapt it to the various grades of development in childhood and youth. There is no service that is more important at the present time.

We are all anxious to do the best we can, and we mingle with the various departments of education seeking their views. It must be apparent to us all that there is great indefiniteness in the use of terms. We hear such expressions as cultural and practical, industrial and vocational, economic and social, agricultural and mechanical, etc. How seldom do we hear anyone carefully define the meanings of these words! We have incorporated into our educational vocabulary categorical terms largely without giving to them specific significance. It would be interesting to investigate the concepts suggested by these symbols in the various minds. What is the meaning of literature or geography or history or science?

I recently took up a textbook in history for high schools and found that the references it contained were so general and abbreviated that I was unable to reduce them to natural human activities. Surely there must be some institution that devotes itself peculiarly to the principles that underly the making of the curriculum. Let this, then, be the particular function of the normal school. There is perhaps no one of us who would confidently assert that he had found the correct curriculum. We may, however, declare with some confidence our method of approach to a solution. He who would build the curriculum must, so far as possible, free himself from all preconceived notions and look directly at the life around him and determine the best thing to be done under all the conditions.

I know no easier definition of a good school than a school that determines the best thing to be done and the best way of doing it. Such a school will realize that a certain knowledge of geography is essential, that the child must recognize certain earth forms, soil and climate conditions, production, trade, and transportation relations, but will not confuse this knowledge with indiscriminate current events as they appear in the morning newspapers. Such a school will distinguish between knowledge of English and power in English; it will distinguish between the health laws and the political customs of a community; it will see the relation of art to industry; of chemistry to domestic economy; of botany and zoölogy to agriculture, and of history to social organization.

The academic school treats distinctly of subject-matter; the normal school treats distinctly of the relations of subject-matter to life in its various grades, general and special. Ours is the laboratory of relative values out of which must come the clearest definition of that which is fundamental,

elementary, and essential, and the best plans for its organization and establishment. To this end we should address ourselves and with this purpose we can render an ever-increasing service.

SECRETARY'S MINUTES

ST. PAUL MEETING

OFFICERS

President—J. G. CRABBE, president, State Normal School ..... Richmond, Ky.
Vice-President—U. S. CONN, president, State Normal School ..... Wayne, Nebr.
Secretary—W. T. CARRINGTON, president, State Normal School ..... Springfield, Mo.

FIRST SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

The first meeting of the Department of Normal Schools was held in the Central Presbyterian Church, and was called to order at 2:30 P.M. by President J. G. Crabbe.

The following program was carried out:

"The Practice School and the Work of the Heads of Departments in It"—John W. Cook, president, State Normal School, DeKalb, Ill.

Discussion: John A. H. Keith, president, State Normal School, Oshkosh, Wis.; W. T. Carrington, president, State Normal School, Springfield, Mo.

"How Can Normal Schools Best Help the Forward Movement in Rural Life?"—J. W. Brister, president, State Normal School, Memphis, Tenn.

Discussion: H. H. Seerley, president, State Teachers College, Cedar Falls, Iowa.

"Some New Demands on Normal Schools"—Philander P. Claxton, United States commissioner of education, Washington, D.C.

A discussion followed this paper in which many members took part.

SECOND SESSION—THURSDAY FORENOON, JULY 9, 1914

The meeting was called to order at 9:00 A.M., in the Central Presbyterian Church, with President Crabbe in the chair.

The first paper, "The Strength of the Normal Schools," was presented by David B. Johnson, president, Winthrop Normal and Industrial College, Rock Hill, S.C.

Alfred C. Thompson, principal, State Normal and Training School, Brockport, N.Y., gave an address entitled "Notable Shortcomings of State Normal Schools."

In the absence of George H. Black, president, State Normal School, Lewiston, Idaho, who was to present a paper on "The High School's Share in the Training of Teachers," the subject was discussed by John R. Kirk, president, State Normal School, Kirksville, Mo.

There was much discussion on all three subjects in which the following persons participated: J. F. Marsh, secretary, State Board of Regents of West Virginia, Charleston, W.Va.; U.S. Conn, president, State Normal School, Wayne, Nebr.; W. S. Dearmont, president, State Normal School, Cape Girardeau, Mo.; James O. Engleman, superintendent of schools, Decatur, Ill.

The following officers were elected for the ensuing year:

For *President*—Dwight B. Waldo, president, State Normal School, Kalamazoo, Mich.

For *Vice-President*—Thomas W. Butcher, president, State Normal School, Emporia, Kans.

For *Secretary*—Waite A. Shoemaker, president, State Normal School, St. Cloud, Minn.

On the motion of President Brister, of Memphis, Tenn., a committee of three was appointed to confer with members of Congress touching national aid for the teaching of industrial subjects in normal schools. The chairman appointed the following men to serve on the committee: H. H. Seerley, president, State Teachers College, Cedar Falls, Iowa, chairman; John A. H. Keith, president, State Normal School, Oshkosh, Wis.; and J. W. Brister, president, State Normal School, Memphis, Tenn.

The Committee on Resolutions reported as follows:

In order that the normal schools of the country may be made more efficient in organization and more effective in training the various types of teachers and public-school specialists demanded, we favor the further organization of normals into specialized departments so far as such organization increases the efficiency and influence of the school without destroying its unity.

We believe that the present close, sympathetic connection and co-operation between the normal schools and the public-school system should be continued to the end that the normal school may continue to minister directly to the needs of the common schools and high schools of the land.

We favor well-organized extension service in connection with every normal school of the country in order to enable teachers now in the field to continue their education while earning a living wage, and in order to bring to the taxpayers directly at the smallest possible cost all forms of social service and community uplift.

Just as we have affirmed our belief in sane vocational guidance and expert training of our workers, we now declare our conviction that the normal schools of the country should do all within their power to introduce sane recreational guidance which will enable society to take proper care of its workers during the hours of necessary rest and recreation.

We commend the present efforts of normal-school presidents and faculties to revise and adapt directly to teaching work and classroom needs the present courses in psychology, pedagogy, and other so-called professional subjects; and we commend the effort of normal schools to resist undue standardization and to improve their courses of study in keeping with new and pressing needs.

We favor the shaping of conditions in our normal schools to provide for the more extensive and more pointed and thoro preparation of teachers. Wherever possible, the normal schools should be prepared to do three or four years of work above the high school and should continue to prepare teachers for the high schools as well as for the rural, village, graded, and city schools. We believe that the practice of using one institution to prepare primary teachers, another to prepare grammar-grade teachers, and another to prepare high-school teachers enforces a premature, artificial, and unnatural classification, and one which is destructive to unity in education and wasteful as to the use of public funds.

In harmony with the suggestions of our national commissioner of education, we favor laws in every state requiring a fair degree of scholarship and a year or more of normal training for the lowest grades of certificates; and we favor such laws and such distribution of public funds as will give the rural schools of our country teachers who are not excelled in attainment and skill by teachers of the city schools. We favor the normal schools continuing to train teachers for country schools and to stimulate and foster movements for improving rural life.

Under the stimulus of national aid, the states have made important and valuable investigations and have accumulated a large body of scientific knowledge relating to agriculture. Little, however, has ever been done to bring this knowledge to the farmer. The one sure means by which the knowledge of scientific agriculture can be brought to the farmer is thru the public schools; and, to enable the public schools to do this great service effectively, they must have teachers educated in the normal schools to teach agriculture. National aid extended to the normal schools of the several states to enable them to prepare teachers of agriculture is necessary to make finally effective all that the national government has so far done toward the application of scientific principles in farming. This further national aid to stimulate the states to action in providing for the education of teachers of agriculture in the normal schools we consider an immediate and pressing need.

We view with alarm the activity of the Carnegie and Rockefeller foundations, agencies not in any way responsible to the people, in their efforts to control the policies of our state educational institutions, to fashion after their conception and to standardize our courses of study, and to surround the institutions with conditions which menace true academic freedom and defeat the primary purpose of democracy as heretofore preserved inviolate in our common schools, normal schools, and universities.

THIRD SESSION—FRIDAY AFTERNOON, JULY 10, 1914

ROUND-TABLE CONFERENCE

The department met in round-table discussion, and was called to order at 2:30 P.M., with D. O. Kinsman, professor of civics, economics, and sociology, State Normal School, Whitewater, Wis., in the chair.

The topic under discussion was "The Content of the Course in Sociology in a Normal School," the first speaker being W. H. Cheever, State Normal School, Milwaukee, Wis.

Discussion: Willis E. Johnson, president, State Normal and Industrial School, Aberdeen, S.Dak.; Gustav S. Petterson, department of sociology, State Normal School, Mankato, Minn.

In the absence of Frank H. Garver, State Normal College, Dillon, Mont., who was to have discussed this topic, his paper was read.

W. T. CARRINGTON, *Secretary*

PAPERS AND DISCUSSIONS

THE PRACTICE SCHOOL AND THE WORK OF THE HEADS OF DEPARTMENTS IN IT

JOHN W. COOK, PRESIDENT, STATE NORMAL SCHOOL, DEKALB, ILL.

I assume that I am to attempt to answer two questions: What should be the character of the practice school? What relation should the heads of departments in the normal school bear to it?

1. In this discussion it is taken for granted that a practice school is an indispensable department of a normal school. Without it the normal school would be like a laboratory without apparatus or experiment, like a shop without machinery or tools.

2. A practice school should include all of the grades for the teaching of which the normal school is preparing its pupils. If it is attempting to fit its pupils for work in country schools, it should have a country school as a department of its practice school, or, at least, an ungraded school substantially similar in its characteristic features to a rural ungraded school. If it aspires to prepare high-school teachers, there should be an opportunity for the observation of a good high school at least, and, what would be far better, for practice teaching in such a school.

3. These schools should be of the conventional type, with children of such a number as will be found ordinarily in the common school, with excellent furniture, with an admirable equipment in the way of apparatus, library, room decoration, playground and playground apparatus, school garden, and all of the other accessories of a first-class school.

4. The course of study should embody the most improved ideas respecting the curriculum. It should include manual training, the household arts and sciences, nature-study courses, excursions, and all the rest of the manifold means by which the young are introduced to the life of their time.

5. The faculty of the practice school should consist of a general director, special assistants, and critics. The director should be a thorogoing expert in education. The position is second in importance alone to that of the head of the school, if it is not, indeed, superior to it. The practice school is peculiarly the center of the situation. In a very true sense, the normal school should be built around the practice school. All that goes on in the former is supposed to point to the latter. The value of the former is properly measured by the effect it has in determining the character of the latter. The practice school has for its problem the reduction of the manifold theories of education, so interesting and so easy to discuss, to fruitful schoolroom procedures. This is the most difficult of all the educational tasks of which I know anything, and this is the problem which the director of practice has to solve if it is to be solved.

It is possible that it is beyond the province of this paper to discuss the qualifications of a director of practice. I am constrained to say something upon the subject even at the hazard of getting out of line, and will content myself with the following brief suggestions:

He should be an enthusiast in regard to the importance of elementary education and should have so thoro a respect for its problems as to believe that they demand the highest order of intelligence and ability for their solution. Emerson declared the first qualification of the teacher to be a warm respect for the child. The first qualification of a director of practice in a normal school is a profound respect for his calling.

He should be broadly educated. He should also be a conceded expert in education. By this is meant that he should have paid such attention to the mastery of its theories, its literature, its history, its psychology, and the technic of its practice, as the physician and the lawyer pay to the professional equipment for their calling. He should be able to make creditable showing in the actual management of a class of children in any of the grades that he attempts to supervise.

He should have a well-defined theory of education and he should be a practical psychologist. We hear much of the value of psychology to the teacher, but whether its study will be of any practical assistance in working out his problems depends upon several considerations. I do not hesitate to assert that it may be of no appreciable value whatever. Some of the poorest teaching that I have ever seen has been in the classroom of the professor of psychology. Psychology is a science by itself. It has greatly enlarged its field since I first got some inkling of its meaning more than fifty years ago. In the extension of its investigations it has come upon the science of pedagogy. In consequence we now have "educational psychology." By this is meant the application of psychology to the problem of teaching. As the main problem in teaching is found in the attempt to aid the child in the knowledge process, that aspect of psychology which reveals the conditions under which this process proceeds most advantage-

ously will be found to serve the teacher best. But the adaptation of the science to the teaching problem is far more difficult than the science itself. He who can do it well is a "practical" psychologist, and in so far as he can do it well he is prepared for the work of director of practice.

The practice school makes much of method and that it should do so goes without challenge. I am not saying that the word has not been greatly abused. In the past, method imposed itself upon subject-matter and often in a tyrannical way. Now subject-matter, having discovered its intrinsic dignity, joins hands with the child in the determination of method.

I am saying this as a preface to the statement that he who undertakes the administration of a practice school should understand that the largest part of his work, after the direct work of guidance, must be in the arrangement of the subject-matter of instruction. I should modify that statement somewhat; I should have said that his largest work will be the organization of a body of critic teachers who have the ability to get the subject-matter of instruction into shape for the best presentation. He is greatest who can multiply himself by putting his ideas of work into many minds. It will not be difficult to estimate the value of the headmaster; we have but to study his aids. Those aids are the critics, who come into close and immediate touch with the pupil teachers. As to their number, generally speaking there should be at least one for each of the rooms. I say generally speaking, for there are those who can manage two, or even three, rooms better than the average critic can manage one.

The critics should be mature women. They should command respect by their attainments and not less by their characters. Especially should they have those qualities of sympathy and justice and tact and balance that inspire confidence and that call the beginner to the free expression with which a child honors his mother. It has been for many years my peculiar privilege to observe the work of such a critic. The beautiful girls grow more beautiful in her presence as they exhibit their efforts to her discerning scrutiny. They covet her estimate, often anticipating her adverse judgment by self-criticism, and they seem to have filtered out the element of personality, caring only for the excellence or the lack of excellence of the teaching act. It is a wonderful thing to get rid of the disturbing self-consciousness and to have left only the thing to be dealt with in the light of universal principles. I have seen critics who cared much more for their methods than they did for their girls. All things that assist in establishing the self-respect of the pupil teacher, the wholesome, discerning self-respect, go far toward a fine success. The critic who has not learned that simple truth has not gone far on the road to eminence in her calling. All things that lead the pupil teacher to think first of the welfare of the child go farther toward a fine success, probably, than any other one thing, for that means that she has learned what it is all for, and to learn that

early is to get at the fundamental of fundamentals. If the critic is seized by that passion she is one of the chosen ones.

I have spoken of certain qualifications that lie in the realm of personality rather than of technical equipment, because that lies at the foundation. The rest consists of rational ways in which this engaging personality puts itself at the work of fitting others for professional service.

What I have said of the professional preparation of the supervisor applies with parallel force here. There must be clear ideas, mastery of principles, a highly superior technic of instruction and management, and an additional ability which, in the experience of my associates and myself, is rarest of all. Before attempting to describe it I must be permitted a brief digression.

The school textbook prepared for use in elementary grades is true to its name; it is a book of texts. For evident reasons it is so because of a practical difficulty that is encountered when an attempt is made to relieve it of that criticism. In order that a book shall be interesting it must have an attractive content. There must be enough of detail to arouse the imagination and thus to furnish material for the pupil to construct a situation that appeals to him. But such a textbook would have at least two features that would condemn it in the open market: it would be far too big for convenient use and consequently too expensive. Another objection might be offered—it would be so interesting that the children would read it thru at home and then the teacher's occupation would be gone. Think of it! A textbook that was ruined for school purposes because a child used up in a few evenings what was intended to last him for several months! What should be done with such a greedy creature and with such a misfit in the way of a book? Parents would be bankrupt in trying to keep pace with such an intellectual appetite.

What shall be done in so sad a situation? Evidently the teacher must furnish the main part of the enriching material in the form of oral instruction in the earliest grades, and when the child is able to read for himself reference books must be at hand for the pupils' use. But here arise three difficulties, especially with pupil teachers. Where shall the pupil teachers go? When they have raised that question I have heard the critic reply: "That is your problem and you must learn to solve it." In consequence the pupil teacher is loaded down with encyclopedic treatises upon familiar subjects and to her heavy task and her inexperience there is added work that can be done well only by an expert. But the encyclopedias do not put their material in nicely digested pedagogical form; it would be unreasonable to expect it. In consequence there remains the greater task of organizing the material for proper presentation. More than once I have seen critics require young pupil teachers to attempt more within the compass of a single week than the head of a department in a normal school found it difficult to accomplish in the time at her disposal in three months.

"Their problem," indeed! What supreme nonsense! "But you will nterfere with the originality of the pupil teacher" is the indignant reply of some critic who never attempted to do the extraordinarily difficult thing that he has imposed upon the timid beginner, who has all of the troubles that she can walk under as it is, I dare say. It probably interferes with the originality of the art student to see a fine painting that someone else has put upon the glowing canvas, but it is a blessed interference. It is an interference with the originality of the music pupil to hear a great singer, but he goes across the world to find such an interference. By the same token, a would-be poet should never read Shakespeare until his originality is fully developed, yet we encourage our pupils to swim in a sea of poetry. And the third difficulty is graver than both of the others. The practice school must be able to hold its own by the side of the school that is not handicapped by inexperienced teachers. Here is a difficulty that challenges the skill of the most capable of managers. We have a hard enough time to preserve the confidence of that part of the public that will consent to have their children taught by learners.

And now I may return to the point of departure. Critic teachers should be able to do this organizing work upon the material to be used in the process of instruction. Pupil teachers must be saved from failure and children must be saved from a sorry waste of time. As the music teacher sets before his pupils the finest exhibition of his art that is available, in order that their standards may be properly formed, so the critic teacher should set before her pupils the finest possible piece of enrichment and of lesson organization at her command. These lessons should be multiplied by some one of the common devices and made freely available. It is an art that is rather slowly acquired, but when once mastered the lessons can be prepared with such facility as to furnish a liberal supply. The critics under my personal observation have made large numbers of them within the last year. The relief that has come to the pupil teachers and to the children in consequence is not easily put into words.

How many of the pupil teachers should a critic be responsible for? The answer to that question will depend upon the organization of the teaching work. After fifteen years of experience in half-day teaching, I should regard it as a calamity to be obliged to give it up. I am not unmindful of the need of superior scholarship, but the need of sufficient experience in the actual work of room management and instruction to make the attractive features of teaching apparent and the difficult features discernible, and enough more to make the learners quite at home in their chosen calling, has become so apparent in the problem that has been presented to the school of which I know most that I should rather add to our minimum for beginners—from twenty-four to twenty-seven weeks of half-day work—than to diminish it. With such an arrangement each critic can manage from four to six pupil teachers. They should be divided

equally, if possible, between the first-termers and the second. The first can attend to minor details and do their preparatory work of observation while the second go forward with their room management.

As there are usually superior students who extend their course in preparation for critic work, they can be made of great value in many ways. It has been our custom to pay to such pupils a small stipend in the way of compensation. I must not continue the discussion of this portion of my theme further altho much remains to be said.

6. The relation of heads of departments to the practice school is a matter that has not become conventionalized to any such degree as have the main outlines of the practice work. While the latter work differs with different schools, there are strong resemblances; however, there has been a marked individualizing of the part which the teachers of the normal department play in the supervising of practice work. Here are some of the conditions that will account for this variation:

The amount of money available for the payment of teachers' salaries. We are always discriminating between necessities and desirable features. There are some things without which we cannot get on at all. There are other things without which we cannot get on very well. The former, obviously, must receive first attention. The more the heads of departments must do of actual instruction of normal pupils in the normal department the less they can do in the supervision of practice and all that it implies.

Where money is available we spend it, for we must always be poor. We thus realize our ideals of organization and management. Where it is not, we indulge in the illusions of hope and plan what we shall do when the golden age is ushered in. I shall attempt, therefore, to indicate what I would do if all the money needed were supplied. Every teacher in the normal department should be distinguished by a very high grade of ability as an instructor. The country should be ransacked to discover, not simply good teachers, but the best in the market. They should possess superior scholarship. This scholarship should be both general and technical. It should imply a broad foundation and a superadded special discipline in the departments over which they preside. To this there should have been added a pedagogical training both technical and practical. I mean, by the former term, liberal courses in the principles and theories of education, and, by the latter, a good degree of experience in the teaching of the young. From such a generous training there should have developed a fondness for teaching and an especial interest in elementary education.

There should be a sufficient number of such teachers in each of the departments to enable all of them to make careful studies of the work of the practice school and, as well, of the best public schools, in the subjects which they are employed to take care of. They should prepare courses of instruction in their subjects that are adapted to the various grades of

the elementary or secondary schools. They should have a chance to try out these courses by working with the grades for which they are prepared. These trial trips should continue daily for many months if necessary. In one case they covered a period of daily instruction thru the entire geography course, requiring five years of work with the same class. Indeed, there are few things that will do so much for a normal school as the teaching of children daily for all of or at least a good part of each year by the teachers in the normal department. This teaching need not be continued as a regular daily program after courses are worked to a satisfactory conclusion and the teachers have developed a high degree of skill in dealing with their subjects.

These exercises should be carefully studied by the critic teachers and especially by the pupils of the normal department. It will be found that nothing else will have so potent an influence upon the character of the instruction in the normal classrooms. Theory will soon reduce itself to usable form and will test itself by its value as a schoolroom procedure. There will be little talk about "method" but there will be a deal of things accomplished in the way of getting material into shape for use with the children. Here is where the heads of departments can do their greatest work. It is fair to assume that they know more than anyone else about the subject-matter. Let them show that they also know more than anyone else about its best arrangement—perhaps the word "organization" is better—for the uses of the children. Not only should they develop courses of instruction, but they should prepare enriching material for special topics, to be placed in the hands of pupil teachers for oral helps in the lower grades and in the hands of the pupils in the higher grades. This necessitates some convenient scheme of multiplication of prints, a very simple matter with all of our modern devices.

These teachers should meet the pupil teachers of their subjects at least once a week for conference and interchange of ideas. The critic teachers should be present at these conferences. As I have said, the specialists should confine their contributions to these conferences to the subject-matter and its arrangement. They should be magazines of ammunition upon which the pupil teachers can draw at pleasure.

Shall the department heads also perform the function of critic teachers? Shall they meet the pupils and discuss with them their successes and failures in the matter of management and instruction? They should attempt nothing of the kind in a systematic way. My reasons follow: (1) It is impossible that they should have the time to make a thoro piece of work of it; (2) their criticisms will be made from the point of view of their particular subject rather than from the broader point of view of pedagogical principles; (3) there is great difficulty in preventing conflict of comments unless they shall all come thru the same critic; (4) such a plan presents insuperable obstacles to the pupil teacher. She is called

upon to meet far too many teachers and is cast about like a football among them. The inroads that will be made upon her time, the peril of missing close and sympathetic treatment, the divided interest of the department heads, the fact that they can be with the pupil teacher but a small portion of the time at best, all unite to condemn the plan. The critics must devote their entire time to their specific task. This does not mean that they shall not teach classes, for that is indispensable to superior success, but that is to be done, not alone to protect the children, but also to furnish standards of technic and to draw together into a fine unity all the parties involved in the management of the practice school; and (5) there is still another danger in splitting up the work of criticism. There should be a wholeness in the work of the teacher that cannot be expected from such a system. The subjects of instruction play into each other and presuppose each other, consequently they should not be isolated for purposes of criticism of teaching to such a degree as seems to me to be quite inevitable in case of the plan under consideration.

HOW CAN NORMAL SCHOOLS BEST HELP THE FORWARD MOVEMENT IN RURAL LIFE?

J. W. BRISTER, PRESIDENT, STATE NORMAL SCHOOL, MEMPHIS, TENN.

Country life is relatively not as important as it once was. The very shifting of population to the cities has caused a change. The glamor about the fine old farms, princely plantations, social festivities, religious life, economic independence has shifted with the population and now attaches to the city. The thoughts of men are centered there, the ambition of youth moves them in that direction; for the glittering prizes of success seem hung in its shops and temples and halls to dazzle and invite and allure.

The problem of rural life is one of real values. What are the things worth while? Can they be realized in the country? Are there opportunities in the country worthy the consecration and zeal of young manhood and womanhood? Can ambitious youth, dwelling there, realize the highest possibilities of his being and get that enjoyment which success ought to bring? We may not restore the prestige which the country once enjoyed, but can we not demonstrate that happy, contented, reasonably prosperous, and genuinely successful life can be lived on the farm? And cannot life in the country be so reorganized that it will offer to young people opportunities for improvement, success, and enjoyment approximately equal to those which the city gives?

The movement to improve country life is many-sided. It is economic, educational, social. It means a complete reorganization of country life, which involves the determination of the institution or agency around which the organization can best be made. It cannot be the home, church, store,

lodge, or union. All are inadequate, too narrow, or too conflicting in their interests.

The one institution in the country that can serve as a central point in an organized country life is the school. It belongs to all the people; it affects, if properly conducted, the whole life from that of the youngest child to the oldest adult. Belonging to the people, it can be directed as they see fit; its functions can be increased or curtailed; its activities can be enlarged or lessened at their will. Dealing primarily with youthful life, the hopes and ambitions of the people center there. Affecting the thought, directing the study of the people, determining their ideals and standards, it is naturally, logically, the central institution of all life. The educational process is so broad and comprehensive, even that part of it carried on directly in the school touches life in so many ways, that we could not think of organizing any society without considering the part the school must play in the organization.

If our premises are correct, the place of the normal school in the movement to improve rural life is not difficult to see. If the school is the determining factor in the situation, the normal school looms large, because it primarily, fundamentally, always has for its concern the school. The normal school is not an end in itself. It is not a subjective but an objective institution. All of its machinery, faculty, equipment, buildings, apparatus, course of study are for the other school. And it has come to be realized during the last few years that the other school for which it exists and functions is, in a peculiar sense, the country school. The normal schools in the past have not served the country schools as they should, but they are now fully conscious of responsibility, and everywhere plans are being devised with the hope of meeting it.

We make our suggestions, then, as to how the normal school can assist in improving country schools, for in this way we meet the larger issue involved in our subject.

1. The normal school can help make the course of study for the country school, which, with the exception of the teacher, is perhaps the most important factor in determining the value of the school. None of our educational agencies is better fitted to do this than the normal school. It is nearer the country school than any other which has any facilities for making the necessary investigation. It has the educational organization and the spirit of study and research which qualify it for the important task. It can and ought to study carefully and thoroly the field it serves, make surveys of counties and communities and even of the whole state, to discover their condition, educationally, financially, socially, as regards health, taxation, and resources. It will then know the needs of the school and of life; it will have familiarity with the entire situation; and this, combined with its knowledge of educational values, will place it in a position to speak with authority in mapping out a school program. Knowing the problems of life

and the relationship of school to life, it will be able to adapt the work of the school to the pupil's environment and minimize the loss of time and energy and effort in the passage from the activities of the school to those of everyday life. It need hardly be argued that this investigation and knowledge are necessary before the course of study can be properly made; because any satisfactory course is conditioned on the needs of the situation it is designed to serve. It must grow out of those needs and be adapted to them. An important phase of this work will be, not merely to make a general scheme for the whole state, but to arrange it with such flexibility that it can be modified to suit varying local conditions.

2. The work of the normal school is to make teachers—that is its peculiar aim and all else is incidental. But we have too often stopped with this rather vague statement instead of holding as its purpose the making of teachers in certain subjects. If we are going to help country life, it is essential that we organize and develop departments of agriculture, home economics, manual arts, and kindred subjects so that we may prepare teachers thoroly grounded in the fundamentals of these subjects and able to present them in such a vital and convincing way as to show the school's natural connection with the life of its community. These departments must be as thoroly organized as mathematics, English, or any other, and the normal school must be equipped to give instruction in them of as sound and thoro a nature as in any other subject on the whole program of studies.

3. Another most important field in which the normal school is already operating and which it must more completely cover, if it is to render the largest service to the rural school and rural life, is that of supervision. It must enter seriously upon the work of training supervisors for country schools, of grade work, of special subjects, and of industrial work; it must turn out men who can give direction to school activities and efficiency to the teachers' work. It is the experience perhaps of every normal-school man here that it is difficult to get the specially trained normal graduate into the country school; the salaries are inadequate, the surroundings of the school unsatisfactory, the physical conditions insanitary, the social isolation repellent. The teachers we send forth are doing what most men would do under similar conditions; they are seeking positions which offer the largest inducements and greatest attractions, and unfortunately these opportunities are not often found in rural districts. Now and then some choice spirit, with vision and the spirit of service, finds some humble sphere which he can thoroly cover, and he demonstrates his worth by showing the possibilities in even the crudest and most unpromising situation. But we cannot expect all or many of our normal alumni thus to do; and if they are to touch and modify rural life it must be in another way. And the other way is by supervision. One thoroly trained normal student placed in a supervisory position can affect the schools of a whole district, sometimes of a whole county, and the contribution he makes can be felt almost imme-

diately over a large area. To prepare supervisors the normal school must first discover their work, must set before them definite aims which will be expressed in the courses offered for their preparation. It is pathetic to note in some states the growth in the number of such officials without intelligent aim on their part or directive suggestion from other state and county authorities. Their aims being vague and indefinite, their efforts are often without effect.

4. Finally, if the normal school is to help to improve rural life, it must do a great deal of extension work. The time is past when a school, any kind of school, can be satisfied with teaching, even satisfactorily teaching, those who register in its classes. The duty of the school stretches beyond the schoolhouse, beyond the campus, into the homes, into the stores, to the farms, into the social and institutional life of the community. Any system of instruction that is confined by the artificial limitations of the schoolhouse or grounds is practically useless to society and has no right to continuance; and the normal school is no exception.

In this extension work I should place first of all the duty of the normal school to the teacher now in the field. There are many noble souls who have given long years to teaching service with inadequate compensation, who feel the situation slipping from their grasp. They need contact with scholarly men, and they have not the means to renew for any length of time the personal association in the school. The normal school must go to them by correspondence, by lecture, and particularly by special courses of short duration in summer terms and other convenient seasons.

Again, I am convinced that the normal school should do more fieldwork. As intimated above, much of its industrial activity, as carried on in the departments of agriculture, home economics, and manual arts, is in danger of being artificialized for lack of application. I feel strongly that the normal school should foster and encourage club work among boys and girls. It should show how these activities can be correlated with the work of the school to the end that their educational significance may be appreciated. If we are to bring educational benefits to all classes, it must be possible for boys and girls to make some contribution to economic life while at school, even as a part of school life. Thru the influence of the normal school, club work can be made an integral part of school activity, and only thus can it have permanency of life and real educational value.

The normal school should participate, I believe, in all movements for the development of educational sentiment and increasing educational interest. In our state there is a most intimate connection between the state department of education and the normal schools; and on every court day normal-school men may be found arguing before county courts for increased funds for elementary schools, for taxes for establishing or improving high schools, for longer school terms, for bond issues for building and equipment; and they are also leaders in the aggressive campaign for

consolidated schools, for the employment of supervisors, for the establishment of libraries, and for every other movement that promises to make better schools and better community life. I hope we can go farther and not only argue for these things but show how they can be accomplished. We are studying the local situation in our various counties with the hope of making a survey and then suggesting a feasible plan for the county system of schools, with the location of consolidated schools, the determination of a sufficient number and the location of high schools, and other necessary constructive and directive work.

We have fooled ourselves too long with the idea that the teacher is the school. There may be some choice spirits like Mark Hopkins or Horace Mann or Pestalozzi who alone would constitute a school. But it needs something besides the average teacher to make a school, and even the best teacher will do better teaching with improved physical conditions; hence we must improve the conditions under which our teachers have to work. Much of the work of the normal school is of no avail because its students cannot put into operation the things it teaches. We may reach them in our teaching, but the bad conditions under which they labor render impossible the application of the things learned. I am fully aware that the zealous, thoroly trained teachers will themselves bring about, in many cases, the desired conditions. But the normal schools and other educational agencies cannot, have no right to, wait for them. It is our duty not only to prepare teachers but to prepare a place for them. We need to have this purpose definitely in mind and to force it upon the attention of the people. The place must be prepared, first, to attract the normal-school man; second, to make it possible for him to utilize and apply the lessons he has learned.

The problem of the normal school is largely a school problem and the greater part of its work must be carried on in the classroom, but it is not on this account an artificial or unnatural process. We are working for a new institution in the country, a reorganized school, with trained teachers, with intelligent supervisors, with vitalized courses of study, with high ideals and lofty standards, with aims comprehending the entire life of the community, with school activities growing out of, and related to, those of home and community. And every contribution we make to the accomplishment of this important task is directly helpful to the improvement of country life.

THE STRENGTH OF THE NORMAL SCHOOLS

DAVID B. JOHNSON, PRESIDENT, WINTHROP NORMAL AND INDUSTRIAL COLLEGE, ROCK HILL, S.C.

In the consideration of this question, I have sought the opinions of some of our well-known normal-school men. All of them agree, of course, that the main basis of the strength of the normal schools is the great and vital service

rendered the people thru the teachers trained by them for the schools of the people. Those who mold the ideals and characters of the boys and girls of today, the men and women of tomorrow, are rendering the greatest possible service to our common country, and the agencies responsible for training these teachers are strong accordingly in popular esteem. There is pretty common agreement that the strength of the normal school lies in the fact that it is the school of the people and that it has the backing of the common people.

Other opinions are: "The democratic spirit that pervades the normal schools is an element of their strength. Other elements are the earnestness of the young people and the consecration of the teachers and their devotion to their work." "The normal schools are not bound by the traditions which handicap the colleges. They are free to adopt a course of study and to modify this course of study to an extent that is very unusual in educational organization. They are, therefore, extraordinarily adaptable to the demands of the present age. They recognize academic freedom and thoro scholarship as essential to institutional life. They are patronized by persons who want thoro scholarship because of its vocational serviceableness. Their students have a specific purpose in view and the atmosphere is one of service. They regard anything as general education that is necessary for the training of any individual for large serviceableness as a leader among the people. They regard present efficiency as the important element."

Having said this much concerning the strength of the normal schools, we must admit that all normal schools do not possess this strength in equal degree. Might it not be profitable just here to consider briefly what a normal school should be and do to have this strength in its fullest measure?

It certainly must prepare teachers to meet fully the requirements of the modern school. In view of the development of the school and the demands made upon it by the people, what of the preparation necessary on the part of the teacher to conduct such a school successfully? It is clear that the teacher must have a higher scholarship, a broader education; must know how to make the school a factor in the social and civic life of the community. There must now be teachers who know about homemaking, home sanitation, domestic science and arts, hygiene, gardening, elementary agriculture, rural problems, manual training, organized play, library methods, methods in moral education, commercial subjects as well as the academic or so-called cultural subjects. The normal school which expects to live up to its opportunities and have the strength of which we have spoken must prepare teachers to do this work demanded of the modern schools.

In training teachers, normal schools, especially of the agricultural sections of our country, cannot lose sight of the tremendous importance and obligation of equipping them for the best rural-school work. A large percentage of our people live in the rural districts—in the South about 80 per

cent—and the welfare of the nation, urban and rural, is involved in the welfare of the agricultural people who are the wealth producers of the country and constitute such a large proportion of the whole population. It is claimed that agricultural conditions may be improved best and most surely by improving the rural public schools, by consolidation and otherwise, but especially by providing for the teaching in these schools of those subjects, such as agriculture, bearing upon rural life, by closely relating these schools to the life of the people served by them, and by educating the children for country life instead of away from it.

There has long been unanimity of opinion practically among leaders of thought everywhere that character is the chief end of education—that the primary aim of our public schools is to educate the children for moral success and social efficiency. The state must rest for its safety and stability upon the character of its citizens rather than upon their intelligence and skill, and hence it is absolutely necessary for the state, for its own welfare, to make provision for moral training in the public schools as well as for intellectual and physical training—hence the duty of the state's schools is to train for good citizenship. The normal schools should do something to prepare teachers for this most important part of their work.

A normal-school course of study should be made up of about two-thirds academic or cultural subjects and one-third professional work. It should be of college grade and all the students should have the opportunity of securing a strong college education while securing their professional training. The lack of scholarship in the early normal school brought the newer normal school into disrepute among educators. A strong, effective, inspiring teacher must have scholarship as well as method and pedagogy. A normal school should prepare, academically and pedagogically, teachers for the kindergarten, the elementary school, the high school, rural and urban, and to teach special subjects. And then the normal school should have a strong extension department to carry its benefits to the schools, teachers, homes, and people in its territory.

NOTABLE SHORTCOMINGS OF STATE NORMAL SCHOOLS

ALFRED C. THOMPSON, PRINCIPAL, STATE NORMAL AND TRAINING SCHOOL, BROCKPORT, N.Y.

The day upon which this meeting opened marked the completion of an epoch in normal-school history, for on July 4, seventy-five years ago, the first state normal school in the United States was opened in Lexington, Mass. There are now more than three hundred public and private normal schools in the United States with over 100,000 prospective teachers enrolled as students, of which three-fourths are women. These normal schools and their graduates exert a commanding influence over the 525,000

school-teachers who are instructing over 18,000,000 school children in this country.

In dealing with our shortcomings, it is not my intention to give much destructive criticism but rather to suggest ways and means by which normal schools may better fulfil their important mission of making teachers. We of the normal schools and others are so prone to criticize shortcomings without telling how to build up that I am going to deal with this as my first topic.

Today the average child of fourteen can read, write, cipher, and spell far better than his forbears could when several years his senior. In general thruout our country, the vital and material equipment of our normal schools has kept pace. The ideals and standards in these schools and the means and methods of their accomplishment are beyond anything dreamed of a generation ago. Proof of everything I have said is so accessible and so abundant that it is not profitable to make it a part of this discussion. This wonderful achievement has not come to pass thru the agency of highly paid experts, nor thru lavish governmental aid, but is the result of the earnest efforts of a great body of underpaid, self-sacrificing teachers, and unquestionably the normal school pointed the way.

In behalf of these same teachers, past and present, all of us should resent with contempt the ignorant and destructive criticism of the present school methods and accomplishments, so prevalent in some current literature, by a few educational sciolists whose experience in the teaching of children is limited to theorizing, or by perverted teachers who prostitute their sacred profession for mercenary motives or notoriety. Destructive criticism of schools from any source hurts. Certainly it can accomplish no good. It is without doubt one of the most serious obstacles to progress at the present time.

The teacher stands *in loco parentis* a part of the time. The parent does not share this responsibility without many misgivings, and there still obtains the traditional notion that the teacher is the natural enemy of the child. Untruthful criticism spread broadcast strengthens this unfortunate notion in the parent's mind and renders more difficult the task of education, for it must be remembered that the real school problem is not the child but the parent. The great teaching body should, so far as its influence goes, consign to oblivion authors and publishers of destructive criticism. It requires no great ability to attack and criticize a work as broad as ours which comes in contact with and touches all sides of life. Always, the keenest critic of him who can is he who can't. There are more tellers than doers.

Real progress is greatly facilitated by demonstration, and this is a work for the normal school. Again it is our duty to encourage and push forward those who actually achieve. It is not difficult to pick them out. Anyone who can demonstrate a means of helping a child attain his highest

efficiency need not tell of it. "He may build his home in the wilderness and the world will make a beaten path to his door."

Four years ago, when I assumed my present position, I sent out a questionnaire, bearing upon normal-school problems, to one hundred representative city superintendents of schools thruout the country. My object was to secure first-hand information from those who used the normal-school product, to assist me in shaping my administrative policy in my own school. One question was a request that the superintendent indicate the most notable shortcomings he had observed in normal-school graduates. From the one hundred superintendents addressed eighty-one replies were received, and every state in the Union was represented in the replies. The first shortcoming noted in approximately 70 per cent of the replies was "lack of scholarship." In most of the other 30 per cent were answers of the same import, some saying that normal graduates attached too great importance to methods and too little to subject-matter, others that normal graduates could not command facts, etc.

I did not expect such unanimity of opinion among school men on any educational matter. The conclusion is inevitable that the requirements for admission to all normal schools should be at least graduation from a four-year high-school course or the equivalent. Professional training cannot be given profitably to those who have not at least four years of high-school work as a basis for intellectual development. In all normal schools whose standard of admission to professional courses is less, the first and most important problem is to secure at least the minimum requirement of four years of high-school work as a prerequisite to professional study. Little progress can be made until this condition obtains.

In my own state, New York, our commissioner of education has announced that it is the policy "to extend the courses of state normal schools and city training schools for elementary teachers in cities one year and devote that year to advanced academic instruction." At present the regular normal-school course in New York is two years beyond high-school graduation. The addition of another year will be a very distinct gain and should in a measure make it possible to meet the general complaint in the matter of scholarship, since by devoting a year to advanced academic instruction in the subjects the teacher will have to teach he should have a pretty good grasp of subject-matter.

Scholarship in itself is a most important element in giving teaching power. Certainly students should not be allowed to go from the normal school until they have a sufficient knowledge content to form a proper basis for future study and growth. I predict that the time will come at no distant day when normal-school courses will be four years beyond high-school graduation. This is an end to be achieved.

In all normal schools arrangements should be made so that every head of a department at least should have a sabbatical year on full pay

to be devoted to study and travel. By personal visitation and correspondence I am somewhat familiar with the normal schools of several states. The number of normal schools which have any provision whatever for time off on pay for teachers is very limited indeed, and yet it is likely that no one who has any adequate knowledge of normal schools will disagree on this point. Teaching the same thing in the same place year in and year out is peculiarly narrowing and tends most decidedly toward following in a rut. Teaching is for the most part an imitative art. Every teacher and especially the one who is engaged in making teachers should have opportunity to observe the work of the most successful masters and to intelligently appropriate the best from every source. Also the value of travel as a means of growth cannot be overlooked. Very few teachers have the opportunity or means to observe and travel without leave of absence on pay.

Normal schools should specialize. They should not try to cover the whole field of teaching with each student. Each student should be given the technical and definite training demanded by the department or special class in which he is to teach. This is an age of specialization. It is reasonable that a teacher will be more likely to succeed if he knows thoroly the field in which he is to work. When the normal school was founded, it was not difficult to cover the whole range of school work since it did not extend very far beyond the three R's. Today the schools furnish instruction in practically every line of human endeavor. There are special classes for children of all ages and conditions. No normal school can expect to succeed if it attempts the whole thing. Neither is it desirable for a normal school to have too many lines. This will tend to discursiveness. Undoubtedly, the best results will be obtained by the normal school which directs all of its energy to the making of teachers for some special line of teaching.

Provision should be made in every normal school for a "follow-up" teacher or officer whose duty it would be to go out into the field and help the graduates of his school, and also to bring back to his school definite suggestions gathered from actual contact with outside schoolroom conditions, for its future growth and improvement. No normal school can claim that it sends out into the field a finished product. The making process should be well begun but it must continue after the neophite is launched into an independent position outside the sheltering walls of his own normal. It is well if he lands with a superintendent who is "to his faults a little blind and to his virtues very kind"—a superintendent who will stand by and help him over the hard places. In any case the "follow-up" officer could with tact help both the teacher and the superintendent to understand the situation in its true light and the teacher could be helped to do his best. There is no field to acquire wisdom like that of experience. A field officer could bring to his school the best available experience and, in

the light of this, improvement would be facilitated. I believe that every normal school would be helped with such an officer on its staff.

The normal schools of this country range all the way from those whose method is to make teachers exclusively by means of academic instruction and instruction in the theory of teaching to those which attempt to make teachers exclusively by means of experience in teaching. These extremes should be avoided as Scylla and Charybdis for there are three essential elements in the teacher-making process: scholarship, theory, and practice. Certainly none of these can be omitted.

First, there must be definite and thoro instruction in the subject-matter which is to be taught by the teacher. Second, there must be instruction in the teaching process, for teaching is an art as technical as medicine, law, dentistry, or engineering, and it does not come by inspiration. Third, opportunity must be given for the teacher in training to learn how to bring the pupil and subject-matter together with the minimum of effort on the part of teacher and pupil.

Great care must be exercised not to overemphasize any one of these elements but to treat them in their due proportion. There should, of course, be a spirit of sympathy, loyalty, and co-operation among the teachers who give academic instruction, the methods teachers, and the critic teachers in the model school. It is too often the case in normal schools that some one of these departments overestimates its own importance. None can work alone. Satisfactory results can come only when all pull together.

I will close with the faculty. It has been truly said that the future of this country is more than ever in the hands of the public schools. The pupils represent all classes of society and all stages of social and moral development. To train this heterogeneous collection of human beings to be members of society is the work the schools are trying to perform. The normal school must make the teachers to do this work. On the other hand the teacher makes the normal school. The stream can rise no higher than its source, its fountainhead. The normal school will not go beyond its faculty.

Arnold gave Rugby its fame. Mark Hopkins at one end of a log and a student at the other were said to be a college. It is as impossible to have a good school without a good faculty as it is to have a poor school with a good faculty. Manifestly, the success of any normal school is more dependent upon the selection of a good faculty and the ability to retain it than upon any other element in school administration.

It should be possible for the normal school to attach to its faculty the best teaching talent in the country. The professional and financial inducements should be great enough so that the goal of every teacher's ambition would be a normal-school situation. Thruout this country very few normal schools are in this commanding position. Unfortunately, the

faculties of most normal schools are depleted each year on account of the superior inducements other schools are able to offer. It is anomalous that a school whose mission it is to make teachers for the state should be compelled to work with anything less than the best talent on its faculty. The most vital problem the normal school has today is to find the means of securing for its faculty the best educational experts in the country. When this problem is solved, most of the shortcomings of normal schools will vanish into thin air.

ROUND-TABLE CONFERENCE

THE CONTENT OF THE COURSE IN SOCIOLOGY IN A NORMAL SCHOOL

W. H. CHEEVER, STATE NORMAL SCHOOL, MILWAUKEE, WIS.

In my discussion of the content of the course in sociology in a normal school, I shall not attempt to treat the subject in a general way but rather to present in a brief outline the content of the course which I have been giving for some years in the state normal school at Milwaukee. This will tend, I hope, to keep our question out of the realm of theory and place it in that of practice, and consequently give us results of greater value. In our work we have been disposed to gather information from every relative source.

CONTENT

Textbooks.—Textbooks are freely used. We make use of bibliographies mentioned in the texts. These are found in the library, together with all the standard books upon the subject. Students look up supplementary reading, outline in notebooks, and either report in class or talk over with teacher out of class.

Magazines.—One day each week is given to reports from articles selected from the current magazines. At first articles are chosen from list submitted by teacher and after consultation with teacher. Later, the student's interest dominates the choice, and he is led to center his reading upon one subject. This subject is of his own choosing and forms the basis of his closing theme. These magazine articles are outlined in notebooks.

Newspapers.—Five minutes are given at the beginning of each recitation to a résumé and quiz upon current sociological topics: the Mexican situation, the survey of the city of Milwaukee, high cost of living, court news, elections, etc. Each student is required to subscribe for a daily paper, preferably to one representing a different political view from his own. This semester each student subscribed for a copy of the *Survey*.

Instead of an examination, each student writes a thesis upon some subject of his own choosing and upon which he feels he has a message. These

long themes are used by the English department. They also serve as topics for talks given by students before the daily assembly of faculty and students.

Visits to city institutions.—Either as a class with the teacher in charge, or in pairs, students visit courts, police and fire departments, school board and common council meetings, social and playground centers, departments of the city government.

Lectures.—Whenever an outside lecturer, speaking upon some sociological subject, comes to the city, an effort is made to bring him before the class. Citizens of Milwaukee whose experience makes them valuable advisers also speak before the class. Teachers of pedagogy, psychology, civics, history, and geography in the normal school are always welcome, in order that their subjects may be closely related to sociology. The teacher of sociology is also the teacher of economics and political science, and these subjects are closely co-ordinated.

Discussions and debates.—Free discussion is encouraged. The class is a mixed one, consisting of twenty men and thirty women. Twelve different nationalities and about as many different religions were represented. Two labor union men, a socialist, an agnostic, and a Japanese student added variety and difficulty. The most delicate political, religious, economic, and sex problems were freely discussed. At first there was some bitterness and feeling, but each learned later to respect the view of those who differed from him.

The results obtained are:

a) Capacity classes (the subject is elective).

b) Broader views of life, resulting in greater sympathy and respect for all religions, nationalities, and political parties.

c) A desire to *do* something for humanity. Our students teach in the city's social centers and assist on the playgrounds.

d) A number go to higher institutions of learning and specialize in these things.

e) A desire to read books, magazines, daily papers.

f) A desire to own books.

g) A changed view of education, from the individualistic to the social.

DISCUSSION

WILLIS E. JOHNSON, president, State Normal and Industrial School, Aberdeen, S.Dak.—The courses in sociology in our normal schools and universities are so dissimilar in content that they probably would not recognize each other if they met face to face on the street. This arises partly from the extreme youthfulness of the subject but mainly from the manifold character of the subject-matter. It is not possible nor is it desirable that the content of sociology be exactly limited and standardized. It is both possible and desirable, however, that thru comparative study and conferences the points of view of teachers of the subject may become less divergent. This is particularly true so far as it applies to the normal school.

I realize that the problem of the normal school is quite largely determined by local conditions. For example, the normal school in the Dakotas has an agricultural constitu-

ency in overwhelmingly large proportions and the normal school represented by the leader in this conference has a preponderatingly urban basis. I shall allude to this again. Nevertheless, the content of psychology in the normal school is fixed to a very slight, almost negligible, extent by local conditions, and why not sociology?

The point of view of the normal school is the training of teachers. This may not be a very startling fact to announce but it is unfortunately true that the teachers in other than the training department of the normal schools forget this fact more than they remember it. Should not this be the angle from which we should view the content of the course in sociology, or any other subject taught in a normal school?

Let us bear in mind the fundamental relation which sociology bears to the whole problem of education. As Aristotle said that society is the individual writ large, we may say that the school is society writ small. It is created by the people for the people. It gets its mandates and to some extent its very form and procedure from society. Even the right of a parent to educate his child is a socially derived right. As Commissioner Claxton said last night, the school is our most democratic institution. It is part and parcel of society, created by society, an effect of social conditions as well as a cause and prophecy of better things to come. Sociology is the basic educational science, indeed, education is one subordinate section of sociology.

Further than this, the educational process and procedure, the teaching and administration of the school are social processes. The teacher almost never treats the normal pupil in the school as an individual. To be sure, if the child shows abnormality of body or mind, physical and psychical tests are made of an individual character. If the child is normal, however, and it is for these children that the school primarily exists, it is the child as a part of the group that is taught. It is almost impossible for the adult to dissociate himself from social pressure and determinations, to free himself from the thraldom of public opinion, of community restraint, of social mandates. The child in the school is to an even greater extent than the adult the subject of folkways, and is more imitative than reflective in his determinations. When matters of discipline arise, the teacher finds that it is not Johnny but the gang which has decided the standards, the ideals, and the conduct of Johnny.

The main function of the school is to socialize and standardize the individual. We want the pupil to pronounce words according to the standard of our best culture, to spell them according to the same standard, to form his sentences, to think the story of mankind, and to conform in a thousand ways to the standards of civilized society. We want the child's very attitudes and outlooks upon life to be standardized so that he will shudder at the thought of crime, rejoice in the triumph of right, hate the lie and that which is low, and in other ways conform to the highest social standards of his day.

The school not only aims to standardize the child's ideas and his ideals but strives earnestly to automatize him in the practice of social virtues. Emerson said that conduct is three-fourths of life. Even in the narrow sense in which he used the term, it is worthy of the careful study and attention it receives in the schoolroom. Practice in correct habits of speech and action is persisted in until the individual is so automatic in his responses to situations that we liken it to instinct. In short, the purpose of the school is to socialize the individual so that his conduct and life are in a measure predictable. The aims of the school are thus socially derived.

In his discussion Wednesday afternoon, President Brister convincingly presented the importance of the school as a social center in rural communities. It would be difficult to get up an argument on that subject as we all unanimously and emphatically agree with him. This social function of the school and of the teacher is not limited to rural communities, however. In fact, I think probably that these ideals are finding more practical demonstrations in the cities than in the country. This is a social aspect of a teacher's preparation to which the normal school should be keenly alive.

The problem of the management of a school is a social problem and its laws are to be ascertained from sociology. The very thinking of the problems in arithmetic and geography is determined not so much in the realm of individual psychology as in that of social psychology. The background of the child's consciousness is the realm of social activity and enterprise. It is the social mind, the crowd mind, that goes to school to learn. Even more true is this in feeling and will than in intellect. Thus the science of education is a social science to an even greater extent than it is a psychological science.

In the light of the foregoing introduction is it not apparent that sociology in a normal school has a most important place and a peculiarly important function? Should not its contents be organized with explicit and distinct reference to that place and that function? It is important that the prospective teacher should acquire some familiarity with the social elements and processes involved in teaching and school management and in the life and work of the teacher outside the schoolroom—and the latter is of no small importance, however much we may shirk and evade our responsibility.

Roughly speaking, we may divide the training of the teacher into two parts, that which is academic and personal and that which is distinctively technical and professional. In the former, we want education such as the high school and college give, and, in the latter, the professional training. So far as this classification applies to the normal school, I may say I do not like it as there the interweaving is so close as to make the division misleading. I use this arbitrary classification because I find it hard to make clear what I want to say without it. The study of algebra belongs to the former class tho in a normal school there is a distinct reaction upon the arithmetic. The pupil studying algebra in a normal school ought to understand arithmetic better for that study than the one who studied algebra in a high school.

As commonly taught in a normal school, I fear that sociology belongs very largely if not entirely in the first type of teacher preparation, that is, it is a cultural and informative subject and incidentally or accidentally gives distinct and technical training for teaching. I have seen outlines of work done in sociology in normal schools that could not readily be distinguished from the species having its habitat in some college. Worse than that, tell it not in Gath, I have taught that sort myself in normal schools.

It is probable that no one can map out a course in sociology that in the short time that can be devoted to it in a normal school shall cover in succinct and tangible form what might be called pedagogical sociology or sociological didactics—but never mind the label in this discussion of content. Doubtless the process of the evolution of the subject will be slow. Indeed, sociology as a college subject is in the early stages of development, to say nothing of the organization and systematization of the aspects of the subject best adapted for the teacher. In the meantime the teacher of sociology may be patient and take comfort in the fact that its close neighbor, educational psychology, with its earlier start, has much progress yet to make before it reaches a maximum percentage of pedagogical efficiency.

The personal equation of the teacher is a big factor to be reckoned with in sociology and the social environment of the school, and the communities from which the students come and the communities to which they go are also modifying factors.

If more educational writers were sufficiently informed in matters sociological so that they could take more of their clues from that source, like Professor Scott in his *Social Education*, for example, we would sooner find our way out of many a pedagogical labyrinth. It so often happens, however, that one who is qualified to speak as an educator knows not sociology, and it is still rarer to find a sociologist who is informed as to the problems of education.

One defect which I find in my own teaching of sociology in a normal school, and I presume I am not alone in the guilt, is that I am inclined to take too logical a view of the subject, to see each phase of the subject and its related topics in their proper relation

of subordination. Among these phases is social psychology, and somewhere in the list is the science of education, the relation of the school to the state, etc.

It is so easy to ride a tangent away into interesting fields of social knowledge. It is a most exhilarating trip, too, and fraught with great value. The normal-school instructor, however, should be wary of tangential tendencies. It is a good plan to take these excursions as side trips, if I am not carrying the figure too far. Occasional round-table discussions of the special topics assigned are helpful. Professor Cheever's plan of having each student follow up somewhat extensively some line of sociological inquiry, keeping a notebook, making a bibliography, and giving occasional reports to the class, etc., is a most excellent one.

I have abandoned the common plan of commencing the work with a logical organization of the subject and find it highly advantageous to plunge at once into a central portion of the subject. For example, a concrete test of evidences of common-mindedness in the class quickens a splendid interest and startles the students into an inquiry into the social sources of standards of judgment and of conduct. The student soon acquires the social point of view. Once infected, the case will run its course.

Lest I may be misunderstood in my contention for a sociology for normal schools that is aimed specifically toward technical training for teaching, let me say I realize that we often must get away from the school to understand the school. There is a certain stage in the teaching of English when we understand the subject better by studying the structure of a foreign language. We best study arithmetic by studying the higher mathematics, etc. The indirect reaction of a study of sociology as given in our colleges upon teacher training is exceedingly valuable, and if there were no discernible pedagogical reaction at all it is well worth a conspicuous place in a normal-school curriculum. Nevertheless, in view of the social character of the school, of the aims of education, of the educational processes, and of the life and work of the teacher, sociology may be made a much more efficient instrumentality in the training of teachers.

I believe this department of the National Education Association can do few things of more direct and lasting value in the furthering of the interests of education in the training of teachers than by continuing this investigation.

GUSTAV S. PETTERSON, department of sociology, State Normal School, Mankato, Minn.—The content of the course in sociology is based on the belief that the abuses in political, industrial, and social affairs have been due largely to a one-sided and exaggerated individualism. In the past even our education, in both method and subject-matter, has been individualistic. Our psychology and pedagogy have been too individualistic.

The aim is not the teaching of the individual as a separate agent, but from the point of view of his obligation to the community that has produced him. The course is essentially practical. Very little theoretical matter is considered. The plan is to study as far as possible social conditions and social problems in Minnesota—those that our students will come in contact with in the course of their teaching experience.

A few basic definitions precede the study by way of introduction and a very brief statement of the place of sociology among the sciences and what sociology is. Social phenomena and social problems are really the latest products of organic evolution, and hence the evolutionary background is clearly established as early as possible. All this is as an aid to the understanding of social facts and conditions and in the interpretation of these facts. The physical, mental, moral, and religious characteristics of all the nationalities making up the American people are studied, this being a very effective aid in getting a clear conception of the many and varied social problems peculiar to the United States. This leads to the treatment of the questions of population and immigration with a full and definite study of the causes and results of isolation and congestion. Stress is laid on the facts of rural sociology, and then the village and the city are studied somewhat less in

detail. The fundamental social institutions of the family, the church, the state, and the school are examined in the light of their origin, development, present structure, function socially, and their possible destiny. A general view of the negro problem and a brief examination of socialism are undertaken. In conclusion, the abnormal problems of crime, poverty, and pauperism are looked into. Thruout the course, the social function of education is continually set before the student. There has been a demand for a more advanced course as an elective, and this has been met by an intensive course in social problems, which so far has covered in detail the problems of crime, intemperance, poverty and pauperism, and feeble-mindedness in its social aspects. It is likely that the problems considered will be varied from year to year.

The course covers a period of one term of twelve weeks, with five recitations a week. All the work is covered in recitation and not in lecture form. The texts used are Ellwood's *Sociology and Modern Social Problems*, Wright's *Outline of Practical Sociology*, and Gillette's *Constructive Rural Sociology*. No text has yet been used in the advanced course. Much collateral reading is required and also the reading of the newspapers and the current magazines. The term theses are on practical problems and local conditions. Much attention is paid to social surveys and the collection of social facts. Visits to the state institutions constitute a valuable part of the course—to such institutions as the state prison, the schools for the deaf, dumb, feeble-minded, the epileptic colony, school for the blind, and the school for dependent children, the charity organizations, etc.

The result has been capacity classes. The subject-matter is human and approached from the human side. It helps to render the student human. It helps to correlate the school with the community. It sends the teacher out with some idea and knowledge of the social conditions that he will meet in the communities where he is to work; equipped with the facts of social organization and of the social forces; and with an understanding of social problems. During the year 1913–14, there have been 280 students in sociology alone, thirty-eight of these in one class of the advanced course. The advanced course has been given but once thus far, in the spring term.

DEPARTMENT OF VOCATIONAL EDUCATION AND PRACTICAL ARTS

SECRETARY'S MINUTES

OFFICERS

President—ARTHUR L. WILLISTON, principal, Wentworth Institute.....Boston, Mass.
Vice-President—MAY GEARHART, supervisor of drawing, public schools.....Los Angeles, Cal.
Secretary—IRENE E. MCDERMOTT, director of household arts, public schools..Pittsburgh, Pa.

FIRST SESSION—MONDAY FORENOON, JULY 6, 1914

The meeting was called to order by President Arthur L. Williston in the Madison School, St. Paul, Minn., at 9:30 A.M. In the absence of the secretary, Wilson H. Henderson, director of industrial education, Hammond, Ind., was appointed secretary *pro tempore*.

The following program was presented:

"Report of the Committee on Vocational Education and Vocational Guidance"—Robert J. Fuller, superintendent of schools, North Attleboro, Mass., chairman.

"The Economic Significance and Relationships of Vocational Education"—John A. Seeger, president, Seeger Refrigerator Company, St. Paul, Minn.

"Vocational Education—Its Social Relationships"—Helen L. Sumner, industrial expert, Children's Bureau, Washington, D.C.

Discussion: Edwin G. Cooley, Chicago, Ill.; P. A. Dietrichison, Stillwater, Minn.; Mrs. T. Vernette Morse, Chicago, Ill.; Arthur L. Williston, principal, Wentworth Institute, Boston, Mass.; R. W. Heimlich, River Falls, Wis.; Sophonisba Preston Breckinridge, assistant professor of social economy, University of Chicago, Chicago, Ill.; and David Snedden, commissioner of education for Massachusetts, Boston, Mass.

SECOND SESSION—TUESDAY FORENOON, JULY 7, 1914

The meeting was called to order by President Williston in the Lodge Room of the Masonic Temple, at 9:30 A.M.

The following program was presented:

"President's Address—Should Manual Training and Technical High Schools Abandon Their General and College Preparatory Aims and Become Efficient Secondary Schools of Applied Science?"—Arthur L. Williston, principal, Wentworth Institute, Boston, Mass.

"Vocational Education—Its Terminology"—Carroll G. Pearse, president, State Normal School, Milwaukee, Wis.

"The Place of Industrial Education in a Rational School System"—Arthur H. Chamberlain, secretary, California Council of Education, San Francisco, Cal.

In the absence of the author, a paper entitled "Lessons Learned from Ten Years' Experience in Industrial Education," by Charles A. Prosser, secretary, National Society for the Promotion of Industrial Education, New York, N.Y., was read by Robert J. Fuller, superintendent of schools, North Attleboro, Mass.

These papers were discussed by G. W. A. Luckey, dean, Graduate School of Education, University of Nebraska, Lincoln, Nebr.

THIRD SESSION—WEDNESDAY FORENOON, JULY 8, 1914

FINE AND APPLIED ARTS SESSION

The meeting was called to order by the president at 9:30 A.M.

The following papers were read:

"The Need in America for Schools of Applied Art and the Necessity in American Industries for Art Leaders and Designers of the Highest Grade"—Maurice I. Flagg, director, Minnesota State Art Commission, St. Paul, Minn.

"Art Appreciation for the Masses"—Robert Koehler, director, Minneapolis School of Art, Minneapolis, Minn.

"Art Courses in Elementary, Intermediate, and High Schools"—M. Emma Roberts, supervisor of drawing, Minneapolis, Minn.

"Art Education as a Part of General Culture"—Tyler McWhorter, professor of applied design, St. Paul Institute, St. Paul, Minn.

FOURTH SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

VOCATIONAL EDUCATION SESSION

The meeting was called to order by the president at 2:45 P.M.

The following program was presented:

"The Use of the Factory and Office Buildings for Vocational Education in New York City"—John H. Haaren, associate superintendent of schools, New York, N.Y.

"Trade Agreements in Industrial Education of Apprentices in Chicago"—William M. Roberts, district superintendent of schools, Chicago, Ill.

"The Apprenticeship and Continuation Schools of Milwaukee, Wis."—R. L. Cooley, principal, Milwaukee, Wis.

"The Natural Growth of Industrial Education"—Frank M. Leavitt, associate professor of industrial education, University of Chicago, Chicago, Ill.

At the close of the program, a business session was held, at which, after a full discussion, it was voted to instruct the chairman to recommend to the business meeting of the Association the change of name of the department, of which notice had been given a year ago, from the present name, "Department of Manual Training and Art Education" to "Department of Vocational Education and Practical Arts."

FIFTH SESSION—THURSDAY FORENOON, JULY 9, 1914

HOUSEHOLD ECONOMICS SESSION

The program of this session was arranged in co-operation with the Amercan Home Economics Association.

The session was called to order in the large hall of the Masonic Temple at 9:30 A.M., by Grace M. Shepherd, state superintendent of public instruction, Boise, Idaho.

Louise McDanell, department of home economics, University of Minnesota, St. Paul, Minn., was appointed secretary *pro tempore*.

The following program was presented:

"The Renovation of the Home thru Home Economics"—Alice P. Norton, dietitian of Cook County Institutions, Chicago, Ill.

"Woman's Noblest Calling"—Mary F. Rausch, director of home economics, University of Washington, Seattle, Wash.

"Home Economics in the Islands"—Miss Ferguson, supervisor of home economics, Porto Rico.

Short discussions on the relation of home economics to the other work in the schools were given by the following; Susan M. Dorsey, assistant superintendent of schools, Los Angeles, Cal.; Minnie Coulter, principal of Lincoln School, Santa Rosa, Cal.; Louise McDanell, department of home economics, University of Minnesota, St. Paul, Minn.; and David Snedden, commissioner of education for Massachusetts, Boston, Mass.

SIXTH SESSION—FRIDAY FORENOON, JULY 10, 1914

The department met in joint session with the Departments of Science Instruction and Secondary Education, and was called to order by President Williston, in the Madison School, at 9:30 A.M.

The following program was presented:

"The Adjustment of the High-School Curriculum to Modern Needs"—John H. Francis, superintendent of schools, Los Angeles, Cal.

"The Tendencies and General Status of Courses in General Science"—William H. Timbie, head of department of applied science, Wentworth Institute, Boston, Mass., and Fred D. Barber, professor of physical science, State Normal University, Normal, Ill. (For these papers, see Department of Science Instruction.)

"Applied Science—Its Relationship to Shop Work and the Rest of the Curriculum in an Up-to-Date Technical High School"—Adelbert H. Morrison, head of science department, Mechanic Arts High School, Boston, Mass. (For this paper, see Department of Science Instruction.)

Discussion: P. P. Claxton, United States commissioner of education, Washington, D.C. (For this discussion, see Department of Science Instruction.)

SEVENTH SESSION—FRIDAY AFTERNOON, JULY 10, 1914

MANUAL TRAINING SESSION

The meeting was called to order by Wilson H. Henderson, secretary, Western Drawing and Manual Training Association, Hammond, Ind.

The next topic under discussion was: "Manual Training Appears in Current Courses of Study in Elementary Schools, Intermediate Schools, and High Schools, and Is Taught Apparently with a Variety of Aims—(*a*) For Developing an Appreciation of Form, Proportion, and Nature of Materials; (*b*) For Giving Insight into Industrial Processes and Activities; (*c*) As a Sense and Motor Training, and for the Developing of Executive Faculties; (*d*) To Give an Increased Feeling of Reality to the Entire Curriculum."

A paper on this topic, entitled "How May These General Aims Be Best Conserved?" was read by Milton C. Potter, superintendent of schools, Milwaukee, Wis.

In the absence of the author, J. A. Webster, East Technical High School, Cleveland, Ohio, the concluding paper of the session, on "The Value of Printing in the Public Schools," was read.

At the close of this session, a business meeting was held.

It was moved and seconded to continue the Committee on College-Entrance Requirements, with the request that, where practical, it co-operate with other bodies interested for the fuller recognition in college-entrance requirements of the subjects in which the department is especially interested.

The report of the Committee on Nominations was presented, as follows:

For *President*—Arthur H. Chamberlain, secretary, California Council of Education, San Francisco, Cal.

For *Vice-President*—Martha Van Rensselaer, president, American Home Economics Association, and professor of home economics, Cornell University, Ithaca, N.Y.

For *Vice-President*—Carl N. Werntz, president, Chicago Academy of Fine Arts, Chicago, Ill.

For *Recording Secretary*—Wilson H. Henderson, extension division, University of Wisconsion, Madison, Wis.

For *Corresponding Secretary*—Florence Marshall, principal, Manhattan Trade School for Girls, New York, N.Y.

These officers were unanimously elected.

WILSON H. HENDERSON, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

STATEMENT IN REGARD TO THE WORK OF THE COMMITTEE ON VOCATIONAL EDUCATION AND VOCATIONAL GUIDANCE

ROBERT J. FULLER, SUPERINTENDENT OF SCHOOLS, NORTH ATTLEBORO, MASS., CHAIRMAN

The Committee on Vocational Education and Vocational Guidance was appointed as a result of resolutions passed at the Chicago meeting of the National Education Association. This committee, therefore, is responsible to the general Association for its acts and deliberations. Last year it made its report before the general meeting of the Association, received approval for its work, and was granted an appropriation to continue its work. Later it was found that the finances of the Association were such as to cause a lessening of the amount appropriated.

One meeting was held during the year at Grand Rapids at the time of the meeting of the National Society for the Promotion of Industrial Education. Eight members of the general committee were present and a vote was passed authorizing the chairman to appoint a subcommittee, which subcommittee was to assign the work.

At a meeting of this subcommittee held in Boston in December, it was voted to separate the work of the year into two parts. The first was to be the preparation of a terminology in vocational education. This work was assigned to Commissioner Snedden and the chairman of the committee. The second part was the preparation of two questionnaires. This work was assigned to the chairman of the general committee and four other members.

On behalf of the committee, I am pleased to report that a terminology in vocational education has been prepared, with the idea of placing before the country certain definitions together with illustrations which would be of value in the consideration of any form of vocational education. This terminology will also make it possible for those discussing vocational education in any of its phases to base such discussion upon the same meanings of the terms. Your committee does not intend that this terminology shall be in the nature of a fiat. It rather has intended that it should help to clarify the situation in regard to terms used.

I am pleased to report also that two questionnaires were prepared by this committee. The first was sent to a small group of persons—ninety in all—including the past presidents of the National Education Association, the United States commissioner of education, several state commissioners of education, and others interested in the welfare of the National Education Association. This questionnaire established the fact that these persons, at least, believe that there is a definite field for the work of this committee.

After summarizing these results, a second questionnaire was prepared which was sent to a still larger number of the members of the National Education Association. While the results from these questionnaires cannot be regarded as conclusive, they nevertheless indicate the tendencies. These questionnaires, together with the summaries of replies and a special study of the second questionnaire, appear as a part of the preliminary report of this committee. This report will be distributed at the annual meeting of the Association.

This committee regards as its next duty the preparation of a handbook upon vocational education. Such handbook will contain the following chapters:

1. The terminology of vocational education.
2. Directory of schools and forms of vocational education.
3. An evaluation of industrial schools already established.
4. A selected bibliography of literature pertaining to vocational education, contributed either by the United States Bureau of Education or by the National Society for the Promotion of Industrial Education.
5. Proposed methods and forms for the organization and administration of vocational schools. These to be contributed, if possible, by the National Society for the Promotion of Industrial Education.
6. Discussions of problems of finance in vocational education.
7. Ways to meet the practical problems which arise in the processes of inauguration of successful schemes of vocational education.
8. Discussion of questions and issues unsettled in regard to vocational education.

Your committee believes that there is a definite call for a continuance of the work of the committee, and that, for the purpose of continuing its work and for the preparation of the handbook indicated, it will need an appropriation of three thousand dollars ($3,000.00).

You committee will be very grateful to this department for any assistance it may render in the further prosecution of its work.

THE ECONOMIC SIGNIFICANCE AND RELATIONSHIPS OF VOCATIONAL EDUCATION

JOHN A. SEEGER, PRESIDENT, SEEGER REFRIGERATOR COMPANY, ST. PAUL, MINN.

We are living in an age when, in order to be successful in business in almost any department of life, we must be practical and have a thoroly conversant understanding of that business. In fact, it may be said that today one must be an expert in his business, so as to be able to cope with the sharp and keen competition offered on all sides.

The average boy or girl on leaving school is not sufficiently equipped or instructed to know what he or she is best able to do, and, in consequence, takes the first job or employment offered that will help toward support, then drifts along from one occupation to another, in many cases becoming

either a common day laborer or a human machine in some factory, running a particular machine and doing the same kind of work day in and day out.

Large sums of public money are being spent for the education of our young men and women in professional and scientific callings, and only a small amount, comparatively, for instruction along mechanical and domestic science lines. I believe it is necessary and advisable, however, that practical instructions, with the use of hand tools only, be given in the grade schools, beginning with the sixth grade, so that when boys or girls are compelled to leave school after graduating from the eighth grade they will at least have learned how to use their hands, as well as their brains, and also will be able to read, write, and spell correctly.

There should be in every city at least one or more separate schools for boys and girls of a mechanical bent of mind. The time of instruction should be so divided that reading, writing, spelling, arithmetic, geography, and grammar can be taught, and the balance of the time given over to instruction in the practical mechanical courses in the trades and to domestic science. And in these schools only men instructors should be employed to teach men's work, taken from the particular trade they are to teach; and women instructors for women's work, taken from their particular vocation, whatever it may be, to teach that particular trade or calling such as cooking, housework, sewing, millinery, etc. Women should not be employed to teach how to do carpenter work, blacksmithing, machinery-work, sheet-metal work, etc. Nor should men be employed to teach how to do cooking, housework, sewing, trimming of hats, etc. That would be absurd.

I do not advocate the use of any piece of machinery or machine tool in the grades—only hand tools. Let machine tools be used in the high-school mechanical courses for those boys and girls who are fortunate enough to be able to remain at school long enough to enter these courses. My reasons for recommending the employment of only practical mechanics, men and women to teach the trades, are based on the experience of the Builders' Exchange in conjunction with the Board of Education of St. Paul, who, at their own expense, financed a class of one hundred boys for one year; and also on the experience of the St. Paul Institute in its evening industrial classes in connection with the Builders' Exchange. At first, instructors were taken out of the regular corps of teachers employed during the daytime in the Mechanic Arts High School. The result was that it was almost impossible to maintain interest enough in the classes to pay the instructors, the final result being that, at the end of the school term, all of the industrial classes showed a financial loss. The following season we first organized the classes according to their vocation or trade, and then selected the instructors out of the various shops, factories, and industries, the result being that the classes grew so large in number

that assistant instructors had to be employed. At these evening industrial classes, there were fourteen different branches of trades taught, each in charge of a man who had actually learned the trade and who was thoroly in earnest and skilled in that particular trade. As the classes grew in number, assistants were employed, until finally a total of about eight hundred scholars were being taught in the fourteen classes. At the end of the term, instead of showing a financial loss, there was a handsome profit on the right side of the ledger account.

I believe practical instructors in the grades are a necessity, for the reason that over 90 per cent of those attending school leave after finishing the grades, and fewer than 5 per cent remain long enough to complete the high-school courses. It may not be possible to employ practical mechanics in all the grades. If there are no separate trade or vocational schools in the city, then those teachers or instructors who are so employed, both men and women, should try to school and inform themselves along the lines of instruction for which they are employed by visiting factories and the various industries. In this way, they may become familiar with the various vocations in which they are to give instructions, and thus make the vocational classes interesting as well as instructive.

Men and women with trades are more likely to be self-supporting and to make good citizens. Statistics relative to inmates of penal institutions and of those for defectives show that but a small percentage of such persons are tradesmen. The great majority are men and women without any particular training that would fit them to start in life with a fixed aim or purpose. Furthermore, there is an ever-increasing demand for skilled mechanics in every industrial calling. Over 90 per cent of the mechanics in this country are foreign born.

The salaries or wages paid our teachers or instructors in the industrial courses are not enough; they must be raised or we will never be able to hire competent men and women to instruct, for today the wages of skilled mechanics are considerably higher in this market than are the salaries paid to teachers and instructors.

There should be uniformity in the instruction offered in all the grade schools and high schools. The courses in the grade and high schools should be correlated, so that the student leaving the grades could continue in the high school without serious break. As it is today in many cities, there is no direct connection between the grades and the high schools.

There should be a supervisor or superintendent in charge of this particular branch of instruction. A part of his duties should be to maintain an industrial guiding bureau, thru which students leaving school would be directed to positions which their particular ability would best fit them for, the idea being to have students, when leaving school, register at the bureau, stating their particular qualifications, and then to have business men apply there when in need of help.

It should also be the duty of the supervisor and of the individual instructors to keep watch of each student and see that no student be allowed to continue along certain lines of trade that he or she may not have a liking or talent for. In such cases these students should and must be transferred to other trades for which they may possess particular talent.

No person, man or woman, can ever become skilled or expert in any trade or profession if he is obliged to learn it against his will and natural inclinations. This phase of character and disposition should not be lost sight of, and the student should be changed from one trade to another until finally the correct and most natural vocation for him is discovered. So many boys and girls do not at first know themselves what they want to learn and follow thru life that this particular feature is most important.

Finally, I believe that every state in the Union should maintain, in connection with its universities, normal schools, or otherwise, a regular trade school. This school should be similar to the so-called *Gewerbeschule* in Germany. In it, at a slight cost, or, better yet, entirely free, all the mechanical trades and domestic sciences should be taught, so that skilled mechanics could be created. If this were done, and I firmly believe it will be done in the near future, then Germany, when it again sends an educational commission to this country, as it did in 1904 to study the school exhibits at the St. Louis exposition, will receive a different report. In 1904 the commission reported America to be abundant in resources, filled with energetic and exceedingly quick-witted and resourceful people, who would have to be reckoned with sooner or later in their commerce and trade relations with foreign countries, but that, for the present, Americans were so seriously handicapped in their vocational and educational institutions that Germany need have nothing to fear from them for some time to come.

Let us change this situation—I am glad to say that since 1904 there has been a change—so that the next report will say that the time has come when Germany must sit up and give us attention. Now we are competing along trade lines in all foreign countries, and, with the completion of the Panama Canal, I believe Germany has seen its best day in all South American countries. Give us ten years more and we will have demonstrated that the American people are the most progressive people on earth.

VOCATIONAL EDUCATION—ITS SOCIAL RELATIONSHIPS

HELEN L. SUMNER, INDUSTRIAL EXPERT, CHILDREN'S BUREAU, WASHINGTON, D.C.

In considering the social relationships of vocational education, it is necessary to ask three questions. First, interpreting the word "social" to be the adjective formed from the word "society," What is or should be the

end and aim of society? Second, What is or should be the end and aim of vocational education? And third, What relation exists between the end and aim of society and that of the vocational education movement?

As for society, various words and phrases have been used by different writers in an effort to tell us what is or should be the end of our common efforts, the thing above and inclusive of all others that we should recognize as our goal. But probably no statement of the end and aim of society is so likely to obtain general agreement as that given by James MacKaye in *The Economy of Happiness*, which is that "society should seek to attain the maximum surplus of happiness"—not the happiness of individuals as such, but the greatest possible sum total of happiness of which living human beings are capable. This means, not the development of selfishness, but the development of the highest type of altruism. For, to attain "the maximum surplus of happiness," the individual must sink his interests wholly in those of his fellow-men, must give into the common pool all the results of his best endeavors, and be content to receive back only so much of individual happiness as it is to the interest of society as a whole that he should possess.

The happiness of society is obviously the sum total of the happiness of the human beings who constitute society. But, also obviously, the interests of individuals may be opposed to those of society as a whole. For example, it may be to the interest—possibly only to the apparent interest—of employers in certain classes of industries that we should have in this country a reservoir of ignorant, unskilled laborers who in busy seasons may be called upon to work with pick and shovel for long hours and low wages, and who, at other times, may be cast adrift to shift for themselves as best they can, falling back, whenever the struggle proves too hard, upon the community. But is it to the interest of society as a whole that industry should be carried on in this wasteful fashion? Is it to the interest of society that great masses of people should possess so little skill that their human labor force is cheaper in dollars and cents than the machinery that might be used to do their work?

On the other hand, society must support the various institutions, from lodging-houses thru hospitals to jails, which are necessitated, in large part at least, by this great surplus of low-skilled positions. Society, in other words, bears the burdens and certain individuals reap the profits of a cheap, inefficient labor supply. Moreover, if we lumped together the happiness of employers and employed, would not the total, and therefore the maximum happiness of society, be far greater if the productive efficiency of all had been so developed, thru a thoro system of vocational education, that each one would have been able to stand wholly upon his own feet?

Furthermore, society is deprived of the increased productivity which would result from developing in each and every one of its individuals the greatest amount of skill and efficiency of which he or she is capable; and

the scarcity of skilled workmen who can command good wages, together with the superabundance of unskilled workmen who can command only the lowest rate of wages, furnishes a continual handicap to the increase in efficiency of production. The result is twofold. First, the rate of production is kept down, and society is the loser. Second, thousands of human beings who might be useful and happy citizens live and die in poverty and misery, and again society is the loser.

To take another illustration. Society is also the loser from child labor. If our industries were placed upon a socially efficient basis, child labor could not exist. For it is certainly not to the interest of society that little children should exhaust their vitality at the most critical period of their lives and should be forced into production with no equipment which can possibly render their labor effective either as children or as adults. There is, indeed, probably no phase of business activity to which society, in its own interest, could apply scientific management with more telling effect than to the employment of children. If we mean to conserve "the most fruitful of all natural resources," human beings, we should take our children out of industry, where they are learning little or nothing but the road to inefficiency, and should so educate them that each one will attain, as an adult, the greatest possible degree of usefulness of which he is individually capable—usefulness both to himself and to society as a whole.

Let us turn now to the end and aim of vocational education. "The most fruitful of all natural resources in any nation," as has been well said, "are the human beings who compose it." Now all education is, or should be, directed toward the simultaneous conservation and development of these human resources, the conservation of health and happiness and the development of potentialities of usefulness—usefulness of individuals not only to themselves but to others. Every child, then, should be so educated that he will attain, as an adult, the greatest possible degree of usefulness of which he is individually capable—usefulness both to himself and to the community as a whole.

It has been said, however, that general education is primarily education for consumption. The unskilled workman resting on a park bench from his interminable hunt for a "job" may have been taught in school to read Longfellow and Whittier; but little good does such training for consumption of literature do him when his whole mind is atrophied by the desire of his stomach to consume food. The trouble is that, by ignoring education for production, we have, to a great extent, wasted the education for consumption which we have given.

In the past we have left training for specific vocations mainly to chance, and there have been very few chances, under modern industrial conditions, of children ever receiving any real training whatever. As early as 1825, a committee of the Massachusetts legislature, appointed to investigate the education of children employed in factories, recommended that an

institution be established "for the education of the laboring classes in the practical arts and sciences." Yet we are still working over the preliminary need for a terminology of vocational education.

Meanwhile the results of this lack of vocational training have been disastrous. Disregarding the past effects and all the train of evils which has been flowing along from generation to generation as a result of the neglect of this most necessary form of education, what are its present results? The average child who goes to work early, either because his parents have never been trained to fit into the industrial system or because the school does not give him the sort of education that he wants, drifts into the first "job" he can find, utterly regardless of whether or not he has any inclination or aptitude for the work and utterly regardless of whether the work offers any future to him as an adult. Having no preparation for any kind of work and no skill to lose, he drifts out of an occupation or an industry as easily as he drifted into it. Sometimes by absorbing all the information and valuable experiences he can get from a number of different occupations, positions, or employers, he acquires a smattering of an education which enables him to "find himself" industrially. More often he simply continues to drift aimlessly, giving up a job on the most trivial pretext and taking the next that happens to offer. In Chicago, a boy left a good job with a good firm and became a telegraph messenger because he did not like the shape of the packages that he was asked to carry. In Cincinnati, a boy employed in a department store "thought work would be too heavy during the Christmas holidays," so he quit his job—in June. More often the child gives as a reason for leaving, "boss is too cranky" or "didn't like the forelady." A Meriden, Conn., boy not yet sixteen years of age has held and lost or given up fifteen positions since he was fourteen. And a Baltimore girl had fourteen positions in exactly fourteen months. Having no training for any occupation whatever, no knowledge of the opportunities offered by the various industries, and no pride or pleasure in their work, children employed in our industries drift along with almost no aid or guidance from the higher agencies of civilization. Some of them, unusually endowed or unusually fortunate, are able to swim upstream. Some of them are drawn into the rapids of crime. A recent investigation made by the physician who was for years in charge of the hospital at the Wisconsin state penitentiary has shown that, out of 269 murderers in that institution, over 90 per cent went to work before they were fifteen. The vast majority of untrained working children, however, simply drift downstream into the ocean of unskilled labor.

A recent investigation made by Mr. Speek, of the Federal Industrial Relations Commission, shows that nearly all casual laborers began their industrial careers young, with no training for any specific vocation. Practically the only exceptions to this rule were a few foreigners who found, on

coming to this country, that the skill they had acquired in their native land was useless here owing to different methods of production. Thus, for individuals, vocational education necessarily tends to decrease the probabilities of misery and to increase the likelihood of happiness.

The end and aim of vocational education, however, is not merely to increase the income of individuals and so to increase their opportunities of utilizing their general education. Fundamentally the end and aim of vocational education is so to utilize the forces inhering in human beings as natural resources as to secure the maximum benefits for them and for society as a whole. The advantage to society of making a boy into a skilled mechanic instead of into a casual laborer is not merely that the mechanic receives higher wages than the laborer, but that the potentialities of productive efficiency are more thoroly developed in the mechanic than they are in the casual laborer—the mechanic not only *gets* more but actually *makes* more. To society as a whole, as well as to himself, the man who can build a chimney is more useful than the man who can only dig a hole.

Those to whom our schools give no training for self-support cannot, in this day of social consciousness, be blamed when they fail to support themselves. There is no use in trying to classify such people into "unfortunate" on the one hand, and "unemployable" on the other. Most of them are simply uneducated, and for that we who call them names are responsible, because, out of our wisdom, we have provided them with a little training for the consumption of poetry, but with none for the production of utilities which would yield to them a bread-and-butter income and to society a surplus of consumption goods.

Vocational education cannot do everything, but the wastefulness of our modern society is without doubt due in large part to the lack of such education. It is, therefore, distinctly in the interest of society that the unskilled laborer shall be abolished, and that all men and women, not too defective either physically or mentally, shall be trained to be self-supporting in some useful occupation.

In still another way, moreover, vocational education is calculated to increase the happiness of individuals and thru them the happiness of society. For the joy of work which results from the consciousness of efficiency is the highest form of individual happiness. The value of vocational education as a means of enriching the life of the individual and of the community by developing pleasure in good workmanship, originality, critical judgment, and respect for one's self and for one's occupation cannot possibly be overestimated.

Ultimately, therefore, vocational education is designed to make the individual more efficient in producing happiness, both for himself and for society as a whole. Years ago, after a long and bitter struggle, the principle was established that education was not merely a private affair but was of vital importance to society, and should, therefore, be furnished at

public expense. Now, at last, we are beginning to realize the absolute necessity of advancing still another step away from the individualistic, egotistic ideas of the past by broadening out public instruction to include, not merely general education, for personal enjoyment, but definite training for productive work, for usefulness to society. Thus, gradually, step by step, we advance toward the practical application of those socially conscious, altruistic ideas without which society can never attain that "maximum surplus of happiness" which James MacKaye calls the goal of human endeavor.

PRESIDENT'S ADDRESS

SHOULD MANUAL TRAINING AND TECHNICAL HIGH SCHOOLS ABANDON THEIR GENERAL AND COLLEGE PREPARATORY AIMS AND BECOME EFFICIENT SECONDARY SCHOOLS OF APPLIED SCIENCE?

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During the past few years, there has been a distinct and rapidly growing tendency to make education of all kinds fit more accurately probable life-career needs. Thoughtful men everywhere, not only in America but in every civilized land, have been giving to this matter a degree of serious attention such as was never given to it before; and the conviction has been growing that school training need lose nothing of its general educational value and might gain immeasurably in many ways if it were connected much more definitely with the after life of the boys and the girls for whom it is planned.

If we are all prepared to concede that there will be a very great gain when school training is more definitely connected with the after life of the persons for whom it is planned, then it becomes of very great importance to have some clear notion of what the after life of those young people will be.

We shall find that the boys who enter manual-training and technical high schools are divided into the three following groups:

1. Boys who expect to continue their formal education after they leave the high school.
2. Boys who have formed no plans regarding the probable character of their future occupations.
3. Boys who have at least general plans regarding the probable character of their future vocations.

For boys who expect to continue their formal education after they leave the high school, either in college or elsewhere, a manual-training or technical high school obviously cannot be so serviceable as a well-planned general or college preparatory course. Even for those boys who plan to enter schools of engineering this would be true, for the directors of such schools are well

agreed, I believe, that the preparatory training for their work should be broad and general, strong in languages, literature, pure mathematics, and the general laws and principles of science, but not highly specialized.

For the boys who have been unable to form any plans regarding the nature of their probable future occupations, for the boys who have not "found" themselves, and who have not discovered the direction in which their powers and abilities lie, the training that is needed, of course, must be general.

The only boys, therefore, who should enter the technical high school are boys who have more or less well-formed plans regarding their vocations, and who believe that a training offered by such a school will be suitable for their preparation. If technical high schools would eliminate their more general and college preparatory aims and confine themselves exclusively to the task of furnishing suitable preparation to this group of boys for their life work, I think there can be no question but that their efficiency would be immeasurably enhanced.

Unfortunately a great majority of the secondary schools of the United States that are known as manual-training and technical high schools are very far from this ideal. Whatever may have been their original plan and purpose, at the present time they do not differ in any important educational particular from the general high schools. I mean by this that they receive the same class of pupils, of the same age, and the same preparatory training, with no attempt at differentiation as to the purpose in life or natural aptitudes; and they develop in them the same type of intelligence, the same habits of thought, and the same kind of abilities as do those schools which pride themselves on being primarily college preparatory institutions.

It is true, of course, that certain branches of shop practice and mechanical drawing are taught, but the main purpose of this instruction, so far as one can observe, is almost identical with that of the avowedly college preparatory courses; for example, in history, geometry, or language. The resultant is training in memory, in deductive reasoning, and in critical discrimination. Almost every shop teacher in the high school prides himself on the fact that his courses develop this kind of purely intellectual faculties just as well as do those of any other teacher in the school.

I do not wish to be understood as opposing the college preparatory work or intellectual training of this kind. It is, of course, important that every city should provide abundant opportunities for it for those boys and girls who are going to go to college or who have no plans; but I am urging a different kind of training for boys who look forward on the completion of their high-school work to industrial careers or to occupations directly or indirectly related to industry.

If such differentiation is made for the manual-training high schools, it will give a new definiteness of purpose which would help tremendously in unifying and vitalizing all of the instruction. The changes involved are

primarily changes in emphasis. In a multitude of details the instruction will be given a totally different point of view. Instead of placing emphasis upon the development of memory, of the faculty of deductive reasoning, and of critical discrimination, the emphasis will be placed upon the development of quite a different set of faculties which are ordinarily little thought of in school. With the new viewpoint there will be special effort to develop in the pupils the faculties of intuition, mechanical judgment, self-confidence, persistence, quick response in unusual circumstances, ability to discharge responsibility and reliability, the habit of co-operation with others, knowledge of men, knowledge of industry, leadership and the habit of accomplishment, and the habit of inductive reasoning; for these are the qualities that count toward success in organized industry.

I think that one of the principal reasons why manual-training and technical high schools in the United States have become so academic in their point of view and in their instruction—even tho a considerable number of them started out with quite a different purpose—is because the advocates of practical training have placed too much emphasis upon the shopwork. Important as the shopwork is, it should never be made, in a high school, the predominating feature.

Overemphasis upon shop courses naturally tends to give the impression that the school aims to be a trade school, which, of course, is wrong. Experience has abundantly proved that boys who attend high schools will not enter mechanical trades for their life work. Even tho sufficient instruction in shop practice were given in the manual-training high school to produce a degree of skill in the pupils equal to that of the journeymen in the trades, the school could not be a trade school, for the reason that its graduates will not earn their living as trade workers. The trade school idea, therefore, even as a secondary aim, should not control.

The purpose of the manual-training high school and technical high school, if they have a place of their own in our educational system, is to train the non-commissioned officers for industry. Persons interested in these schools have often failed to appreciate the importance of this group of responsible positions which lie midway between those of the highly trained engineers and captains of industry who direct affairs from the top, and those of the skilled journeymen who do the actual work with their hands. Too much emphasis cannot be placed, I believe, upon the idea that the practical work of the type of schools that we are talking about should be directed exclusively toward the training of persons for positions of this intermediate grade, that is, the positions of the "non-commissioned officer" grade. These schools are not elementary schools, and the trade idea, I repeat, should be absolutely forgotten. They are not schools of collegiate grade, and the aim should be quite distinct from that of the engineering school. They are secondary schools which occupy a field exactly half-way between these two extremes.

In the trade school, the first emphasis is placed upon actually doing things in the shop. The related technical and applied science instruction is important, but it is kept secondary in emphasis and in the proportion of time allotted to it. In the college of engineering, on the other hand, the instruction is almost exclusively in applied science. The emphasis is placed entirely on this side of the work and on the acquisition of the scientific point of view. The shop practice is a very incidental feature. It is clear, then, that the manual-training high school or secondary technical school, if it is to occupy its proper place between these two extremes, should place far more emphasis than at present upon applied science instruction. Shop practice should be kept, as at present, much more important than it is in the engineering school; but of still greater importance—or at least of equal importance—both in emphasis and in allotment of time, should be the applied science instruction.

Under this heading of applied science instruction, I would include not the usual types of college preparatory physics, chemistry, etc., but new courses of a totally different type. They should begin at the beginning of the first year and continue thruout all four years. In general, they should occupy, I believe, at least one-third of the entire time in the curriculum. Every individual in practical life, especially if he is engaged in any kind of work related to industry, would profit by some definite ideas regarding the common everyday effects of forces. From the two or three simple laboratory exercises usually given in the college preparatory course of physics, performed on trivial apparatus, and with nothing to suggest the practical applications of the principles involved, the pupil gains but little real information. He does not understand that the slight cord or suspension rod and the delicate scale band and weights may be replaced by the cables and steel girders, the massive loads of real structures. The exercises appear to him most abstract and often meaningless. Therefore, for pupils in the practical arts high school, who may never have an opportunity to study applied science in higher institutions of learning, there should be provided instead laboratories filled with all kinds of simple belted and geared machines with pulleys and shafting, with jackscrews and hoisting tackle, with large-sized working models of actual working structures, such as cranes and derricks and shear legs, with models of arches and girders and bridge trusses, etc. These should be large enough to inspire the respect of high-school boys and strong enough to permit their being loaded with weights of respectable magnitude.

The mechanics of moving bodies, and the relation of motion to the forces which cause it, are equally important. When we consider the extent to which modern civilization is dependent upon machinery and motion, there is no need of argument to show the importance of this feature of science instruction in the practical arts school. Laboratories should be equipped with suitable full-sized apparatus to demonstrate the driving

forces on shafting and gears, belt tensions, speed changes, the use of the flywheel and of unbalanced moving parts, brake forces for stopping machinery, the time limit required for getting it under way again, the forces involved due to the inertia of matter, and ideas of work, energy, power, and efficiency. All these principles should be made very definite and clear and their everyday applications to the common things in life and in industry with which the boys are familiar should be illustrated again and again until they are thoroly understood.

The applied science instruction in the practical arts high school, however, should not be limited to the study of mechanics and dynamics. It should include also the strength and properties of materials, their origin, their history, their manufacture, and all their useful properties. It should take up pumps, water motors, and hydraulics; it should also include the mechanism of machinery, steam generation and steam boilers, heating and ventilation, gas engines and air compressors. There should also be practical study of dynamos, motors, transformers, telephones, wireless equipment, etc., and the practical applications of chemistry in common chemical industries.

Of course, I do not mean that these topics should be studied with the same kind of thoroness with which they are taken up in the engineering colleges. Latin and economics are studied in the university but they are also studied in the high school. The school of practical arts or secondary school of applied science should, in like fashion, take up the technical subjects which are of such far-reaching importance in modern civilization, simplify them, and adapt them to the needs of secondary-school pupils.

To make the typical practical arts high school of the present day into a thoroly efficient secondary school of applied science, therefore, the following changes are, I believe, essential:

First: All foreign language must be dropped, because it develops memory rather than inductive reasoning and constructive imagination; because it means dissipating energy over too many different kinds of unrelated subjects in place of gaining efficiency by concentration upon a few; and because the time devoted to it is needed for applied science and technical instruction which is more directly in line with the purpose of the school and which connects more directly with the after-life of the boys.

Second: The practical arts school should absolutely disregard college-entrance requirements and the kind of textbook study and methods of instruction which we are in the habit of associating with college-entrance work and with ordinary high-school teaching. The instruction should be almost exclusively given by the laboratory method.

Third: Care should be taken to see that only such boys are admitted to the school as have some reasonable likelihood of entering occupations directly or indirectly related to industry after they leave the school.

Fourth: The school day should be lengthened in order to provide time for new types of laboratory work and more constructive drawing and design.

Fifth: The time schedule and the curriculum should be divided substantially as follows:

One recitation and one double laboratory period every day during the entire four years should be devoted to applied science and its applications to the various departments of industry. At least a double period every day should be devoted to shop practice and drawing, and, in the latter part of the course, even more time should be found for constructive drawing and genuine design. The balance of the time should be divided among English, history, economics, and pure and applied mathematics.

Sixth: The backbone of the school curriculum, the thing that gives it its prime interest, power, and vitality, should become the applied science and the applied science laboratory. *It is not the actual doing of things nearly so much as it is the discovery of the "whys" that underlie industry that gives fascination and interest.* It should be the aim of the school to fit its graduates for the subordinate positions of responsibility in industry, for the positions of the "non-commissioned officer," as the engineering schools fit men to become "captains" of industry. The spirit of the entire curriculum should be that of experimentation and investigation, trial and test, as a necessary foundation for economic production of surpassing excellence and efficiency.

VOCATIONAL EDUCATION—ITS TERMINOLOGY

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I do not think it will be expected that such a paper as this shall extend to great length. Neither do I hope that any definitions set forth will have the finish and quality which might be expected of the lexicographer. I shall hope, however, that the classifications and distinctions may, in general, be accepted as sound. I shall be contented to let time and the polishing effect of use establish their verbal form.

In beginning the discussion, it seems necessary to pay some attention to some terms which are frequently misused either in connection with vocational education or in common speech.

Manual Training is often spoken of as tho it were vocational education, and many persons seem to think that vocational education consists in manual training. Manual training is the name properly given in non-vocational schools to those exercises which involve the use of the hand. Manual training gives some hand skill in the use of hand tools as used in construction and in the arts of representation; but its purpose is purely educational, and any skill thus attained is incidental. The training is intended to give a better all-round development of the brain and the other

bodily organs and is not intended to prepare for, or lead to, any particular employment or vocation in which hand skill is required.

Industrial Education is sometimes vocational and sometimes non-vocational. Speaking here of that which is non-vocational, such training usually involves a considerable amount of manual training of various kinds; it also deals with other processes and information relating to, or dealing with, industries. Such training may serve merely to make the student generally intelligent or more intelligently interested in industry, or it may serve to show him whether he has taste for such employment and such ability in this direction that it seems advisable to choose some special part of that field as a vocation. But such industrial training is not intended and does not serve to fit the student for any particular employment or vocation.

Vocational Education is to fit and train students for particular vocations or employments, usually to be followed as a means of livelihood. Some kinds of vocational education have long been recognized as a proper part of an educational system.

Professional Vocational Education has long been carried on in the universities and professional schools in fitting doctors, lawyers, theologians, and engineers for their future careers. Architects, artists, and musicians enjoy these same advantages.

Commercial Vocational Education has now been completely recognized as necessary. Commerce among us is easily separated into two parts—that which deals with exchanges of products and values, and that which has to do with recording those exchanges or transactions. Our secondary and higher schools in thousands of cities train students for commercial vocations. Our high schools have so far concerned themselves chiefly with training for the recording of commercial exchanges and transactions; they send out competent stenographers, bookkeepers, and cashiers. Our higher schools also give ample education in the organization of commerce, the sources of its materials, and the conduct of its exchanges and transactions.

Industrial Vocational Education is a newer and more recently recognized responsibility of the schools. Until within a generation or two, this kind of education was given at the forge, the workbench, the loom, the potter's wheel. It is not necessary to discuss the causes of the change in the situation; suffice it to say that today few deny the necessity or the practicability of giving to our youth in schools that education and training which are necessary to make them competent and skilled to enter industrial trades and vocations.

Trade Education is the first form of industrial vocational education which claims attention. To some extent this education is still being given in shops and industrial establishments, where, by the time-honored plan of having the apprentice trained by the journeyman or the master-workman, or partly by this plan and partly by schools or classes within the establishment for the education of their apprentices, the mysteries and the practices

of the craft are imparted; but conditions are such that the trade school, as a part of the public educational system, daily looms more important. It has been sufficiently demonstrated that trades both for men and for women can be imparted in a thoroly effective manner in well-conducted trade schools. The apprentice-students sent out are entirely competent to take up the work of the craft as beginning journeymen. There is no doubt that an increasing proportion of trade education will be given in trade schools.

Occupational Education is that training for certain work or certain operations or processes which are not extensive or comprehensive enough to constitute a trade or vocation, and yet for which training within their limited scope is necessary if the worker is to do well and prove a valuable and satisfactory employee. Training of this kind will ordinarily be most advantageously given in the plant where the worker is employed and where he is to be used. Training to perform a single process in manufacture, or a few simple connected processes, or to handle a machine or two or three related machines, is no complex or difficult problem; yet as trades are more broken up, and the work and the processes in manufacturing plants are more and more subdivided and specialized, and as more and more men are relegated to spend their time upon a single or a few processes, these little fragments of vocational training will become increasingly important and necessary, and, tho some of this teaching may constitute proper subject-matter for continuation school work, most good-sized plants at least will no doubt find it advantageous to do it within their own walls.

Agricultural Education is a form of industrial vocational education that each day assumes more importance. Formerly, like the mechanical trades, it was taught by a system of apprenticeship, informal, but not very different, in essence, from apprenticeship in the trades. Schools of agriculture, primary and secondary, are turning the occupation of the farmer into a skilled handicraft, involving a far greater modicum of scientific knowledge than most handicrafts; while higher schools of agriculture are training men as scientifically and extensively as for the heretofore recognized learned professions.

Pre-vocational Education is a term which has had very queer and varied uses. Correctly speaking, any education received before undertaking specific training for a vocation, in the elementary school, the high school, the college, is pre-vocational education. Industrial education, taken to obtain an understanding of the field of industrial vocations and to permit the student to decide whether he will select such a vocation, perhaps properly might be called pre-vocational. Certainly if this training should be found an asset, advancing the student on the way to a vocation, it would be such. In many instances, a plan by which dull or troublesome pupils are separated from their mates and allowed to putter with tools to amuse them and perhaps keep them in school has been called by this name.

Since this work has no definite purpose and leads to nothing concrete—serving generally the purpose of *busy-work*—the term "pre-vocational" given particularly to such a plan is clearly misapplied. In numerous instances, the term "pre-vocational" has been applied to schools or classes of elementary grade where pupils were receiving specific training for particular employment or jobs which they wished to get, or for which certain classes of employers wished to get them. Of course, such training could not in any case be in any real sense vocational, since such preparation could be only for certain operations or processes or tasks, never for any real vocation. A more proper term would be "pre-occupational," since the effect of this training could be only to relieve the future employer of such small training for the particular tasks, in preparation for work in his establishment, as would otherwise be necessary, and to render this child labor more immediately profitable to him; such training should certainly not be allowed to encroach upon the time and the studies of the elementary school.

Continuation Education becomes necessary when young people leave school prematurely to become wage-earners. Hundreds of thousands of them do so yearly, few with adequate preparation for the duties of life—either in the way of general knowledge and intelligence or in preparation for any vocation. From the nature of the situation, then, there must be both *Non-vocational Continuation Education* and *Vocational Continuation Education.*

Non-vocational Continuation Education is concerned with making up arrears in general education and in completing the equipment necessary for good citizenship.

Vocational Continuation Education deals first with *Trade Continuation Education.* Many young men who are apprentices or journeymen come into these schools to advance themselves in knowledge of their trade, both in collateral knowledge—the drawing, mathematics, and science which apply to the trade—and also in various special processes and the use of certain tools which they are delayed in reaching or cannot get in their own shops. Again, many youths wish to leave the job into which they have fallen, and numbers of these will take advantage of the continuation school to begin work in the acquisition of a trade which they desire to take up.

Continuation Occupational Education of industrial character is certain to have a very large place. Many of the smaller establishments cannot very well, and numerous larger establishments will not, do the teaching and coaching which these young workers need, either to improve their earning power in their present positions or to fit them for promotion to better jobs. For these the continuation school offers the best opportunity.

Commercial Continuation Education will be greatly in demand. This is needed to assist to better training stenographers, bookkeepers, salesmen, and saleswomen; also in helping into these, which may be considered real vocations, those youths who are working at mere "jobs" in which there is little

hope of future advancement. There is room also for occupational commercial work. Help can be given to those who are merely holding jobs to make them more efficient in their jobs or able to be advanced into better jobs.

Professional Continuation Education will be needed and demanded. No small number of young persons have aspirations to enter the professions even tho at present they are in commercial or industrial vocations or merely holding jobs. The continuation schools offer to all those who have courage and perseverance an open door, out and up.

Vocational Guidance cannot be far separated from vocational education. Information about occupations must be placed at the service of boys and girls and their parents to help them judge which vocations are worth entering. Information as to the boy himself may very well be supplied to him and to his parents, so that they may better decide which occupation he will be wise to choose. Such information and counsel are greatly needed also by those young people who have merely obtained jobs and need to choose and begin to prepare themselves for occupations or vocations which hold out some reasonable hope of future growth and advancement.

THE PLACE OF INDUSTRIAL EDUCATION IN A RATIONAL SCHOOL SYSTEM

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Time was when a discussion of the place of industrial education in a rational school system would have been attempted by anyone laying claims to an educational philosophy or posing as an expert. Today one pauses to ask the question as to what constitutes a rational school system and what industrial education comprehends.

Education as a science is every day moving forward. Discussion, however, moves in cycles. Today we have before us, in another form, the same question that confronted this department seventeen years ago at the Milwaukee meeting. Today we find ourselves in need of clear definitions as we did then. That we are moving forward is shown by the fact that the definitions of seventeen years ago do not square with the needs and practices of today.

The National Council of Education has, within a day or two, considered the relation of the cultural to the practical. A rational school system is, in the best sense, practical—not *mechanical*, but *practical*. The thing which has not and cannot have a direct relation to the life at school or the life following school is not practical. That which is practical, that is, useful in the best sense, is cultural. Use, in some form or another, determines culture. There can be no separation of the two.

A rational school system must fit for life. To do this it must be life and reflect life, here and now. A rational school system is one that, whenever a pupil leaves it, will send him out into the world able to utilize, to the extent of his capacity, that which he has learned. The school system that is so organized as to give to its pupils that which can be used only if they pass into an advanced school, grade, or year is not cultural.

Industrial education is practical education. Work that is offered as industrial, and that does not serve truly useful ends is not industrial. Indeed, much of our so-called manual training, manual arts, or industrial education is not industrial. It is given either with a view to fit the participant later to engage in similar work of a more difficult nature or with the idea that somehow the doing of the mechanical thing gets into the human system and becomes part of it. It circulates thru the individual much as the blood circulates and becomes part of the warp and woof of the mental and moral make-up. It supplies that which "book larnin" cannot supply, and by thus supplementing the "whole boy is put to school."

Truth to tell, there can be no rational system of education without industrial education. Just as history and geography and mathematics must be stripped of their outward forms, their technicalities, their husks, and attention given the fundamentals and worth-while parts, so in industrial education. "Canned" education has long held the center of the stage. "Canned" manual training is as deadening to any school system as is the memorizing of the names of the bones in the human body, the battles of the Revolutionary War, or in having upon the tongue's end the rule for least common multiple or greatest common divisor.

No school system can be rational that does not comprehend in its make-up, from kindergarten to college, real forms of industrial education. For boys, there must be working *in* wood and clay and leather and metal, not working *with* these materials. For girls the home economics group of subjects offers much greater opportunities for culture than does much of the work now given in the traditional lines.

Industrial work must be given in the lower grades. No place or time for it? Both place and time if much that is now required is eliminated. This elimination is not simply for the purpose of making room for something else, but because no system can be rational when cumbered by the outgrown and useless.

Many of us are still emphasizing so-called educational manual training, rather than real industrial education. To be educational we say the work must proceed in logical steps. It must merge gradually from the simple to the complex and allow for one exercise to follow another in regular order. No complete object may be attempted until the boy can saw to a line and fit a joint perfectly; until the girl has shown by a completed sample that she has mastered all the stitches she will be called upon to use. This is on

the theory that before a child can read a sentence he must be able to repeat the alphabet, or that before he can tell how many sticks of chocolate at five cents each can be bought for a dime, he must be able to recite the multiplication table forward and backward.

We need, in industrial education, the real thing, not the exercise or part of the thing. The child must not simply make; he must make something. We must hitch the work up with life-processes, with out-of-school activities, with other school subjects. We need to consult the needs and bent of the boy, the opportunities of the individual home, the conditions—industrial, economic, social, commercial, of the community. We need to take the long look. We need to stop teaching subjects. We need to teach boys and girls.

This means that a rational school system must be vocationalized. This does not mean it is to be commercialized or made mechanical. It does not mean that coin is pushed to the king row and culture given a setback. It means that there was never, as much as today, a need for real culture. It means that culture and accomplishment cannot be on opposite sides of the educational arena. It means that all boys and girls and all men and women are to be taught the dignity of doing worth-while things, of earning honestly their bread and meat, and of attaching due importance to those finer, richer qualities of life that come only with a thoro appreciation of literature and science and art and music. A rational school system is industrial.

DISCUSSION

G. W. A. LUCKEY, dean, Graduate School of Education, University of Nebraska, Lincoln, Nebr.—It may seem questionable to have an outsider break into this council of specialists. However, when we consider that we are all teachers with our hearts set upon the highest service, and that our special problem is the best development of individuals who are to form a constituent part of a democracy, we are not so far apart in our functioning as we may seem. Earnest men and women searching for the truth have many things in common. He who believes in the idea of service must learn to sacrifice self when that is essential to the highest service.

Our present school system is disappointing and is breaking up. It does not meet the needs of a democracy; neither was it established for such a purpose. In education from the first we have been borrowers of European models. We have reached a stage wherein we are able to walk alone and to create a public-school system which shall represent the highest expression of a true democracy. Such a system does not now exist, but why should a democracy accept as its ideal a system of education created to supply the needs of an empire where individuality is unknown and class distinction an essential part of the civilization?

We are ready to begin the building of this new system of education—one fitted to all the common needs of a common people. It must be worked out in harmony with the natural evolution of the individual, be well-rounded, complete, progressive, fitted at every stage to the developing instincts.

The aim of the teacher in a democracy must be to make men and women, not machines or automatons. Much of our present education tends to fit a man to know and to do

but a small part of any trade or industry. This is a narrowing process and undermines the very foundation of a true education. Besides, it contains a lurking danger that must in the end defeat the real purposes of a democracy.

We must not forget that the boys and girls we teach today will rule us tomorrow. Our aim must be individual development rather than efficiency. Efficiency means habits of skill, desirable, no doubt, in an adult. But habits mean fixed conditions, hence an enemy to progress and true development. In a democracy where every member has an equal voice in shaping the policy, we need a broader education than is necessary in those countries where the few think and legislate for the many.

We have neglected in our schools much of the practical and have given a supposed cultural that did not, and does not, function. We have awakened from our slumbers. Some say we must establish separate schools, which, of course, will, in time, bring about class distinctions. Others feel that it is wiser, at least during the elementary period, to have a common education for all. But, in the latter case, there must be a radical change in both the method and the material. It may be that the new system will incorporate so much of the industrial that it will be difficult to distinguish it from the present vocational. Nevertheless it will be adapted to the growing needs and development of the individual and have for its chief aim the making of men—men who are self-sustaining, self-directing, thoroly imbued with the dynamic idea of service.

In my judgment, the new school will relate more closely the practical and the cultural, making greater use of the three important stages of education: informal, formal, and the broader, richer, and more dynamic informal. The last covers the true vocational period of man's constructive life work.

The informal education which for centuries has been acquired mostly thru the various activities of the home has become so complex that it can no longer be so acquired. Besides specialization has made such changes in our social life that the children no longer see in the home the activities once engaged in by the parents. The schools must therefore come to the aid of the home in finding a way to place the child in touch with his social inheritance at the time when it will be most easily acquired.

These fundamental things necessary to the development of character and education, stated briefly, are: gardening, care of the body, cooking, cleaning, sewing, weaving, knitting, molding, modeling; constructive work with leaves, paper, cloth, leather, wood, metal; observation trips, care of animals, acting or dramatizing, story-telling, playing, drawing, painting, singing, etc. These activities may be greatly enlarged and should be taken up before, and continued along with, the second step, or formal education. Formal education should lead naturally into the purposive, constructive, vocational activity of after life. There should be one school for all at least for the first eight years; then there should be differentiation into the different activities which are to fashion the individuals more specifically for their life work.

THE NEED IN AMERICA FOR SCHOOLS OF APPLIED ART AND THE NECESSITY IN AMERICAN INDUSTRIES FOR ART LEADERS AND DESIGNERS OF THE HIGHEST GRADE

MAURICE I. FLAGG, DIRECTOR, MINNESOTA STATE ART COMMISSION, ST. PAUL, MINN.

German exports in one year—1913—amounted approximately to $2,000,000,000. Fifty per cent of this export was dependent upon "beauty" for its market value. A large proportion of this export came to the United States. This is the chief reason why America needs schools of

applied art and why American industries need art leaders and designers of the highest grade.

There have been coming into this country, for years past, certain trademarks—"Made in Germany," "Made in France," "Made in Sweden." These trademarks are doubly significant. They accompany products which are not only good in quality, but also good in design. American people have had faith in these products. The trademarks have carried a guaranty of beauty, as well as of usefulness.

What are we doing in the United States to meet this American demand for "export beauty products" from other countries? The answer is not difficult. The latest trade review says that American manufacturers cannot compete with the foreign-made products. This trade report is not altogether optimistic. It adds that here in this country we have not the workmen sufficiently trained to put into our products the very thing which has given intrinsic value—dollars-and-cents value—to the foreign-made products. Current trade reports say that it would be folly, in fact, dangerous, to adopt at the present time any such slogan as "Made in America."

We have come to recognize that beauty is an economic resource of Germany, France, and Sweden. In fact, most of the European nations have a national and industrial asset of beauty. This beauty is bringing millions of dollars into the coffers of European kingdoms, and, strange as it may seem, a large part of this financial tribute is being paid by good American money.

Forty years ago, directly following the Franco-Prussian war, Germany awakened to the fact that France was leading the world in the industrial arts, and that these industrial arts were netting for the French government one of its largest financial revenues. In forty years' time, Germany has perfected an industrial art program and has put this program into operation with such marked efficiency that she now leads the world in the industrial arts and their relation to manufacture. Why is it that a German craftsman can take a piece of wood, carve a toy soldier, make a "monkey-on-a-stick," in fact, make a mechanical toy better than workmen of other nations? It is because the German craftsman not only has been trained to adjust perfectly the mechanical arrangement of the "monkey-on-the stick," but he also puts "art" into the painting of the monkey's gay coat. He uses "art" in the carving of the grotesque little figure.

"To do anything well," says the German, "it requires training, and the one who most needs the training is the one who does the work." It is for this reason that the German government has provided trade schools, continuation schools, and industrial art schools to train boys and girls, in fact, to train anyone who has ambition enough to knock at the front door of a trade school and ask admittance. The result of this well-organized system of industrial art and its relation to manufacture is the answer to Germany's

industrial success. This close co-operation between manufacturer and the trade school has produced captains of industry with "art sense." These men go out into the industrial world, not only as leaders of industry, but as men who understand how to achieve the maximum economic value of Germany's resources.

If I seem insistent upon the problem of industrial art in Germany, it is because I am trying to point out to you what we here in America have not done. This industrial organization in Germany is a living example of what can be accomplished. It does not require one hundred years to put such a plan into operation, provided there enters into the plan a nation-wide spirit of co-operation. Right here has been one of our chief obstacles in this country. We have not had a definite program. Those of us who have had to do with art problems are not wholly to blame. We have had some very strong and potent forces that have not been wholly in sympathy with our "art point of view." Let us look for a moment at conditions in this country. Let us see if there is a demand for art schools. Let us study the problem of supply and demand. Let us look at the art phase of industry from an economic point of view.

We have had in this country for a number of years past three powerful forces, each one more or less diametrically opposed to the other. First, we have the public busy in a mad whirl for the almighty dollar, content for the most part with what the manufacturer produces—with the exception of the price. Any manufacturer will tell you his production is governed essentially by price and that the public is to blame. He says he has not time to "educate the public taste." Second, we have the manufacturer. He is concerned primarily with meeting the demand. His is a problem of production, and a production very often lacking in quality. He is concerned chiefly with machine-made products, and all of us know that the machine-made product has stifled the opportunities which were formerly afforded individual expression. How can any art be possible under such conditions? Third, we have a little group of workers who have adopted ideals of honest workmanship, efficiency, and beauty. They are willing to meet the demands of the public, but their art product cannot compete with the machine-made article. What is more, they say the public does not appreciate and will not pay their price. These workers are craftsmen who have stood fast and fought for their ideals, and, in the face of overwhelming odds, this small dynamic force has worked wonders with the manufacturer, the consumer, and the public taste.

Now in view of these conditions, I want you to remember that there is a demand on the part of the American public, and I have only to refer you to export products from other countries to point out clearly that the American people spend vast sums of money yearly to enjoy the beauty of this foreign-made product. It seems to me that this is a conclusive argument for schools of applied art and art leaders of the highest grade.

How shall we ever realize and put into operation a plan for the relation of art to American industry? Is it possible for us to demonstrate that art has a practical application and an economic value? Shall we continue to establish art schools, art museums, art societies, art commissions? Can we put into practice an industrial-art program whose scope shall be so great that it will reach out into the towns, cities, and communities and touch the lives of our American people?

When an art program is made effective, it will come from a demand on the part of the public. It is a problem of supply and demand. If we have not a demand, it is folly to advocate art. It sounds too much like "Art for Art's Sake." This is hardly consistent with our present-day machine-made products. "'Art for Art's Sake' is the most delightful occupation under the sun," says Denman Ross. He adds, however, that "it is the meanest business on earth." My frank and honest belief is that we have a demand. But something very radical must be done in order to bring our art schools and programs of applied art into closer contact with, into a more definite working relation to, the American manufacturer.

Many of our art schools in America at the present time are specialized institutions. A student is privileged to study this, that, and the other thing, according to his desire. The result is that he goes out from an art school as a specialist, without having had sufficient training in the subject of design. We have thought too little about design. It has been classified as one of the decorative arts and is often considered as a minor art. I think it is not too much to say that design is the general background for the industrial-art program of Germany. Our schools of applied art, yes, in fact, our schools of fine art—I object to this distinction between fine and applied art—should be more closely related. Every art student needs a general tonic. He needs a building-up process, and this is only acquired by a definite and substantial training in design.

It is said that most of the students at fourteen years of age, in the German industrial art schools, can draw, model, and design better than many of our drawing supervisors in this country. This is really something for leaders in the schools of applied art to think about. American manufacturers are in urgent need of designers, men and women trained in the practical arts—men and women who can create, who can make, who can supply, and who can originate ideas. We need more creative work in our general educational program. I do not think it is sufficient to teach a student to make a piece of furniture well. Technic is only a means to the end. If a student can create, can visualize, can design, and then put into practice this creative effort, then and only then has he begun to realize the true meaning of applied art.

If there is any hope for applied art in this country, we must combat the general impression that art is apart from everyday life. We must

demonstrate. We must prove conclusively that art is practical, that it has a dollars-and-cents value, that it is an economic resource.

It is well for us to look to Germany and study her trade schools, her vocational trade schools, and to see clearly the relation between these schools and Germany's industry. The interesting part of the industrial art training provided in Germany is that not only are her workmen trained efficiently, but they are given a background of theory and practice which produces a substantial sturdy German citizen.

Now what we need in this country more than anything else is a general program. The trouble is that each community, trying to meet its own individual needs, seldom realizes what its real needs are. We need co-operation; we need a community, a city, a state, a national program. The public needs to feel this program, it needs to experience in its own life the desire for better and more beautiful things. The manufacturer demands such a program and needs assistance—he needs it badly.

Germany has realized that beauty is an economic resource. She reasons briefly—better houses, better towns, better cities, community interest, civic pride—better people, better products. It is primarily an art problem.

I am not going to submit a program, altho I have one very clearly in mind. I am going to forecast, briefly, what I think should be done. A National Institute of Art and Industry should be the clearing-house of this educational program. (This is not, by the way, a new idea.) Each state should supplement this national institution by institutions of the same character devoted to the exploitation of their own resources along art lines. A State Commission of Art should be active in each state to render assistance and encouragement. This commission should be the state clearing-house. These industrial art and trade schools should reach out into the cities and towns and supplement the program of the public schools. Students should be made to feel that whatever art study they pursue can be carried on thru higher institutions—state, industrial, and trade schools—and finally thru this national institution, where vocations can be acquired whose backgrounds will be those of industry and beauty. American industry requires this program. The manufacturers demand it. There is such a school, I am told, planned for Minneapolis—the Dunwoody Institute.

Can you not see how such a program in co-operation with manufacturers and trades unions, the producers and consumers, will produce leaders who will more fully understand and grasp the needs of the employees—who will realize the maximum possibilities of our resources? Our programs for civic beauty and civic righteousness will be far more effective. Public parks and playgrounds will not come from private subscriptions, but a great public demand will arise for the "beauty of life and living." A spirit of art industry will develop which can be fostered and made to compete

with foreign-made products. We have been groping around without organization, with little financial assistance, and with little or no encouragement on the part of the nation or state.

There is at the present time an awakening in this country. I, for one, am optimistic about this awakening. I feel confident it is going to produce results. Our American people are coming into a vision; they are realizing more clearly the need for art industry in the future. We are beginning to understand that the beauty of life and living is primarily a problem of efficiency.

Efficiency means organized skill and systematized knowledge. It means doing your work, whatever it is, just as well as it can be done. It means that, thru this work, whatever it is, the individual shall experience the greatest amount of happiness—beauty—and that he shall not only experience happiness but shall put beauty into his work. This is what has made Germany industrially successful; this is what has made art an economic resource, a dollars-and-cents problem, a practical application in many foreign countries.

When applied art in its relation to American industry can be made to fulfil the greatest need of the greatest number of people, then art will approximate its true function.

ART APPRECIATION FOR THE MASSES

ROBERT KOEHLER, DIRECTOR, MINNEAPOLIS SCHOOL OF ART, MINNEAPOLIS, MINN.

In spite of all that has been attempted in our country to raise education to a higher plane than it has been occupying for generations past, there is but little apparent evidence that the appreciation of art has made any substantial gain when compared with conditions obtaining in other countries. But this is neither strange nor so alarming as it would appear were we ignorant of, or indifferent to, the fact. Any system of education, to be effective, must grow out of, and adjust itself to, existing conditions. It must be both flexible and elastic and capable of absorbing the best that foreign systems may offer—but it should not everlastingly be subjected to experimentation in the application of its fundamental principles. This practice, as you are no doubt aware, is all too common with us. For instance, the average child is fortunate if it passes thru school with fewer than three "systems" of penmanship, without in any learning to hold his pen properly; and the present system in arithmetic seems to puzzle pupil and teacher alike.

It is a pleasure, however, to turn from these unpleasant observations to that branch of study which has probably had the hardest struggle to assert itself, and which, after being merely tolerated for many years, has

finally become firmly established as an important factor in the normal pursuit of a child's education. That is, the study of art. As long as school boards were allowed to imagine that the aim of the advocates of art in the school curriculum was to make an artist of every child, it was not surprising that a strong opposition should develop against its introduction or its retention. I trust and believe, however, that this false impression is a thing of the past, and that now the study of art has come to be recognized as an essential fundamental principle among the great problems of education. To class the study of art among the so-called fads is to betray an utter lack of knowledge of its very nature and purport. The end is and should be the development of an appreciation of beauty, as the choicest blossom of civilization, which we are constantly endeavoring to elevate and diffuse, in order to insure its blessings to ever-increasing numbers.

As long as we allow this to be the privilege of a chosen few, we fail to administer our trust justly and equitably. We are, indeed, guilty of depriving a large percentage of our children of their natural birthright. We should qualify them, as best we can, for the fullest enjoyment of life's varied possibilities. It is the province of art to furnish the most delightful part of such possibilities, but it is surprising to see what a vast number of people fail to recognize the true nature and the value to themselves of these same possibilities.

It would be easy, and, therefore, scarcely necessary, to demonstrate that the quest of beauty is inborn in man and becomes manifest in the most primitive of peoples. But it is less frequently acknowledged that the natural growth of its appreciation in our own community has remained a little behind the times, owing to the want of proper and sufficient nourishment during its formative stage. Still, the primeval longing has always existed and has led to the adoption of rather modest standards in the beginning, giving way gradually to higher ideals.

In the nature of things it cannot be expected that the highest ideals should appeal, or even be intelligible, to the majority; that need not worry us, as long as the smaller number is not discouraged from aspiring to the nobler purpose. The best that we can hope for is to encourage in the masses the honest desire to cultivate the latent ability to appreciate beauty. And by beauty, in this connection, I mean not only the attribute that charms the eye, but also that which appeals to our sense of hearing, and our capacity for purity and loftiness of thought. Upon a foundation thus composed it will not be difficult to rear a substantial structure of general art appreciation. To bring this about, therefore, let us bend all our energies toward the creation of such a base. We cannot begin with this too early in life. It is only the exceptional few, endowed with greater ability than the rest, who might be allowed to proceed beyond this point, under conscientious guidance, lest they be encouraged to rear a flimsy superstructure that would not stand the test of candid criticism.

In our eagerness to do the best by our tender charges, there is always the danger of overdoing it, of expecting more of them than the circumstances justify. There is a tendency to try to make them understand the deeper mysteries of the fine arts, instead of the beauty in practical things. We are prone to forget that the fine arts represent the highest development of artistic creativeness, to understand and to produce which thousands of years had to pass, leading mankind thru many stages of evolution, thru which, in a condensed form, the child's mind is likewise compelled to travel. And since there is also a striking analogy between the mind of childhood and the mind of the masses, it follows that the education of the latter should be undertaken in much the same fashion, and we must, in fact, exercise even greater patience and careful circumspection in order to insure the desired results.

I am making no distinction here between the fine and applied arts, for at bottom I consider them the same, with this difference, however, that, as an educational factor, the applied arts are really of greater importance in the beginning. Many young people gain just enough artistic ability to make them fit for some profession in which this could be put to good use. They can become excellent lithographers, commercial designers, sign painters, show-card writers, window decorators, cabinet-makers, potters, jewelers, supervisors of art departments in publishing houses and other establishments where their art knowledge will suffice to place them above their fellow-workers. All these are very honorable and very desirable vocations, in which they can become exceeedingly useful members of society. It seems to me worth while to try to find some way of making these various callings appear more alluring to our young people of artistic leanings and to discourage nine-tenths of the boys from aspiring to become "cartoonists" and about the same percentage of girls from endeavoring to teach art! A beginning, I think, should be made in school by making the children acquainted with the nature of these vocations and with the life-stories of men and women who excelled in their calling, just as they are now told about the deeds of great warriors who led thousands of men to slaughter and the great inventors of deadly machines that can kill many more in less time! Nor should the stories of great poets and artists be allowed completely to obscure the lesson to be drawn from the achievements of the humbler craftsmen, of whom, after all, the great majority of our citizenship is composed, and who outrank in practical importance the learned professions. Because of this neglect, so many aspire to the learned professions that the latter are nearly all overfilled; while the ranks of our skilled craftsmen must be replenished from abroad.

Do not worry about the girl and the boy of exceptional talent and aspiration! They too will require the same fundamental training, only more of it, and their course of study will extend over many more years before they can expect to turn it to practical use. I do not see wherein

their earliest training need differ much from that of any other child, except that they should always be encouraged to try to give expression to their ideas, even while their means are limited and their methods awkward and immature. Ideas in art should be constantly encouraged; the mind of a child so inclined will naturally turn to literature for inspiration, so that a proper guidance into the right channel for reading will be very helpful. The rest is a matter of time and perseverance on the part of the student, and wise counsel by an experienced teacher who will know when to let a student alone.

One other factor, in general as well as in special art education, is still to be considered: the museum. It is becoming more and more customary to establish public museums thruout the land and make them a means of education for the entire community, the mature citizen as well as the child. As long as such public collections consist only of pictures and statuary, their usefulness in this respect is, of course, limited to the few. It is only when works of handicraft are included that they begin to appeal to a larger constituency and their great educational value becomes apparent. This lesson has been brought home to me in our early exhibitions of the Minnesota Art Society, which was organized with the idea of bringing the citizens of smaller towns into closer contact with art. These exhibitions consisted not only of pictures, but also of artistically designed furniture, metal and leather work, laces, embroideries, and needle work—in fact of all the crafts of artistic qualities.

Of course, a museum should endeavor to preserve all the art of the past that is worth saving and that is to be made to serve an educational purpose; but it should also consider the value of contemporaneous production and offer the opportunity to study its proper application to our present-day needs. While it is perfectly delightful to wander from room to room in a museum and see how the people were housed in bygone periods, a far more effective way of offering practical advice to the general public is to show them the best arrangement and furnishing of modern rooms, the product of experienced craftsmen and artists who have learned their trades by systematic study of the best examples of the past applied to the altered conditions and needs of the present day.

ART COURSES IN ELEMENTARY, INTERMEDIATE, AND HIGH SCHOOLS

M. EMMA ROBERTS, SUPERVISOR OF DRAWING, MINNEAPOLIS, MINN.

We are living in an age when fine, applied, and industrial arts are considered separately and called special subjects. But the day is at hand when these things are recognized as vitally connected with everyday life. Possibly the children who are now enjoying the advantages of the increasingly vital training will realize how practical it is, and, when it becomes their

turn to take the place of the voters and serve as school directors, the manual arts may be considered essentials. This result will be brought about by the wise direction of the leaders. We must see to it that there is a vital connection with the life of the community. What the children take home as finished product will illustrate to the parent the value of the instruction given.

While it is generally conceded impractical to turn the school shops into trade schools, all manual work should follow as nearly as possible the shop methods of the craft taught. Pupils should leave our schools with nothing to unlearn. We may not be able to carry them far, but let it be along the right road.

Weaving exercises given to the younger children may acquaint them with the terms "warp," "woof," and "shuttle," and may give them an appreciation of the nature of materials that continually enter our daily life, and, also, an experience in dealing with color and design. Many simple problems in bookbinding also are practical for the schoolroom and can be carried out in quite a professional way. Many of the processes in bookbinding are hand processes, and young people are employed in this trade. Printing, too, is a branch of manual arts, which has many things to commend it. It may be correlated with other studies, serve an excellent purpose in the cultivation of taste, and furnish most useful knowledge and experience.

Not long ago I was talking to a teacher who professed to be teaching pottery as an industry. The correct finish of pottery is glazing and firing, but, if that was not possible, she allowed the children to enamel or varnish the pieces. Of course the right method was explained to the children and this procedure offered as a makeshift, but what a child is taught to do always makes a deeper impression than what he is told. Makeshifts should not be tolerated. We should carry the work only as far as it can be correctly done. Then when the students go from us into commercial workshops, they will at least have no bad habits, and we may avoid the often merited criticism that we are not laying a firm foundation for future building.

The limited time allowed in the crowded school day for handwork is largely responsible for the makeshifts employed. The broken program which sandwiches the manual exercises between two academic subjects is distracting to both teacher and pupil. Rooms in each school building should be dedicated to the manual arts to be used by classes above the primary grades. A period of one hour or more once a week is much better than several shorter periods. In that time enough can be accomplished to impress a complete idea upon the minds of the pupils.

In the same way an intelligent effort to design and make a piece of furniture will add to the interest of construction and develop a discriminating purchaser. This serves as an illustration of the power in our hands. The merchant is handicapped by his public. Many a dealer has tried to

force the public taste to the level of his own ideas and found it a financial mistake. He must lower his standard or go out of business.

This development of taste in the children is interesting to an observer. Two girls in the same high school were very talented in drawing and design. They both came from homes where harmony of color and kindred subjects received little thought. At school the girls applied their designs in the usual way, stenciling sofa pillows and curtains, tooling leather, etc., and readily produced excellent results. For a long time there was no evidence in their dress that the lessons learned at school had become a vital part of their lives. But finally better coloring and more harmonious tones began to appear, and their teachers rejoiced. One of the mothers remarked that her daughter was becoming very "fussy" about the way things looked at home. This was proof positive that a small fraction of the great mass was becoming appreciative and as purchasers would demand better things.

The nations which have for years been prominent commercially have been also leaders in design. This was not the result of a few experts employed in their factories, but of a nation-wide training in appreciation, a training given to the children thru public instruction. America is awakening to the fact that an art education is the right of all children—that every child should be expected to learn to express himself reasonably well with the pencil and to gain a considerable degree of appreciation and love of the beautiful.

ART EDUCATION AS A PART OF GENERAL CULTURE

TYLER MCWHORTER, PROFESSOR OF APPLIED DESIGN, ST. PAUL INSTITUTE, ST. PAUL, MINN.

What we ordinary mortals need is just enough art education to sensitize our souls to the beauties of nature and to enable our eyes to appreciate that which is good, to see and detect and promptly reject that which would ultimately offend the sense of sight, and reject it before we are hopelessly committed to it. The trained eye would instantly reject the rug decorated with pink roses the size of cabbages. The dullest person would tire of this cabbage-rose motif long before the rug was worn out be it ever so shoddy. If the purpose of culture is preparation for high and pure enjoyment of life, think how far short culture falls if it has not brought appreciation of beauty! Nature has so much of joy to give us thru our eyes that almost it seems a religious duty to comprehend the glorious blessing.

There are many people naturally endowed with excellent taste who never use it. Well-meaning people are led into the wrong road by following outside influences thru a modest misgiving as to their own ability. Others, many more, are unable to see their own taste because their view is obstructed by an over-developed bump of approbativeness. These are straining after

the popular thing—the latest thing. They want to do "what is being done." Why should a thing claim your affection simply because it is the "latest"? Fresh fads, like fresh people, are likely to pall very quickly and prove a distressing nuisance before we get rid of them. Freshness should not condemn a thing in all cases, but freshness, *per se*, is no recommendation for either furniture, clothes, or people.

There is another force against which we need art education to protect ourselves; a force which keeps people from being guided by the taste with which they are naturally endowed. That is, trying to keep up with someone else—the Joneses, for instance. There are people who would strangle the last little crippled bit of personality they had rather than allow the Joneses to appear to get ahead of them. If the Joneses have a khiva in their drawing-room, a khiva's the thing—the Joneses have one, nothing else matters! A khiva may not be in any sense what would be suggested by personal taste. The khiva may run amuck, kill everything else in the room, and end up with temperamental suicide! What of it, the Joneses have one!

A khiva is all right and a great artistic treasure in proper environment, but don't buy one unless you like it yourself. Don't thrust it among enemies, for even beautiful works of art will resist an outrage. They are unforgiving and their revenge is awful! A little sound art education enables people to see their own individual taste unclouded by conventions, pre-conceptions, approbativeness, "the latest thing," or what the omnipotent "they" are doing or affecting. When I have finished I hope to have made myself clear on this point.

How simple the matter of taste becomes when we learn to follow the beacon of common-sense! Good taste never quarrels with logic. There is a logical and even an ethical reason for nearly every dictum of good taste.

For instance, how beautiful is the keystone in an arch and how ridiculous in the lower segment of a circle! There was a time when "they" were using an oval window in some conspicuous space in the front of "their" houses. This was so much "the thing"—"the fashion"—that planing-mills manufactured these windows in quantities and kept them ready. The Joneses built a house and had an oval window with one keystone at the top and another at the bottom, and the neighborhood went oval-window mad.

Now what is the matter with the oval window? It's the keystone! Not the beautiful and emblematic keystone at the top which gives that happy sense of security—an assurance that the graceful arch shall not fall down—but the one at the bottom to keep the bottom of the arch from falling up!

Think of the beautiful art of savage tribes: the blankets of the Navajos, the shields and weapons of the Zulus, and the exquisite rugs that vie with the best art of the cultured and civilized world, woven by the wild Kurds

and the fierce Afghans. These savages had no schools, no aesthetic training. How could they know how to produce art that defies our criticism? How does the bird know how to build its nest? Do you know that there is such a thing as art instinct in the human race? This instinct has a chance in the savage; his mind is not clouded by preconceptions and a smattering of misdirected art. He doesn't know whether green and pink go together or not—nobody ever told him—so he puts them together and finds out for himself. And his conclusion is right. Anybody's would be under the same conditions.

Art education must be of the character that gives us control of our natural art faculties. The trouble with us is that we are in the air. We have tried to jump the chasm between art instinct and art culture. We have left the cliff of art instinct and haven't yet alighted on the terra firma of art culture. We would be safer to go around and not get clear away from the one till we are in position to safely plant our feet on the other.

I once saw a family buy a rug for thirteen hundred dollars in twenty minutes! Taste never had a chance here! And just think what a wealth of joyous anticipation was lost by having thirteen hundred dollars that was burning a pocket!

One of the pretty homes that lingers in my memory, one of the most tasteful homes, was of a very poor family who hadn't an expensive article in their cottage. These dear people had wished for everything they had so long before they got it that they had visualized it in its modest environment, and if what they wanted wasn't right they got tired of the visualization before they had money enough to buy the thing and clutter up the house with it. And oh, how they loved their home! Their modest possessions were so dear to them and so personal and so a part or at least an expression of themselves that every chair and even the braided rugs were objects of affection. Their possessions were for themselves and not for vulgar display—wooed and won by labor and love and not by lust and vanity.

Thoughtful educators had been confronted with the grave fact that the people were losing their abstract constructive ability. Children in the schools showed an alarming lack of the power of applying what they had learned—or, more strictly speaking, memorized. We educated a generation of lawyers who couldn't take the facts before them and construct a case. We had teachers who could not construct their education into available form for their pupils. It was a case of the atrophy of a faculty from disuse. A remedy for this alarming disease had to be found, and we found it in manual training and popular art education and hastened to equip our schools for the education of hands as well as heads, and of heads thru the use of hands.

Art handicraft and manual training are not taught merely to students who expect to follow manual callings, but to all students. No matter what

our position in life, we need constructive ability, and the way to acquire it is by most primarily and literally constructing something; not on paper nor by giving orders to someone else, but with our own hands actually to create tangible things. This principle is now so thoroly recognized by the great schools of architecture that they make two years' actual experience with materials a requirement for matriculation.

Jesus was a carpenter; Omar Khayyam was a tent-maker; Hofmann, the great pianist, has built two automobiles with his own hands; and two of the best physicians in St. Paul are first-class cabinet-makers and have produced furniture of high merit. I know also of an advertising expert who is a coppersmith. These men who know how to construct things with their hands are surpassing others in intellectual constructiveness; and just think how much more there is in life for those with developed appreciation!

THE USE OF THE FACTORY AND OFFICE BUILDINGS IN NEW YORK CITY FOR VOCATIONAL EDUCATION

JOHN H. HAAREN, ASSOCIATE SUPERINTENDENT OF SCHOOLS, NEW YORK, N.Y.

The problem of determining the nature and scope of vocational education has been forced on us by our social and industrial conditions, and its solution is necessarily difficult. If one were charged to organize a system of practical education in a community isolated from the rest of the world, and, unhampered by laws, regulations, conventions and traditions, to send out the product of such a system to fit certain niches in the industrial and mercantile world, after due study to ascertain the adaptability of the children to fill the niches, the problem would not be an easy one. But we have to attack the problem of vocational education as we find it, subject to existing laws, regulations, conventions, and traditions. So we must proceed to study aptitudes, to investigate conditions, to determine processes, to correct errors, to supply defects as well as we can, always bearing in mind that we are fallible, that many pupils fail because of us, and that many succeed in spite of us.

The largest manufacturing and commercial city of the western world has not been unconscious of the problem and has not neglected to attempt its solution. Thru many years, the manual-training courses in both elementary and high schools have been extended and improved, and, if in all schools the training has not culminated in the workshop or the kitchen, a basis for the work has been laid in the kindergarten and continued in some form or other as the pupil progresses thru the grades. That industrial training has not progressed as rapidly as we wish is due to the great flood of immigration that has multiplied the need for school accommodation and complicated our school problems. However, industrial education has not been entirely neglected. Many of the evening schools have courses in woodworking, sewing, dressmaking, and cooking, and every year there is

an increase in the number of classes in evening schools in which subjects like electrical wiring, plumbing, care of boilers, tailoring, flower-making, costume design, sign-painting, etc., are taught along strictly trade lines. For five years a vocational school for boys, now with an attendance of 700 students, and for three years a trade school for girls, now with an attendance of 500, have been in operation. A new vocational school has recently been opened in an old school building, and a fourth will be organized in the fall in a factory building in Brooklyn. Our vocational and trade schools are open for instruction during eleven months in the year for seven hours a day, and as trade schools they are open for two hours an evening for 120 evenings. In addition to these evening trade schools, attended to a large extent, and in one instance exclusively, by students engaged in industry during the day, there are five other evening trade schools. A number of the classes are conducted with the active co-operation of employers and labor organizations. Manufacturers have contributed machinery and materials, as well as advice, and have visited the schools and advanced to higher positions employees whose fitness was demonstrated by the visit to the classroom or the school shop. Committees of employers and labor organizations have made several elaborate reports looking to the improvement of the instruction and equipment, and many of their suggestions have been acted on. The co-operation has been marked in the case of a sixth industrial school, namely, the evening school of industrial art, a school which, altho it has been in operation for but one season, has been a marked success. This school is unique among our public evening schools, because of the artistic atmosphere which has surrounded it. Some of the subjects taught are clay and plastiline modeling, jewelry design, stained glass design, costume design, etc.

An interesting experiment in pre-vocational education is being carried on in two of our schools; one an industrial course for girls in the last two years of the elementary-school course, and covering three hours daily with three hours of academic work; and one for boys and girls with the same division of time.

But it is the extra-school work which is my general topic for discussion at this meeting. This phrase requires a brief explanation. By extra-school work is meant the instruction given in shop, store, factory, or in rooms hired by employers or donated for use in other than school buildings. The primary object of vocational training is to develop aptitudes and to enable skill to be acquired along those aptitudes. Vocational training also reveals ineptitudes, and, while it should not force into industrial lines pupils manifestly unfit, it occupies for such pupils the place of manual training. But the important purpose of industrial training is to develop skill, to make the worker more efficient, first, in the particular activity in which he is engaged, and, second, in preparing him to take the next higher step in his social advancement.

The foreigner is handicapped by his ignorance of our language and can make little advance until he can speak and understand English. In accordance with this idea, a class has been organized in one of our large hotels, the Hotel Astor, and it is attended by women employees, largely chambermaids of Polish birth. This class meets from seven to nine o'clock four evenings a week, for about twenty-three weeks, in a room provided by the hotel authorities. Not long ago I received from this class a letter of thanks to the Board of Education, in which the benefits of the instruction were acknowledged, and the statement was made that a number of the pupils who had been entirely ignorant of English had learned to speak, read, and write English fairly well. An application for a similar class in another prominent hotel, the McAlpin, has been made, and it is hoped that, during the coming school year, at least a dozen such classes will be in operation.

Another important experiment along the same lines but with day sessions has been begun. Four classes in the Educational Alliance Building, on East Broadway, Manhattan, have been in operation and will continue in the fall, for the instruction in English of night-workers, such as bakers, theater employees, compositors on Yiddish papers, and others who cannot attend evening school. It is interesting to note that among the students are found mothers, who take the opportunity to learn while their children are at school, as well as teachers of Hebrew in the Talmud Torah schools. An extension of classes of this kind will probably be made in two other neighborhoods.

I pass over the extensive work in teaching foreigners in our evening schools.

A most interesting experiment is that of the organization of classes in the large department stores. A large number of these stores have welfare departments and classes for the instruction of beginners. But these classes deal with the elements of salesmanship exclusively from the standpoint of the store. Their only connection with increasing the efficiency of the salesgirl or boy is to acquaint the pupils with the usages of the store and to bring them up to the point of rendering equivalent service for the wages they are paid. The store is not really concerned with training its clerks for higher positions, except incidentally. Such training is an educational proposition and belongs to the school. In order to improve themselves pupils may attend evening schools. But growing boys and girls are not in fit mental or physical condition to attend evening school after a hard day's work. A law recently enacted in New York state empowers the Board of Education to organize, in factories and mercantile establishments, classes for the instruction of those who might otherwise be compelled to attend evening schools. So far, classes have been organized in five department stores under the supervision of the Board of Education, and in two other stores the proprietors have co-operated with the board

and organized classes, paying all the expenses but asking the supervision of the city. It is not stating too much when we say that at least ten additional classes will be organized next year. One of the employers has requested that sessions be held all day, from nine to five o'clock and is equipping a gymnasium. In nearly every case, the girls attending the classes have received material benefit. Some have had promotions, others increase of pay in their present positions, while some are being considered for advancement. The proprietors state that the influence of the classes so far is distinctly noticeable in the tone of the stores, as particular attention is paid to oral English and to courtesy and politeness. The program of studies in these continuation classes is very elastic. So far it has been restricted to the teaching of a plain handwriting, spelling—particularly of the words used in the business and of names of streets—the writing of sales slips, letter-writing, rapid calculation with the first essential of correctness, oral English with general deportment.

The reasons why the Board of Education has not employed fully its power to organize classes in factories and mercantile establishments are various and need not be cited here further than to say that compulsory measures would hardly secure the heartiness of co-operation which so far has attended the efforts to organize the classes, and that it has been difficult to get teachers qualified for the work and willing to work for but a couple of hours a day. Inexperienced teachers are not the ones for this work, and those who are regularly employed cannot be spared from their regular classes just yet.

The co-operation of employers referred to may be well illustrated by the offer of the head of one of our largest department stores to hire a suitable room in a mercantile or office building, to furnish it, and to arrange a schedule that will provide for the instruction of twenty or more young people at a time during five or more hours a day. In addition he promises to interest the heads of other large establishments, so that eventually a school of salesmanship will be developed along several approved lines under the supervision of the Board of Education and with an advisory board of merchants. This employer believes that the school should be apart from the store to be most effective in the interest of the young people and as an educational proposition, but still near enough to the store to keep active its mercantile purpose.

An illustration of a different view is the experiment of a large manufacturer of white wear in conjunction with Public School, Number 4, Manhattan. After trying for one year the experiment of sending sixteen girls to day school to learn English and to be paid their usual wages while at school, the plan of having the teacher give instruction in the factory was tried, and with great success. It is not in any way derogatory to the motive for changing the locale of instruction to state that the cost per pupil to the proprietor has been lessened to one-tenth of the cost of

instructing them in the school. The change of place increased the class from sixteen to forty-two. One significant result of this organization is the application of a firm of manufacturers to furnish rooms in their factory and to arrange a schedule that will permit 500 employees to attend school five hours a week for twenty-six weeks, during business hours, without loss of pay.

The Merchants Association not long ago took steps to ascertain how it might co-operate in the organization of continuation classes. As a result, the association is now considering the means of gathering and classifying the boys and girls who hold positions in the Woolworth Building as office boys, assistants in filing departments, etc., who either have no opportunity or find it difficult to attend evening school. As the association's committee puts the matter, "Since these boys and girls find it impractical to go to school, the Board of Education has expressed a willingness to bring a school to them." The purpose of the school will be to give the elements of a practical business education to these boys and girls, to fit them to assume higher responsibilities, and to help them to become better citizens and of greater service to society. If this class is organized, it will undoubtedly be followed by many more in other large office buildings.

To give an idea of the work that is being done in the vocational work in its various aspects, we may have recourse to figures. During the year 1913–14, instruction along vocational lines was given to classes having in elementary evening schools an average attendance per evening of 6,398, in evening high schools 8,313, and in evening trade schools 3,163. Of this number, 5,185 have been taking homemaking courses, 7,741 commercial courses, and 4,048 strictly trade courses. The average attendance per session in the continuation classes in department stores has been 256, and in the class in the factory 42. It is not claimed that the attendance in these classes is as large as it should be, but with the new co-operation there will be a great increase. This work is only beginning, and the possibilities are almost limitless. A number of classes will shortly be organized in factories, not only for enabling foreign employees to learn enough English to understand the directions of foremen both as to work and against careless handling of machinery, but for real continuation work that will make for greater efficiency.

The outlook for vocational work in our city is now very bright, for we have the encouragement and active participation, not only of our Board of Education, thru its president, Thomas W. Churchill, but of our mayor, John Purroy Mitchel. To this has recently been added the approval of Comptroller Prendergast. The active interest of the Board of Education means much, but little can be done unless funds are provided, and the interest of the mayor and the comptroller is almost an assurance of suitable provision.

The criticism has been made that New York City has done very little along the line of vocational instruction. But, while I realize how little

has been attempted as compared with what will have to be done if our boys and girls who leave school before completing the high-school course are to be prepared to take their places in industry with efficient service, New York City has done as much relatively as almost any other large city in the country. This whole matter of making commerce and industry participate more actively in the education of our youth and of bringing the school into a closer relation with active life is only in its infancy. By keeping the school as the controlling power in methods, and by taking steps that nothing that is cultural and disciplinary in our old academic curriculum is sacrificed, we need not fear that a material aim will be too constantly kept before our pupils.

TRADE AGREEMENTS IN INDUSTRIAL EDUCATION OF APPRENTICES IN CHICAGO

WILLIAM M. ROBERTS, DISTRICT SUPERINTENDENT OF SCHOOLS, CHICAGO, ILL.

Most of the workmen in the building trades in Chicago are members of trade unions. Any plans made for the education of apprentices in these trades will necessarily have to deal with apprentices affiliated with the trade unions, and the co-operation of the unions in such case is not only desirable but necessary.

Illinois has no laws governing vocational education and none requiring or providing for apprentice training. Provisions made by boards of education for vocational training of any sort are not made in obedience to any law, but simply in response to the general demand on the part of the community.

Twelve years ago (1902) the organized carpenters, together with the employing carpenter contractors, asked the Board of Education in Chicago to provide instruction for the apprentices working at that trade, and a school was provided, which ran for three months in the year—January, February, and March. This school has been conducted each year since that time, and about 275 apprentices are in regular attendance. Later (in 1912) the electrical workers, by agreement with their employers, arranged for attendance of their apprentices at school for one half-day each week thruout the school year. These number about 150. In 1913 the organized plumbers and their employers agreed upon a similar plan by which 160 plumbers' helpers attend school for one half-day each week. There are similar groups of sheet-metal workers' apprentices and machinists' apprentices attending one half-day each week. In all instances, except in the case of two small groups of machinists' apprentices, the attendance of the apprentices at school is in accordance with agreements made between the unions and the organizations of employers. With a few exceptions, there is no deduction from the wages of the apprentices for the time spent at school.

The carpenters' agreement, as has been said, was consummated in 1902. It was brought about after consultation of the Joint Arbitration Board of the unions and employing contractors with the superintendent of schools, and was in the following form:

SEC. 4. The contractor taking an apprentice shall engage to keep him at work in the trade for nine consecutive months in each year, and see that during the remaining three months of the year the apprentice attends school during January, February, and March, and a certificate of attendance from the principal of the school attended must be furnished to the Joint Arbitration Board as a compliance with this requirement, before he is allowed to work during the coming year.

The electrical workers' agreement was made in 1912, the plumbers' in 1913, the sheet-metal workers' in 1913. The agreement of the electrical workers was as follows:

It shall be compulsory upon apprentices to attend school at least one half-day each week during the school term, and the employer will pay apprentice for such time up to $1.00 per week. The union shall furnish the apprentice with necessary textbooks free of charge, and shall also provide each apprentice with a card which must be presented to the instructor at the school and signed by him each week, to show that apprentice was in attendance, and this must be shown by the apprentice to the foreman or employer upon request.

The plumbers' agreement, the exact wording of which I do not have at hand, is quoted in a letter addressed by the Master Plumbers' Association to its members, as follows:

CHICAGO, ILL., May 1, 1913

DEAR SIR:

In connection with the system of vocational training, which was inaugurated by the Board of Education in the public schools, April 7, we desire to notify you that an agreement has been reached between our association and the Chicago Journeymen Plumbers' Association whereby the registered apprentices now learning the trade are to spend one half-day of each week at the Lane Technical High School, Division and Sedgwick Streets, there to receive a theoretical course that will enable them to better understand the principles of the plumbing trades.

It is understood that the employer will pay the boy for the time thus lost in attending school. . . . .

The sheet-metal workers' agreement is also quoted in a letter sent to contractors by the Joint Arbitration Board:

CHICAGO, September 19, 1913

DEAR SIR:

You received a communication from the superintendent of the Chicago public schools, under date of July 20, giving a synopsis of the work that is being done to advance the welfare of apprentices by giving them a technical, as well as a practical, education in their chosen trade.

This project has the hearty approval of employers constituting the Sheet Metal Contractors' Association of Chicago, as well as of the Sheet Metal Workers Union, No. 73, and if you have an apprentice in your employ, we respectfully request that you extend

to him the privilege of attending this school. If this does not meet with your approval, will you kindly notify the undersigned, stating objections?

We might add that, in the future, indentures for apprentices will be granted only upon the condition that this privilege be given the apprentice.

Yours very truly,

JOINT ARBITRATION BOARD
Sheet Metal Contractors' Association and Sheet Metal Workers' Union, No. 73
E. D. MARKHAM, *Secretary*

The Board of Education employs the teachers and conducts the classes as free public schools. Advisory committees, usually the same as the joint arbitration boards for adjustment of labor difficulties, are appointed to confer with the superintendent about courses of study and methods of instruction. There is not sufficient room or sufficient equipment in any one school to accommodate all of the classes, and they are taken care of in three of the high schools. For the carpenters it is necessary to employ a few extra teachers for three months, but the other part-time classes are handled by teachers who are employed for full time, and who have other classes in similar subjects in the regular high-school work. Because of the limits necessary to set for a discussion of this subject, it will not be possible at this time to go into the subject of courses of study and other details of administration.

Practical teachers, that is, teachers experienced in the trades, are in charge of all work related directly to the trade. The instruction is mostly technical, with enough practical shopwork to illustrate standard methods of construction.

Altogether about 650 apprentices are in attendance, and other classes are to be organized next fall. The plan is growing in favor with both unions and employers.

The unions require attendance of the apprentices at school and, in most cases, enforce obedience to the regulations by withholding the working card. The carpenters add two days to the apprentice time for each day's absence from school; they also withhold working cards in cases of insubordination or failure to do the required work. The other unions concerned have similar methods of enforcing attendance and good conduct. Such matters are usually handled by the joint arbitration boards of employers and labor unions. The following letter from the Joint Arbitration Board of the carpenters is self-explanatory:

CHICAGO, December 9, 1912

TO CARPENTER APPRENTICES:

In accordance with the apprentice rules, you are required to attend day school during January, February, and March, 1913, and the following directions are given for your guidance in this matter:

Apprentice day schools will open Monday, January 6, at the Crane Technical High School, Oakley Avenue and Van Buren Street, and the Lane Technical High School, Division and Sedgwick Streets. Apprentices of the first and second years will attend the Crane School; those of the third and fourth years will attend the Lane School.

You will be required to report January 6 at the school to which you are directed, promptly at 9:00 A.M., and thereafter at such time as required by the principal of the school.

Attendance cards will be issued to the apprentices at the end of each week, and your contractor is instructed to deduct from your pay one-fifth of the week's wage for each day of unexcused absence; the cards are to be returned to the teacher at the beginning of the week, after having been signed by your contractor.

You will be required to conform in every respect to the rules governing the schools which you attend.

No exception will be made from the above directions without a permit from the Joint Arbitration Board.

JOINT ARBITRATION BOARD
(Signed) CHAS. THEO. GREEN, *President*
J. W. QUAYLE, *Secretary*

As a disciplinary measure, at the close of the term in 1914 the carpenters' Joint Arbitration Board required about thirty apprentices who had failed in their school work to continue attendance for two weeks, without pay, and in addition required them to bear the expense of the instruction, which was about $160 for the thirty apprentices.

The trade unions and the employers apparently acknowledge the failure of the old apprentice system, but some of them are trying to restore it in some measure by agreements which require the employer to teach the apprentice the trade, or at least as much of the trade as is involved in the business in which the employer is engaged. In most of the trade agreements relating to the work of apprentices such a clause is included. The following clauses in the agreement between the Carpenter Contractors' Association and the Carpenters' Executive Council of Chicago and Cook County are to the point:

SEC. 6. In case an apprentice at the end of his term of four years, for want of proper instruction in his trade, is not a proficient workman, and if, after a thoro investigation, the Joint Arbitration Board finds that the contractor to whom he was apprenticed did not give him proper instruction and an opportunity to learn his trade, he may be required to serve another year, with whom he and the Joint Arbitration Board may determine and at a rate of wages (less than minimum) in his trade they may determine; the difference between said rate and the minimum scale in his trade shall be paid him thru the Joint Arbitration Board by the contractor to whom he was apprenticed.

SEC. 12. The apprentice upon completing his indenture shall report to the Joint Arbitration Board and shall, after furnishing said board with satisfactory proof of his competence as a skilled mechanic in his trade, receive a certificate approved by the board which shall entitle him to a journeyman working card.

I am told that Section 6 of the carpenters' agreement has been enforced in a sufficient number of cases to cause it to be generally respected by contractors. Section 12 is the clause under which the negligent or unteachable apprentice is either reformed or eliminated.

Similar agreements are in force in some of the other trades. One clause in the apprentice agreement of Typographical Union No. 16 with the Employing Printers' Association reads as follows:

SEC. 2. During such time, he may be assigned to any work connected with the branch of the trade he is learning, which his employer or foreman may deem proper, and which shall embrace finally everything a journeyman may be called upon to do.

When properly enforced, this rule is sufficient to provide for proper rotation, as far as the work of the shop covers the trade.

The clause in the indenture contract of the sheet-metal workers provides that "the said ———, Master, shall use and employ the utmost of his endeavors to teach or cause the said ———, apprentice, to be taught or instructed in the trade of the sheet-metal worker."

It must be admitted that unless the apprentice is required at the close of his apprenticeship to stand an examination on the work of the trade such agreements to teach the trade are not effective. Such examinations are required in some cases by the unions before the working card may be issued. Local 134 of the International Brotherhood of Electrical Workers, whose apprentices attend the public schools, requires the apprentice to pass a thoro practical examination before the proper officials of the union before a journeyman's card may be issued. The painters have a similar regulation requiring an oral examination and a practical demonstration in pantomime before a committee of expert workmen. In the case of the carpenters, as has been stated, this final inspection is made by the Joint Arbitration Board. It may be found advisable, if the Chicago plan of continuation work is extended to include most of the skilled trades of the city, to have admission to the trade based in part on certificates issued by the schools.

In their support of the continuation schools for their apprentices, the unions seem to recognize the fact that, unless the boys coming up into the trade are trained in the science of their calling and are able to do good headwork as well as handwork, the trade unions cannot rightfully persist in their claims to be the only source of supply in Chicago for the skilled-labor market. On their part, the employers see in this school plan a means of insuring them each year a supply of young men well grounded in the theory underlying their calling, and capable of advancing, as they gain experience, into the positions in their employ which require more than the average skill and intelligence, and for which men are hard to find. While these views of the matter are in a sense selfish, yet on both sides there is an apparent real interest in the boys themselves, for many of them are the sons of the journeymen or of the contractors.

The system in operation in Chicago needs two supplementary provisions to make it complete. It must provide for some supervision of the boy when at work, to see that he has a fair opportunity to learn his trade; and it must also provide for some preliminary training before entering the trade. I wish to enlarge on this latter point.

We find, when the apprentices come to us, that we have caught them too late. We should have had them several years earlier. Every year

in Chicago over 10,000 boys between fourteen and sixteen years of age leave school to go to work; 7,000 are fourteen years old and 3,000 are fifteen years old; 4,000 are only up to the sixth grade or below; 4,600 leave in the seventh and eighth grades, and only 1,400 are above the eighth grade. They cannot enter any trade as apprentices, for no skilled trade will take them until they are sixteen years old. They work in factories, in stores, or as errand boys, telegraph messenger boys, and in other jobs of that kind, and few of the jobs are worth remaining in, for they offer no future. In this year and a half to two years they are not learning much that will be of use to them in after life. It is from this class of boys that most of the trade apprentices come. Their parents have, in many cases, fully intended at the time they were fourteen that they should have a chance to learn a trade, but, while waiting for their sixteenth birthday, have permitted them to work around town at whatever odd jobs they could get. This I consider a mistake. If the boy has made up his mind that he wants to be a carpenter or an electrician, and his parents know that the way is open for him, he should not be permitted to waste two years of the best part of his youth.

The high schools offer him a chance to study his trade in these two years. There are two-year courses in carpentry, in electrical work, in pattern-making, in machine-shop practice, etc., which take the boys over about the same theoretical and practical work that the apprentices are doing in our apprentice classes. Not many are taking these courses, for there is no assurance that when a boy gets thru he will be taken into the trade as an apprentice. There are some restrictions, not entirely in accord with American ideas of fair play, which ought to be abolished, and one of these is the restriction of apprenticeship in some trades to sons of the journeymen and sons of the employers.

Now the next step in advance for the instruction of apprentices in Chicago is this: To require apprentices to take the pre-apprentice courses offered in the public schools. If the son of a carpenter, or an electrical worker, or a plumber, or the son of the employer, has made up his mind at fourteen or fifteen that he is going to follow his father's trade, he should be required to take at least the two-year trade course in school. This the union could require as a part of its apprentice regulations.

The best method of bringing this about, perhaps, is to have an apprentice agreement which provides that preference be given to boys who have given some time in school to the preliminary study of their trade. One union of electrical workers has already begun to work upon this plan and is now giving preference to those who have devoted some time to the study of theoretical and practical electricity in a good school. A letter from the president of this union (Local 134, International Brotherhood of Electrical Workers) appears below:

DEAR SIR: CHICAGO, July 6, 1914

In answer to your request for a complete history of the arrangements and action taken by our organization relative to the apprentices being registered and serving an apprenticeship, I wish to say that a two years' course in electrical construction is now one of the requirements to be registered as an apprentice. The apprenticeship covers a period of four years. One half-day of each week during the school term in the public school must be attended by each apprentice. The school work is given up entirely to technical training, practical work being taken care of on the job.

About four years ago, we first went on record to make the school training compulsory for the apprentices. The boys first took up the school work in the different private institutions and the public schools. We later found on investigation that the best results were not accomplished; so, working in conjunction with the district superintendent, and our committee meeting with the employers, we devised the method of having the boys attend school one half-day each week, making the same compulsory on their part, the employers agreeing to reimburse the boys for the time spent in school. We found the system worked out very satisfactorily to both the apprentices and the employers.

On further investigation we found that, to accomplish the best results, it would be necessary, in registering the apprentices, to see that they had at least the two first years in the technical work of the high schools of the city of Chicago. We have also found that it is much better to adopt this system so it will be universal for all apprentices, making sure in that way that none of the boys have been neglected.

We hope the addition of the two years' course in the technical school will place us in a position to have mechanics to fill any of the places they may be called upon to fill, either as estimators, as superintendents, or as technical men.

Hoping I have covered the question thoroly, I remain

Very truly yours,

(Signed) D. F. CLEARY, *President*

Labor unions in Chicago are in favor of such pre-apprentice schools, tho the general impression is that they are not. Three years ago a committee of the City Club of Chicago sent out a series of questions to the labor unions affiliated with the Chicago Federation of Labor, one of which was as follows:

Do you favor public trade schools for boys and girls between sixteen and eighteen years of age that would give two years of practical training, together with drawing and mathematics, provided the graduates of such schools should serve two more years as apprentices or improvers?

Two hundred and fourteen inquiries were sent out; 112 replied; 88 of these said "Yes"; only 24 said "No."[1]

In New York State, out of 1,877 replies to a similar question, 1,307 said "Yes," and 570 "No."

The Committee on Industrial Education of the American Federation of Labor, in its report to the Federation, indorsed this plan of pre-apprentice schools: Its recommendations contain the following section:

SEC. 2. Industrial Education: The establishment of schools in connection with the public-school systems, at which pupils between the ages of fourteen and sixteen may be taught the principles of trades, not necessarily in separate buildings, but in schools adapted to this particular education, by competent trade-trained teachers.[2]

To prevent misunderstandings, it may be necessary to add here that two of the apprentice groups attending the classes are from open shops.

[1] *A Report on Vocational Training in Chicago and in Other Cities.* City Club of Chicago, 1912.

[2] *Report of Committee on Industrial Education of the American Federation of Labor*, compiled and edited by Charles H. Winslow, p. 18 (Senate Document 936, 62d Congress, 2d Session).

In those cases arrangements were made with employers only. In all such cases there are regular apprentice indenture contracts between employers and parents or guardians of the boys, in which the employer is obligated to teach the trade, and the boys attend school without loss of pay.

Mention should also be made of the trade agreement between the Painters' District Council and their employers' association providing for attendance of their apprentices at their trade school for one full day of each week. While the public-school officials afforded some assistance in the beginning in securing a teacher and by way of advice, yet the school is conducted by the Painters' District Council, and the cost is borne by the apprentices, who pay a fee sufficient to cover all expenses.

THE APPRENTICESHIP AND CONTINUATION SCHOOLS OF MILWAUKEE, WIS.

R. L. COOLEY, PRINCIPAL, MILWAUKEE, WIS.

The Milwaukee Continuation School entered upon its work November 1, 1912, in a small room on the eighth floor of the Manufacturers' Home Building. There were in attendance two hundred girls under sixteen years of age from the department stores of the city. These girls were working on "permits" issued by the State Industrial Commission thru the office of the factory inspector of this city.

In explanation it may be said that all boys and girls under sixteen years of age and over fourteen may, under certain conditions, secure a "permit" to work at a "gainful occupation." Under recent legislation, one of the conditions to be fulfilled in order that the child may work is that he shall attend continuation school at least one half-day a week for eight months.

This attendance upon the part of the child is an obligation upon the employer, as well as upon the child, inasmuch as the employer is required to give such employee permission to attend school at the time requested by the school authorities. This school attendance must be counted a part of the boy's regular work.

The school has grown rapidly from its small beginnings. The demand of both the compulsory and the voluntary attendance has led to the acquisition of additional space and a considerable enlargement of the teaching corps. There are now 1,600 permit girls and 2,000 permit boys attending school one half-day a week in the Manufacturers' Home and Stroh Buildings. Thirty-one classrooms are now occupied, and seventeen women and twenty-one men comprise the day teaching corps. The hours of school attendance are from 8:00 A.M. to 12:00 P.M. and from 1:00 P.M. to 5:00 P.M.

The school aims to teach the "permit" girls to cook, to prepare tasty economical dishes with a knowledge of food values and simple dietetics,

to sew, to judge qualities of goods, to assist them to acquire a taste in color and design, to select suitable qualities of goods with reference both to personal dress and to the furnishing arrangement and decoration of the home, and to review and advance the pupils in the academic branches usually taught in the elementary school. There is also a definite effort made to connect each girl with the public library and to direct her reading to the end that a taste for good books may be formed at this critical time in the girl's life, when she is breaking away from school, also, in a measure, from home, and is entering upon a wage-earning career in shop or factory.

It may be interesting to know that nine hundred books were drawn from the library during one month by these young girls, practically all of whom had not been in the habit of reading at all.

In connection with the girls' work, there has been given a brief course in the purchasing of beds and bedding, airing and making of beds, bedroom ventilation and arrangement, and the care of the sick in bed. This work has been very much appreciated by the young people, many of whom have had the responsibilities thrust upon them far in advance of their years.

Classes in typewriting and stenography are offered to young people working in offices and to those who particularly request the opportunity.

The boys are classified broadly, according to their expressed ambitions and talents. Those who clearly intend to follow commercial careers are permitted to put most stress upon the academic work in connection with typewriting, stenography, bookkeeping, business practice, etc. Those who manifest a special ability as, for instance, talent for, and appreciation of, color and design, coupled with ability in freehand drawing, have occupations called to their attention in which such ability would be a distinct asset. Such pupils we aim to segregate and afford the kind of special training they need.

The great majority of the two thousand boys who attend our continuation school are not working at jobs which will afford them a living as men, or which, in the main, lead to work that will ever afford a man's pay. Some of the boys have ill-formed ambitions to become one or another kind of journeyman, at some remote time. On the other hand, many have no idea of what is before them, are not thinking ahead, and have no conception of the various trades or occupations available in this community which might afford them a way up. They shift without thought or reason from one job to another, and frequently their latter condition is worse than the former. To such boys we aim to give a diversified shop experience, which includes woodworking, metal working, and simple work with electrical appliances. One and one-half hours each week are spent by small groups in the shops under competent instructors. In addition, these same young people spend one and one-half hours each week in mechanical drawing and one hour in academic work. All classes are kept at a membership of twenty or less.

The mechanical drawing continues for thirty-two weeks in each school year and is calculated to enable the boys to read blue prints and to become proficient in mechanical drawing, as the time and ability of the boys will permit. This training it is expected will be of use in any of the various mechanical lines which the boys may ultimately follow.

The work with both boys and girls is further intended to guide them in their selection of vocations, to preserve by means of reviews what academic knowledge they may possess upon leaving the elementary school and to advance them in those branches, to assist and advise them in securing work, to give them greater ability to do things with their hands, and to train them in the duties and obligations of good citizenship. This work is obviously very important during the lean years while these young people are confined to jobs which inherently have little or no educative influence, and, in many instances, may be said to be "de-educative," if one may be permitted to coin the word.

From fourteen to sixteen years is a period of retrogression for the great majority of boys and girls who go out to work. This is especially true of those who have not finished the elementary school. Instances may be cited to the contrary, but it is only by viewing the young people in large numbers that the rule may be ascertained.

It has been demonstrated that in the brief half-day a week at the continuation school much of the work done in the elementary school can be clinched and made a permanent possession of the boy or girl. Likewise in this time a valuable practical training can be given which will be found immediately useful. The function of the continuation school, however, is much broader in scope than merely to provide for the "permit" pupils, of whom there are approximately five thousand in the city. The task of meeting the needs of this particular feature of the work has been a large one and has occupied our attention during the first months.

We have about concluded our arrangements to group the boys more definitely according to their expressed wish relative to their future occupation. It will be possible, as we now have our school planned, to give the boys definite pre-vocational work in the following lines:

1. Carpentry
2. Cabinet-making
3. Pattern-making
4. Tinsmithing
5. Sheet-metal work
6. Plumbing
7. Steam-fitting
8. Electrical work
9. Masonry
10. Machine shopwork
11. Concrete-work
12. Power plant operating
13. Drafting
14. Bookkeeping
15. Store clerking
16. Stenography
17. Printing
18. Baking
19. Painting and decorating

To illustrate: A boy wants to be a plumber and so expresses himself. Unless he is physically incapacitated or has special talent which makes

another choice of occupation obviously better, we shall take him seriously. We shall acquaint him with plumbers' tools and plumbers' fittings. We shall have him call tools and fittings by their right names, have him put up orders, getting shapes and sizes correct, and do simple bookkeeping, involving spelling of names and a knowledge of prices of plumbing work and supplies. Simple shopwork will be provided and the conditions of the trade studied. The immediate object will be to get the boy to take seriously his own wish to be a plumber, to aim soon to get into the work he expects ultimately to follow, even at an immediate loss. We shall try to get the boy to value an apprenticeship contract and demand one.

While this boy is working with singleness of purpose in the shop, we shall so shape his work in mechanical drawing that it will be of value to him in any trade or occupation he may ultimately follow. To that end simple lessons in architectural, mechanical, sheet metal, and freehand drawing are provided. It is a well-known fact that chance, in spite of all we may do, will be a large factor in determining where the boy will land in seeking a job. He may be seriously wanting to be a plumber, but chance gives him the opportunity to be a sheet-metal worker. Our work must be of such a nature that it will help him even in that event.

Day classes for apprentices have been established at which three hundred are in attendance. Voluntary day classes have been conducted, as in the case of the druggists' clerks who attend twice each week. Other voluntary classes are being formed as rapidly as the need and desire for the same are ascertained.

The evening work is carried on in public-school buildings in six centers and is in the immediate charge of the day principals of the schools in which the evening school is held.

Classes in cooking, sewing, mechanical drawing, academic work, and English for foreigners are largely attended, the aggregate weekly attendance at this time being twenty-seven hundred.

The work conducted under the local Board of Industrial Education is scarcely more than a year and half from its inception. Preparing part-time school facilities for thousands of "permit" boys and girls has largely absorbed the attention of the authorities. This work, however, as stated before, does not measure the scope of the work intended to be carried on under the provisions of the law. It is the duty of the local Board of Industrial Education to analyze the educational needs and desires of the employed men and women of the community and to afford reasonable opportunity for their gratification.

In establishing apprenticeship schools, each trade is studied with a view to finding out just what sort of equipment and instruction is necessary to supplement the opportunity of the apprentice in that particular industry. If, in the estimation of the practical men who have been handling the

apprentices in that industry, it needs shop or laboratory equipment, such equipment is provided.

To illustrate: We shall teach the baker's apprentice the growth of yeast and how a certain temperature is best for its development; we shall show them what happens when we go beyond this temperature and also what are the results of too low a temperature. In practical experience, many causes may contribute toward unsatisfactory results, and young men are seldom able to recognize the changes any one cause may produce. In the school we shall be able to make and treat dough alike; then we shall vary our procedure by a single item, thus enabling the boys to observe and become familiar with the results of that particular variation. We shall repeat this program until all the possibilities in connection with yeast have been taken up and illustrated.

The same idea of instruction can be followed in the use of salt, sugar, lard, malt extracts, etc. In short, all the articles used in the bakery, as well as the different modes of working, will be treated in a similar manner. We shall take a dough, and, by manipulating it differently, working it differently, molding it differently, and proofing it differently, produce different results and at the same time always keep the effect and the result directly before the eyes of the pupil.

Now all these problems occur in the bakeries, where the apprentice works, from time to time. In the way in which they occur, however, they tend to confuse rather than to enlighten the apprentice; they fill his mind with doubts and misgivings rather than with certain knowledge as to just what occurs. He sees only the effects and is often entirely in the dark as to the cause. In the commercial life neither the time, nor the knowledge, nor the training necessary for lucid explanations are available to the boys.

To evolve an institution so varied in work offered and so adaptable in its organization as to meet these needs and fit into the chinks of leisure enjoyed by members of the community is a difficult task. Much of how to do it can be learned only in the doing. The institution will undoubtedly afford plenty of opportunity for just criticism. It undoubtedly will be the recipient of criticism both just and unjust. Those having responsibility for the work can only hope that they may be so fortunate in this respect as to be fed on a balanced ration.

THE RENOVATION OF THE HOME THRU HOME ECONOMICS

ALICE P. NORTON, DIETITIAN OF COOK COUNTY INSTITUTIONS, CHICAGO, ILL.

It would be foolish for me to take your time to prove that the home of today needs renovating. It would be still more foolish for me to attempt to outline the changes that have taken place in the home and the many

forces that are working more or less directly against it. The tendency toward urban life, the lack of permanence in the home, the development of social life outside the home are too well-known factors to be more than suggested. I am not a pessimist and I believe the best homes today are better than ever before, but I wonder sometimes if we realize the rapidity with which still further changes are coming into our home life, and if we anticipate the need of adjusting ourselves quickly to new conditions if we would make the most of the home of the future. Home economics should stand as an important element in aiding in this adjustment of old conditions to new ones. It should help to set right standards, to give a sense of values, to develop a life of the home that will work more definitely than anything else toward the making of the true home. It should be able to adjust itself to the humblest home as well as to the more elaborate; to show the country child what possibilities there are for it; to go into the poorest of the city homes and lift the child, and, thru the child, the parent, toward something that is better and more worth while.

The higher, more spiritual side of home life we may not be able to teach in the curriculum of the elementary school, but the insight into the possibilities of the material side may well lead the children to an interest in their homes, and a love for them, that shall contribute by and by to a spiritual ideal. There may be gradually developed in them a realization that the home is more than an aggregate of shelter, food, and clothing, and so another illustration be given of the great principle that the life is more than meat, and the body more than raiment.

Miss Kelly told us at Cleveland of a small boy, underfed, slouchily dressed in a passed-down coat much too large for him, who competed for a prize in one of the pig clubs lately started in the South. The pig was so large that it had to go into the pen "cater-cornered," and as people came by and spoke in praise of it the boy lost his shy and timid manner, began to straighten up, became alert, and so "swelled with pride" that his clothes seemed actually to fit him! So the girl who in her home can do something to help in the family life, who gains the sense of power that comes from control over materials, from doing something well, who knows how to choose a meal that is of real value and that means the best expenditure of the amount of money that is allowed gains in self-respect and in poise.

At a farmers' convention one of the questions in the question box was, "How can we keep the girls on the farm"? The answer seems to me to be, "By making the home interesting to them." The boy is gaining an insight into the real value and interest of the farm. He is learning to know that time and effort and knowledge put into the treatment of the land will give definite results. That in itself is an object toward which he may work. The girl should have the same impetus and inspiration to make the home what it should be. Much of the work must today be directed toward training her as a consumer rather than as a producer.

It is even more important for her to know how to select her materials than for her actually to prepare so many things as she did formerly. Much of her actual doing must be chiefly for the sake of gaining standards. Theoretical knowledge that may be given is of little value unless it goes directly into her everyday life. Proteids and carbohydrates and fats may be taught in such a way that she will actually know better how to select her food.

The visiting housekeeper has done a great deal to show the poorer mother the full purchasing power of the money that she has to spend, but that there is opportunity for much more help is shown by the following expenditure of money furnished a family for food by the United Charities:

Pot roast	$1.00
Angel cake	.20
Chocolate cake	.20
Beechnut peanut butter	.25
Total	$1.65

Another family aided in the same way spent 80 cents for sirloin steak and 20 cents for angel cake.

We find too that money may be wrongly spent, not only by the family, but even on the part of those who are relieving the needs of the family. The sort of relief that should be conducted intelligently often gives supplies that are not sufficient to maintain healthy life, and with no suggestion of what should be added to them and no help in the way of using these supplies. A family receiving the county agent's supplies was found using for cleaning purposes the rice that had been given. Another woman was storing away the beans because she did not know how to use them and dared not exchange them for fear she would lose her opportunity of gaining supplies.

At a school in one of the poorest districts of Chicago, on a warm June day this summer, children were at their gymnastic work in the yard still sewed into the heavy woolen underwear that they had worn all winter. At the same time, in their beginning sewing, children were working on pincushions, small bags, fancy holders. There seemed to be no connection in the minds of the children between sewing and the idea of clothing, and yet these children were old enough to be making the actual underwear needed for that time of year. It is not less knowledge that we need—less theory, if you choose to call it so—but it is more knowledge carried directly over into living.

But if home economics is to renovate the home it must begin by making the standards of housekeeping more simple. Elaboration of service and of dress, if taught to the wealthy girl, emphasizes the false standards which she already has; if taught to the poor child, it fails entirely to influence or else it promotes envy and gives a desire for possessions beyond the means. At Cleveland, Miss Arnold told the story of a settlement worker who visited a woman who was to be ejected from her home because she was entirely

without money to pay rent. A second visit on Sunday brought the comment from the woman, "You have on the same hat you wore yesterday." "Yes," said the worker, "it is the one I wore." "But it is Sunday today. Don't you have a different hat for Sunday?" The visitor replied, "No, I have only one hat." The woman stared for a moment, then said, "Thank Heaven, I haven't fallen so low as that."

I had occasion a few days ago to visit a number of home economics departments in high schools. In one there was a typewritten lesson on table service. In this I found these two statements: "Paper napkins should never be used in the home." "The dinner napkin should be a yard square." These were the standards set before girls in very moderate circumstances, who should instead have been taught the legitimate use of the paper napkin and a reasonable size of the linen napkin. In another school, the sewing was done entirely by hand. Elaborate garments were made, long seams stitched by the laborious hand method. The teacher told me that she did not wish a machine because handwork was the best. She had taken her girls to a children's store in the city and there they had had impressed upon them the fact that handwork brought higher prices and was more desirable than machine work. She endeavored to fix this as a standard for the home, taking no account of the value of time and of labor. A false ideal, it seemed to me, was put before such girls.

A maid who left the family in which she was working was asked the cause of her dissatisfaction. She replied that "there was too much shifting of the dishes for the fewness of the victuals." Is it not true that in our work we often make the "shifting of the dishes" the apparently essential point? We must learn to distinguish between the essential and the nonessential in housekeeping. The girls should know the difference between sanitary cleanliness and aesthetic cleanliness. They should know that the woman who maintains sanitary cleanliness at a cost of time and money and labor that she can afford, even tho there may be dust upon her high shelves or unpolished silver on her table, is a far better housekeeper and homemaker than the one who exhausts her own resources and neglects the real comfort of the family by trying to maintain the aesthetic cleanliness that may be beyond her reach.

The renovation of the home involves the adaptation of the work to the special needs of the group which is being taught. A successful state worker in the South told me that she had planned her lessons in cooking on poultry, on fish, on rice, on eggs—just the things that the children would be using in their homes. Another illustration of this adaptation is given by the work of some seventh-grade children who one day a week prepare a luncheon for the forty teachers in the building. They charge twenty-five cents for the luncheon and try to plan it so that the raw food material costs not more than fifteen cents. Part of the money cleared has been used for feeding the anemic children in the building under the direction of a normal

class. One class in a normal school has applied the latest theories of diet in the establishment of a penny luncheon in one of the poorer schools of the city. The teacher of domestic science has direct charge of the work, and it is supervised by the principal of the school and the normal class.

The renovation of the individual home can be accomplished only when the community itself is made better. We cannot have good homes unless our neighbors have good homes. We cannot have clean homes unless the streets are clean. "Madam, who keeps your house?" is the question that is asked today, and the answer is found in the health department with its foods and markets, its weights and measures, its factory inspection, its milk inspection; in the sanitary inspection of the streets and alleys; in the board of medical and school inspection; in the bureau of smoke inspection, the bureau of contagious diseases, the marriage license bureau. The various departments of city administration furnish the real force that stands behind the good home. Children must gain civic standards if they are to have the renovated home.

But all the work for the home will be in vain unless it is directed not merely toward efficiency, toward good housekeeping, but even more toward welfare, toward happiness and service. Even efficiency in the home, if it interferes with comfort, with the development of the family spirit and the family unity, will be of no permanent value.

TOPIC: MANUAL TRAINING APPEARS IN CURRENT COURSES OF STUDY IN ELEMENTARY SCHOOLS, INTERMEDIATE SCHOOLS, AND HIGH SCHOOLS AND IS TAUGHT APPARENTLY WITH A VARIETY OF AIMS:

(*a*) FOR DEVELOPING AN APPRECIATION OF FORM, PROPORTION, AND NATURE OF MATERIALS; (*b*) FOR GIVING INSIGHT INTO INDUSTRIAL PROCESSES AND ACTIVITIES; (*c*) AS A SENSE AND MOTOR TRAINING, AND FOR THE DEVELOPING OF EXECUTIVE FACULTIES; (*d*) TO GIVE AN INCREASED FEELING OF REALITY TO THE ENTIRE CURRICULUM

HOW MAY THESE GENERAL AIMS BE BEST CONSERVED?

MILTON C. POTTER, SUPERINTENDENT OF SCHOOLS,
MILWAUKEE, WIS.

Whether manual training appears in the shape of kindergarten handwork, primary construction, grammar-grade cooking, sewing, woodwork, or high-school handicraft, drawing, laboratory or shopwork, it should perform the fourfold function (1) of developing appreciation of materials with

a sense of form and proportion, (2) of furnishing the elements of any industrial technic whatsoever, (3) of developing the doing sense and the joy of doing, and (4) of reinforcing the abstract teaching of the academic classrooms.

1. The boys who say their mensuration tables perfectly and yet lay off a yard as their idea of a foot have not reduced their academic lore to the terms of manual training. Appropriate form and consistent proportion grace common things no less than the walls of the Louvre or the Vatican.

Girls who select a checked paper to put upon the walls of a very low-ceilinged room, or vertical stripes for a very high room, or who purchase only a roll or two of it thinking that it will cover the walls of an average living-room, have far to go before they shall ever incarnate their fancied knowledge into bodily form. An appreciation of materials cuts the sale of dotted print cloths and promotes the honest weaving-in of colors. Happy and thrifty home life can never be hoped for among people who cannot or do not develop and use this sense.

2. The proper care of a few fundamental tools will soon deposit a residuum of tool technic in the muscle, mind, and eye of the fortunate child who has the opportunity to see and participate in real industrial processes carried on in the best way under the sympathetic eye of a teacher mechanic. One who planes with an ax, chops with a plane, draws nails with a chisel, and hacks with a saw is not possessed of a sense of tool functions which would connote the possibility of his ever incarnating his academic knowledge into real life. The same considerations carry forward into the more elaborate industrial operations.

3. The boys and girls who frequently and too easily follow their fellows are in need of some field wherein the project to be done shall be their own. The few elementary required projects once finished in any term, the individual projects may well come forward both as a test and as a generator of the child's dynamic senses. This takes them away from the set course where one may copy the "other fellow." The boy who wills to do a thing in the shop, designs it carefully, and accomplishes it has taken a major step toward the perfection of his own larger volitional life in society.

4. That springtime schoolroom which has received nothing permanent from the residence of forty or fifty live creatures within it is a mute witness to the deadly stagnation of the daily school life which obtained there. For a long time our children have been engaged in many a classroom in purely receiving processes; they have almost exclusively given themselves up to absorbing, to taking in impressions. Everyone who has ever given thought to the final results in the nervous and cerebral matter from such long-continued processes knows that there is a positive dam finally erected against the transmission of the received impression into external expression.

The permanence of impressions themselves is finally threatened by a long and exclusive continuance of the purely receptive processes. Doing and education for doing finds in a co-operating group of manual-training and classroom teachers a splendid opportunity to justify itself in the growing reality and abounding life of classroom history, science, geography, arithmetic, or reading. This family relationship of all the various teachers insures the vitalizing, the correlating, the motivating of children's school life.

DEPARTMENT OF MUSIC EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—OSBOURNE MCCONATHY, director, public-school music department, School of Music, Northwestern University.....Evanston, Ill.
Vice-President—LUCY K. COLE, supervisor of music, public schools.....Seattle, Wash.
Secretary—GLEN H. WOODS, director of music, public schools.....Oakland, Cal.

FIRST SESSION—TUESDAY FORENOON, JULY 7, 1914

The Department of Music Education was called to order at 9:00 A.M. in Elks Hall with President McConathy in the chair.

In the absence of the secretary, the chairman appointed William B. Kinnear, supervisor of public-school music, Larned, Kans., secretary *pro tempore*.

The following program was presented:

"Community Music—An Opportunity"—Peter W. Dykema, professor of music, University of Wisconsin, Madison, Wis.

"High-School Credit for Applied Music Taken under Special Teachers Outside of School"—Osbourne McConathy, director, public-school music department, School of Music, Northwestern University, Evanston, Ill.

"A Psychological Analysis of the Basis on Which Credit for the Study of Music Is to Be Placed"—J. Beach Cragun, School of Education, University of Chicago, Chicago, Ill.

"Report of the Committee on Terminology"—Charles I. Rice, director of music, public schools, Worcester, Mass., chairman.

The department favored the group idea with its terminology, but, thinking that it should be made more comprehensive, referred it back to the committee for the inclusion of beat-groups containing both notes and rests.

There was a free discussion of all papers by P. C. Lutkin, dean, School of Music, Northwestern University, Evanston, Ill.; A. J. Gantvoort, College of Music, Cincinnati, Ohio; Elsie M. Shawe, supervisor of music, city schools, St. Paul, Minn.; Emily Grace Kay, St. Paul, Minn., and others.

SECOND SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

The department was called to order at 2:30 P.M., and the following program presented:

"The Place of Music in Popular Education"—P. P. Claxton, United States commissioner of education, Washington, D.C.

"When Music Fulfils Its Highest Function"—P. C. Lutkin, dean, School of Music, Northwestern University, Evanston, Ill.

The following officers were elected for the ensuing year:

For *President*—Lucy K. Cole, supervisor of music, public schools, Seattle, Wash.
For *Vice-President*—Will Earhart, director of music, public schools, Pittsburgh, Pa.
For *Secretary*—Herman E. Owen, director of music, public schools, San Jose, Cal.

THURSDAY AFTERNOON, JULY 9, 1914

At this time, a program of music by composers living in St. Paul was presented by the Schubert Club of St. Paul for the members of the Association. The concert was given in Lodge Hall, Masonic Temple.

PROGRAM

Songs: (*a*) Eileen . . . . . *Gertrude Sans Souci*
(*b*) Heart of the World . . . . . *Gertrude Sans Souci*
Songs: (*a*) In the Forest Fair . . . . . *W. Rhys-Herbert*
(*b*) In a Garden . . . . . *W. Rhys-Herbert*
(*c*) Joy of Life . . . . . *W. Rhys-Herbert*
ALMA PETERSON, Soprano
W. RHYS-HERBERT, Pianist

Piano Solo: Variations on an Original Theme . . . . *Carl Heilmaier*
DOROTHY HOLMES

Cello Solos: (*a*) Album Leaf . . . . . *Emil Straka*
(*b*) Romance . . . . . *Emil Straka*
ARTHUR SKOOG
ALICE OLSON, Accompanist

Spoken Songs: (*a*) The Three Fishers (Words by Charles Kingsley) *Arthur C. Koerner*
(*b*) Gypsies (Words by Alonzo L. Rice) *Arthur C. Koerner*
MILDRED PHILLIPS KINDY
ARTHUR C. KOERNER, Pianist

Piano Solos: (*a*) Romance in G . . . . . *George H. Fairclough*
(*b*) Valse de concert . . . . . *George H. Fairclough*
CHARLOTTE BURLINGTON

Songs: (*a*) Es war ein alter Koenig . . . . . *Leopold G. Bruenner*
(*b*) There Is No Music in My Heart Today . . *Leopold G. Bruenner*
(*c*) Eldorado . . . . . *Leopold G. Bruenner*
FRANCIS ROSENTHAL, Baritone
LEOPOLD G. BRUENNER, Pianist

Violin Solo: Russian Lullaby . . . . . *Claude Madden*
Violin Solos: (*a*) Serenade Coquette, Op. 15, No. 2 . . . *Arthur Bergh*
(*b*) Alla Zingara (Hungarian Dance), Op. 8, No. 2 *Arthur Bergh*
GEORGE KLASS
INA GRANGE, Pianist

Song Cycle: The Heart of Farazda . . . *Malcolm Dana McMillan*
Lyrics by OLIVE LONG
BEATRICE LAVINE THURSTON, Contralto

INTRODUCTION

I. The Question
II. Before Her Mirror
III. In the Rose Garden
IV. At the Mosque
V. The Cry to Azrael

"The Heart of Farazda" tells the love of an Arabian girl. Number one is the song of the springtime of her heart. The music changes without interlude to the swing and the sing of the desert cry; love has came into her life from the desert. In the interlude before the third song is heard the dulcimer of her lover as he sings his serenade to her in the rose garden.

A quiet interlude, expressive of night, before the fourth song, breaks into the call of the eastern temple bells, as the dawn comes. He has gone and she is at the mosque praying to Allah for his safe return.

The last song is one of despair over her lover's departure, a cry to Azrael, the Angel of Death, and the vow of her endless love.

WILLIAM B. KINNEAR, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

COMMUNITY MUSIC—AN OPPORTUNITY

PETER W. DYKEMA, PROFESSOR OF MUSIC, UNIVERSITY OF WISCONSIN, MADISON, WIS.

In discussing the topic announced, it will be best to glance at certain conditions in our national life which need rectifying. After having done this, we shall examine the means by which improvement may be expected, and shall consider what part music may have in this betterment. Finally, we shall consider the type of musician who is needed to carry on this new social aspect of music, and shall endeavor to point out what his qualifications should be and how these may be obtained.

I. THE NEED—SOME CHARACTERISTIC TENDENCIES OF AMERICAN LIFE

This is an era of specialization, of individualism, of seeking for the efficiency of each man and each woman. The tendency of education, the tendency of life as a whole, is to consider that every person has a particular talent which he should develop, and which, being developed, will cause him to reach the highest degree of usefulness to himself and the world at large. Even tho some restrictions should be made, it is hardly too much to say that we are fast adopting as our national motto, "Every Man for Himself." The extreme of this point of view is what is without doubt responsible for a large amount of the dishonesty in our commercial and political life; the grafter, in other words, is merely the man who has exalted the ideal of every man for himself. His point of view merely says, "Let me get what I can; let everybody do the same, and the world will get on best, or at least, I will get on best, and that, in the end, is what every person is anxious to accomplish."

A second characteristic is the national idea of rush. To be busy is to most of us an indication of value; the more rapid the pace of our life, the more important we think we are. The principle of conduct is work hard and play hard—work up to the last minute until you are depleted in energy and exhausted in spirit; give all that you have, and then have a new supply poured in; work with a set jaw; be filled with ginger and pep and then go over to play which, thru its excitement, its thrills, and its shocks, will so surprise and overturn the organism that we shall forget the tension of work. It is this tired-business-man's attitude which is responsible for our "yellow" newspapers with their shrieking headlines, our ephemeral magazines, our large output of debased plays, our melodramatic movies, our sensational amusement parks—in a word, for our Coney Island type of recreation.

The third and largest tendency we shall examine is that which sets as the goal of life the acquisition of many things, which has as its standard the owning of much that can be measured and counted. In the rising scale

and cost of living, one large element is the willingness of the public to pay ever higher prices for the things it wants, especially those things which are in the class of luxuries. Those means which former generations have used for the developing of the spiritual side of life—art in its many manifestations, books, pictures, music, at least printed music—are as cheap as or cheaper than ever before.

II. THE REMEDY

What means for correcting these conditions are there already in operation? We are endeavoring to counteract individualism by the development of the social aspects of life. We hear much of the development of a social consciousness, the knowledge of, and responsibility for, the way the rest of folks live. There is the largely intellectual appeal thru publications such as the *Survey* magazine, the bulletins of the Russell Sage Foundation, reports of associations for relief; we are forming various bodies such as those devoted to charities and corrections in which we are having certain agents work for us—we are endeavoring vicariously to enter into our social responsibilities; and, finally, the social-center movement is bringing large numbers of us together for discussion. The keynote of all these movements is that of co-operation, of neighborliness, of brotherhood.

Music is having a large part in this movement and is destined to have an even larger one. For the sake of convenience, we may consider music in its two aspects: as something which is heard by an audience, and something which is made by the performers. Consider first the listeners: we find that the process of hearing music is a social one in itself. There must be the audience in order to have the best performance; it must supply the artists with inspiration and a reason for their existence. This is true as regards not only physical presence, but mental attitude as well. The performer gives according to his audience. They who hunger and thirst are the only ones who can receive. All the audience is therefore bound together in a sort of mutual endeavor to obtain the most and the best. This fact gives rise to what is called the "mass spirit," the psychology of the crowd which points out that the collective listeners are greater in their demands and their abilities to appreciate than any individual, and that, moreover, the power of each listener in the group is stimulated and heightened by the possibilities of the group as a whole. My bit of appreciation joins with yours, and with that of hundreds of others, and the composite mass envelops us and causes our little contribution to grow and expand. In this composite appreciation or enjoyment, there is a binding force which not only makes for sympathy but which is itself sympathy. Emotion of any kind, grievous or joyous, helps to bring people together. Go into any strange community and listen to an enjoyable instrumental performance, and you will find yourself becoming neighborly with those about you.

But if music tends toward sympathy and brotherhood when we are merely listeners, its effect is greatly heightened when we become per-

formers. Music performed by a group is essentially and pre-eminently social. Part singing is a symbol of democracy; each part is necessary, and there is a place for every type of individual. Frequently the bad qualities of one are counteracted and sweetened by those of another; the flatness or hollowness of one voice may combine with the overshrillness and acidity of another, with the resultant combination that, while neither is pleasant alone, both are pleasant when combined; but whatever the form of singing, the result of adequate work is the promotion of a feeling of co-operation, interdependence, warmth, appreciation—in a word, of brotherhood, and, in the end, is this not the goal of all our education, of all our social endeavor?

In our endeavors to overcome the feeling of hurry and overexcitement, we are anxious to develop a feeling of poise. We recognize the definite relation between work and leisure; the latter determines to a large extent the former, work being considered as the storing-up of poisons which must be gotten rid of thru recreation. Rest is the rebuilding of our bodies. So while we are all anxious to obtain better working conditions, more reasonable hours, closer adaptation to work, we are greatly concerned with what shall follow work—in other words, the disposition of the play hours. There are societies for the suppression of unnecessary noise, of unnecessary stimulation, the ridding of our ears of sounds that can be done away with, the ridding of our eyes of signs that shriek at us, and the general guarding of our environment. We are endeavoring to supervise amusements of various types by censorship and otherwise; we are making enormously increased provision for play and recreation both thru private enterprises such as the valuable endeavors of the Y.M.C.A. and the Y.W.C.A.—associations which have gained a new lease on life and a great increase in their religious influence thru the attention they have given to the physical and recreational aspects of life—and thru municipal parks, playhouses, baths, and the like; and, finally, we are undertaking not only the supervision, but the stimulation and direction of self-activity in play. There are municipal theaters springing up here and there in which not only the professional plays for which the theater is rented are given, but in which the citizens of the towns are performing plays. A great increase in festival work in the schools and pageantry in the community as a whole is another indication of the use of recreation for the development of poise.

Music is an important factor in this movement. Carlyle has said, "Give me the man who sings at his work." A wealthy French manufacturer has lately taken steps to get the people whom he employs to sing at their tasks. The idea that is back of these endeavors and many others of similar character is that he who sings must of necessity be cheerful, contented, and calm, or at least composed, and if he is not already so, the presence of music and especially the production of it will tend to bring out these attributes. Hundreds of examples can be cited in which the installation

of music has had a definite effect upon the steadiness and calm direction of work. The Salvation Army with its great use of song may not always make use of the selections which the trained musician would choose, but they are means of showing the power of music to develop sane, happy lives. The musician must be careful that in the attempt to produce strong technicians we do not kill the spirit of song. Whether a song be learned by rote or note, the important thing is that the singing spirit must be kept alive. If our children do not sing when they leave the school, our work is a failure. And for those who are outside of school, there must be opportunities for the renewing of this desire to sing.

This singing and playing by the amateur is of value not only for the pleasure and profit he may get from it in the actual performance, but it is the absolutely essential basis of appreciation of any higher form of music. Self-activity, the trying to do, is the ultimate basis of our appreciation. He who would appreciate Raphael must have tried to draw; he who would appreciate Chopin or any of the other great musicians must have tried to compose, to play, or to sing.

In considering the steps toward the developing of materialistic aspects of life into something higher, nothing has been of more significance in recent years than the welcome accorded to some modern prophets such as Charles Wagner with his doctrine of the simple life, the Hindu prophet with his cult of the Bahai, and the ready ear with which minor poets in many countries have been listened to in their portrayal of the lives of the humble. Nevertheless, this materialism remains one of the most forbidding tendencies in our American life. The schools and universities with their extension and free public lectures, the churches with the popularizing of their service, the formation of many forums for the discussion of topics of business and politics, and the social center with its "get together" talks, all these are striving valiantly to make possible the ideal of the spiritual end of education, the making of men rather than millionaires, the making of a life rather than a living.

Music, by its very intangible, fleeting, and unmonopolizable character, is especially valuable in this connection when properly directed. In its very nature the one who would possess it must give it away, and the more he gives the more he has. It is an ideal example of the fact that only that which one shares can one really have. Moreover, by its nature, it builds, in Keats's words, "a bower full of sweet dreams and health and quiet breathing." Music teaches that the satisfactions of life are in the outlook of man, in his spiritual attainments, not in physical possession. Music develops the imagination and immensely widens the experience of its devotees. He who would perform or even listen to music must be able to enter into the soul of the composer in his every mood. He who puts time and effort into the production of music has taken a long step toward the emancipation of himself from the domination of things. He has begun

to realize the beauty, power, and never-dying attributes of things spiritual and eternal.

Who is to apply these remedies, who is to guide the music so that it may have these effects? It is not the purpose of this paper to describe minutely the different types of musical organizations. Some of these have been suggested in a bulletin on *Community Music* published by the University of Wisconsin. Others will occur to each person as he reads of the successful experiments in various places of this and other countries. It may be said, however, that no particularly new or striking means or organization is contemplated or necessary. There are already in this country probably enough agencies, at least in embryo, to take care of all of our needs. What is essential is that these be used wisely.

A community consciousness regarding the need of music must be aroused. In any town if the church choirs, the singers in the lodges, the singers in the homes, the schools, the factories could combine, what place could not form a worthy chorus? If, on the instrumental side, the players in the band, the dance orchestras, the theaters, the homes, and the music students could be united in one harmonious group, what town could not have good instrumental music? In the lines of concerts and entertainments, if the churches, the theaters, the clubs, and private individuals that now compete in bringing in from the outside various types of concerts and musical entertainments were to unite in one strong course, we have only to look to towns like Elgin, Ann Arbor, or Dayton to realize what remarkable offerings could be given the people at a low price.

How shall this union be brought about? Shall the direction and control be by an association of private individuals, by a committee of some town government, or by some one person definitely assigned to this as his official task? Portions at least of the scheme of union have been worked out in accordance with each of these plans and even under a different plan, namely, that of the enterprising manager who by his cleverness is able to control to a large extent the musical situation of the town.

In Elgin, Ill., this latter plan is in operation, and a most remarkable series of concerts is the result. In one Wisconsin town a committee representing different and competing music schools and various other musical interests of the town has succeeded in combining the various factors so that a series of orchestral concerts is given yearly by the Chicago Symphony Orchestra. In Dayton, Ohio, a semi-official body directs this work. In Richmond, Ind., the teacher of public-school music was engaged on the condition that one-half of his time be given to the school work and one-half to the direction of municipal music. In New York City one man was chosen as director of municipal music, which, however, in this case, includes only concerts by bands and orchestras employed by the city. It is evident, therefore, that there may be many solutions of this problem. Probably the one suggested by Richmond, Ind. will be a satisfactory

arrangement when our public-school music teachers and supervisors are prepared for this larger work. At a recent conference of social-center workers, a movement was started for the passing of a law in Wisconsin which should, under certain conditions, make the principal of the high school or the superintendent of a small system of schools the city social-center director at a definite salary for each office. This movement is a recognition of the necessity of direction of the additional agencies in a city beyond those which are conducted in the public-school instruction for children. Of these educational agencies outside the school, music, as we have been led to believe, if there is force in what has already been discussed in this paper, is to be counted as one of the foremost elements. It will therefore be necessary, if we are to utilize it wisely, that there be someone in charge of using music in its social aspects. It is possible that the social-center director mentioned before may be able to fulfil these requirements, and it is certainly to be hoped that it will not be necessary to multiply officers. If, however, he is not, there is no more logical candidate for such a position than the supervisor of music in the schools. By his position he is in touch not only with the school but with the homes. He has under his direction the future adult music of the town, and if he is at all a permanent factor in the community, he would be in a position to continue with the graduates into adult life, and thus to unite youth and age by the one art which does it most simply and most naturally.

It is evident, however, that the school music teacher who is prepared to do only the work in schools will be obliged to prepare himself along some new lines. This is hardly a place to sketch a course of study, but we may mention one or two essentials. First of all, he must have a social instinct which may be defined as devotion to the good of the whole, and a knowledge of how to forward this. He must have some of the education which is required of a social worker, a knowledge of many of the phases of this interesting career. He must be in touch with the transforming of music in the life of the people in many parts of the globe. He must above all be an organizer and executive, for in this work he is most successful who is able to get people to do things for themselves. Of his musical requirements, it is only necessary to say that in addition to that vocal ability which we now expect of all teachers and to that instrumental accomplishment which we feel is necessary for the best school work, there must be added some facility in band and orchestral instruments, or at least an adequate judging and directing of players of them, and, finally and especially, there must be that capability of forging ahead in as yet unblazed trails, for the question of community music is one which is still unsolved. When the national commissioner of education asked me the other day if I could supply him with six people to undertake national work on the community music idea, I was obliged to say that as yet I had not seen six properly qualified people.

Wherein then lies the opportunity of community music? It is in the possibility of bringing to this troubled nation of ours a factor which will make for greater sanity, greater contentedness, greater poise, which will develop ideals of a finer and more worthy life, and which will do probably more than any other one single medium to develop among us that for which our civilization exists, the feeling of a finer brotherhood. In the doing of this we may find also that we are accomplishing that which Richard Wagner in his glorious opera *Die Meistersinger* makes Hans Sachs say is the keynote of the permanency of a nation, the development of a native art. As O'Shaughnessey in his poem, *The Music Makers*, so nobly set by Edward Elgar, says:

We are the music makers,
And we are the dreamers of dreams,
Wandering by lone sea-breakers,
And sitting by desolate streams;
World-losers and world-forsakers,
On whom the pale moon gleams:
Yet we are the movers and shakers
Of the world for ever, it seems.

One man with a dream, at pleasure,
Shall go forth and conquer a crown;
And three with a new song's measure
Can trample a kingdom down.

A breath of our inspiration
Is the life of each generation;
A wondrous thing of our dreaming
Unearthly, impossible seeming—
The soldier, the king, and the peasant
Are working together in one,
Till our dream shall become their present,
And their work in the world be done.

They had no vision amazing
Of the goodly house they are raising;
They had no divine foreshowing
Of the land to which they are going:
But on one man's soul it hath broken,
A light that doth not depart;
And his look, or a word he hath spoken
Wrought flame in another man's heart.

HIGH-SCHOOL CREDIT FOR APPLIED MUSIC TAKEN UNDER SPECIAL TEACHERS OUTSIDE OF SCHOOL

OSBOURNE MCCONATHY, DIRECTOR, PUBLIC-SCHOOL MUSIC DEPARTMENT, SCHOOL OF MUSIC, NORTHWESTERN UNIVERSITY, EVANSTON, ILL.

Our subject naturally divides itself under three headings:

First: Should high schools offer credit for the study of singing or playing on the piano or an orchestral instrument taken outside of school hours under a private teacher? If so, why?

Second: Granting that the high school should offer such credit, under what plan can the credit be arranged most effectively?

Third: Granting that these two points receive satisfactory affirmative solution, what steps should be taken by the Department of Music Education of the National Education Association to spread the idea to the end that the high schools of the country shall generally offer such credit?

Let me say at once that I firmly believe in the principle of crediting outside music study, and, further, that for six years I directed a high-school music department where such credit was given, and therefore am well convinced of its practicability. There are a few miscellaneous thoughts on the subject which I should like to express.

With regard to the general principles upon which a system of credit should be based, let me offer the following:

First. No system of credits should be advocated which fails to keep the school thoroly in touch with the work the pupil is doing. The private teacher must become, so far as that particular student is concerned, a member of the school faculty.

Second. The most difficult problem to be solved is the one of deciding which private teachers should be recognized by the school as qualified to give instruction of a quality acceptable to the school authorities.

Third. In some way the students must receive tests in their music work on a plan similar to those which determine their fitness for promotion in the other high-school subjects.

Fourth. No school should grant outside credit which does not offer a course in theoretical music which the student who receives outside credit is also required to take. We should recognize the value of a technical musical equipment, but it should be theoretical as well as applied.

Fifth. A surprisingly large number of students are seriously studying music. A plan which would enable them to give ample time to their music and at the same time carry on their high-school work would be hailed with joy thruout the country.

Sixth. There is probably no one movement which could so quickly raise the standard of private music teaching as the widespread adoption of the crediting system.

A PSYCHOLOGICAL ANALYSIS OF THE BASIS ON WHICH CREDIT FOR THE STUDY OF MUSIC IS TO BE PLACED

J. BEACH CRAGUN, SCHOOL OF EDUCATION, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

The question that concerns us here is that of the giving of school credit for work done in music. If we are of the turn of mind that goes to the bottom of things, there immediately arise several questions, one of the most important of which is this: By what right or benefit may we demand that music, especially instrumental music, be accorded the basis of serious benefit accorded the other subjects? This paper will not concern itself with the amount of credit offered, but will attempt to indicate the bearing of the subject of music on the mental development of the child, the difficulties to be overcome in getting music upon the proper accredited basis, and will endeavor to offer some aids to your own thinking as a means to this end.

The value of music study is by no means one to be taken as self-evident. The problem of the psychologic value of the study of music is an unsolved one. Manual training was once where music is now—treated more or less as an ornament, and to be tolerated rather than fostered in a system.

The school has literally been forced to incorporate every subject found in its curriculum. The same will be true of music as we would have it incorporated. And in this process we professional music teachers must take the initiative for no one else has our opportunity for gathering data. A further reason to show that we must study our own subject: I recently asked a number of professional school men and women this question: "Do you think that the methods of teaching music now in use in our schools are as efficient, comparatively speaking, as those of other subjects?" Only twenty-five answered in the affirmative, while eighty-three said, "No." Of course we understand the value of our subject, we feel it, hence we are the ones on whose shoulders falls the burden of proving its value to the uninitiated directors of public-school affairs—and their name is legion. It is the hope of the writer that this paper may be successful in aiding to organize our thinking to this end.

Before attempting to locate the value of our subject, we must obtain a category which is inclusive, which omits nothing. This exhaustive summary we find in the term "mental life," as used by present-day psychologists. In this are bound up all phases of being and development, whether mental, or physical, or spiritual. Modern psychology is more and more finding that these are but more or less separate phases of the one unit, the individual, for it must be accepted that all mental processes are psycho-physical, i.e., resultant in action of some sort.

"Mental life" being an inclusive term, all affairs with which education has to do must find their bearing on it in some manner. It is the burden of this paper to locate the bearing of the study of music on mental development. I have put the matter in the form of a chart to facilitate discussion:

MENTAL LIFE

Cognitive Aspect	Affective Aspect	Conative Aspect
To Know	To Feel	To Do
The knowing of things thru reason, imitation, or sensory information. The apperceptive mass.	Relative subjective feeling or emotional response.	Relatively objective desire or volition—the striving to or away from an end.
To think and to know. Afferent.	To feel and to appreciate. Central appreciation.	To wish, desire, to be able to do. Motor or efferent.

This division may be safely taken as an acceptable and inclusive one. If interested in studying further along this line, read McDougal's *Social Psychology*. It is to be noted that each element in the curriculum has elements of value coming from beneath each of the three divisions, cognitive, affective, and conative. Take geography, for example. The learning of facts comes under the first. The process by which the child learns "to feel" the relative sizes of countries, the isolation of one people, or the savagery of another falls under the second. The desire to further study, or to go to see some land studied, would fall under the third. Take the study of elementary science. The child learns to know certain facts, or he learns to feel certain relationships, or there follows a different behavior than otherwise there would have been. Take the study of music. The child learns certain elements of notation, for example, and he feels the beauty of tone or rhythm, and because of these and other previously received experiences, he desires the enjoyment of again hearing or producing good music.

Since we have registered the opinions of some of our leading psychologists to the effect that our classification is inclusive, our next point is to show the bearing of music work on this classification. This, again, is a thing that we might take for granted. But since I am taking nothing for granted, I have gathered some objective data bearing on this point. Allow me, again, to present these in the form of a chart, and remember that we are attempting to get at the location or bearing of the study of technical music on the mental development of the child.

Subject	Cognitive	Affective	Conative
Penmanship	9	4	68
Mathematics	100	0	25
Industrial Education	13	4	122
Music	3	112	15
Art	7	112	28
Geography	77	18	16
Language	86	80	38
History	83	49	20
Science	64	10	44

These figures were obtained in this way: The following people were asked to write down what subjects, in their opinion, should find their chief value in each of the three phases of mental life, cognitive, affective, and conative:

Positions	Men	Women	Total
Grade teachers	1	18	19
City, county, and district superintendents	41	2	43
Domestic science and art supervisors and teachers	1	14	15
High-school teachers	6	3	9
Manual-training supervisors and teachers	11	2	13
Elementary-school principals and assistant principals	9	5	14
High-school principals and assistant principals	14	1	15
General	14	13	27
Totals	97	58	155

The chart given above indicates the response. But it is always necessary to go behind any such quantitative statement as this and seek the qualitative interpretation of the same figures. Note "science" for example. The chart does not prove that science, having twenty votes more in the cognitive than in the conative, should be approached primarily from the first standpoint, under which procedure the child would accumulate a quantity of facts; but the table does show that science, with history and language, is a subject the study of which contributes largely to all aspects of the mental life of the child. And it does show, in terms of the expert opinion of this group of people, that the values derived from penmanship, mathematics, industrial subjects, music, art, and geography are more specialized in their contribution.

To get to the case in point, music study has a definite contribution to make in terms of this chart. There was little doubt in the minds of these educators as to this fact. Remember, again, that I am trying to so organize our thinking as to show the bearing, and not the relative value, of music study. Does this chart show, too, that music is not to be developed from the other standpoints as well? No, not at all, even if this were possible. These three phases are of the closest interrelation, and the one ever concerns the others. But it does indicate to me the one phase we should stress, that we should ever keep uppermost in the musical education of the child. To have a course in music which did not teach half and whole notes were folly, and to teach the child to respond in the finest fibers of his being, without resultant desire or volition in some direction, were impossible. Let us stress the affective in the musical development of the child, for then will the conative be automatically cared for.

To summarize the material covered thus far: All mental processes are psycho-physical, that is, resultant in action of some sort. It is the opinion

of experts in psychology that all mental processes may be divided under the three heads, cognitive, affective, and conative, and that under these, as contributing elements, may be placed all the subjects of the curriculum. Lastly, in terms of the expert opinion of the 155 people above named, music has a primal and very definite value in building up the affective phase of mental development.

Granted all this, all that remains to be done is to properly organize and present our material and measure results, for only after these things are done will music be accorded the serious place on the program it deserves. Three sets of figures gathered from the same group of people cited above have bearing here. To the question: "Should the pupils in the elementary school or high school be given opportunity for vocational training in music, i.e., training leading to the work of the professional musician?" Ninety answered "Yes," and twenty-eight, "No." To the question: "Should pupils in the elementary school or high school be given school credit for good work in instrumental music done with private teachers, but under school supervision?" this was the response:

	Elementary School	High School	Both	Total
Yes	1	11	114	126
No	9	1	9	19

Of the same group, the following figures cover their schools in which such credit is given with additional showing of the working success of the scheme.

	Elementary School	High School	Both	Total
Fairly successful	1	12	8	21
Highly successful	0	4	5	9
Not successful	0	0	0	0
Totals	1	16	13	30

The facts to be derived from the foregoing figures are these:

1. Most school people, indicated by the facts that 90 voted yes, and 28 no, would favor putting music on a vocational basis, if they could see their way so to do.

2. A total of 126 would, and only 19 would not, give school credit for instrumental work done with private teachers under school supervision.

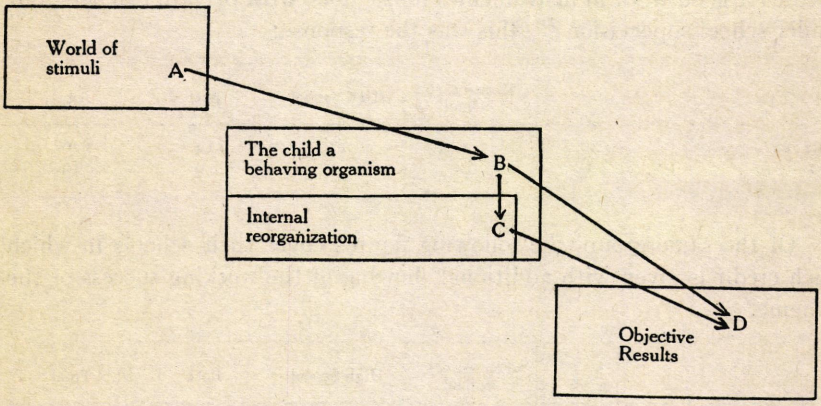
3. Of these 126 who would, 30 represents the number of schools which actually do give such credit, in not one of which is the scheme unsuccessful.

A serious question arises from these facts. Why do not the others, also, give similar credit? The explanation may be found largely in the answers to the question as to the relative efficiency of our present methods of teaching school music. You remember twenty-five answered in the

affirmative while eighty-three went on record to the effect that our methods of teaching music were not as efficient as those of other subjects. It will take the combined experience and the thinking of all of us to successfully meet such situations as this. Proper organization of our material is a matter that must occupy our most serious attention.

We said above that having an inclusive basis from which to work, and a classification fitted to the best modern educational and psychological thinking, and having music established as a primal contributor to one of the three elements of this classification—having all this, all we needed to do was to organize our material and measure results, and our case would be a complete and clear one. It is in the measurement of results that we have met our Waterloo.

Measurement of the results is a matter the difficulty of which is almost self-apparent, on the basis of the cognitive, affective, and conative classifications here assumed.



If the stimulus be this: 2×2 equals 4, placed on the blackboard by the teacher, or if it consists in a list of spelling words, the effect of the process *A* to *B* to *D* is easily reducible to quantitative terminology. However, such a study as music, developing largely in the affective phase of mental life, is likely to develop a different pathway, one that leads from *A* to *B* and then to *C*, where it may remain operative yet dormant for almost any length of time before functioning—as it is bound to do, sometime—at *D*. This is what I meant early in this discussion when I described the affective as a "relatively subjective" mental phase. The point is this: In the arithmetic problem the result *D* can be quickly and easily tested. But in the case of music, altho this child may have labored twice as hard as the other to acquire the appreciation concerned, his acquirement does not function at *D*, perhaps, until a year or two after he has been failed in his music course, and meantime nobody has been able to see or measure the value of the process at *C* which has been slowly developing. Of course *C*

is equally important with *D*, and here we have the foundation of our administrative difficulty, the one that you and I must stand united to solve, and concerning which I hope you will all find your own thinking the better organized thru the hearing of this paper.

WHEN MUSIC FULFILS ITS HIGHEST FUNCTION

PETER CHRISTIAN LUTKIN, DEAN, SCHOOL OF MUSIC, NORTHWESTERN UNIVERSITY, EVANSTON, ILL.

Music may be considered from two points of view: In the first instance as something we may listen to, and in the second instance as something we can bring into being thru our own intellectual, emotional, and physical activities. On first impulse we will be disposed to say that music is primarily something to be listened to. In any event, the great mass of humanity to whom music appeals get their pleasure thru hearing it, and performance is looked upon as a necessary process, without which there would be no music at all. Whether or no this act of hearing is the highest function which music serves will be determined later.

Music as something to be listened to embraces a vast gamut of possibilities. To begin at one of its lowest levels, the Salvation Army depends upon the seductive tones of the cornet, tambourine, and bass drum to attract the passer-by. And they do attract him, partly because they produce noise and partly because the simple melodies and recurrent rhythm have something elementally appealing in them. But the music is not only a means by which the crowd is gathered together—it is further expected to so affect the listeners that their emotions will the more readily be worked upon. Even on this humble plane, the two primary characteristics of music stand out distinctly. On the one hand, it has the capacity of affording pleasant entertainment; on the other hand, it has the capacity of arousing emotions, and that from the most flippant to those that are most deeply ingrained in our natures. The band at the circus will pleasantly excite us while the band at a funeral procession will deeply impress us with its solemnity. A singer at a vaudeville entertainment arouses passing mirth or cheap sentimentality, while an artist at a song recital will play upon our finer emotions to an indescribable extent. The same piano will at one time set our feet tingling with engaging dance music, while at another time it will move us profoundly with the lofty inspirations of some great master.

That music is well-nigh universal in its appeal is proven by its widespread use in theaters, vaudeville, and moving-picture shows. Nothing is more vociferously applauded than the popular song with its obvious refrain. The hectic melodrama must needs have its pizzicato when the villain is secretly plotting and its slow music when the heroine dies. In

fact popular entertainments are rare indeed which do not provide music in some form or other.

But we have considered music only in its widest and, as logically follows, its most superficial appeal. As we narrow the circle of our operations and confine its effects to the real music lover, we tremendously broaden its scope and meaning. It is difficult, indeed, to describe to the uninitiated the charm and fascination which music exerts upon those who either by natural gifts or by careful study are capable of fathoming its deeper import. We are all familiar with the inflections of the speaking voice and we know with what power they may be projected by a gifted orator or actor. If we analyze the technic of oratorical art we will discover that it is composed of precisely the same elements as music, but in a restricted measure. We have variations in pitch, in dynamics, in emotional force or intensity, and the suggestions of rhythm. Here we have the whole working outfit of music. But mark the differences: the tones of the orator are indefinite in pitch and very restricted in range, while the singer's tones are definite in pitch and cover an extended range. Moreover the tones of the speaking voice have no well-defined relation to each other, while those of the singing voice have an exact and complicated relation to each other. As to dynamics, the speaking voice in its gradations from the softest whisper to the loudest shout may possibly exceed those of the singing voice but they are by no means so finely differentiated. Certain instruments, however, notably brass and percussion, will greatly exceed the possibilities of the voice in dynamic energy.

When it comes to a consideration of rhythm, prose recitation touches but the "fringe of the crust of the edge" of time values. Even the involutions of poetic rhythms are rudimentary as compared with those of music. From this summary we see that single-voiced melody has practically all the expressiveness of oratorical art plus the grace of melodic outline, the beauty of musical tone, and the satisfying effect of coherent rhythmical and structural form. When well-ordered melody is added to words, the latter at once gain a greatly increased significance. We have but to recall "But who may abide the day of his coming," "Rejoice, greatly," or "I know that my Redeemer liveth" from Handel's *Messiah* in order to be convinced of this statement as far as prose is concerned. The moment we examine classic German verse set to music by a Schubert, a Schumann, or a Brahms, we must admit that the contention holds equally good concerning poetry.

But so far we have considered music only in its melodic and rhythmic aspects. Its most potent factor, harmony, has not been stressed at all. Melody may be defined as an expansion of human speech. The birds sing at least a suggestion of melody. The mother crooning her babe to rest is the most natural impulse in the world. But where do we find a rational basis for harmony? Painting, sculpture, architecture, poetry, *belles-*

lettres, all find their bases in concrete facts. They imitate, exploit, or explain actualities. But harmony is unlike anything in the heavens above, the earth beneath, or the water under the earth. It is certainly a marvelous art that can give to one and the same tone a feeling of brightness, a feeling of sadness, a feeling of stability, a feeling of instability, a tendency to ascend, a tendency to descend, a sense of close, a sense of progress, a sense of repose, a sense of restlessness. Moreover, thru the subtle power of harmony, this same tone may receive emotional colorings, varying all the way from deepest awe to highest elation.

But this is only part of the function of harmony. An orator can express but one thought at a time. If a second speaker interposes another idea or the same idea in other words, confusion results. Music has the peculiar quality of being able to present coherently, definitely, and harmoniously two or more ideas at the same time, or of presenting the same idea in various transformations simultaneously. A musical motive may appear in innumerable forms thru change of key or mode, thru transplanting to other scale degrees, by means of augmentation, diminution, expansion, contraction, inversion, or shift of harmonies. All these transformations may be applied to a single part or to many parts, intertwining, overlapping, intensifying, or qualifying one another. To these endless devices for development and variation must be added the inexhaustible rhythmical combinations and, in the case of a symphony orchestra, the differing qualities of sounds. The whole represents one of the most complex structures the human brain can conceive. With all these manifold possibilities it is small wonder that music has infinite fascination for those whose ears are keen enough to pierce below the surface and understandingly follow a maze of complex details.

To look at the full score of a modern choral work gives to the eye some adequate idea of the machinery of great music. In such a work which was recently given under my direction over thirty staves were required to accommodate the tonal equipment. To follow the order of the full orchestral score there were parts for four flutes, four oboes, four clarinets, four bassoons, eight French horns, three trumpets, three trombones, one tuba, three kettle-drums, a bass drum, a long drum, a snare drum, cymbals, triangle, tambourine, two sets of bells, celeste, xylophone, tam-tam, eighteen solo voices, an adult choir dividing on occasion into ten parts, an echo chorus, a children's chorus, first violins, second violins, violas, cellos, and double-basses. At no time was this imposing array of musical forces used all together, altho nearly all were employed in the climaxes. To write two solid hours of music for such an outfit and to have every phrase of every instrument a necessary and an artistically integral part of the whole is certainly a herculean task. The oratorio made a deep impression on the more susceptible auditors, but it was the conductor, and the conductor only, who had any adequate appreciation of the many delicate shades of

meaning and the inexorable logic which carried it thru to a successful issue. And this appreciation came about only after weeks of painstaking, analytical study.

But we have considered only one side of our investigations, music as something to be listened to. We will now approach the art from the opposite angle—music as something to be performed. We have assumed thus far that the music under consideration has been artistically performed, otherwise it would lose much of its potency. In point of fact, even slight lapses from a really good performance will make an astonishing difference in the effect. Music is a fine-grained art and in its higher manifestation calls upon a combination of many unusual qualities in order to accurately present the composer's thought. Aside from the physical dexterity required there must be a keen sense of pitch, a supersensitiveness to rhythmical effects, a vivid imagination, and an emotional temperament all added to intelligent and ripe musicianship. In the last analysis, the performer must, in a considerable measure, possess all the artistic maturity of the composer, for he must re-create the music and clothe it with all the subtle nuances that were in the composer's mind, else the performance will fail of its highest purpose.

It goes without saying that performance calls upon capacities that the listener rarely has. It is one thing to recognize and appreciate the artistic touch when heard, but it is quite another thing to be able to produce a like effect. The performer is the active agent in music-making and the listener is relatively passive. But, some will say, we grant the superiority of the performer over the listener and the desirability of all being performers. But if all are performers there will be no one left to listen. This contention brings to a focus the question at issue in the paper: Is music necessarily something to be performed by the few and listened to by the many? The answer is "Yes," as far as instrumental music and music intended for solo or selected voices is concerned; the answer is "No," as far as choral music is concerned. So long as instrumental music is dependent upon digital dexterity for its performance, just so long will it remain the possession of skilled players in its performance, and the layman must needs content himself as an auditor. With choral music it is an entirely different proposition. The question of physical dexterity and natural capacity does concern the solo singer, but practically anybody can learn to sing well enough to take his part effectively, not only in simple hymn music, but in the great choral masterpieces of music as well. To play the instrumental music in these same masterpieces requires years of patient toil; to sing the choral parts takes surprisingly little training—training that if systematically spread over the grade-school period would require no appreciable effort at all.

If there is one privilege to which all human beings should be entitled, it is the privilege of having the human voice properly developed. And

this concerns not only the singing but the speaking voice. The typical American voice, high pitched, nasal, and twangy, is a national reproach. These unpleasant and vulgar sounds are quite unnecessary, and could easily be corrected in the schoolroom. They are the remnants of frontier life and have no part in civilized surroundings.

It should also be the business of the public school to teach voice production as it concerns singing, for the ability to sing well should be the heritage of every human being. At the present time, the teaching of the art of singing is a highly specialized profession. Good voice teachers command anywhere from one to ten dollars per half-hour lesson. Now such prices may be all right for those aspiring to become operatic or concert stars. The fact remains that proper breathing, good tone production, and correct enunciation can be successfully taught in classes. Children with their quick intuition and plastic voices will be taught much more readily than adults. If really capable and efficient instruction in singing were given in our public schools the gain would be not only an aesthetic one. Singing is a most health-giving exercise, expanding the lungs and increasing the general vitality. It is further claimed by no less authority than William L. Tomlins that the intellectual capacity is both stimulated and enlarged and that the moral sense is developed thru emotional singing. He cites out of his own experience in Liverpool, England, how children of the dock laborers, subnormal both mentally and physically, were so stimulated by music that the improvement in health, moral sense, and scholarship was most remarkable.

Singing in chorus is the one means by which we can collectively give effective expression to one and the same emotion at the same time. The greatest singer that ever breathed could not produce the overwhelming effect with a patriotic song that is brought about by a great concourse of people, all singing the same song. It is the self-participation that gives the larger thrill.

If music, then, gives such magnificent opportunities for mass expression, why should not mass singing be more generally and systematically developed? Noble and inspiring as patriotic music is, it represents but a fractional part of the musical possibilities in this direction. It is the convention that at an oratorio performance one-fourth of the people shall perform and the remaining three-fourths listen. Who are the people who really penetrate to the core of the music, the singer or the audience? The singers, of course. Thru extended and painstaking study they have arrived at that degree of familiarity with the music that they really appreciate its artistic import and are capable of entering into its inner spirit. Imagine a noble church, packed with eager singers and players uniting in the strains of an inspired oratorio, not with the idea of winning commendation, nor even of transmitting a message to others, but solely to voice their own emotions and to sink their identities in that of a master-mind that evolves a wonderful fabric out of intangible sounds.

The musical sense like the moral sense is something apart from what is ordinarily called education. Many scientists and professional men have no liking for painting, sculpture, poetry, or music. On the contrary, many people without educational advantages whatever have an inborn feeling for the beautiful in color, form, or sound. Wealth and poverty, education and ignorance have divided mankind into well-defined strata. Morals and art have the wholesome effect of cross-cutting these strata at varying angles. Religion draws together those who make for righteousness, be they literate or illiterate, rich or poor. In like manner the feeling for art cross-cuts not only the strata of relative education and riches but that of morals also, for the artistic temperament does not carry with it, any more than does culture or money-getting power, the sense of moral obligation. Because the results of wealth and education are apparent to all men, they have overshadowed the more subtle and hidden results of morals and arts. In the final analysis of the values of life, all right-thinking men will place right doing first and worldly possessions last. The relative value of education minus art, or art minus education, will be largely a matter of personal bias. Real culture combines both education and art, and our colleges and universities are slowly recognizing the fact.

Music is the most democratic of all the arts, and it concerns or interests a vastly larger number of people than does any of its sister arts. At concerts and opera performances we find all sorts and conditions of people drawn together by a common love for music. Oratorio choruses are made up of all ranks of society, and bankers, butchers, professors, clerks, ladies of high social standing, and housemaids all meet for the time being on a common, or rather on an uncommon, level. One of the interesting signs of the times is the fact that business interests are waking up to the value of art and recreation for their employees. The largest mercantile house in Chicago has a well-organized and well-disciplined oratorio society composed of its clerks, and two concerts annually are given with full orchestra at Orchestra Hall. Large manufacturing establishments are employing trained specialists to organize and promote social activities, and music is by no means overlooked in the general scheme.

Music unquestionably fulfils its highest function when we ourselves are the participants and the music makers. If we take our part seriously and intelligently, we will discover a vast field of pure and unalloyed pleasure. We will find our dulled emotions sharpened, our enthusiasm quickened, our vitality augmented. A wholesome sense of taking one's part in a large and more important whole will be engendered. In musical performance, there is ample room for emotional expression, and Americans sadly need more sentiment in their composition. At times, confidence and courage will be vigorously voiced, and again great restraint, and a keen sense of proportion will be necessary. Any tendency to self-exploitation may destroy the delicate relation of the parts. This feeling for balance serves

as an antidote to selfishness and self-assertion and awakens a kindly feeling of co-operation and mutual adjustment. And what is most important, we become familiar with an art that above all arts can voice the whole gamut of human emotions.

To sum up, music in its broad aspects ministers to the vast majority of civilized and enlightened humanity. From the simple and indefinite enjoyment of the masses, we pass in constantly ascending scale to the complex and definite enjoyment of the cultured few. It should be our aim and endeavor to constantly raise the standard of musical appreciation so that the cultured few will eventually be lost among the cultured many.

DEPARTMENT OF BUSINESS EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—EARL J. GLADE, head of commercial department, Brigham Young University
Provo, Utah
Vice-President—DAVID P. BLANKENBILLER, Mechanic Arts High School.....St. Paul, Minn.
Secretary—MARGARET MACVICHIE, head of commercial department, High School
Salt Lake City, Utah

FIRST SESSION—TUESDAY FORENOON, JULY 7, 1914

The first meeting of the department was called to order at 9:30 A.M. in the auditorium of the Y.M.C.A. building, by President Glade.

The first paper was an address by President Glade, entitled "The Present Status of Business Education in the United States and Some Recommendations."

Serious illness in the family of Edmund J. James, president, University of Illinois, Urbana, Ill., prevented his being in attendance at the convention. For this reason, the theme of his paper on "Do the Subjects of Our Business Curricula Really Afford a Vigorous and Satisfactory Intellectual Training?" was discussed informally. Those participating in the discussion were: W. S. McKinney, commercial teacher, Englewood High School, Chicago, Ill.; Sherwin Cody, director, School of English, Chicago, Ill.; Roy V. Coffey, assistant professor of commercial education, Iowa State Teachers College, Cedar Falls, Iowa; David P. Blankenbiller, commercial teacher, Mechanic Arts High School, St. Paul, Minn.; James S. Curry, head of shorthand department, High School of Commerce, Cleveland, Ohio; Earl J. Glade, head of commercial department, Brigham Young University, Provo, Utah; J. Henry Allen, superintendent of schools, Grand Junction, Colo.; P. L. Greenwood, St. Paul, Minn.; J. A. Bexell, Corvallis, Ore.; and Mr. Preston, Minneapolis, Minn.

SECOND SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The meeting was called to order in the Y.M.C.A. auditorium at 9:00 A.M. with President Glade in the chair.

The first speaker was Herbert M. Temple, Webb & Company, St. Paul, Minn., who gave an address on "The Value of Collegiate Training in Business to the Man of Affairs."

Discussion: Roy V. Coffey, assistant professor of commercial education, Iowa State Teachers College, Cedar Falls, Iowa; Sherwin Cody, director, School of English, Chicago, Ill.; W. S. McKinney, commercial teacher, Englewood High School, Chicago, Ill.; Earl J. Glade, head of commercial department, Brigham Young University, Provo, Utah; R. G. Laird, Boston, Mass.; J. A. Bexell, Corvallis, Ore.; Clay D. Slinker, Des Moines, Iowa; Robert W. Diehl, St. Paul, Minn.; Mr. Preston, Minneapolis, Minn.; Mr. Arnes, Minneapolis, Minn.; and Miss Huff, Kansas City, Mo.

A resolution was unanimously passed thanking Mr. Temple for his splendid address.

The next paper, entitled "Preparatory Educational Requirements for Collegiate Training in Business, with Special Reference to Articulation between the High-School and College Courses," was presented by Roy V. Coffey, assistant professor of commercial education, Iowa State Teachers College, Cedar Falls, Iowa.

THIRD SESSION—THURSDAY FORENOON, JULY 9, 1914

The meeting was called to order at 11:00 A.M., in the Y.M.C.A. auditorium, by J. N. Kimball, New York, N.Y., who took charge of the National Typewriting Contest which had been scheduled.

The results of the contest are as tabulated below:

NATIONAL TYPEWRITING CONTEST

Name	Machine	Gross	Errors	Penalty	Net	Net Words per Minute
Bessie Friedman	Underwood	3,804	30	150	3,654	122
J. L. Hoyt	Underwood	3,761	44	220	3,541	118
Rose Bloom	Underwood	3,698	59	295	3,403	113 13/30
William F. Oswald	Underwood	3,720	67	335	3,385	112 25/30
Parker C. Woodson	Remington	3,502	33	165	3,337	111
Harold H. Smith	Remington	3,554	60	300	3,254	108 14/30
G. R. Trefzger	Underwood	3,668	87	435	3,233	107 23/30
Thomas J. Ehrich	Remington	3,672	89	445	3,227	107 17/30

FOURTH SESSION—FRIDAY FORENOON, JULY 10, 1914

ROUND-TABLE CONFERENCE

President Glade called the meeting to order at 9:00 A.M. in the Y.M.C.A. auditorium.

A round-table conference was the order of business. Those participating in the discussion were: A. Gideon, professor of modern languages, University of Wyoming, Laramie, Wyo.; David P. Blankenbiller, commercial teacher, Mechanic Arts High School, St. Paul, Minn.; Earl J. Glade, head of commercial department, Brigham Young University, Provo, Utah; Sherwin Cody, director, School of English, Chicago, Ill.; Todd E. Paulus, St. Paul, Minn.; P. L. Greenwood, St. Paul, Minn.; J. C. Walker, Detroit, Mich.; Clay D. Slinker, Des Moines, Iowa; and R. G. Laird, Boston, Mass.

J. C. Walker, Detroit, Mich., of the Burroughs Adding Machine Company then gave a demonstration of the operation of the Burroughs Adder. He supplemented the demonstration with a discussion of the possibilities of the machine for bookkeeping and accounting purposes.

President Glade then called for the reports of the various committees, the first of which was the Report of the Committee on Research, Standardization, and Correlation. This committee reported as follows:

It is proper that some account shall be rendered of the work of your committee.

First, it should be said that some research has been made as to the character of the work being done in several of the subjects included in an ordinary commercial course.

Something has been done toward standardization; altho, as yet, no final conclusion has been reached in any one subject. The inability to secure meetings of the committee largely accounts for our not being able to submit a report of completed work upon any single subject. In fact, the work thus far done has merely provided material for real committee work.

It has not been the purpose of the committee to offer syllabi of the several subjects by single individuals, however expert, but rather to analyze, criticize, and work over these special reports by putting them thru a smelting process whereby they shall be reduced to elemental things. Having done this with the more essential subjects, it will then be in order to issue the results in pamphlet form and submit them for the criticism of commercial teachers and experienced business people preparatory to a revision for final publication.

Your committee has been seriously handicapped from a lack of money necessary to an efficient prosecution of the work thus far, and a point has been reached beyond which it is almost impracticable to go without financial support.

You will understand from the appeals that have been made to the Executive Committee of the Association how earnestly an appropriation has been sought, and that

our claims have again been pressed upon their consideration at this meeting without success. It is now proposed to seek aid from outside sources. Indeed preliminary steps have already been taken with some promise of success.

Respectfully submitted,
W. S. McKINNEY, *Chairman*
SHERWIN CODY
MARGARET MACVICHIE
W. C. PRESTON
R. R. STUART
G. F. ROACH
SELBY A. MORAN
H. M. ROWE
ROBERT A. GRANT
W. A. SHEAFFER

The report was unanimously adopted.

The Committee on Resolutions then tendered its report which was as follows:

Resolved, That the newly elected officers of this department be directed to seek a joint session next year with the Department of Secondary Education.

Resolved, That the permanent Committee on Research, Standardization, and Correlation be requested to seek co-operation with the United States Bureau of Education and that the department hereby indorses the petition to Congress for an appropriation for a division of commercial education under the Bureau of Education.

Resolved, That the present president of this department appoint a committee of five to investigate the feasibility of standardized business-ability tests which may be useful alike to business men and as a partial basis of determining college entrance when credit is given for commercial subjects, this committee to report at the next meeting.

WHEREAS, The Department of Business Education has for four years in succession asked of the Board of Directors an appropriation for its Committee on Research, Standardization, and Correlation and has been ignored; and

WHEREAS, The chairman of the Board of Trustees has stated at the last annual meeting that the request was refused because committees of other departments (science, higher education, etc.) were doing similar work (committees appointed long after ours), therefore be it

Resolved, That this department requests the Board of Directors of the National Education Association to take action either to appropriate to the uses of the department one-half of the membership fees of such members of the National Education Association as specifically request it during the ensuing three years or to indicate some other means of financing the work; and be it further

Resolved, That if no definite and positive action has been taken before the next annual meeting of the active members, the officers of this department are directed hereby to present this matter to said annual meeting.

The foregoing resolution was vigorously discussed. A. Gideon, of the University of Wyoming, suggested that a "monster petition be prepared and submitted to the proper authorities, this petition to contain the signatures of the presidents and heads of the various universities and colleges now offering work in commerce." It was his idea that such a petition would be formidable enough to secure at least some financial relief for our committee.

The report was then adopted as read.

The following officers were elected for the ensuing year:

For *President*—Reginald R. Stuart, head of commercial department, Technical High School, Oakland, Cal.

For *Vice-President*—(To be filled by the president of the department.)

For *Secretary*—Alvah B. Way, head of commercial department, High School, Petaluma, Cal.

D. P. BLANKENBILLER, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

THE PRESENT STATUS OF BUSINESS EDUCATION IN THE UNITED STATES AND SOME RECOMMENDATIONS

EARL JAY GLADE, HEAD OF THE COMMERCIAL DEPARTMENT, BRIGHAM YOUNG UNIVERSITY, PROVO, UTAH

It is rather an interesting paradox that the United States of America, which as a nation has enjoyed industrial supremacy among the world powers during the past century, has been so tardy in recognizing the importance of business education. The ultra-practical business man may ironically observe that this success has evidently been due to the absence of any serious intrusion on the part of the pedagog, but a moment's reflection will lay bare the fact that it is really to a superabundance of natural resources, scattered over a wealth of virgin territory, that credit should be given.

It is equally paradoxical that for so many years the ideals of business and education should have been regarded as diametrically opposed. To the business man, the school-teacher was somewhat of an "old fogy" whose ability lay entirely in the realm of theory, and, in return, the teacher frequently looked upon the man of affairs as an individual of questionable motives and little culture. That there must have been some provocation for this antipathy is very likely.

Enmity of this nature would naturally retard any real advance in commercial training. Therefore, we are not surprised that, during the greater part of the past century, the most prominent exponent of business education in the United States was the so-called business college. Of the particular reason for the use of the word "college" in this connection I am not aware, unless it was for advertising purposes. At any rate, the use of this term has caused much annoyance in educational circles, particularly in the compilation of our statistics, so much, in fact, that some states have entirely forbidden its usage except when employed in harmony with the accepted meaning of the term.

Under these conditions, our business education for a long period could be little else than the offering of a few courses, all of which were more or less mechanically taught. Ornamental penmanship was especially conspicuous. The penman was the hero of the hour and was followed about very much as were teachers in the days of the Beggar Students in mediaeval Europe. Then came the era of commercializing this form of education and the establishment in prominent centers of veritable chains of "colleges," the best known of which was that of Bryant and Stratton. The spirit of money-making in the management of the schools was rampant, the result of which was a bitter advertising campaign that continued for years and in some quarters still obtains. Naturally persons of very questionable educa-

tional standing were also attracted to this movement by reason of extraordinary financial inducements.

Obviously such superficiality could not hold its own for any protracted period, particularly in view of the fact that our business methods were attaining a degree of complexity undreamed of at the inception of the business college. The attendant result was that graduates of these schools were unprepared for other than subordinate clerical positions. The instruction was altogether too narrow.

However, it would probably be no more than fair to state, that, at least at the present time, there is a vast difference between business colleges and business colleges. Those institutions which open their doors only to mature students who already possess a liberal number of fundamental prerequisites (or make adequate provision therefor), and then offer a still more liberal curriculum of applied courses, intensively taught by an accredited faculty of business specialists—such schools have genuine service to offer. However, for the institution which is established solely for mercenary purposes; which expends, for extensive advertising campaigns, funds that should be used to purchase additional facilities and equipment; for the school which will enrol anyone in its classes in spite of immaturity, unpreparedness, or even inaptitude, so long as they can be induced to meet an extortionate tuition charge; for the school which does little else than exploit a guaranteed job proposition, when, in fact, those jobs are not its property to guarantee at all; for the school the proprietor of which plus a diminutive office girl constitute the president, secretary, treasurer, and faculty—for such an educational excrescence, I see no function in our modern civilization at all.

One of the most conspicuous movements for the betterment of business education in our country took place about twenty-four years ago. Professor Edmund J. James, then director of the Wharton School of Finance and Commerce of the University of Pennsylvania and now president of the University of Illinois and the nation's most eminent business educator, before the American Bankers Association at Saratoga, made a plea for the establishment of separate high schools of commerce. At that time the idea was an innovation indeed.

The educators of the country were by no means converted to work in commerce as a part of the high-school curriculum, but President James's recommendation was an expression of the national need and could be suppressed only with difficulty. That he was right in his contention is evidenced today by the great number of high schools of commerce now successfully operating in our metropolitan centers and by the large number of schools containing departments of business education.

There were, at first, as is invariably the case with an innovation of this magnitude, several conditions which interfered with the introduction of the work, chief of which was the absence of a competent teaching force. This

condition, however, was only natural as at that time there were practically no facilities for advanced study. Then, too, many rural and some urban high schools attempted to provide the work when they were practically without facilities.

While many of these problems have been solved, there is still much to be done. Our schools lack the compactness of those of Europe, particularly those of Germany. The desirability of standardization is still debated. Experimenting seems to be the order of the day. There is a feeling, that is well founded, that our high-school curricula are already overcrowded. To state that some far-reaching adjustment is needed is only to emphasize the obvious.

In the meantime, higher work in commerce went on apace. From 1881 until 1900, the Wharton School of Finance and Commerce was practically alone in the field of advanced business education. Its influence, however, has been widely felt thruout the country. Beginning with 1900, the tremendous impetus given this work is evident in the establishment of departments of commerce in many of our prominent universities, among which were Dartmouth, New York, Illinois, Wisconsin, Chicago, Michigan, California, and Vermont. The work has gone along vigorously. The report of the commissioner of education for the year ending June 30, 1913 shows that there were, during last year, 224 universities and colleges in the United States offering courses in commerce. Considered from the standpoint of number, the western states seem to be the more progressive in this direction. In the following abbreviated list, which is fairly representative of the eastern and western divisions, are recorded the number of colleges offering advanced work in commerce:

EASTERN DIVISION

Vermont	1	New York	9
Maryland	2	Massachusetts	6
Maine	1	Pennsylvania	14
Louisiana	3		

WESTERN DIVISION

Colorado	4	Texas	7
California	5	Illinois	15
Kansas	13	Ohio	16
Minnesota	4	Iowa	18

And this is the work of a decade! What may we not expect in the years to come? The history of education has seen only a few movements of this magnitude. Even the most conservative of our American colleges are coming to a recognition of its importance. The splendid struggle of the Wharton School at the University of Pennsylvania has clearly shown that the lowering of standards has not been necessary with the introduction of these courses.

Now what are some of the needs of the hour in this division of our educational régime? I am impressed with the diversity of names which are given to the various departments offering courses in commerce. In the 1913 report of the commissioner of education, there were no fewer than twenty-eight different styles of appellation given these subdivisions of the university curricula. While these names may not be any more divergent than the departments they describe, and while such a variety is quite natural at this early period, nevertheless, I believe it would be consistent to look toward a certain degree of standardization, which would also naturally include a somewhat similar unification of the courses covered as also the degree offered at the completion of the work.

Following are some of the departmental names used today by our prominent universities:

Leland Stanford Junior University: Department of Economics.
North Georgia Agricultural College: Department of Business Science.
University of Chicago: School of Commerce and Administration.
University of Illinois: School of Commerce.
Iowa State Teachers College: Department of Commercial Education.
Simmons College: Department of Secretarial Studies.
Dartmouth: School of Administration and Finance.
New York University: School of Commerce, Accounts, and Finance.
University of Pennsylvania: School of Finance and Commerce.

If the impetus given advanced work in business is to be very far reaching, and one has every reason to believe that it will be, the high schools will probably occupy an important position as preparatory schools for the business work of the college. Already the matter of proper articulation between the courses of the high school and those of the university is one of great moment. However, there will always be a definite function for the standard high school of commerce, and that will be to prepare students for the more or less routine work of business and public life. It is to be hoped that those in charge of this line of endeavor will conduct the work in such a manner as to avoid producing automata. Phenomenal ability at thumping typewriter keys, if unaccompanied by a reasonable development above the shoulders, is the incarnation of superficiality. The business student needs culture and much of it. It is also a matter of sacred duty on the part of the teacher to guard well his protégé during the troublesome period of adolescence.

There are in the United States about 12,500 public and private high schools. A great many of these are attempting to offer work in commerce without adequate equipment and without any need for the work other than that of satisfying an ambitious principal's desire for an extensive curriculum. Surely this is the height of folly.

Another need of the work in our universities is an active interest on the part of our chambers of commerce and our municipal and state governments.

In some centers this co-operation is already being enjoyed with splendid results, but it needs extension. Support of this kind will tend toward a degree of stability that is characteristic of the German institutions. Notice for a moment the organization of the *Handelshochschule* of the city of Leipzig. In the first place, the Chamber of Commerce assumed the responsibility for the school and was given assurance of the support of the Saxon government. The senate in control of the institution is composed of the following:

1. One member from the Saxon government.
2. One member from the city of Leipzig.
3. Three members from the Chamber of Commerce.
4. Three professors from the University of Leipzig.
5. Two teachers from the middle commercial schools.

With this as a characteristic organization of the German higher schools of business training, it is only natural that their influence should be so widespread. Altho vigorous emphasis has been placed upon this phase of learning, the ideals of education in Germany have not been lowered; the truth of the matter is that the sturdy Teuton not only excels in training for business, but has maintained his leading position in other fields as well. While the spirit and genius of the American people are different from those of the *Vaterland*, we can nevertheless well afford to profit by this experience.

Now one word by way of conclusion. I believe that the struggle for adequate business training is just in its incipiency. The next score of years will not be idle ones. This very hour finds us in the realm of the dynamic. The curricula of our colleges are being modified more vigorously than at any previous time in our history and it is all in response to a national awakening.

The call of the hour is for efficiency in affairs. This call is being sounded in the daily happenings of our public life—in the passing of the New Haven dividend, in the bankruptcy of the Siegel and Clafin companies, in the failure of the Lorimer banks, in the sinking of the "Empress of Ireland," in the lingering bitterness of the southern Colorado labor imbroglio, and in many other problems that stare our nation in the face.

Only the highest type of man power is commensurate with the situation. Today this type of power cannot be generated thru apprenticeship in business and public life alone, for there it is too late and costly. It is largely upon our educational system that we shall have to rely.

In behalf of America's future men and women, who will desire to render service in the world of affairs, permit me to express the hope that the educational powers in our land of industrial supremacy may come to a speedy recognition of business as a profession and of the need of making adequate educational provision therefor.

PREPARATORY EDUCATIONAL REQUIREMENTS FOR COLLEGIATE TRAINING IN BUSINESS, WITH SPECIAL REFERENCE TO ARTICULATION BETWEEN THE HIGH-SCHOOL AND COLLEGE COURSES

ROY V. COFFEY, ASSISTANT PROFESSOR OF COMMERCIAL EDUCATION, IOWA STATE TEACHERS COLLEGE, CEDAR FALLS, IOWA

It is common knowledge, I believe, that there have been many changes in college-entrance requirements during the past few years. Indeed, they are taking place rapidly at the present time. When C. F. Copeland, director of the School of Commerce of Ohio University, conducted his investigation in the year 1909, not more than six of the state universities allowed technical commercial branches to make up as many as one-seventh of their entrance units; and few, indeed, of these schools allowed more than one-seventh. Now, one school of this sort accepts all the secondary commercial subjects, three allow commercial subjects to make up one-third of their entrance units, and many more, less than one-third.

It is my belief that the credit for these rapid changes is due more to the efforts of the advocates of the other vocational subjects than to the commercial teachers, however. The higher institutions are trying to work out a uniform basis which will be fair to all; hence, they group the industrial subjects and agree to accept a definite number of units for entrance from any of the following: manual arts, agriculture, domestic arts, or commercial branches. Of course, this is provided the candidate offers in addition a given number of required units.

I feel, sometimes, that the other vocational departments are reaching a working basis which is satisfactory to the higher institutions more rapidly than are the commercial departments; i.e., their standards are more rapidly becoming established and uniform. I feel deeply that if commercial teachers are to continue to enjoy the opportunity which this gives, it behooves us to hold firmly to actual conditions, making certain always to yield what we undertake to accomplish and to cease to prejudice our privileges with fancies and theories we hope to reach, but have no clear idea of how they shall be worked out.

The following is a table compiled from a questionnaire I conducted last October for our state teachers' association.

It was the intention of our committee to learn the attitude of state institutions toward the high-school commercial subjects. The third column shows the relation between the maximum number of entrance credits or units allowed commercial subjects and the total number of entrance units required by the institution. The remaining columns are a detailed statement showing the amount allowed each subject. The only point I wish to call especial attention to is the order of greatest

	University		Bookkeeping	Shorthand	Typewriting	Commercial Geography	Commercial History	Commercial Law	Industrial History	Arithmetic	Correspondence	Accounting	Business Organization	Materials of Commerce	Miscellaneous
1	Ohio	All													
2	Louisiana	6½	1	1 combined with Typewriting		1	1	1	1			1			
3	Nebraska	12/30	2 as a maximum for each of the subjects named above												
4	Chicago	*5/15	†½–1	½–1	½–1	½–1	½–1	½	½–1	½	½	Credit only from co-operating schools			
5	Wisconsin	4/14				½		½	And other subjects when approved by high-school examiner for each school						Economics ½
	Maine	4/14													
6	Minnesota	4/15	2	1 or 2		½	½–1	½		½					Economic History of U.S. ½ Economic History of England ½
	Missouri	4/15	1			½				½					Economics ½
	South Dakota	4/15													
	Oregon	4/15	½–1	½–1	½–1	½	½	½	½	½	½	½–1	½–1	½	
7	Pennsylvania	3/14½				1			1						Economics 1
8	California	9/45	3	3 to 6			3 combined with Industrial History		3 combined with Commercial History						Economic Geography 1½
9	North Dakota	3/15	2	2	1	½		½		½	½	Under Bookkeeping			
	Washington	3/15	Catalog marked "industrial subjects"												
	Stanford Junior	3/15	1	1 combined with Typewriting		½	½	½							
10	Iowa	2/15	½–1	½–1		½		½	½	½					
	Michigan	2/15	1			½			1	½					Economics ½
	Illinois	2/15	1			½		½							
	Northwestern	2/15				½		½	Not complete						
	Colorado	2/15				½	½	½							
	Vermont	2	½	½ combined with Typewriting		½	½	½	½			½			
	Arizona	2	1	1 combined with Typewriting		½	½	½	½	½					
11	Kansas	1½/15	½			½		½							
	Kentucky	1½/15	½			½–1				½–1					Economics ½
12	Ohio State	1/12				½–1									
13	Montana		Very few high schools in Montana give commercial work												
	Oberlin					½	½	½	½						
	Virginia														
	Southern California														
	Cornell														
	Princeton														
	Indiana														

* 5/15, etc., means 15 units required for entrance, of which 5 may be commercial subjects.

† ½–1 means ½ to a full unit may be accepted, according to length of time subject was pursued.

recognition. It seems that commercial geography is accepted by the largest number of schools, followed by industrial history, commercial law, etc.

The answer to three other questions developed a fact which was a distinct surprise to me and suggested the real theme of this discussion. I had supposed the departments of commerce of these schools might show more sympathy toward commercial studies and be willing to give them more consideration than the other college departments. The replies showed, however, that only three of the schools permitted any difference in entrance requirements for their commerce work and their regular liberal arts departments. Ohio University, at Athens, accepts all commercial subjects finished in accredited high schools for entrance to their department of commerce. They add, however, that the student must show his good faith by seriously applying himself to the work after entering the department. The University of Pennsylvania accepts for entrance to the Wharton school the following subjects, which are not accepted in the regular college: economics, business law, commercial geography, drawing, and manual training. The University of Vermont requires no Latin, but does require four units of some language. Hence, with these three exceptions, the table shows the real entrance requirements for collegiate training in business at these institutions. The reason they appear so rigid seems to be that generally the departments of commerce are but a subdivision of the departments of economics, and as the departments of economics are a part of the liberal arts departments they are all controlled by one entrance regulation. It is the purpose of this paper to question the justice of this combination.

There are valid complaints on both sides and I want to suggest a few. I have many good friends in the large high schools of our section of the country who contend that their courses and departments are succeeding in "training for business." I have good friends in the state universities who publish in their catalogs that they are offering courses which seek, also, to "train for business." What is the high-school graduate to think on leaving the high school? Is he not justified in telling the registrar of the university that he is already "trained for business"?

Again there are high schools professing to offer courses in business organization while the subject of economics is not undertaken in their curricula in even an elementary way. When the high-school graduate learns that the university course, called business organization, is based on fundamental economic theories and the terms used must be mastered in prerequisite courses in general economics, he loses respect for the high-school work and the teachers offering it.

On the other hand, there are colleges offering courses in commercial geography and granting college credit for the work when they employ

the same textbook as a basis which the high schools use. The same thing is true of the college work in elementary bookkeeping and accounting. And, while this is possibly anticipating trouble, another new difficulty is gathering upon the horizon. There are three universities, Columbia, California, and South Dakota, which are offering shorthand for college credit. This latter may be solved, eventually, in the same way the modern languages are handled; i.e., two years of high-school work being considered equivalent to one of college.

All these problems, however, only serve to complicate the question of what really should be offered in high school and what in college. If this might be adjusted, the question of credits would be more simple and might possibly be reduced to a matter of substitution, the student finishing in college what he failed to take in high school.

The attitude of the state authorities in control of these questions seems to be to maintain in high school what they consider a "backbone" of secondary subjects which each student is required to take and then permit him to complete his schedule with elections in the vocational fields.

Sometimes the state boards of education undertake to outline a secondary commercial course for all high schools and publish it as their recommendation to superintendents and principals. This is done in our state, but the practice has the disadvantage of being performed by men who lack judgment and experience on both sides of the question. For example, our state board recommends three years of shorthand, and this all experienced high-school teachers know is more than necessary.

I suppose all present know of the office, standing, and reputation of the Board of Regents of the state of New York—that for more than a century and a quarter it has had almost absolute control of matters of public education in one of our most densely populated states. It prescribes the requirements and gives the examinations which entitle students to the academic diploma which admits to the colleges of their state. But even this board has been changing front during the past few years. Not more than four years ago, this statement was published in its annual report: "The following subjects of study are deemed essential to a sound and symmetrical education, and, under normal conditions, should be prescribed for all pupils in a secondary school: English, four years; ancient, English, and American history; with civics, algebra, and plane geometry, biology, and physics." Then it outlined and recommended the following commercial course:

First Year		Second Year	
English	4 counts	English	3 counts
Algebra	5 "	Advanced bookkeeping and office practice	5 "
Biology	5 "	Physical geography or foreign language	5 "
Elementary bookkeeping and business practice	3 "	Commercial arithmetic	2½ "
Business writing	2 "	Commercial geography	2½ "

Third Year		Fourth Year	
English	3 counts	Commercial English or correspondence	3 counts
Mathematics or language	5 "	American history with civics	5 "
Typewriting	2½ "	Foreign language or science or shorthand II (see note 1)	5 "
Shorthand I or science	5 "	Economics (2) or commercial law (2½)	4 "
History of commerce or history of Great Britain and Ireland or modern history	3 "		

NOTE 1.—Pupils who complete the above course and secure a grade of at least 75 per cent in the department examinations in the commercial subjects and at least 60 per cent in the other subjects will be entitled to academic diplomas.

The last annual report of the Board of Regents shows that it requested the state commissioner of education to outline a course which might act as a standard for students in night high schools or private day high schools who looked forward to entering college. It accepted the following course as his and its recommendation:

First Year

Required		Elective	
English I	4 counts	Advanced arithmetic	2 counts
Algebra	5 "	Elementary bookkeeping and business practice	3 "
Foreign language I	5 "	Elementary representation	2 "

Second Year

English II	3 counts	Economics	2 counts
Geometry	5 "	Second foreign language	5 "
First foreign language	5 "	History[c]	5 "
		Shorthand I	5 "
		Advanced representation	2 "

Third Year

English III	3 counts	History[c]	3 or 5 counts
Science[a]	5 "	Science[b]	5 "
American history	5 "	Second foreign language	5 "
		Advanced bookkeeping	5 "

Fourth Year

Science[a]	5 counts	History[c]	5 counts
		Shorthand II	5 "
		Advanced algebra	5 "
		Advanced design	2 "
		English	4 "
		Science[b]	5 "

[a] Physics, chemistry, or biology.

[b] Physical geography or that one of the three following not taken in the required group: physics, chemistry, biology.

[c] Any one of the following: ancient history, history of Great Britain, modern history.

Many public-school authorities, however, are not yet as liberal. In many localities still, they seem to think it impossible for the secondary commercial course to have any connection with college or further education. Therefore, until we have definite courses and articulation to offer them, such experiences as the one described below will prevail.

In a home of means there are two sons and a daughter. One boy decides he would like to be an electrical engineer and enter an eastern school of technology. The principal of the high school advises him, at the beginning of his sophomore year, to obtain the entrance requirements of the school of his choice and govern his high-school elections accordingly. The daughter wants to enter an eastern girls' school. At the opening of her sophomore high-school year, she elects sufficient modern language and mathematics to admit her to her college. The other son tells the principal he expects to enter business, possibly manage the distribution of the products his brother manufactures when both of them step into their father's business. The principal tells him he is too young to decide such a question at that time, that he should pursue a general high-school course, and a general college course, and then he would be better fitted to select his future. He studies everything except the requirements of the work he expects to do and finishes a typical college sport.

I trust I have suggested to you some of the difficulties we face, and the only remaining service I feel able to render is to leave for your discussion the questions which are of so much difficulty to me.

Some of them are as follows: The engineering, the law, and the medical students we have been taught to regard as professional students, but is not theirs a vocation also? Do they not begin studying subjects which bear directly on these callings while in high school?

Is it necessary for a business man to learn all his natural science, mathematics, language, and history in high school, and to spend his college life specializing in subjects which are thought to be narrowing in their tendency? What reason compels a business man to receive his culture largely in high school and his technical training in college?

Does the department of commerce of the college or university owe any greater obligation or duty to the graduate of the high-school commercial department than the regular liberal arts department? Is it logical to believe that the student is not thinking about a business career until he reaches the higher institution? What is the relative value for business life of a general high-school training and one which embraces a few specific business principles and conditions?

Colleges usually strive for breadth of training as much as the high schools and permit the student to continue the study of the majority of the subjects begun in high school except so-called vocational subjects. Any language except Latin may be begun in college as well as high school. Should shorthand belong in the Latin group? Chemistry and many sciences may be begun either in college or high school. Why, then, may not vocational and cultural subjects run side by side in high school as well as in college?

DEPARTMENT OF CHILD HYGIENE

SECRETARY'S MINUTES

OFFICERS

President—W. C. BAGLEY, professor of education, University of Illinois.....Urbana, Ill.
Vice-President—HELEN C. PUTNAM, American Academy of Medicine.....Providence, R.I.
Secretary—L. N. HINES, superintendent of schools.....Crawfordsville, Ind.

FIRST SESSION—THURSDAY AFTERNOON, JULY 9, 1914

The Department of Child Hygiene met in the Central Presbyterian Church with President Bagley in the chair, and was called to order at 2:30 P.M.

The following program was presented:

"Some Phases of the Health Supervision of Schools"—L. N. Hines, superintendent of schools, Crawfordsville, Ind.

"Industrial Hygiene and Vocational Education"—Louis W. Rapeer, professor of education, Pennsylvania State College, State College, Pa.

The president appointed the following Committee on Nominations:

Louis W. Rapeer, professor of education, Pennsylvania State College, State College, Pa.

E. G. Bauman, superintendent of schools, Quincy, Ill.

S. S. Colvin, Brown University, Providence, R.I.

SECOND SESSION—FRIDAY AFTERNOON, JULY 10, 1914

The meeting was called to order in the Central Presbyterian Church at 2:30 P.M.

The following program was presented:

"The Health Administration of Schools"—H. M. Bracken, M.D., secretary, Minnesota State Board of Health, St. Paul, Minn.

"The Attitude of the Child in Learning"—S. S. Colvin, Brown University, Providence, R.I.

The Committee on Nominations presented the following report:

For *President*—L. N. Hines, superintendent of schools, Crawfordsville, Ind.

For *Vice-President*—Lewis M. Terman, associate professor of education, Leland Stanford Junior University, Stanford University, Cal.

For *Secretary*—Ernest B. Hoag, Long Beach, Cal.

The department voted to elect the persons nominated as officers for the ensuing year.

L. N. HINES, *Secretary*

PAPERS AND DISCUSSIONS

SOME PHASES OF THE HEALTH SUPERVISION OF SCHOOLS

LINNAEUS NEAL HINES, SUPERINTENDENT OF SCHOOLS, CRAWFORDSVILLE, IND.

The growth of the idea that the child belongs to the state, and that, consequently, he must receive an education no matter whether his parents desire him to have it or not, has brought us face to face with many problems

that some years ago were not dreamed of. If the child must have a sound mind, it must follow necessarily that he must have a sound body in which to keep his mind. Not only must he have the rudiments of an education that will fit him for any station in life, but he must have something of a special education, so that he will not drift in helpless fashion when the school has let him go. In colonial times the child had to learn to read so that he could peruse the Scriptures and know for himself the way of Eternal Life. To the reading were added the other two R's, of necessity. Then, one by one, from those old days to this present time, the school has taken on new subjects and new duties. The end is not yet. What that end may be it is not safe to predict except that the school will assume increasing importance as the years go by.

It has been said that the child must have a sound body in which to keep a sound mind. That arrangement spells efficiency in the long run. Nothing could be more evident. The concern of the school has gone so far in this direction that not only is the child's health conserved while he is in the classroom, but the school is reaching out and into the home and inquiring into the manner of life led in the home, the quality of food eaten, hygienic conditions about the home, and all the other details that bear on the health of the child. Not only are inquiries made, but in some cities nurses are sent to look into any home conditions that are not right and to help in cases of sickness that affect the pupils or the school in any way. This course of procedure and this view of the responsibility of the school are leading us into a great field that is only partially explored. The amount of work to be done is vast. One may well shrink from even the contemplation of the magnitude of the task set before us. The only thing to do, however, is to push ahead and assume one by one the duties that are being turned over to the school system of our country.

If the health of the children is to be sound, then, after assuming and admitting the place and the duty of the school in the premises, the task of the supervisor of the health of the children may be divided into several parts. These parts are as follows:

1. To see that the child is properly clothed.
2. To see that the child is physically clean.
3. To see that his eyes and ears are all right and are properly cared for.
4. To see that his teeth are sound and are kept clean.
5. To see that he is shielded as far as possible from contagion.
6. To see that, in case of contagion, the patient gets the best possible care and exposes as little as possible other children to the danger of contracting the same disease.
7. To see that all conditions about the school are as they should be, as to light, heat, recess periods, playgrounds, drinking water, drainage of the school premises, the presence in the neighborhood of offensive conditions, etc.
8. To see that teachers and janitors are free from diseases of all kinds.
9. To see that the state or other agencies provide clothes, food, means of cleanliness, medical attention, etc., when the parents are unable to furnish the same.
10. To see that the patrons and taxpayers understand what is going on and see the necessity for it.

11. To see that public funds are provided wherewith to do all the things enumerated above.

12. To keep thoroly posted on the newest and best things in all lines looking to the preservation and improvement of the health of the pupils in the schools.

13. To think of anything that has been left out and see that it gets the attention its importance deserves.

The program outlined above is rather formidable. In fact, in many school systems, the matter of looking after the health of the schools ought to be turned over to a separate head other than the superintendent of schools, if the entire program of preventive medicine and of modern school health is to be followed out. In a large city, for instance, the health department of the schools ought to be directed by a person of large administrative ability, with special training along the line of his efforts, with the teacher's comprehension of what school problems are, with enough sanity and common-sense not to go to seed on any particular branch of his work, and not to get it into his head that everything else in the school system must stop while he has the pupils' teeth examined or the quality of their vision inquired into. Health problems and the dealing with health conditions are questions for specialists who should have under their supervision physicians, nurses, and others to do the work outlined for them. A beginning in this direction has been made by New York City, Chicago, and a few other cities, perhaps, but there is a world of work to be done and a world of the gospel of school health to be preached before the goal of universal and expert health supervision is to be reached.

There is much that is hopeful, however, in the school situation of the United States as far as that situation pertains to the campaign for good health among teachers and pupils. Some states have passed laws commanding or permitting the appointing of school physicians and others to carry on health work. A beginning in this direction is usually made by the laws which permit this kind of work to be done in the schools. Public opinion, ever sensitive to any sudden innovation, is thus saved from any rude shock since school health officers need be appointed only where there is a strong demand for such action. The example of the communities leading in any state in this matter is contagious; the people find out gradually that taking advantage of the legislation is a good thing, and so the good work goes on. In like manner, the example of a progressive state is followed by other states.

The Indiana legislature passed in 1911 an act relating to the medical inspection of schools. This act is a good example of the permissive legislation along this line. The first paragraph of that act reads as follows:

That all school trustees and township trustees are herewith permitted and recommended to institute medical inspection of school children at any time. The said trustees may require teachers annually to test the sight and hearing of all school children under their charge, the said tests and uses thereof to be made according to the rules hereinafter authorized.

The act goes on to define medical inspection as meaning the "testing of the sight and hearing of school children and the inspection of said children by school physicians for disease, disabilities, decayed teeth, or other defects, which may reduce efficiency or tend to prevent their receiving the full benefits of school work." Further paragraphs of this piece of legislation provide the manner of appointing school physicians, declare that no physician shall look after the health of more than two thousand children, etc. While this law merely permits medical inspection of schools, it has been a big help in giving the health campaign in Indiana a strong impetus. The whole matter has the sanction of the law as being a good thing. A few corporations have taken up this work and gradually others are falling in line. The matter of supervising the health of school children in Indiana is becoming an easier matter because of legal aid and because the people are coming to see more and more the need of such activities in the schools.

Any aggressive health campaign in any school community, where the public has not been educated to look with favor on such efforts, is bound to meet with opposition. The better informed part of the community will, of course, sanction anything that is progressive and sensible, but a certain type of the citizenry will not for some time be able to see anything in such foolishness as having children listen to the ticking of a watch, or look at a card with big letters on it, or carry home reports that "teacher" has filled out for the purpose of informing the parent as to the child's physical welfare. The argument of a certain type of ignorant parent is to the effect that "they didn't have no such foolishness when I went to school and I never died." You will readily infer from the foregoing statement that it is necessary to kill some people before they can be convinced. Other objections will be made to looking after the health of the children and especially to any of the school's interference with the routine of the home. School advice to the effect that children ought to be cleaned up, or have adenoids removed, or be straightened up in other ways will all too often be resented by the type of parent that needs such admonishing. Thru all such opposition the health administrator must go serenely on his way, sure that he is doing the right thing in insisting on good conditions of living, and sure also that sometime the unwilling part of his public will catch up with him on the highroad to higher and better things.

One of the biggest helps in maintaining good health among any given body of school children is to have on the school premises abundant bathing facilities. Such facilities will be primarily, of course, for the benefit of the people who do not have such facilities at home or who are neglectful of such means of health; but such a spirit can be worked up in the school that all children, rich and poor, will want to use the baths and will vie with each other in their desire to use the bathing privileges that the school affords. This is one phase of health supervision that can be managed without much

friction, since the parent that is opposed to overmuch bathing need not be disturbed by requests from the school that he give his child a natatorial renovation. The teacher or school matron can see to that. School baths can be installed and maintained without a great expense, and they will ere long prove themselves, even to the most skeptical, to be good things. Cleanliness is, indeed, next to Godliness, and it is also a tremendous help in maintaining proper health conditions in the school.

Every pupil in the United States ought to have at least occasionally the attention of a school physician. In every school corporation a doctor ought to examine all the children occasionally in times of good health and give them extra attention in times of contagion and danger to health. An expert on sanitary conditions ought to go over every school building at least once a year and point out any situation that might prove harmful to any child in any way. It may be a long time before this comes to pass thruout our land. The people thru their government spend more on the health of live stock than they do on live people, but there is nothing to do but go ahead as best we may, pioneers tho we may be, and dream and work toward that better day when children in our schools and in our homes will receive their just dues and will be neither neglected nor forgotten.

That there needs to be a great awakening in the matter of care for public health both in the schools and elsewhere is shown from statistics compiled in an editorial in the *New York Sun* of some months ago and given further publicity by the *Journal of Education*. The statistics go something as follows: New York State spends for health preservation annually $1\frac{7}{10}$ cents per inhabitant; Massachusetts, $4\frac{2}{10}$; Indiana, $1\frac{7}{10}$; Kansas, $2\frac{7}{10}$, etc. Fifty of the largest cities in the country averaged in 1911 30 cents per inhabitant for prevention of disease and loss of life, while the average in the same cities for fire prevention was $1.63 per capita. The number of preventable deaths was 117,724, involving an economic loss of $200,000,000. Four typical cities are cited: Minneapolis, fire prevention, $1.67 per capita; disease prevention, 14 cents. Portland, Ore., fire, $1.91; health, 13 cents. Louisville, fire, $1.36; health, 12 cents. Providence, fire, $1.99; health, 11 cents. Prevention of fire is all right, but why not put the preservation of health on an equal footing with it? The New York City Health Department asked for 200 food inspectors and received 30 to watch 27,000 places where food is sold. Philadelphia had 7 inspectors to watch 8,000 meat stores. The legislature of Ohio granted $25,000 to the farmers of that state for a laboratory for the manufacture of a serum to prevent the death of their hogs by cholera, but refused to grant a cent for the manufacture of a serum (antitoxin) to prevent the death of their children.

The foregoing facts are not given thru any spirit of pessimism, but merely to show that the supervisor of health work in the schools, as a general proposition, has much to contend with whenever his work comes in conflict with inertia, indifference, or opposition of a part of the public with

which he deals. Measured in financial expenditure, property in the United States is still much more valuable than life.

It is not the part, however, of any earnest soldier in the war for the common good ever to become discouraged. If we want to become encouraged over what is being done in the matter of conserving the health of school children, let us look back over twenty years. We shall certainly become optimists when we reflect on the difference between conditions then and now. We are, indeed, on the upgrade. What the morrow will bring forth we can only guess, but we can be sure that all of our work as conservers of the public health is good work and that sometime and somehow this work will have its reward.

INDUSTRIAL HYGIENE AND VOCATIONAL EDUCATION

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I. THE ANOMALY

To those who have studied the pressing problems of working people a serious anomaly appears in American industrial education. The movement for industrial education has been a most desirable effort to help the great masses of our people solve successfully thru public education one of the most serious problems of life—that of making a living. A rough analysis of this problem has associated vocational preparation with forges and lathes, special schools, and costly apparatus. Educators have clamored long and loudly for appropriations with which to begin this work. They have said, "We can do nothing until we get the money with which to purchase this equipment." And they have done nothing without it.

Now a more thoro survey of the prime needs of the world's workers will reveal two very essential and fundamental factors of vocational education which most industrial courses and schools very largely overlook, and which are, moreover, comparatively inexpensive. These are, first, the development of general industrial intelligence, including acquaintanceship with the complex industrial world of the present, and, secondly, thorogoing education in general, industrial, and occupational hygiene. While they are waiting for appropriations, school systems could be giving, without very great outlays of money, fundamental instruction with regard to our complex industrial life and this invaluable health education, largely by the use of the schoolmaster's favorite instrument, the book—a simple, inexpensive tool.

Let us glance at just one of these propositions—that in reference to health education for workers as primary vocational education. What is the health problem of our working people? From extensive studies of mortality statistics and the data of private and public insurance agencies here and abroad, as well as from many special studies, we learn, with respect

to the illness problem, that there are in this country no fewer than thirteen million cases of sickness each year among those engaged in industrial pursuits. The effects of such illnesses are well known. Illness reduces bodily efficiency, causes loss of work and of wages, and frequently ends in death. Webb, Devine, and other social students and workers are agreed that to the sickness of workers is directly due over 25 per cent of all poverty and destitution.

Rubinow, in his *Social Insurance*, reports that in Austria, where the government insures workers against illness and where accurate records are kept of the illness problem of workers, with nearly three million workers insured in 1907, there occurred 1,623,000 cases of sickness, causing a loss of 28,000,000 days; 53 per cent of the entire working army suffered such loss, and the average time lost was seventeen days each. How much of low vital working efficiency there resulted could not well be measured.

In Germany, with over thirteen million insured against sickness, there were 5,200,000 cases of illness in 1908, and the number of days lost was 104,000,000, an average of eight days for each of the thirteen millions insured. Of course, these are only partial costs since the public taxation for public hospitals and other such health agencies is not here included, and still other costs are omitted. Since we have as yet in this country no such systems of social insurance, we do not yet have accurate statistics of the health problem of our own workers. But these illness losses may, from several sources, be computed as an average of over two weeks of work and not far from 5 to 15 per cent of the worker's annual wages, including medical, burial, and other expenses, both private and public. When we study the annual wages of our workers, a large proportion of them now being industrial wage-earners of the factory type, and find that the median annual wage is not far from $650 to $700, and that this sum is hardly up to, and certainly not above, the minimum amount necessary for a family with which to maintain a minimum standard of living—when we see our industrial population working so close to this minimum, then we realize what the direct and indirect loss of even one-twentieth of the annual wages for sickness really means, especially when we learn that 50 per cent of it is reasonably preventable. These data, of course, hardly show up the actual death and lowered vital efficiency problems of workers. Our working population cannot afford such losses! Over one-fifth of the children brought into the world each year, at such cost, die in the first year, and half of all born into the homes of our workers die before the age of twenty-three. Over 1,600,000 of our total population die each year, 100,000 of them of school age. This is an annual loss of about 2 per cent of our total population, and, in a modern enlightened civilization, is about double what it should be. The most fundamental form of general and vocational training is that which would enable the working population to meet more effectively these death, illness, and lowered vital efficiency losses.

Moreover, the young men and women, the boys and girls of our schools, very much need this type of vocational education because they themselves are seriously defective and ailing. Dr. Chisholm's studies of the girls preparing for work in Manchester, England; the great amount of data collected in our medical supervision of schools; and the statistics of examinations for army recruits and for those entering industry abroad—all show the extreme importance of complete and thorogoing systems of educational hygiene for our working population.

We do not need, I think, to demonstrate by the statistical studies that have been made that the general, the industrial, and the occupational hygiene phases of vocational education are woefully neglected in the schools of this country. Our teachers do not know the elements of general, personal, and public hygiene, not to mention industrial and occupational hygiene. We have few good textbooks in hygiene in use, and little or no time and attention is given to the subject as a school study. An extensive study of actual courses in vocational education shows that, with but practically one exception, the only progressive work of this type is being done abroad. Our vocational courses, like our general elementary and high-school courses, almost entirely overlook this form of vocational preparation.

The anomaly then, in summary, is about as follows: Hygienic education an indispensable phase of vocational education, and yet an almost total lack or great inefficiency of health education, both general and vocational; millions of workers suffering high illness, death, and lowered vitality losses, and yet educators clamoring for the costly tools for a narrow type of vocational training while at the same time neglecting the preparation so near, so fundamental, and so comparatively inexpensive.

II. WHAT IS BEING DONE

The best evidences I have been able to find of adequate attention to this important matter have been in Munich, Germany, some schools of England, the schools of Sweden, and the Manhattan Trade School for Girls (not true of the one for boys as yet) in New York City. Dr. Kerchensteiner at Munich not only has medical examinations and follow-up work and attention to sanitation and physical education, but he has a regular course intended to give intelligence with respect to the complex industrial and civic world of today and the elements of general, industrial, and occupational hygiene. His course is called "Civics and Hygiene." Sweden has all these features but adds to them a most progressive feature in the form of health vocational guidance and follow-up work, including annual medical examinations by government medical examiners, until the youth reaches the age of eighteen. A young man may be changed from occupation to occupation; he may be given shorter hours and guidance as to his health regimen; and may even be kept out of work altogether until he is physically fit. In England, medical supervision and follow-up work

with some health vocational guidance is rapidly making its way. In these countries the insurance of workers against sickness by the state makes the problem of health preparation perhaps not such an acute one as here, yet these countries are leading the way in school health work.

The Manhattan Trade School for Girls gives each girl careful physical examinations, annually or more often, and supplements these with thoro follow-up work; the home and school environments are made as sanitary as possible; medical, corrective, and recreational gymnastics, including plays and games, are much used, meeting individual and community needs; there is a great deal of practical teaching of general personal and public hygiene, and of the most usable phases of industrial hygiene, developing later into specific occupational hygiene for those going into definite trades; and last, but quite important, is careful guidance before, and follow-up work along sanitary and personal health lines after, the girls have gone into industry. Further than these few examples, we can point to little that is worth while.

The recent success of the Life Extension Institute in getting employers of hundreds and thousands of working people to furnish each one free of charge with an annual, very thorogoing medical examination and the remarkable revelation of the low health status of most of these industrial workers show what the world of industry is beginning to think of thoro health education from the earliest years on. It, moreover, indicates that we are here on the right track.

III. WHAT MUST BE DONE

We have seen the anomaly and what is being done in a few places, mostly abroad, to eliminate it. Let us now see what in this country must be done along this line. Briefly, we must have:

1. Thorogoing medical supervision of all school children, and those before and after the school years so far as possible, especially annual, or more frequent, examinations and follow-up work of a corrective and preventive character.
2. An improved sanitary environment at home, at school, and at work.
3. Adequate individual and collective physical education, including medical and corrective gymnastics, plays, games, recreation, etc.
4. Improved teaching of hygiene, general, personal, and public, general industrial and occupational hygiene, each person getting as much of each as is reasonably possible.
5. Careful health-vocational guidance up to the age of eighteen or twenty if possible.

Elementary and high schools must pay more attention to these phases of health education, employing teachers who have improved health training and textbooks superior to those in vogue, along the line perhaps of the Gulick and of the Ritchie series. In the year or so before pupils go out into industry, they must have added some general industrial hygiene such as is desirable for all workers; and, third, if possible, they must have some knowledge of the special hygienic precautions necessary in the special occupation the pupils are sure to take up—occupational hygiene. Those going into teaching, for example, must, in their professional training know

the hygiene of their occupation; those going into the lead industries must know how to meet the lead-poisoning problem, and so on.

Fortunately, some good texts are being published which will aid in the teaching side of the problem, including general, personal, and public hygiene and general industrial hygiene. I take time to mention one entitled *Hygiene for the Worker*, by Tolman, a textbook on personal, public, and industrial hygiene which hooks on to the keen interest of children who go out into industry, and which sets them at work in direct industrial preparation in the ways of health knowledge, health ideals, and health habits of value to them as workers.

Another new and high-class text for upper grades and high schools, but more general in its appeal and in its subject-matter, yet of very great importance, is Coleman's *The People's Health.* This volume will be a good introduction to special industrial hygiene for those who go on into or thru high schools and trade schools of secondary grade.

Here, then, we have a tentative program for helping vocational education to enlarge its service slightly beyond the giving of mere trade skill in order to help the workers of the country meet in a healthy, vigorous manner these serious problems of life, and to attain genuine social efficiency so long set up by the president of this section as the aim of education. It may seem somewhat progressive, but it is not in any sense *ultra.* As Seager says in his *Social Insurance:* "In the United States we are still so far from considering illness as anything beyond a private misfortune against which each individual and each family should protect itself, as best it may, that Germany's heroic method of attacking it as a national evil thru governmental machinery seems to us to belong to another planet." But this feeling will soon pass, since the governmental machinery we should chiefly use in this democratic country is the machinery of our public schools, especially of our industrial courses and schools.

THE HEALTH ADMINISTRATION OF SCHOOLS

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An outline for this work depends largely upon what was done for the child before it reached school age. Given the attitude toward general health problems for the child, it will then be easy to discuss the subject presented in the title of this paper.

The first question will then be: When and where does the health administration of schools begin? Is it before the birth of the child, with the birth of the child, or with the admission of the child into school? If we go back to the prenatal period we are confronted with the problems of eugenics. It is not the duty of teachers and sanitarians to solve these problems. We can therefore leave out for the time being the question of

eugenics and heredity, and discuss the environment of the child beginning with the subject of infant welfare. It is said that the mortality among infants is greater in the state of New York at large than in the city of New York. This is due to the fact that there has been great activity in New York City during the past few years looking to the reduction of infant mortality, while no similar effort has been made in the state at large. Like comparisons can undoubtedly be made for other districts thruout this country.

If child welfare work were properly carried out, we should have a complete history of the health of each child up to the time of its entrance upon school life. It would then be an easy matter to make out a school-census card for each child as it entered school, similar to the one which I now show you.

DISEASE-CENSUS CARD

[FACE OF CARD]

1. _____ 2. _____
Family name Given name in full

3. _____ Minn.
Address while attending school in Minnesota

Strike out words which do not apply

4. Home address { Township / Village / City } of _____

County of _____ State of _____

5. Date of birth _____ 6. Place of birth _____

7. Give dates of residence outside Minnesota _____

[Back of Card]

Age

To be filled out by student's mother if possible, otherwise by person who cared for student during childhood.

Date of Record 191

School and Grade

I know this student had

Chickenpox when _____ years old
Diphtheria when _____ years old
German measles when _____ years old
Infantile paralysis when _____ years old
Measles when _____ years old
Mumps when _____ years old
Pneumonia when _____ years old
Rheumatism when _____ years old
Scarlet fever when _____ years old
Smallpox when _____ years old
Tonsillitis when _____ years old
Tuberculosis when _____ years old
Typhoid fever when _____ years old
Whooping cough when _____ years old
and _____ when _____ years old
(Name of disease)

Sex

Student was vaccinated when _____ years old

Signed _____

Mother of Student

When a student has been absent because of an attack of one of the diseases listed on the card, the fact should be entered on his card when he returns to school, after the sickness. If such an attack occurs during vacation, the entry should be made when school is resumed following the vacation. The teachers must question the children, or the parents if necessary, in regard to these matters.

When new children enter school, cards should be given them for their parents to fill out. When a pupil is promoted or transferred to another school, the disease-census card should go with the pupil.

NOTE.—The summaries from schools thruout the state will be tabulated, the results studied and expressed in charts, diagrams, etc., to be published for information of school and health authorities by the Division of Epidemiology of the State Board of Health.

As we now understand medical supervision of schools the duties imposed are:

1. To discover physical defects.
2. To guard against preventable diseases.
3. To watch the physical development of the child.
4. Sanitation as relating to school buildings and their surroundings.
5. The education of teachers and pupils in public-health matters.

With the proper supervision of the child, we would have knowledge of its physical defects before it entered school. With the school-census card, we would know which children were protected from any one, or from all, of the diseases common to school children. This is most important, for with the knowledge we have we know that the spread of disease is not due to the typical case alone. The question is often asked: Where did the patient get his infection? The difficulty in answering this will be understood when we keep in mind the sources of danger. These are:

1. The immune or convalescent germ carrier.
2. The mild unrecognized case.
3. The mild concealed case.
4. The recognized sick individual.

In the past we have given our attention chiefly to the individuals of the fourth group, ignoring to a great extent the first three groups. Yet any one of these is really more dangerous than the fourth group, for people of the latter class are generally at home during a part of the danger period, even if not quarantined, for they are of necessity restrained by their illness. Further, being known cases, they are naturally avoided.

Medical supervision of schools should protect the children from the first three sources of danger: (*a*) by the prompt discovery of the concealed or unrecognized cases, (*b*) by the prompt discovery of the carrier whose presence is made evident by the appearance of disease among the non-immune.

In dealing with preventable diseases we have to consider the primary case and the secondary cases. With proper sanitation we should have

neither of these, but admitting our inability at present to prevent the primary case, those who have responsibility in dealing with these matters must admit that they are deserving of blame if secondary cases appear, for their existence is proof positive that the primary case has not been properly cared for.

Preventable diseases continue because of ignorance or indifference. We cannot excuse ourselves any longer on the plea of ignorance as to how to prevent the diseases common to school children.

Watching the physical development of the child is important from every point of view. It is not safe to assume that all children of a given age are physically equal. It is not fair to the individual child that is physically below par to expect it to do the work of the normal child. It is not fair to the normal children of a given class to hold them back to the possibilities of the subnormal ones.

Sanitation as relating to the school building and its surroundings covers:

1. The selection of a proper site for the school.
2. The proper orientation of the building.
3. The proper heating, lighting, and ventilation of the building.
4. The sanitary control of the building and its surroundings on the school grounds.
5. The sanitary control of the environment of the school building.

A detailed discussion of each of these points is not necessary at this time.

Upon whom rests the responsibility in health administration of schools? I presume we will all agree that this work should be carried out by an organized staff consisting of the school physicians, the school nurses, and the teachers. I have named these in the order of their responsibility.

Who shall have charge of this work—the health authorities or the school authorities? That should depend upon conditions. Special schools have in the past had physical directors. In some places the physical director has been put in charge of the medical supervision of the schools. But the great majority of schools (and this applies equally to the small city, the village, and the country school) have no physical director. If a system of medical supervision is decided upon, the entire staff, exclusive of the teachers, must be chosen. Are the medical men chosen to be of the physical director type acting under authority of the school board, or are they to be trained sanitarians under the health department? The physical director should, of course, be able to discover all defects in the school child, but, if the proper authorities have done their duty up to the time of the child's reaching school age, he should have to be on his guard only for defects that may appear after the child enters school. It should be his duty to watch the physical development of every child. He certainly is in a position to supervise the sanitary requirements in and around the school building. If he is properly trained to guard against preventable diseases, as he should be, he is in a position to take charge of the medical supervision of schools. He

must realize, however, that this is probably the most important part of his work. He must find the carriers of disease: the mild unrecognized cases and the mild concealed cases. He must remember that he is directly or indirectly in constant touch with the school-teachers and the children, while the health authorities have to do only with those who are sick or associated with the sick.

I have already said that there should be no secondary cases of disease. The primary cases of communicable diseases among children in this country at least are very likely to infect other children in the school. If the physical director is to assume the responsibility of guarding against preventable diseases among the school children, he must be a trained and efficient epidemiologist. Not only must he find the dangerous individuals in the school, but he must promptly advise the health authorities of the facts in order that they may get in touch with the conditions surrounding the child outside the school. But here another difficulty manifests itself. Health organization in our rural districts, in the majority of our villages, and even in a large proportion of our cities is either entirely lacking or so primitive or inefficient that, even should the physical director discover conditions which ought to be referred to the health authorities, he may have difficulty in finding such proper authorities to whom he may refer them. Educators and boards of education should recognize these conditions. They should also appreciate the fact that the health of the child is more important than its education, that an educated child without health is an economic loss.

It is therefore most important that our efforts should be bent toward securing the proper health administration of schools. This should apply to the rural and semi-rural districts as well as the large cities. It is not possible to establish two efficient organizations where there is not even one at the present time. It is not possible to establish an efficient health organization for rural districts and also an independent organization to look after health administration of schools. The larger cities may work out their own individual problems as may seem most desirable, but other communities can get the best results only by combining general health administration and the health administration of schools.

Every section of the country should have a well-trained whole-time health officer and medical school supervisor. Recognizing that it is impossible to have these places filled by two distinct individuals, we should work together to secure one competent man to fill both places. The school physician should therefore be the health officer for his district or, if in a city, the head of a bureau or division under the health department. In cities where medical assistants are needed, these should be entirely under his charge and he should be responsible for their efficiency.

As to the school nurse: Her work is by no means confined to the schoolroom. It is largely follow-up work in the home. She is a most valuable

aid to the health authorities. In large cities her findings should promptly be made a part of the health officer's records. In the smaller municipalities, and in the rural districts where the health officer and medical supervisor of schools are one and the same, the teacher's records should at once be made a part of the regular health records.

There is still another important point in the health administration of schools, viz., an improved method of instruction in health matters for both teacher and pupil. More attention should be given in normal schools, colleges, and universities to the preparation of teachers for their responsibilities in caring for the health of school children, and the teaching in the public schools of subjects dealing with health should be made interesting and practical.

No one should expect a teacher to become an expert physical director, or epidemiologist, but such individual should at once recognize suspicious conditions and bring them to the attention of the school physician or the school nurse. In dealing with such conditions the suspicious individual should be considered guilty until proven innocent. The public should have the benefit of the doubt.

The proper health administration of schools is a most important economic problem from every point of view. The annual economic loss in the United States from preventable diseases is estimated at $1,500,000,000. One and one-half million people in the United States are constantly suffering from preventable diseases. About one-half of the annual deaths in Minnesota, and I presume the same is true in other states, are due to preventable causes. A large percentage of this loss of life and property can be prevented by the proper administration of health in schools.

THE ATTITUDE OF THE CHILD IN LEARNING

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The question of mental hygiene is in the last analysis a matter of attitude. An attitude itself is to be explained in part by the immediate environment, in part by preceding external conditions, and in part by the inborn nature and original tendencies which the individual inherits. For example, the tendency to be annoyed which a child may show in school may be due to conditions that exist in the schoolroom, it may be due to an irritable disposition that has been developed thru unfortunate home conditions, or it may arise, in part at least, from an inborn predisposition. In the first instance, the remedy lies in changing the school atmosphere; in the second instance, there is hope thru re-education of removing the tendency; while in the third instance, nothing can be done except to make the environment of such a character as to offer the least incentive to the expression of the undesirable attitude. Whatever the reason for this

attitude, its result is to effect disadvantageously the entire learning of the child.

Attitudes that benefit behavior may be considered as essentially healthful; those that injure behavior, that make it uncertain, irregular, and without clear purpose, that lower its value, are as truly unhygienic as are those physical conditions which make the body less efficient. Thus it is that the attitude of the child in learning is a matter of fundamental importance in the discussion of the mental hygiene of the pupil. Some of the attitudes that are obviously unhygienic are worry, fear, discouragement, lack of self-confidence, and all forms of excessive excitement or undue depression. These have been discussed at considerable length, and it is not my purpose to attempt to enlarge upon them here. I wish, however, to consider a specific attitude that has not been given sufficient attention and which, at the first glance, may seem to be somewhat removed from those states of mind which are commonly thought of as unhygienic. However, if we keep to the point of view that all mental dispositions that tend to lower the efficiency of the child's conduct are unhealthy, we shall see at once that this particular attitude is as truly unhygienic as others which are more often considered as evidences of a diseased mind.

The attitude to which I refer is difficult to describe by a single term. It is a condition of lack of interest in, and a general dissatisfaction with, the particular task at hand. The lack of interest and the dissatisfaction are due to the fact that the learner sees no significance in his task. It means nothing to him. It is not worth while, either in itself or in its consequences. There is no result that is pleasurable, no end to the activity that meets his approval. This condition of the mind toward the task at once makes the child's entire behavior in relation to it of little value. A large part of the work of most children and of adults is done for some end beyond the work itself. Work that would not be undertaken for its own sake can become pleasurable if the end in sight is a desirable one. When this end is reasonably immediate, and seems of sufficient value, the work is done well with a cheerful spirit, and the whole mental tone of the individual is sane and normal. When the end is far away and uncertain, or when it does not appeal as of value in any case, the work is mediocre, perfunctory, and listless, while the mental attitude of the worker is depressed and unsound. The healthful attitude of mind is to go about one's work with cheerfulness and zest, but this attitude cannot be present when the work itself is distasteful either in its immediate exercise or in its results.

This fact is clearly brought out in the industries. One of the chief problems that confront the employer is to keep those who are working for him in the proper frame of mind to do their work to the best of their ability. It is difficult to make the work itself pleasurable. In most industries it is of a routine and mechanical nature, requiring little thought and giving practically no opportunity for variation. It is dull and depressing. The

average workman who sees nothing in it but the means of earning an unvarying daily wage is likely to do it just well enough to "get by." He may know that hard, conscientious, intelligent work is likely in the end to secure promotion, but the end is far off and uncertain; it is not sufficiently definite and near to make the work worth while. Only in a vague way is it connected with his success. If, however, the workman knows that every bit of extra endeavor that he puts forth is to result in an added amount of money in the weekly pay envelope, his whole attitude is almost certain to change. It is worth while now to do his best; there is joy in the work. Like the runner who trains for the race, he finds that the laborious activities in which he must engage become pleasurable in the thought of their result.

What is true of the workman is likewise true of the child and youth in school. If they are to have a proper attitude toward their work, it must seem to them worth while. One of the greatest problems in education today is to make the task appear valuable to those who are pursuing it. This applies to every stage of education from the primary grades of the elementary school to the university. It is less in evidence in vocational and technical education than elsewhere; but it exists even here. The college youth often seems to take the general and cultural courses in the curriculum as little short of a joke. "Student activities," so called, are never intellectual activities. The vast majority of youths who are pursuing an academic education see little relationship between it and life. It does not appeal to them as of any particular value. This attitude is surely an unhealthy one. Often, perhaps always, the doing of something for no genuine purpose is worse than doing nothing at all. It surely is worse than doing anything that appeals to the learner from the positive standpoint. In earlier times this belief in the lack of value of college studies resulted in all sorts of irresponsible and even vicious forms of behavior among college students. Fortunately, today athletics and social functions provide something that is seemingly worth while, and are doubtless important factors in contributing to the sanity of college men and women. No one interested in education, however, can help regretting the fact that often poise and intellectual soundness are not secured thru the college subjects themselves, but rather thru outside activities.

Similar conditions confront the pupils in the high school and the elementary school. In so far as their work lacks purpose, is devoid of significance, and appears as a mere formal exercise, an unhealthy attitude of mind is created toward this work, except in those instances in which the work, in and for itself, is a pleasurable exercise. Fortunately, the pleasure of intellectual exercise is sufficient in some instances to give a real zest and purpose to the school activities. However, this desire of activity, for activity's sake, is woefully insufficient, especially when the pupil reaches the age when life-interests begin to develop, and the value of school work

is estimated largely in terms of its practical significance. Unless some real motive for the school activities is then found, a motive that possesses a strong appeal and the end of which is not so far removed as to appear for a long time unattainable, the school activities are bound to suffer, and the whole attitude of the child toward his work is seriously impaired.

There are several motives that may vitalize the school work and bring about a helpful attitude toward it. When the pupil reaches an age where vocational interests begin to loom large, the practical subjects, so called, are likely to seem worth while. However, these subjects can be introduced only in a limited degree into the elementary school. To attempt to make the entire program of such a nature as to insure this practical appeal would seriously upset the present course of study and surely would be undesirable. Whatever we may think of the ultimate worth of these narrowly practical subjects, we cannot substitute these for the foundation studies that are essential in the ordinary equipment for life. These latter are even more practical, in the true sense of the word, than the vocational subjects, and yet their value from the practical point of view cannot be readily seen by the pupil.

However, we can make them seem worth while if we can show that they are connected with life in a rather definite way. Altho it is difficult to present the arithmetic, the spelling, the geography, and the history so that their essential significance for the life of the school boy is at once apparent to him, something can be done by connecting these subjects as far as possible with the common activities of the community in which the school is situated and with the daily interests of the child. The boy who finds percentage a bore, as ordinarily taught, may work up an interest for it in figuring out the standing of ball teams; the girl who finds little meaning in the textbook statements of elementary principles of hygiene and sanitation may become enthusiastic in regard to these by applying them to home conditions. The immediate and direct application of any principle to daily life at once tends to make it worth while, and it is safe to say that almost any subject that is so applied is likely to become of significance to the pupil.

However, there are parts of subjects at least that have neither a clear vocational significance nor a definite practical application. These must be made worth while in other ways. Most pupils who can find no other significance in a subject strive to attach a value to it in terms of school marks. This tendency to find worth and meaning in a study from the point of view of grades is very widespread. A great many pupils seem to think that the principal significance of the recitation lies in marking. Some principals believe that it is absolutely essential to impress upon the children that they are being marked for everything that they do, if a high grade of work is to be secured from them. While it is doubtless true that careful and accurate marking in school work is important and essential for best results, and while it is better that pupils should study for marks than

that they should study with no aim in view that appears to them worth while, an excessive emphasis on marking is likely to lead to an attitude on the part of the pupil that is almost as unhygienic as the attitude which finds no worth at all in the work. The pupil who considers that the mark is the only aspect of the work that has real meaning is shut off from most of the higher phases of mental activity and intellectual interests.

Closely connected with the significance of marks as an aim for work is the significance of the school tasks from the standpoint of rivalry. This attitude is entirely normal and usually helpful if it is not excessively developed. Rivalry with one's mates that is friendly and sportsmanlike, and, better still, rivalry with one's self to better one's previous record, gives a virile tone to the work of the school that should not be underestimated. However, rivalry between various individuals in a group or between various groups may become extreme and has certain definite dangers. Some teachers believe that rivalry should have little place in the school work. In any event it is not sufficient to provide a legitimate purpose for more than a limited number of school activities.

Thus there are times when the significance of school activities cannot be made evident thru their vocational value; again these activities cannot always be directly applied to the matters that interest the child in his daily life; occasionally marks are ineffectual and always are in danger of being overemphasized; and, finally, the spirit of rivalry may be easily developed to excess.

There is, however, one other means by which work may be made significant to the child and which fortunately possesses no inherent dangers and which is not likely to be carried to an extreme. Whenever the child feels that he is taking an active part in the school work in the sense of contributing to it and adding something of worth, he is likely to feel that this work is really a part of himself, and that it belongs to him as a personal affair. As an example of this, I recall a fifth-grade class in which the mental attitude of the pupils was unusually sound and healthful. To a great degree this attitude was secured because the teacher made it her aim to develop on the part of the pupils a spirit of co-operation in each and every lesson. It was her custom, for example, to send certain children to the public library to select books that were suitable for the class to use as collateral reading in American history. These pupils not only selected the books, but they told the class the reasons for their choice and the most important points in the books as they related to the class work. Other pupils brought in postcards and magazine clippings for exhibition when the class was discussing foreign travel in connection with geography, or daily happenings in their study of current events. Some of the children prepared questions on the lesson to ask others; all in some way or another, according to their ability, aimed to do something to add to their lesson and to make it a part of themselves. I am inclined to believe that this method of

attacking the work, which makes the learner a contributor as well as a mere learner, is likely to do more than any of the other means suggested to make the value of the school work apparent to the pupil. I am sure at least that unless this is done, or unless some other method is devised for securing this attitude on the part of the learner, school work in all grades is likely to prove a sorry failure; and even worse than the failure of the work itself is the failure of the pupil to find anything worth while in the school activities, for this can result only in a most unsound and dangerous attitude that is likely to be carried from the schoolroom into life itself and which is sure to entail most serious consequences.

DEPARTMENT OF PHYSICAL EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—BARONESS ROSE POSSE, president, Posse Normal School of Gymnastics Boston, Mass.
Vice-President—W. J. MONILAW, University of Chicago ..... Chicago, Ill.
Secretary—ORSON RYAN, superintendent of Jordan School District, Salt Lake County Midvale, Utah

FIRST SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The meeting of the department was called to order at 9:00 A.M. in the Madison School with President Posse in the chair.

In the absence of the secretary, May G. Long, supervisor of physical training, public schools, Everett, Wash., was appointed secretary *pro tempore*.

The following program was presented:

"Physical Care and Training of Children in European Schools" (illustrated)—Carl G. Rathmann, assistant superintendent of instruction, St. Louis, Mo.

"The Physical Director in Relation to the School"—Mary E. Samson, physical director, State Normal School, Winona, Minn.

"Shall Sex Hygiene Be Taught in the Public Schools?"—F. J. Sperry, superintendent of schools, Mankato, Minn.; Charles H. Keene, M.D., supervisor of hygiene and physical training, Minneapolis, Minn.; Mabel M. Wright, physical director of girls, Schurz High School, Chicago, Ill. (In the absence of Superintendent Sperry, his paper was read by President Posse.)

The following officers were elected for the ensuing year:

For *President*—Baroness Rose Posse, president, Posse Normal School of Gymnastics, Boston, Mass.

For *Vice-President*—Clara Gregory Baer, professor of physical education, Newcomb College, Tulane University of Louisiana, New Orleans, La.

For *Secretary*—May G. Long, supervisor of physical training, public schools, Everett, Wash.

It was moved and carried that this department go on record as suggesting the continuation of the study of sex hygiene at the next regular meeting of the department.

The following resolution was passed:

Resolved, That by the death of Jakob Bolin, professor of physical education, University of Utah, Salt Lake City, Utah, the cause of physical education in America has lost one of its most valuable, most earnest, and most enthusiastic workers.

SECOND SESSION—FRIDAY AFTERNOON, JULY 10, 1914

The department was called to order at 2:30 P.M., and the following program was given:

"The Relation of the Teacher of Hygiene and Physical Training in Our State Normal Schools to the Secondary Schools"—Annie C. Skeele, instructor in hygiene and physical training, State Normal School, North Adams, Mass. (In the absence of the author, this paper was read by May G. Long, secretary *pro tempore*).

"The History of the Development of Physical Education at Newcomb College"—Clara Gregory Baer, professor of physical education, Newcomb College, Tulane University of Louisiana, New Orleans, La.

"The Physical Condition of the Child as a Leading Factor in Determining His Vocational Guidance"—Margaret E. Schallenberger, commissioner of elementary schools, Department of Public Instruction, Sacramento, Cal.

"Swedish Gymnastics in American Schools"—W. P. Hubert von Blijenburgh, director of physical education, Royal Military Academy, Breda, Netherlands.

"The Heart Volume in Man—the Nitrous Oxide Method and the Results of Professor Franz Müller"—Elmer Berry, professor of physiology, Young Men's Christian Association College, Springfield, Mass.

MAY G. LONG, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

PHYSICAL CARE AND TRAINING OF CHILDREN IN EUROPEAN SCHOOLS

CARL G. RATHMANN, ASSISTANT SUPERINTENDENT OF INSTRUCTION, ST. LOUIS, MO.

Physical training is a regular part of the school curriculum in the leading countries of Europe and is considered an essential part. Every elementary and secondary school in the eight countries in which, two years ago, I made my observations has a well-equipped gymnasium for boys and one for girls.

More time is given to physical-training work there than in our schools. The health and physical well-being of the school child in the leading countries of Europe, the proper care and training of his body, are given the most careful attention by the school authorities, but not by them alone. Organizations of men and women for the care of children, which are found everywhere, co-operate with the educational authorities of state and community in looking after the physical welfare of the school children. These associations are somewhat like our school patrons' associations, or fathers' and mothers' clubs, but with a larger membership and a more extended scope of work. Their relations to the schools are as follows:

The school work proper—the administration of the schools, the training and appointment of teachers, the framing of the course of study, the selection of textbooks, etc., is all in the hands of the state and city governments. But all the people are concerned in the education of their children and the people insist that they be given part of the educational work. They want to co-operate with the school authorities to afford the rising generation the very best educational opportunities, and the authorities welcome this co-operation and encourage it in every way.

The state and city governments furnish the school buildings, equip them with all that is necessary, and supply well-trained teachers. The people's associations see that the child is in proper condition to go to school and to spend his time in school to the best advantage.

Food, shelter, and clothing are supplied to everyone who needs it. Thousands of children in the large cities of Europe cannot be taken care of

by their parents during the hours of the day, because both parents have to go to work. These children would have to remain without care after school hours. In Germany, Austria, and the Scandinavian countries where the school sessions are now from seven to twelve in summer and from eight to one in winter, the children would be left to themselves the whole afternoon were not some of the school buildings opened and maintained for them by the people's organizations.

During the vacation period the activity of these organizations for the welfare of children who must be cared for is greatly extended. In America we hardly have an adequate idea of the extensive and highly beneficial work of these school organizations during the vacation periods. Excursion trips, mostly for a period of two weeks, are arranged every year for the pupils who want to take part in them. On my trips from Stockholm to Copenhagen, from Berlin to Munich, from Munich to Vienna, I saw, from the train, many groups of boys or girls, equipped with their knapsacks, walking thru the country in charge of a teacher, and enjoying their vacation greatly. They showed the keenest interest in everything around them, and I am sure that when they returned to the city they not only had profited as to their physical well-being, but had acquired much moral training, and that, thru the many new impressions received, their mental horizon had become wider and they were better able to take up their school work.

These vacation excursions are not intended for the children of the poor who live in crowded tenement houses. For them a longer stay in the country is necessary, in the opinion of the school associations, and they are sent to the vacation colonies established by the organizations in various parts of the country. For mentally defective, crippled, physically weak, anemic, and tubercular children, special vacation colonies adapted to the needs of such children are maintained at the seashore, in the mountains, and in other places. For the children who remain in the city, picnics and outings are arranged several times during the vacation period, and the associations make such arrangements as will make the children thoroly enjoy these occasions.

This is the great work of the patrons' or people's association for the physical care of the young in the leading countries of Europe.

Now, let us see what the schools are doing for the physical care and training of the children: We shall consider the physical conditions of the schools, medical supervision, and physical training.

SCHOOL BUILDINGS

The school buildings erected during the last ten or fifteen years, notably those in Germany, Switzerland, Austria, and the Scandinavian countries, are, as a rule, models of modern school architecture and equipped with every provision for the child's health and well-being.

MEDICAL SUPERVISION

The health of the school child is cared for in a well-planned and most conscientious manner in the schools of all the countries I visited. There is everywhere an adequate and efficient system of hygienic supervision.

For example, let us look at the conditions for supervision of hygiene in the schools of Berlin. Here, all children entering the schools at the age of six are examined in the presence of the parents. Children who are not in sufficiently good health to go to school are sent home, and the parents are told to bring them again at the opening of the next term, six months later. If children have physical defects which do not prevent them from going to school, the teachers are given notes stating what defects each child has, what special treatment as to place in the classroom, omission of some of the school and home work, etc., he should have. The parents are told what to do for him in regard to food, amount of sleep, medical treatment, etc. The school physicians visit each schoolhouse four times a year, look after the sanitary conditions, examine all children needing attention, especially such as are reported to be subjects for the special schools, and select children who should be sent to vacation colonies. There are three dental school clinics in Berlin, in each of which the pupils of the neighboring schools get dental treatment whenever they need it. Children sent to the clinic pay one mark and this entitles them to treatment for one year. Similar provision is made in the cities of Munich, Leipzig, Brussels, Paris, Copenhagen, Stockholm, and other European cities.

PHYSICAL TRAINING

Under such favorable conditions, where so much is done for the physical well-being of the child both in and out of the schoolroom, it is obvious that the child in European schools is in the proper condition to receive and enjoy the benefits of a well-planned system of physical training. Let us see what is done for physical training in the schools of the different countries I visited and let us begin with the country in which it has attained the highest stage of development—Germany.

Up to 1910, two hours per week were assigned to regular calisthenic and gymnastic work in the schools of Germany. In that year, a third lesson was added. But these three hours are only part of the physical training work.

In all the schools of Prussia, five minutes of the morning recess are given to free exercises on the playground, participated in by all the children of the school. The children, filing out of the building, form lines on the playground. A boy of the highest room stands upon a platform near the entrance to the schoolhouse and gives the command for a series of seven free exercises. These exercises are selected by the state department of education and are prescribed for all the schools in the kingdom. They

are executed every morning thruout the year, a different boy taking the command every week.

All school sessions in Germany are, as stated before, in the morning. In most of the cities, two afternoons are devoted to outdoor work in physical training and to athletic games, under the supervision of the regular teachers. In some places the teachers do this work gratuitously, but in many places they receive extra compensation for it. In winter some of the afternoons are spent on the ice. In Munich, part of the schoolyards of twenty-one schools are changed into skating rinks in winter, and the poor children are loaned skates which are the property of the schools. Excellent opportunities for additional practice in bodily exercises are furnished the boys of the upper grades of the grammar schools, continuation schools, and secondary schools of Berlin and other German cities by the *Turnvereine*, or gymnastic societies. They admit these boys to their preparatory classes. Many of these boys stay in these classes until they can and do become members of the *Turnvereine*, and in this way they continue the good work for which the public school lays the foundation.

In the elementary schools, the lessons in physical training are given by regular teachers who have received their preparation for this work in the teachers' training school.

In Prussia, extension courses for physical-training teachers are established under the supervision of the director of physical training for the schools of the city. During the first half-year of their service in the schools, the young teachers are required to attend these courses. After that, the attendance is optional.

Bodily training is given far more attention in the high schools than it received ten or fifteen years ago. Three periods of regular gymnasium work are obligatory for every year of the secondary-school course. The educational authorities encourage athletic sports in the high schools in every way. Athletic clubs, including swimming and rowing clubs, are found in almost every high school. In the secondary schools, instruction is given by special teachers who are trained in the state normal schools for gymnastic teachers.

In Austria, physical training does not play as prominent a part in the child's education as it does in Germany. It certainly seems strange that in a country which has made as great progress in education as any in Europe during the last twenty years, bodily training for girls is not considered essential. While physical training is obligatory for boys in all schools, girls may or may not take it. Every school has a gymnasium for boys and one for girls. Only two hours are assigned to gymnastic work, however, instead of the three in Germany. Calisthenics for the younger pupils are given in the classroom. In the spring and summer months much of the work in physical training is conducted in open-air gymnasiums in the public playgrounds. The school playgrounds are used only in winter, when they

are transformed into skating rinks. They are hardly ever used for recreation during the recess periods. Every new schoolhouse in Vienna has a roof playground where the pupils play during recess.

The Swiss is naturally fond of bodily exercise, and he deems any educational system imperfect that does not consider the proper development of the body one of its most important features. There is a gymnasium for boys and one for girls in each elementary school and in each high school. It is considered as necessary as the classrooms and is furnished with everything that modern physical education requires. The floor of every gymnasium is covered with cork carpet, and I wish to add here that this is the material used in most of the German gymnasiums. Three hours a week are devoted to physical training for boys and a like amount for girls. One of these periods is given to organized play and athletic sports in the schoolyard.

The three hours of physical training in the school constitute but a part of the physical education which the child in Switzerland receives. School excursions are an important feature of the physical exercises. In the schools of Zurich, Basel, and Bern, six or seven excursions of half a day, and two for the higher classes occupying the whole day, are on the regular yearly program. Teacher and pupils wander into the picturesque surroundings of the city, to forests, lakes, and mountains. The singing of popular songs while marching, games of all kinds, the study of the physical geography of the places visited, and of nature are the pleasant and highly educative occupations of the day.

Outdoor work in athletic sports and organized games under the direction of the teachers is carried on two evenings a week in Zurich and the other large cities. In Switzerland, there are school sessions in the morning and in the afternoon, and so the exercises take place from five to seven after school. The attendance at these exercises, while called voluntary, is carefully controlled. Each child who does not take part on any of the afternoons must explain his absence. There are not many cases of absence, however, since the work is thoroly enjoyed by the children. Many boys join an organization of boys of twelve years which, under the direction of teachers offering their services, takes outdoor physical exercises on two more afternoons. The high schools have their own *Turnvereine*. The gymnastic societies of Switzerland maintain juvenile classes, which are attended by many of the young people in the evening.

Every schoolhouse has shower baths. Opportunities for instruction in swimming are given the pupils of all the schools in the public bathing institutions, of which there are many more in European than in American cities.

Rifle practice is a part of the program for bodily exercise. Instruction in shooting is given to the boys of the higher elementary schools, a department between the district and the high school. But it is not only the gun

that is used in shooting. Bow and arrow have always played an important part in the history of Switzerland. Instruction in bow and arrow shooting is given the boys of the seventh and eighth grades of the elementary schools and of the two lower classes of the advanced elementary schools.

As to the teaching force, the same conditions prevail in Switzerland as in Germany and Austria. There are special teachers in the high schools and in the common schools, the regular teachers are the instructors in physical training.

From Switzerland I went to Belgium, the only country I visited where there is no compulsory education. In 1905, a normal school for gymnastic teachers was established in Brussels, which institution became an almost exact replica of the Stockholm training school, for the training of teachers of the Swedish system of gymnastics which replaced the German system in 1888.

Each school in the country has two gymnasiums, one for boys and one for girls. Those that I saw were spacious and high, well lighted and ventilated, and equipped with all necessary apparatus, even a piano. Three hours per week are given to physical training proper during the regular school time and two and three-fourths hours per week to outdoor work. All the work is obligatory. In the lower rooms of the common schools, six lessons of one-half hour each are devoted to bodily exercises, and in the middle grades four lessons of three-fourths of an hour each. In the upper grades and in the high schools three full hours are given.

In the elementary schools, as almost everywhere in Europe, the regular teachers conduct the lessons in physical training. In the high schools, special teachers who have received their preparation in the higher normal school for physical training are the instructors.

All pupils of the highest grade of the grade schools and of the higher elementary schools, both boys and girls, must take lessons in swimming. One lesson in swimming per week is given thruout the season, and these lessons take place in the afternoon after regular school hours. A number of excursions for each class to places outside of the city form a part of the regular program of physical training.

In France, the cause of physical training has found strong and enthusiastic advocates only in recent years. Much has been done during the last ten years, but much more remains to be done. Physical training is still the stepchild in the French educational curriculum.

There is a gymnasium in every girls' and in every boys' school, but only one lesson, of an hour a week, is given in physical training. The lessons in Paris are given by the regular teachers, who receive no preparation for this work, under the instruction and supervision of 1 inspector, 3 male and 2 female subinspectors, and 59 male and 25 female instructors. Gymnastic outdoor work—organized play, etc.—was introduced about fifteen years ago,

but its life was short. After a few years' practice, the outdoor work was discontinued. A number of excursions during the year, however, are insisted upon. The French school associations, thru outings, excursions, and organized play for the poorer children outside of school hours, do much to give more opportunities for bodily exercise.

Shooting seems to be considered important. Some of the elementary schools in Paris have a shooting gallery in which the girls as well as the boys indulge in rifle practice.

England does not give the same prominence to physical training in the elementary school curriculum as Germany and Switzerland give to it, but its importance as a vital factor in the education of the child seems to become realized more and more.

In London, two regular lessons a week in physical training are given in every elementary school. Each of the higher classes has the last hour before noon for organized play in the schoolyard once a week. Outings to places of interest outside of the city, excursions to the many museums and galleries of London, the zoölogical garden, etc., are obligatory. In the high schools, in addition to the regular physical-training work, a great deal more athletic work is carried on than in any European country I visited. The fine buildings have, besides well-equipped gymnasia, large and well-furnished athletic grounds, and the boys and girls in the English high schools are enthusiastic athletes.

While in the elementary schools instruction is given by the regular teachers without any special supervision, the instruction in the high schools is given by special teachers and well-trained coaches.

All gymnastic activity in Sweden seems to center in the Central Gymnastic Institute in Stockholm, perhaps the oldest training school for physical-training teachers in the world. It was founded by Pehr Henrik Ling in 1813, and in this institution Ling and his son Hjalmar built up the Swedish system of gymnastics. The school trains all the gymnastic teachers in the kingdom, all the teachers for the high schools, for the military schools, and for the normal schools. The teachers in the latter train those of the elementary schools, each of whom is required to conduct the work in physical training in his or her class without special supervision.

There is a well-equipped gymnasium in each boys' and each girls' school. One-half hour on each of the six school days is devoted to physical-training work. The educational authorities make no further provisions for bodily activities. There is a great deal of outdoor work in the public playgrounds and in the schoolyards in the afternoons, but all this work is in the hands of people's school associations which do as well-planned and efficient work in this direction as do those in the German cities. In the high schools, military tactics, rifle practice, and fencing are part of the program. To the latter, two hours per week are assigned. Three full hours of systematic physical training are insisted upon.

The physical-training situation in Denmark is almost exactly the same as in Sweden. The country has shaped its system of gymnastic work almost altogether after that of the sister-country, but has added one feature of bodily exercises of great value. Instruction in swimming is obligatory for all boys and girls of the elementary schools. The large number of public bathing institutions in Copenhagen are the centers to which the pupils go once a week during regular school hours.

This is a brief survey of what is done for the physical care and training of the school child in the leading European countries. I think you will agree with me in that, as to this important feature of educational work, we can learn from our cousins on the other side of the ocean.

THE PHYSICAL DIRECTOR IN RELATION TO THE SCHOOL

MARY E. SAMSON, PHYSICAL DIRECTOR, STATE NORMAL SCHOOL, WINONA, MINN.

The occasion for the writing of this paper was a discussion of the reasons for the failure of some physical directors to appreciate the responsibilities that are put upon them. When an athletic coach, as such, had no other duty than to develop a winning team, there was some excuse for hiring a star athlete, who could lay no other claim to consideration as a teacher than his athletic prowess. But that condition no longer exists, at least as applied to the director of physical education. He is now a recognized member of the school faculty and must be able to measure up to a higher standard. To discuss his relation to the school as a whole involves first a discussion of himself.

There is, doubtless, too much ground for the complaint made, by men who have it as their business to hire teachers, that a man or woman is likely to go into physical education just because he can do some particularly thrilling turns on the apparatus, or because she can dance unusually well. Jakob Bolin, of the University of Utah, deservedly prominent among physical educators, said:

> I find few among my professional brethren who have any far-reaching interest beyond their specialty, few whose hearts throb in unison with the great movements of the time. I see men and women whose minds revolve only around drills and exercises, lessons and exhibitions, visits of the superintendent, rules of the board of education, the return of pay day, the possibility of advancement, the victory of yesterday, the contest of tomorrow.

These accusations are not now nearly so true as at the time they were made, a few years since. But experience shows that we have not yet come to the time when we can in the least degree lower the standard required of the applicant for entrance into this line of work. Skill in athletics and gymnastics is a thing much to be desired. Indeed it is very essential, but it is by no means a *sine qua non* of an efficient physical director.

Much has been said and written from time to time concerning the necessary qualifications for such a director. Miss Dudley in her *Athletic Games for Women* summarizes them as follows:

> Play-spirit (often disguised as enthusiasm), ability to play as well as teach, a personality which has capacity for leadership and ability to inspire; and a character which, in addition to true culture and a spirit of fairness, possesses the somewhat rare quality of high moral courage. These may be called special qualifications. Added to these are general training such as a fair education and knowledge of such subjects as anatomy, physiology, hygiene, dietetics, pedagogy, psychology, and sociology.

It is necessary that the physical director be a specialist. Bodily development, with all that that implies, must be to him a compelling interest. He must confine himself to his own line of work to reach his maximum efficiency. He must, however, be of that broad type of specialist which can see the value of other lines of work as well as his own, see their relations, and make his specialty contribute to the common good.

It is this correlation with which this paper has to deal. This may, perhaps, be called a by-product of physical education, but we may learn from modern industry that the by-product is sometimes the most important aspect of business. We assume the direct benefits of physical training. It is on account of these benefits that physical training has come to have so large a place in the general educational scheme, but beyond these there are certain collateral results in the way of social development that ought to be obtained.

When men began to realize that the man with an education was the one who forged ahead in the world and was able to attain the highest success, mental training came to have great value and was sought at any cost. As people of the civilized world came to live more and more in the cities, they came to live more sedentary lives. The struggle for existence became less and less a physical struggle and more a battle of minds. So the tendency was everywhere to put a premium on mental development and disregard the physical. Only when the disastrous effects of this one-sided development became manifest did the reaction come. It was to meet this need for all-round development that physical education was made a part of our educational system. Now educators are realizing that the school is responsible for social and moral training. As a system of education designed to train intellects alone will not suffice, neither will one which takes into account merely individualistic training. A child is a social being. He must be trained, not merely as an individual, but in his relation to other individuals—as a member of society.

Physical education has long claimed to give a moral and social training thru its athletic games. In the administration of these games, especially if the games be so administered as to reach the student body as a whole, the director comes into very close contact with the entire student life. He comes to know more or less intimately the students with whom he is work-

ing. His viewpoint is different from that of any other member of the faculty in that he touches more closely than the others the less formal side of the school life. The play spirit is a thing for which he is always striving.

School life is a strenuous thing. With the necessary application to studies, it has a tendency to become an intellectual grind. In attempting to develop a truly recreational phase that will break the strain that would otherwise be too great, the effort of the athletic director is to create so intense an interest in a game of basket-ball, for example, that rest and relaxation may come as a result of an hour of vigorous play. If he succeeds in doing this he sees the student when he is absolutely himself. Nowhere as in a game in which he is really interested is a boy or girl so completely without reserve or self-consciousness, so lacking in formal action. No matter how long he may maintain a more or less unnatural or assumed attitude in other kinds of work, it does not hold here. The boy who tries to play baseball, but is afraid to bat for fear of getting hit, has to get over that fear or get out of the game. He cannot be thinking of himself and play the game too. The girl who attempts to play basket-ball with her hair insecure, so that she has constantly to be adjusting hairpins, soon learns to take care of that hair so that she doesn't have to give it attention. Just as these physical obstructions are consciously done away with, so moral and mental reservations either consciously or unconsciously disappear in the gymnasium.

The fact that the physical director knows his student in this intimate way places upon him a double responsibility: first, to the student in making his training count for genuine development; and, second, to the school, in getting the student's point of view and giving it back to the school. The school is organized for the benefit of the student. His attitude really constitutes the "public opinion" of the school, and that public opinion is a powerful factor for good or evil. It must be molded and controlled, of course, by the teacher, but in order to be able to do this effectively the teacher must be able to get hold of the student's point of view, must be able to see the various problems of the school life from the student's angle as well as his own. Considering the school as a social group, the students as well as the teacher must have a vital part in the group life; each must be a genuine factor, sharing its life, and contributing his own part to making it what it ought to be.

The school is a social unit. In its routine classroom work it does not present the conditions for social intercourse that the student will meet in later life. Here he works more independently for his own individual attainment. There is not the same interrelation that there is among citizens. There is, however, in every school a spontaneous social life. Wherever young people are gathered together this must be true. It may not be the most desirable type of social life, but it is inevitable. Organization

is found thruout the school for different purposes; leaders are developed, and standards are set. It remains for the school to take this more or less complex structure and use it for educational purposes. Some schools choose to ignore it or more often, perhaps, to regulate it by a series of don'ts, in either of which case it proves, almost without exception, to be a source of constant annoyance and failure. The student government idea is a recognition of the fact that there is something of value there if it is rightly used. Students given an opportunity to co-operate with those responsible for the management of the school develop a strong desire to have things go right.

In most schools there is too great a separation between students and faculty. In reality their interests are common, so that there ought to be unity of effort. The different departments of the school are striving toward the same end. Yet in the stress of work each one becomes so engrossed in its own particular phase that it is likely to see its importance, to a certain extent, to the exclusion of the others. The school festival is a recognition of this fact, and is a worthy effort to counteract it. The physical director, as a member of the faculty, naturally has the faculty point of view, so that with his more or less intimate contact with the student point of view he ought to be able to do something toward bringing these two groups to the common ground of a more practical and open-hearted understanding of each other.

In conclusion, then, educators are recognizing the importance of the physical, the moral, and the social as well as the intellectual in a well-organized educational system. They also recognize that social and moral development can come only by practice, and not by any amount of theorizing on ethical principles. Since this is true, and since the activities of physical education offer so great an opportunity for this training, these activities should have an important place in school life, and they demand most thoro and intelligent supervision.

Since the physical director comes so closely in touch with that large part of the student's life which lies outside of the classroom, his responsibility for that less formal side of the student's development is very great. He must, accordingly, be a person of high ideals and one whose interests are general. If he is to measure up to this standard, he cannot be of the type whose interests go no farther than his own specialty. Then, if he has a broad idea of the moral and social significance of his work and has a determination to make that work contribute to the all-round development of his student, he may accomplish much toward the real end of education.

SHALL SEX HYGIENE BE TAUGHT IN THE PUBLIC SCHOOLS?

I. CHARLES H. KEENE, M.D., SUPERVISOR OF HYGIENE AND PHYSICAL TRAINING, MINNEAPOLIS, MINN.

The main argument for teaching sex hygiene in the public schools has been that the home is not giving this instruction; that it must be taught somewhere; therefore, it should be taught in the school. This same argument applies equally well to numerous other things that the home should do but has failed to do. More and more is the home giving up its responsibilities to public organizations. The school, being the best organized body, has been compelled to receive a large share of these offcasts.

With this attitude of the home, I have no sympathy. Practically no home exists where the parents, if they so desire, do not have time and opportunity for the moral and religious instruction of their offspring. Even in those unfortunate homes where both parents have to work outside the home to obtain funds for the support of the family, there is some opportunity for this instruction. As for the better class of homes, where this duty is neglected because of lack of responsibility on the part of the parents, there are no words that properly express our condemnation of their sin of neglect. The amount of freedom from observation the average well-to-do parent permits his children is outrageous.

With this tendency on the part of the home to throw off its burden is the other tendency of certain agencies to take from the home its privileges. The playhouse, the pulpit, the public platform, as symbolized by certain would-be reformers, and even the school authorities are attempting to assume the offices and duties of the parent.

There is, too, a question of very great moral injury to many of the children themselves. A few evil-minded pupils in a class or group can do irreparable injury. As things are at present, such efforts toward injury are outside the law and many pupils shun them accordingly. If this matter were given a standing in school, it would legitimize it in a way that would make the efforts of these perverted ones much more fruitful of evil than they are at present. Then, too, the mere fact that the thing is taught in the school, like geography and arithmetic, makes it a familiar matter, so familiar that it soon loses its innocence and sacredness. Moreover it has never been proven that knowledge compels purity.

That I might have some information on which to base the discussion of this matter, there was sent to 104 clergymen in the Twin Cities a questionnaire, asking the following questions:

First: Do you believe sex hygiene should be taught to children? At what age?
Second: Where should it be taught?
a) In the public schools?
b) In the church or Sunday school?
c) In the home?

Third: If it is to be taught in the public schools, by whom should it be taught?
a) By teachers chosen particularly for that purpose?
b) By the teacher in biology?
c) By the school nurse?
d) By the teacher in physical education?
Fourth: If it is to be taught in the public schools, in what grade should it be taught?
a) The first to eighth, containing children from six to fourteen?
b) The ninth to twelfth, containing children from thirteen to nineteen?
c) In the colleges, containing children seventeen years of age and over?

From the 104 inquiries, only 28 replies were recieved, indicating that only approximately one-fourth of our clergymen are interested enough in this matter to answer these questions. Twenty-four replied definitely that sex hygiene should be taught children; the other four seemed to be in doubt as to its advisability. As regards the age at which it should be taught, 15 advised this teaching before the age of puberty, 7 during pubescence, 3 after that age; 3 gave no definite reply in the matter of age.

Assuming that it is to be taught somewhere, 13 favored teaching it in the public schools, 7 gave a decisive negative answer, 8 were very vague upon this point; 9 favored teaching it in the Sunday schools, 5 gave a definite negative answer, 14 did not give a decisive answer; 28 favored teaching it in the home; that is, even those who advocated teaching it in the public schools or in the Sunday schools felt that it should be taught in the home, but should be taught by these other agencies because the home so generally failed.

Assuming that it is to be taught in the public schools, 10 favored having it taught by teachers chosen particularly for that purpose, 6 by the teacher in biology, 8 by the school nurse, 8 by the instructor in physical education. One maintained that the instruction should be only incidental, 2 that the classification of the teacher did not matter, as it was purely a matter of personality. Two maintained that whatever instruction was given should be given to the parents rather than to the children.

Again assuming that it is to be taught in the public schools, 16 favored teaching it in the grade schools, 10 favored teaching it in the high schools, 9 favored teaching it in the colleges. Five maintained that it should be taught in all three; 1 in the grade school and college only, 2 in the grade and high school only, 1 in the high school and college only, 1 in the college only, this last gentleman declaring that it should not be taught until the last two years in college, on the ground that this was the nearest to the parental age of any public-school pupils. We see, then, that this group of men, who probably have given considerable thought to this important matter, were unanimous that this thing should be taught in the home and practically all of them maintained that it should not be taught in the public schools except for the reason that the home has failed; so we get back to the fundamental argument.

I think we are unanimous in agreeing that this is a parental duty, none the less a parental duty merely because the parents are shirking it. The

only way in which this condition may be bettered is not by preaching that the public schools should take over more of the parents' burdens, but by insisting that the parents should fulfil the duty they owe their offspring and the community.

It may be fitting to give special instruction to some individuals privately, who are selected by the teachers and sent to the nurse or physician for this purpose. Or, in the high schools, instruction may very properly be given to those individuals who make confidants of their teachers. With the right kind of teachers in physical education, these are the teachers selected for confidences most frequently, and their opportunity for private instruction and for influence over their pupils is extraordinarily beneficial.

We now come to the real gist of the situation: that sex hygiene should be taught, but that it should be taught to the parents, first, that they may be made to feel that it is their duty to do this work, not the duty of the school; second, that they may feel that they have the necessary kind and amount of information, so that they may teach it properly. This instruction may be given to the parents by properly chosen school nurses or lecturers or school physicians, or by the teacher of physical education, providing he has been properly trained. This is not a matter to be left to an athletic or football coach. If this work is to be given under school auspices, it should be done by someone regularly employed by the board of education, so that the proper authorities may have absolute control. These talks should be given to groups of parents, with the sexes separated, for the reason that discussion and the asking of questions will be much more free thus than in mixed groups.

By this means, an opportunity is afforded the public school to perform its true function of educating the people, not only educating them in the fundamentals of this subject which is so important to the future of our race, but educating them along lines that will enable the home to get back some of the ground it has lost in the proper education of its young. Only by such means are we going to check the downward tendency of the home for throwing off its duties and the equally downward tendency of outside agencies to take from the home its privileges. Thus may we replace the family hearthstone where it belongs, as the foundation of the moral and religious training of our youth.

II. MABEL M. WRIGHT, PHYSICAL DIRECTOR OF GIRLS, SCHURZ HIGH SCHOOL, CHICAGO, ILL.

In this brief discussion of a very large question the various aspects of the present needs for sex education will not be dwelt upon at length. The object of this paper will be largely to give some of the practical results of the personal purity talks given in the Chicago high schools during the fall of 1913. Such tangible facts as have been obtained come chiefly from the

girls of one of the coeducational high schools where economic and social conditions may be considered somewhat above the average.

A series of three lectures was given to all high-school pupils by members of the medical profession. Boys and girls were segregated, women physicians giving the talks to girls, while the boys were addressed by men. The general plan for these lectures was the same in all high schools, but when we consider that some latitude was given each speaker, that religious, economic, and other conditions cause public opinion to vary with each locality, and, most important of all, the personal equation of the lecturer, it is plain that the results will differ more or less widely. Any pupil whose parents wished to have him excused was not required to be present. There were very few of such requests. Three lectures were given in progression. These talks covered in general the biological and physiological truths which formed the basis for sex education, personal sexual hygiene, problems of sex instincts, and a few of the hygienic and social facts regarding venereal disease.

When some time had elapsed after these lectures had been given, representative gymnasium classes from the four years of the high school were asked to write out a criticism of the lectures and, in addition, to answer a few questions which were suggested. No names or other means of identification were placed on these papers.

The first question asked of the girls was in regard to the source of information of sexual knowledge. About 53 per cent received this information from their mothers, 15 per cent from older sisters or other relatives, 27 per cent from girl friends, and 5 per cent from various other sources as teachers, nurses, doctors, lectures at school, books, and overhearing conversations in regard to such matters.

Closely associated with the source of information is the need, as the pupil sees it, for sex instruction in schools; also the attitude of parents toward such instruction. So it happens that the answers to these three questions are grouped together in many instances and throw an interesting light on the teaching of sex education in the schools.

The following are some of the replies received:

1. *Freshman.*—I knew nothing before the lectures: Mother thought me too young. My instincts and imagination told me some things and then I overheard a conversation between mother and a lady visitor, so guessed at part of it, but did not have any definite information until the lectures.

2. *Junior.*—Got my first information from my girl friends. Was very glad to hear lectures and want to hear more, for while my mother knows a lot, she won't tell me a thing.

3. *Senior.*—Mother told me about menstrual periods after they had arrived. Was told a great many things by girl friends at ten years of age which I did not understand very well. I took a dark view of all those things and feel now, after having had them explained, that I should have been told earlier by an older person and not by girls who had a wrong view.

Of the parents, only 8 per cent found open objection to the lectures. Some were a little dubious, but the usual answer to this question was that the parents did not object.

A few girls were indifferent as to whether the lectures should be continued, but at least 90 per cent were in favor of having this work introduced regularly into the schools. In their search for the best means of introduction, four conditions were considered: by whom, with whom, when, and where. The consensus of opinion is that the teacher who presents this work must be the one who knows the girls most intimately and has their confidence, respect, and admiration. There must be a close personal relationship between pupils and teacher, so the pupils will feel free to ask questions. Many said they were too shy, too modest, too embarrassed, or did not think it right to ask questions of a stranger. There must be a closer bond between members of the group than is usually found in the average classroom. There was an urgent demand for small, intimate groups, ranging in numbers from five to fifty. Many preferred personal talks, but realized that such would not be feasible. Time and place were of little consideration so long as there was no disturbing of the program or other publicity given these lectures. Above all, this particular subject must not stand out by itself or be out of relation to other things. In casting about for a solution for these problems, the great majority of girls seized the one closest to hand—the gymnasium class.

No doubt the fact that these answers were written in the gymnasium, for the gymnasium teachers, and with girls whom they had learned to know intimately thru gymnasium work, acted as a strong suggestion in determining their answers. Nearly 80 per cent found the gymnasium class the one place which met all these conditions; 12 per cent felt the physiology and hygiene class the natural place for this subject; while the remaining 8 per cent divided their preference among the dean, domestic science teacher, and outside lecturers.

Among the interesting remarks on these points are the following:

1. *Freshman.*—When we come to the gymnasium is the time to hear the lectures. Then every boy and girl and teacher in the school does not know that we are having lectures. The gymnasium teacher comes closely in contact with the girls, and when we are in doubt we can go to her and she will explain.

2. *Junior.*—I think it would be a good plan to have our teachers lecture on such subjects and make it a regular study in the high school like physiology.

3. *Senior.*—Lectures should be given in the gymnasium by the gymnasium teacher who has girls only, and with whom the girls are well acquainted. She has to know when we are excused from work and everything else about us when she gives physical examinations, so the girls are not afraid to ask questions of her as they are of other teachers and lecturers and doctors.

It is very difficult to plan subject-matter which will not be a repetition of well-known facts for some or entirely too new or advanced for others.

With but two or three exceptions, there was not a girl who took offense at anything that had been said nor who thought the subject had been treated too frankly. There was, however, an almost universal demand for more plain facts. There was also a strong demand for advice regarding the attitude of one sex toward another. It is not probable that any of the biological facts or facts on personal hygiene or reproduction were too advanced for high-school pupils to grasp, but in the method of presentation it was obvious that things were not clear. There was scarcely a girl who did not say something about the big words used. One girl, when asked why she did not ask questions about the things she did not understand, said: "I couldn't remember the big words long enough to ask questions about them."

The biological method of presenting this work, if used in the regular class, where full equipment is at hand, is perhaps the best method of teaching reproduction and placing the whole subject on a basis where it may be approached from any side. Few people are disturbed by the facts of the natural history of sex.

However, biology in itself is not sufficient. Sex mistakes are generally due to ignorance and to uncontrolled instincts. A complete and comprehensive course based on biology and physiology would do much to overcome ignorance, but, when we consider the matter of controlling instincts, we need a greater inspiration than is found in biology. If we are to affect character, which will be necessary in conquering these instincts, we must use examples of the highest type and not stop short of the spiritual side of the sexual life. It is here that the heroic method advocated by Dr. Hall is of value, and the children want this method. They do not care so much to have you tell them what to do, as what others have done. One girl said: "I think the time could have been used to better advantage if she had told us what women had done and whether they did right or wrong." This work obviously belongs somewhere in the department which in some schools is called the department of health and is in no sense limited to one's physical well-being alone.

Eminent authorities find that the sexual instinct has increased rather than diminished with the growth of civilization. The school is the outgrowth of civilization. In pioneer days, education came from the home, and the more highly civilized we become the more does the school have to assume what was formerly considered the work of the home. If sex instinct has increased in direct proportion with civilization, how can the school shift this responsibility entirely on the unprepared homes, while it assumes much less vital responsibilities?

In handling this subject, we are too much impressed with the harmful side of it, and, as in teaching temperance, we have used the scare method, which only tends to inhibit the development of all the higher affections and nobility of sex.

Havelock-Ellis says: "Foolish and ignorant persons may deplore the full development which the sexual instinct has reached in civilized man; to a finer insight that development is seen to be indissolubly linked with all that is most poignant and most difficult indeed, but also that is best in human life, as we know it."

THE HISTORY OF THE DEVELOPMENT OF PHYSICAL EDUCATION AT NEWCOMB COLLEGE

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In presenting this subject, one would feel impelled to plead indulgence were it not for the fact that all teachers whose years of service have given them opportunities to see their chosen work develop will recognize in the recital some of their own struggles in the past to work out their ideals—struggles that are inevitable in the birth of a new and untried element in the scheme of modern education.

Then, too, the history of a movement in any one section cannot fail to have its interest for other sections; and the growth of a subject in any special institution may be taken to mark the progress in the subject in the section of the country where this institution is located. It is with some such thoughts as these, rather than the exploiting of the work of a special school, that this paper is presented.

At present the department of hygiene and physical education at Newcomb includes the following courses: First, the regular practical work of the gymnasium, including hygienic, corrective, medical, and aesthetic gymnastics. Second, a theory course. This is a lecture course including personal and general hygiene, voice culture and expression. The department is closely allied with that of biology; and in certain years the lectures include the study of exercises from the standpoint of biology. Third, a training course for teachers providing technical instruction in kinesiology and allied subjects, with practice in teaching. This course is designed to meet the needs of those students who wish to specialize in physical education. Fourth, an extension course for teachers in connection with the regular extension work of Tulane University. These represent the result of twenty-three years' growth and development of the department of hygiene and physical education in the college. Serious gymnastic work was not undertaken at Newcomb until the fall of 1891.

About this time students from other sections of the country spending their winters in the South wanted to specialize in physical education. Newcomb, at that time, offered no such course; but the director of the gymnasium offered to take these applicants as private pupils. This continued until the fall of 1893, when provision was made to accept these

students in the college as specials, certain college subjects being provided in the course. While the number of pupils in this course has not been great, it has served its purpose in giving to the profession some splendid young women, and it has given to the community trained teachers who probably at that time could not have gone elsewhere for the work. The course has advanced to the position of one of the regular educational subjects offered in the college. For a two years' course, a certificate is granted, and for a four years' course, a degree in education is given. One of the chief ends accomplished in this training course has been the dissemination of the gymnastic idea among the people.

At Newcomb the work was first planned so that combinations of classes were made, in order to take as little time from the regular curriculum as possible. Gradually, however, each class had its regular hours arranged, and today the students have weekly two regular periods of work thruout the four years of the college, with certain specified practice in basket-ball and other games out of doors.

It was in 1893 that basket-ball was introduced at Newcomb and into the South. At that time the game had not reached its present development. When Newcomb College first tried basket-ball in its gymnastic work, there were no published rules for women, none of the fine points of control that characterize the game today. The results were naturally to be expected; its introduction at Newcomb was not entirely satisfactory. Later, a compromise was reached by modifying the game for girls. This game thruout the years has been developing at Newcomb and is known as "Newcomb College Basket-Ball Rules for Girls." The first edition of these rules was issued in 1895, several years before any other modified form of the game appeared. In making this statement, there is no intention of reflecting upon the great work done in developing basket-ball elsewhere, but merely the desire to be accurate, historically. Newcomb, being so far from other colleges and not in touch with the progress of the game elsewhere, found its modifications developing along original lines; so that today, as it was originally, Newcomb basket-ball is unique. It was while the question of basket-ball was hanging in the balance that the game "Newcomb" was really born. It was provided as a compromise. When basket-ball had taken its legitimate place in the college, it soon became apparent that match games would be played. A series of interclass games was established, and in 1903 the department decided to offer a class cup for competition.

With the broadening of the athletic idea an athletic association was organized in 1908. Today, the athletic association of the college has charge of all outside events which, however, are under the supervision of the faculty committee on athletics. No student who is not a member of one of the regular gymnastic classes is eligible to membership in the N.A.A.

For many years, owing to local conditions, the department was not able to develop its work in anthropometry and physical examinations, contenting itself with certain chest measurements and the vital test by use of the spirometer, and with the introduction of lectures, on personal hygiene and allied topics, into the regular course. This served to give the student an interest in the work and some idea of its purpose. In 1909 ample facilities for measurements were provided. The college is now able to make extended and thoro examinations of all students. These measurements are repeated twice each year; and, up to the summer of 1913, when a statement was made for the university, two thousand measurements had been taken. We have noticed an ever-increasing interest in the gymnastic work since the students are able to see what progress they are making and to learn wherein their needs lie.

For some years the problem of the special student faced the director, and the plan was adopted to take these girls outside of school hours as private pupils. During these years many girls were so treated and greatly benefited. This was the only plan that appeared feasible at the time, because existing conditions did not provide integral work of such a character. During late years the director made this a part of the regular work, selecting such students as were most in need of corrective work, as the time she had to spare was necessarily limited. That the students appreciated this work was proven by the fact that they would remain until all hours of the afternoon waiting for their appointments. With the further enlargement of the department, however, and the addition of assistant instructors, the director is now enabled to take most of these students at their regular gymnasium hour and give them special work, instead of general class work. No college that cannot provide for the delicate, timid, and weak student is able to do its best work in physical education. Too often, the girl who most needs physical development is crowded out by her more ambitious and stronger companions. To my mind, the college of the future will provide with great care for this character of work. While we may not hear as much about it, it will undoubtedly do more for the women of the future than anything else this department can offer.

Today Newcomb has many departments, and the coming together of these students in the gymnasium hour has greatly enlarged the scope of the work. We not only have interclass match games, Varsity-Alumnae games, but we have inter-department games also. This year a Field Day was inaugurated. It met with great success. If we can be judicious in our selection of events, we believe it will add greatly to the outdoor life of the college. At Newcomb the student lives out of doors all the year round; therefore much of the gymnastic work itself is given in the open air, even in the midwinter months. The season of athletic activities lasts, practically, from November to Commencement week. Basket-ball opens the series. A regular schedule for class practice on specified days is outlined by the

N.A.A. for each team. Practice games begin about the first of November, and the match games are held usually during February and March. In addition to basket-ball and Field Day events, Newcomb has a tennis tournament each spring which closes with a "Tennis Tea." At this time the various trophies in athletics are presented.

Newcomb has never entered into contest with other colleges in athletics, but has encouraged all legitimate and healthful contests on its own campus. While competition may be necessary to life, extremes in competition have never been encouraged at Newcomb College. The South has always been considered conservative; but it is a conservatism that has often saved us from making mistakes. Certainly we know that undue excitement is not to the well-being of the girl; and the chief aim of gymnastic work should be the health of the student. In fact, it is the representative department of hygiene as well as of physical education; and the problem before us now, as it is before all other colleges, is to give to the student that character of development that will make for finer womanhood, physically, mentally, and morally. If we can do this, we shall feel that the department of physical education is doing its legitimate work in the college. We believe that harmonious physical development is the chief factor in promoting the general efficiency, as well as the healthfulness and happiness, of women.

THE PHYSICAL CONDITION OF THE CHILD AS A LEADING FACTOR IN DETERMINING HIS VOCATIONAL GUIDANCE

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One of the first lessons a student of scientific psychology is taught when he enters the laboratory is the necessity of his making a careful statement of the exact conditions under which the problem he is solving is performed. Without this statement his results are worthless. They form the proof of the truth of his experiment. These conditions, of course, vary greatly, depending upon the sense department in which the work is being carried on, and cover not only definite statements concerning the apparatus used and its placement, but any fact touching the physical state of the subject that might in any way affect his judgments. Sometimes a seemingly trivial inaccuracy is sufficient to vitiate the results of an otherwise worthy investigation.

It is only after a student has failed more than once to make the record of an extremely small and seemingly worthless condition and has lost the value of his experiments thereby that the significance of the caution, "Everything depends upon a full and accurate statement of the conditions," is borne in upon him.

Illustrations of this important rule of scientific procedure are found in the everyday work of life. The best physician, for example, is not always the man whose knowledge of therapeutics is most profound; he is often rather the most acute inquirer into the causes of disorders, the discoverer of the conditions. He understands how to diagnose the case. He is able to find out what is the trouble before he attempts to cure it. We could find illustrations and examples of this method applied in almost every field of human endeavor, and yet it is only very recently that we have begun to make use of it in our own field of education. Today, however, we are very eager about it. We wonder how we could have been so blind as not to see that it is indirectly rather than directly we should put forth our efforts. We have discovered that we ought to spend more time in learning what we wish before we begin to institute reforms. Therefore, before remodeling the course of study in a city in order to improve its efficiency, we make a survey of all the conditions bearing upon education in that city that it is possible for us to ascertain. Before working toward legislation for better school administration in a state, we set to work to tabulate all the conditions pro and con that make for power or weakness in the present system of administration. We are even making surveys of teachers as well as of schools and communities. This has changed the focus of our activities.

Another factor closely allied to the foregoing, which enters strongly into present-day educational ideals and policies, is conservation. We are beginning to realize that public education is a mammoth business and that like any other business it ought to be managed with as little waste and with as great profit as possible. The amount of money spent on the education of our children is not a matter for concern, provided the returns made to society, as a result of the expenditure, are sufficiently large. We are thinking in view of this business proposition how to eliminate waste in every possible way; and within the last few years we have been fairly well convinced that our children leave school too young, probably because school is not interesting and also because it does not fit them for the life that the large majority must live. They leave school neither desiring to go farther, if opportunity offered, nor prepared to adjust themselves to the situations that life presents.

This state of affairs brought about the vocational school. In these schools we hope to hold the children longer and keep them interested, therefore learning, and so send them out or on, as the case may be; if out, as will be the destiny of the large majority, with ability to make a living at some definite kind of work, and with desire to know all they can about it, and all they can about the world's activities in general.

The vocational school in its turn inaugurates another departure. We found it was not fair to force, or even too strongly to suggest, children into various forms of life activities without giving the children themselves a voice

in the matter; besides it is better business for men and women to be engaged in those lines of work for which they are best fitted. It is a bad business that puts round pegs into square holes and square pegs into round holes; and so today we are giving our boys and girls conferences, or lessons, or lectures, along with their school activities, that will help each to find his or her own place in this world of work and service. This departure has been called vocational guidance.

The idea of vocational guidance is spreading rapidly and is broadening as it spreads. Ultimately it will mean a more intimate relation between teacher and child, between parent and child, and between parent and teacher. It will mean a better understanding of the laws of heredity, of psychology, hygiene, anatomy, and physiology, and a better understanding of the meaning and function of environment. At present we are trying to take a survey of each child, to find out what his natural tendencies are, and, thru a study of his parents and grandparents, to find out how deep-seated are these tendencies. We are looking into the conditions of his life in financial aspects to see how large a part money or lack of money will probably play in his choice of occupation. We are considering his geographical setting and making his present residence with its probable or possible permanence a factor for consideration. We are finding out what we can of family relationships, of family support to be depended upon or family dependence to be expected. We are making the survey—that is we are seeking the conditions under which our experiment in education is to be conducted. But we are omitting, as frequently do the students in training in the scientific laboratories, not an insignificant, but a most important, condition—that of his physical health.

Obvious deformities and mental deficiencies are of course considered, but aside from that the child's physical condition, as a factor in determining our guidance for him as to his place in life, does not seem greatly to impress us. It goes without saying that we shall not always be able to bring about what our survey of conditions directs, but the consideration of the physical condition as an important factor in the survey will often change our point of view and will radically change our method of procedure, and the results of these changes will always be beneficial to the child.

Moreover there is probably no movement in education that will ultimately do more for the cause of physical education in general than this very popular movement of vocational guidance. Both parents and teachers are going to study all children, as they develop from year to year, with the thought in mind, "I wonder where you will find your own individual life work." Tendencies will be discussed. As new subjects are provided in the school curriculum, they will more and more be regarded as tools for the development of the possibilities of the child. As soon as there is even a tentative choice of the child's future work in life made by parent and

teacher—this choice may come when the child is quite young—there will immediately be presented the question, "Is he physically fit?"

Where medical inspection has been installed, vocational guidance will give this work emphasis and an added point of interest. When indifferent parents learn that unless the corrective eyeglasses are purchased their child will possibly be shut out forever from the vocation they are looking toward for him, the glasses are likely to be forthcoming. When it is known that the medical inspector understands what vocations have been selected by each of the boys and girls of the upper grammar grades, it not only gives his diagnosis of each case a certain added weight that appeals to both parent and child as thoroly practical, but it also gives an added zest to the inspector's work. And the time will come when certain avenues will be entirely blocked as fields of action, because of failure to provide the right physical conditions. No young person with a strong inclination toward tuberculosis should plan to be a teacher. No one whose eyes have troubled him thru youth should look toward entering a life work involving use of the eyes for long periods at close range. The world of business is looking for efficiency. Physical health makes for efficiency and will be more and more in demand. Not only how much do you know, but how much can you do, and how well can you do it are the practical questions that are being asked today. There is no vocation or profession open to men and women in which physical health is not a prime condition of efficiency. We cannot consistently ignore or even minimize the health condition in helping children select their life work. Some such questions as these must be asked: Does the work appeal to you? Are your parents willing? Is it sufficiently remunerative? Can you do the work, that is, have you the knowledge therefor? *Have you a body in all respects sufficiently strong to enable you to do this work?* The last question answered negatively would require a change of choice in the life work selected.

The prominence that is being given to vocational guidance is significant for physical education, child hygiene, medical inspection, child-labor laws, and school architecture and equipment. All of these focus the attention upon physical well-being as a prime requisite for efficiency in the work and service of the world.

SWEDISH GYMNASTICS IN AMERICAN SCHOOLS

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Before discussing the subject of gymnastics, let us first agree on the meaning of the word "gymnastics." Gymnastic exercises are those exercises by the practice of which we aim at a systematic, gradual, and harmonious development of the body. This development is the only and

exclusive aim, and this aim is the only factor which decides which movements will be practiced, in what sequence they will be executed, what is the exact and correct form of execution, etc. Gymnastics form a special class among the great variety of physical activities. All the other physical exercises together form a second class of which the chief aim is recreation and by which it is possible to develop certain parts of the body and certain moral and intellectual qualities. This class includes the different sports and games. In the practice of these physical exercises there is no thought about a harmonious development of the body. Nobody bothers about whether, to perform a certain exercise in apparatus work or to make a touchdown, he has to hold his breath, to disturb or to interrupt the circulation of his blood, etc. I do not mean to say that all the sportive exercises must necessarily have bad physiological influences—but still, we cannot say that their practice guarantees us a harmonious development of the body. On the contrary it very often leads to specialization as far as the physical development is concerned.

Gymnastics build up the body harmoniously, build up the different organs in order to make them better fitted for their natural functions and for their use during daily life. An example will make this clearer. The respiratory exercises aim to develop the mobility of the thorax, the elasticity of the lung tissue, and the strength and tone of the respiratory muscles. Thruout daily life, and still more during the practice of physical exercises, we take profit of that increase of capacity. During the practice of gymnastics we try to contract our respiratory muscles as much as possible in order to dilate our chest and consequently our lungs as much as possible. It is our voluntary action which produces this result. But thruout daily life and particularly during the practice of sports and games, a better respiration is the involuntary result of the better training by gymnastics. Then we use the increased efficiency of the respiratory organs. The same is true for the other organs (muscles, nerves, etc.). Concisely stated, gymnastics are body-builders; sports, games, and also the various activities of daily life are body-users.

While in gymnastics we use chiefly exercises of the definite type, in sports, games, athletics, and in daily life activities we always use movements of the indefinite type. In gymnastics we use exercises, the exact form of which is previously determined by the physiological effect which is desired. But when we learn to walk, to throw a baseball, to write, etc., the final result which we want to reach is not previously determined as to the exact form of our movements. The same is true for all the natural movements and even for all the artificial ones, the form of which is not determined by some desired physiological effect, but by the practical purpose of the movement. The individual tries to arrive at the combination which makes it possible for him to execute the movement in the most economical way, that is, he tries to get the maximum effect with the minimum of effort.

But in the movements of the definite type, the form is determined so as to get the maximum, physiologically useful effect. This maximum effect can be obtained only by one special form of execution, which requires the maximum effort and which is the same for all the individuals. It holds good for all normal individuals that a trunk bending backward gives the maximum of physiological effect only if the flexion is performed in the dorsal part of the spine; that in arms sideways raised the shoulder-blades ought to be kept down, etc. The conditions of execution required in the Swedish gymnastics hold good for every individual, and for this reason this system uses exercises only of the definite type. And this explains, also, why it is wrong to claim that every nation must have a system of gymnastics of its own; physiology is the same in America as in Sweden and consequently the principles on which gymnastics must be based are the same for all the countries.

Having previously defined gymnastics, let us now briefly review the requirements of a rational system of gymnastics. We have seen that the system must guarantee a development that is systematic, gradual, and harmonious.

1. The requirements for a systematic development are the following:

a) Every organ (muscles, group of muscles, heart, lungs, etc.) must be appropriately developed. That is, in a way which is according to its natural function. So-called "supporting muscles," for example, must be developed differently from motor muscles, because of the difference in function.

b) Gymnastic exercises must have a corrective influence; the necessity of the practice of gymnastics stands or falls with their corrective influence. The word "corrective" must be taken in a broad sense and not only must indicate the correction of deformities and faulty postures, but also must include the neutralizing of the bad influences caused by our daily activities (sitting over desks, lack of physical activity, superficial respiration, etc.).

c) It must be possible to analyze the movements as to their influence on the bodily development in order to get the desired results.

d) These results depend on details of the execution and consequently great stress must be laid upon the correct execution of the movements.

e) In order to make the analysis possible and to obtain the desired effects, localization of movements is necessary. It must be emphasized that, contrary to the general opinion, localization of the movements does not at all imply localization of effect nor of activity; on the contrary, by localizing the movements, the muscular activity and the effect become far more widespread.

f) In order to obtain the correctness of execution, the slow execution of the majority of the movements is necessary; the most desirable speed of execution of gymnastic movements depends primarily on the difficulty of co-ordination, and not, as is always assumed, upon the relation between the strength of the muscles and the displaced mass. It is sometimes

thought that the chief aim of gymnastics ought to consist in movement. This is wrong; it is especially activity that we are after. We may have activity without movement just as we may have movement without activity; but it is the activity which produces the effect on the metabolic process in the cells. Movement increases the circulation, but there is no reason for an increased circulation if there are no waste products to be removed. There is no use to open the windows when the air inside is as pure as outside.

g) Most attention and most time must be given to the development of the most important organs; the importance of the rational development of the heart and lungs, rather than that of the muscles, is evident in this respect.

2. The gradual development requires a very slow progression in intensity of the exercises; this progression has to be as slow as the development of the nervous and muscular systems. Does not the word "education" imply a slow and systematic progression? Without this progression there may be physical exercise, there can never be physical education.

3. The harmonious development requires that every lesson form a complete unit. In order to guarantee this, the exercises must be judged and classified according to their physiological influence and not according to the apparatus which is used for their execution. There must be a guaranty that the physiologically best sequence is followed in the lesson. These requirements are fulfilled by using the Swedish days-order.

I have studied physical education all over Europe and for the last year in America, and my conclusion is that all these requirements are fulfilled by the Swedish system of gymnastics better than by any other system in the world. I regret sincerely that the time does not allow me to tell you why I am so strongly convinced of the superiority of the Swedish system, and I should be delighted if I could have given you the arguments why I thoroly believe that the physical education in the schools ought to be based on Swedish principles. However, lessons in Swedish gymnastics must not be the only kind of physical activity practiced by the school children. Outdoor and indoor games ought to occupy an important place among the physical exercises, but they may not take the place of gymnastics. Especially in schools where the time devoted to physical activity is very limited and does not exceed say three periods of half an hour or an hour each a week, we cannot afford to devote a part of this time to games and sports. Gymnastics, more than any other kind of physical activity, give sufficient guaranty that all the pupils will be reached and get the kind of exercises which they need most (not which they like most). Furthermore, as was mentioned before, the corrective influence of Swedish gymnastics is the most desirable and most important element and cannot be obtained by the practice of games and sports. As for the so-called "general" effect,

this is obtained as well by the Swedish gymnastic lesson exercises of the definite type, as by the practice of games and sports, and better than by the practice of artificial exercises of the indefinite type; furthermore the children have a certain amount of general activity by playing games, running, and walking in their spare time. It is often claimed that the degree of perspiration is an indication of the general effect produced by the exercises and that therefore the gymnastic lesson must give us a good "sweat-up." Not only is it true that the general effect depends on activity more than on movement, and that, therefore, the increase of the circulation ought to be less exclusively emphasized, but it seems by no means desirable to produce an abundant perspiration by the practice of gymnastics in the schools. The period of gymnastics is followed by other periods, and, since no time is available for changing dress and taking shower baths, the pupils are likely to catch a cold and to suffer the disagreeable consequences which follow after perspiration under those conditions. It is very questionable whether, from a hygienic point of view, the good effect of a gymnastic lesson, namely the increased metabolism, would justify this very undesirable effect. By conducting the gymnastic lesson according to the Swedish principles, this undesirable effect can be avoided.

It is sometimes said that the Swedish system is boring, that the lessons are monotonous. It seems to me that there are no boring systems, but that there can be only boring teachers. We all know that in physical education the success depends in greater part on the leadership, on the personality of the teacher. If the latter has not the talent to make a lesson interesting, he will fail to do so, whatever system of gymnastics he uses. Besides it is often thought that Swedish gymnastics mean calisthenics; but we must not forget that jumping and vaulting, balance exercises and different hanging exercises form an essential part of every "Swedish" lesson. Too often it is thought that an introduction of Swedish gymnastics would mean the abolishing of all the recreative features of gymnastics.

But even if it were true that the average boy and girl prefer the "German" or "American" lessons to the "Swedish" lessons, this may not keep us from substituting the latter for the former if, for reasons which the child is unable to judge, the latter are more beneficial. It is more valuable from an educational point of view to bring the child to do things and to execute exercises for the mere reason that he ought to do it, for his own benefit, than to allow him to do what he likes best. There is no educational value in allowing a child to eat candy, but there is a great educational value in persuading him to finish his regular dinner. The fact that the performance of the exercises makes him feel well, on one hand, and the realization of doing something useful, of doing his duty, on the other hand, must and will give the child satisfaction. Is it not the same in intellectual education? Not all the pupils enjoy the writing of papers and the solving

of problems, and still many of them feel satisfaction after having written a paper without many mistakes or having found the solution of a problem, and this in spite of the fact that they realize only later in life the necessity of this kind of intellectual training. I did not enjoy the study of English, French, and German while at school, and did not realize the necessity of this study; at present I thoroly appreciate the ability to read, study, and to deliver even this paper to you in a language which is not my own. But just as the lesson in geography, languages, etc., ought to be made as pleasant and interesting as possible, the teacher of gymnastics must know how to make his lesson attractive without, however, decreasing its beneficial influence on the physical development.

It has been said also that the American boy does not like discipline and order and that, therefore, he ought to be taught in another way than the way in which the Swedish boy is taught. It would seem that, since a certain sense of discipline and order is a valuable quality for the American citizen as well as for anybody else, this quality ought to be developed, and the gymnastic lesson gives us a good opportunity to do this.

It is clear that the favorable or injurious influences resulting from the different kinds of exercises will be most pronounced during the years passed in the school. The use of apparatus exercises as practiced in German and American gymnastics in the lessons for children cannot be defended by the mere fact that the most skilful among the boys enjoy this kind of exercises, since it is likely to produce harmful results on the hearts of the majority of the pupils. It is just the much-praised competitive element which, in German gymnastics, causes the child to do his utmost to perform a certain exercise, and, especially in the case of a strength exercise, this is not without danger. Trying to "chin" may put the same strain upon a child's heart as holding a lever for a trained gymnast.

The particular attention given in "Swedish" gymnastics to a slow progression gives the best guaranty that the heart will not be overstrained. It has been said that the introduction of a more strictly corrective type of exercises would not succeed, because of the fact that the children "do not want that kind of stuff." This argument, however, is of no value.

Why should the physical director make, during several years, a thoro study of anatomy, physiology, psychology, etc., if he is not to apply his knowledge on the gymnasium floor, the only place and the only moment that this knowledge can and ought to be of practical use? We must give the children the exercises that they need, not that they want; our study enables us to judge right—the children cannot do this themselves.

I am exceedingly sorry that the time is too short to give you a complete outline of the Swedish system of gymnastics and to show you that its principles are in perfect harmony with the latest theories and with the results of the latest experiments in the line of physical education. All I can do at present is to give you my strong conviction, based on a thoro

study of the different systems of physical education, that whatever may be, or may be claimed to be, wrong in the Swedish system of gymnastics, its principles are sound and true. I sincerely hope to see these principles adopted before long as the basis of physical education in American schools and universities.

THE HEART VOLUME IN MAN—THE NITROUS OXIDE METHOD AND THE RESULTS OF PROFESSOR FRANZ MÜLLER

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The question of heart volume in man has recently been investigated by new methods and with fresh enthusiasm. It is the purpose of the following paper to report briefly on this recent work, particularly that of Professor Franz Müller, of the University of Berlin, with whom the writer has had the privilege of working as a student of his method and as a subject for experimentation in the Tierphysiologisches Institut der Landwirtschaftlichen Hochschule under the auspices of Geheimrat N. Zuntz. Reports on the nitrous oxide method have already appeared in German physiological publications,[1] and Professor Müller demonstrated the improved form of the method at the International Congress of Physiology held in Groningen, Holland, September 2–6, 1913.

To the student of the physiology of exercise, no question is of more significance than that of the heart volume and the effect of exercise upon it. In the past the circulatory changes caused by exercise have been studied chiefly from the point of view of blood pressure and pulse frequency, tho some work has been done with the cardiograph, with the Roentgen rays, and on the circulation time. The real work done by the heart, however, must remain a supposition until the actual amount of blood delivered per beat or per unit of time is determined. The desire to measure the work of the heart has led to many attempts to estimate the heart volume. These attempts were at first based largely upon observations upon dogs. Vierordt,[2] in a series of experiments on more than twenty dogs ranging in weight from 5 to 35 kilos, concluded that the output of the left ventricle per kilo of body weight diminishes as the size of the animal increases. If this same relation holds for man, a 70-kilo man would discharge about 80 cu. cm. of blood per heart beat. Considering this together with the circulation time, the conclusion is drawn that the average amount of blood thrown out by each ventricle at each beat is between 70 and 80 cu. cm. Zuntz, calculating from the quantity of oxygen absorbed by the blood in the lungs, has estimated the output at 60 cu. cm. He believes that this may be greatly increased during muscular work. In the middle

[1] *Zeitschrift für Balneologie und Klimatologie*, Vol. IV (1911), Nos. 14 and 15.

[2] Stewart, *Physiology*, p. 127.

of the last century Passavant calculated the output at 46.5 cu. cm. If these varying estimates, which are at best but rough approximations, differ so much for rest, what must the uncertainty be regarding the output during muscular work—the condition in which the physical director is primarily interested?

GENERAL HISTORY

A brief review of the older work may be helpful in showing the steps which have gradually led to the nitrous oxide method. First came the determination of the circulation time by Hering[1] and von Kries[2] by introducing potassium-ferrocyanide into the central end of a vein and finding the time when it appeared in the peripheral end of the same vein. Frick devised a method of calculating the respiratory exchange, and from this the heart volume, by determining the difference in oxygen content of arterial and venous blood, the latter taken from the right auricle of the heart, making at the same time a determination of the total oxygen consumption of the animal. Following this method Gréhant and Quincaud carried out observations on dogs, and Zuntz with Hagemann[3] made an extended research on horses. The results of this work agreed well with direct determinations made by Tigerstedt,[4] who, following Ludwig, introduced a "Stromuhr" directly into the ascending aorta of rabbits. Bohr and Henriquez,[5] however, showed that considerable oxidation might occur in the lung tissue itself and this oxygen would then appear in the arterial blood in a stable compound which could not be pumped out, thus invalidating the results.

This objection, tho disputed,[6] made it desirable to find a method less open to criticism and applicable to man. Loewy and von Schrötter[7] devised a method of calculating the tension of the gas in the blood indirectly from the gas tension in the lungs. For this purpose it was necessary to close a bronchus and give the air in that lung section time to acquire the same gas tension as the venous blood. Knowing this tension and the dissociation curve, the oxygen content of the venous blood could be calculated. This could then be compared with air from the free bronchi, giving the oxygen content of the arterial blood. The difficulty of the technic, however,

[1] Hering, Tiedemann, and Treviranus, *Zeitschr. f. Physiologie*, III, 85–1829.

[2] von Kries, *Verhältnis der maximalen zur mittleren Geschwindigkeit bei dem Strömen von Flüssigkeit in Röhren.* Sep.-Abdruck.

[3] Zuntz and Hagemann, *Untersuch. über den Stoffwechsel d. Pferdes* (Landro), Jahrbuch XXVII, Supplement I, p. 371.

[4] R. Tigerstedt, "Bestimmung der vom linken Herzen herausgetriebenen Blutmenge," *Skand. Arch. f. Phys.*, III (1891), 145; "Die Geschwindigkeit des Blutes in den Arterien," *Ergebn. d. Physiol.*, IV (1905), 481.

[5] Bohr and Henriquez, *Arch. de Physiol., nom. et pathol.*, V, Part IX, 459–74.

[6] Plesch, *Haemodynamische Studien* (Berlin, 1909), pp. 130 ff.; Zuntz, *Pflügers Arch.*, LV, 521.

[7] Loewy and von Schrötter, *Blutzirkulation beim Menschen* (Berlin: Hirschwald, 1905).

and its application only to therapeutic cases requiring bronchotomy made the method of no general use.

Plesch,[1] however, ingeniously modified this method so as to be usable by a normal breathing man. He used a gas bag and allowed the subject to breathe, for about thirty seconds, a gas mixture of low oxygen content so that its oxygen percentage after mixture with the residual air of the lungs would correspond approximately to the oxygen tension of the venous blood. If the oxygen tension of the mixture was above that of the blood going thru the lungs, oxygen would be absorbed; if lower, oxygen would be given up to the gas mixture. With the dissociation curve, the oxygen content could then be calculated. The dissociation curve of the oxyhaemoglobin, however, is not constant for all men. Barcroft[2] has shown that dyspnea and changes in CO_2 content in the blood may have a great influence on the dissociation curve, thus rendering the method unreliable, especially where work is concerned.

It remained, therefore, still to develop a method applicable to workingmen.[3]

NITROGEN METHOD

Bornstein,[4] taking his cue from the work of Zuntz, hit upon the simple and ingenious idea of using an indifferent gas, choosing nitrogen. His principle is to breathe for a given time a gas of low nitrogen content (practically pure oxygen). As a result, nitrogen will be given off from the blood to this nitrogen-poor gas according to the relative nitrogen tension in the blood and gas. Knowing these tensions, the time of breathing, and the amount of nitrogen given off from the blood, the quantity of blood itself passing thru the lungs in the given time may be calculated and so the minute volume determined, and thus, knowing the pulse frequency, the pulse volume itself. The method is simple, requires comparatively little apparatus, and seems to give good results. The chief objection lies in the possibility that as the nitrogen disappears from the blood other nitrogen will be drawn from the tissues to the blood and so into the gas under observation. The nitrogen content of different tissues varies, Vernon[5] having shown that fatty tissue may shelter even six times as much nitrogen as the same weight of blood or muscular tissue. Bornstein's method then furnishes a good means for comparative measurement on the same individual at rest.

[1] Plesch, *op. cit.*, pp. 83 ff.

[2] Barcroft and Camis, "The Dissociation Curve of Blood," *Journal of Physiology*, XXXIX (1909), 118; same with Orbeli, "Influence of Lactic Acid upon the Dissociation Curve of Blood," *ibid.*, XLI (1910), 355; same, "Effect of Altitude on the Dissociation Curve of Blood," *ibid.*, XLII (1911), 145.

[3] Bohr, *Centralbl. f. Physiol.*, XVII (1904), 689.

[4] A. Bornstein, "Methode zur vergleichender Messung des Herzschlagvolumens beim Menschen," *Pflügers Arch.*, CXXXII (1910), 307.

[5] Vernon, *Proceedings of the Royal Society*, LXXIX (1907), 366.

It can be used for absolute measurements if the gas is not breathed longer than one circulation time. According to Bohr, blood has an absorption coefficient of 0.205 cu. cm. of N for 100 mm. tension of pure N; 100 divided by 0.205=488 cu. cm. of blood=amount of blood used for 1 cu. cm. of nitrogen. If we find per minute and 100 mm. Hg. tension, a difference say of 10 cu. cm. of N, it equals 4,880 cu. cm. of blood. If the pulse is 62, the

$$\text{pulse volume} = \frac{4{,}880}{62} = 78.7 \text{ cu. cm.}$$

The objection to Bornstein's method lies in the leakage of nitrogen from the tissues. A further objection is the unreliable results reported in work, where in some cases five to ten times as large a heart volume is found as in rest, while the oxygen consumption remains practically the same,[1] an obvious impossibility.

NITROUS OXIDE METHOD

The nitrous oxide method as used by Müller obviates this difficulty and gives absolute results in work. Nitrous oxide is a gas with a high absorption coefficient and follows the Boyle-Mariotte law in the body. Consequently it is necessary to breathe it only a short time to get good results (20–60 seconds)—an obvious advantage in work experiments. The first work along this line may be said to begin with an article published by Markoff, Müller, and Zuntz[2] in 1910. Krogh and Lindhard,[3] after extensive study, have also adopted nitrous oxide and independently, tho later than Müller, worked out a method for determining the heart volume. In general their method is similar to that used by Müller but apparently not so well worked out and not so free from technical errors.

PRINCIPLE

In principle the nitrous oxide method is exceedingly simple. A gas mixture containing known percentages of nitrogen, oxygen, and nitrous oxide is breathed for a given time. After the experiment, the resulting gas mixture is analyzed and the amount of nitrous oxide absorbed by the blood determined. Knowing the nitrous oxide absorbed, the absorption coefficient, and the time of the experiment, the amount of blood passing thru the lungs in this time may be calculated and so the minute volume determined. Then knowing the pulse frequency the pulse volume itself is given.

In practice the experiment is divided into two parts: a preparatory part in which the subject breathes about 10 seconds, 2–4 breaths, from a spirometer containing about 25 per cent of nitrous oxide, and a principal part in which the subject breathes about 35 seconds, 3–5 breaths, from a spirometer containing about 18 per cent of nitrous

[1] *Zeitschrift d. Fortschritte der Medicin*, January, 1912.

[2] *Veröffentlichungen der Zentralstelle für Balneologie*, IV, 1–16.

[3] Krogh and Lindhard, *Skand. Arch. f. Phys.*, XXVII (1912), 100–125.

oxide. The purpose of the preparatory period is to determine the lung space and to saturate the lung tissues with nitrous oxide. From the analysis of the end gas in the preparatory spirometer the tension of the nitrous oxide at the beginning of the principal part of the experiment is known. The tension at the end of the experiment is secured from the analysis of the alveolar gas drawn at the end of the last expiration. The mean nitrous oxide tension is thus determined.

APPARATUS

The apparatus[1] itself is a marvel for convenience and adaptation to its purpose. It consists of the two rhomboidal spirometers mentioned above mounted on a base. These spirometers partly overlap each other and stand at a slight inclination, being slightly tipped forward at the top. Tubes from each spirometer join to a main tube leading to the mouthpiece. At the joining is a two-way cock which may be turned to connect instantly with either spirometer. Near the mouthpiece is another junction with another two-way cock, and a side tube connecting with the outer air. Between this cock and the mouthpiece are two exit tubes to which tubes may be attached for taking samples of the alveolar air if desired for chemical analysis. In the tube leading to each spirometer is a set of valves, inspiratory and expiratory way, forming a circuit which allows the admission and exit of gas with very slight resistance. The gas here also passes thru a U-shaped tube containing natron calk for absorbing the CO_2. To each spirometer is attached a registering apparatus which makes possible the accurate preparation of any desired gas mixture. These registering devices also make a graphic record of the respiratory changes on a smoked paper driven by clock work which records time in half-seconds. On this tracing the pulse rate may also be recorded by an ordinary tambour, thus giving a complete graphic record of the whole experiment.

PROCEDURE

To conduct a rest experiment the subject is comfortably seated in a chair after the mixtures are prepared in easy reach of the mouthpiece. After sitting quietly for at least fifteen minutes, the pulse is taken, a nose clamp is adjusted, and the subject is given the mouthpiece with the first two-way cock (next the subject) turned to the open air. The second cock is turned to the first spirometer. After a few breaths from the outer air the clock work is started and the subject exhales to a given position, which may be either a maximal expiration to the residual air, or, by using a pneumograph connected to a tambour with a writing point and scale, may be to any partial expiration. When the expiration has reached the indicated position, the subject signals by raising his finger. The first tap is instantly turned connecting with the first spirometer. The subject takes three or

[1] Furnished by the E. Zimmerman Company, of Berlin.

four rather quick deep breaths, finishing by exhaling exactly again to the given position. At his signal a sample of alveolar air is drawn if desired, and the second cock turned to the second spirometer; three to five breaths are taken from this, the subject exhales to the given position, signals, a sample is drawn, and the second cock closed, while the first cock is turned to the outside air. During the experiment, an assistant has taken the pulse unless it has been recorded on the tracing. The actual experiment thus occupies approximately sixty seconds. Experiments have also been taken with the subject reclining in a hammock chair, lying in a bath, and working on a stationary bicycle ergometer.

ANALYSIS OF THE GASES

Immediately following the experiment the gas mixtures in the spirometers are analyzed. Analysis of the gases before the experiment is not necessary because of the accuracy of the registering apparatus. Professor Müller, however, has greatly simplified this part of the work by adopting the method of optical gas analysis by means of the "intereferometer" devised by Professor Haber[1] for technical and industrial gas analysis. This instrument has been recently described in several publications. It enables one to read off at once, by turning a screw and adjusting the interference spectrum of the gas against a spectrum of air, the percentage of gas present. For nitrous oxide readings the CO_2 is removed in the natron calk tubes referred to above and by passing the gas thru a KOH solution. The CO_2 in the expired air is measured by noting the reading of the registering scale immediately at the end of the experiment and again after thoroly mixing the air driving it thru the natron calk tubes. The oxygen is removed from the mixture by drawing off into a "kugel" and shaking with sodium hypophosphite. This gas is then driven thru the intereferometer and the reading taken. The difference between this reading and the reading for the total gas gives the N_2O determination. The instrument gives results practically identical with those secured by chemical analysis, which is a very small error, 1–3 per cent of the total value. Fifteen per cent N_2O=0.15–0.45 cu. cm.

CALCULATION

Perhaps the most complicated part of the whole experiment is the calculation of the results. For the calculation it is necessary to know the following:

1. *The lung space.*—Obviously since the body neither takes up nor gives off nitrogen in the experiment an equation can be made between the nitrogen contained in the lungs and spirometer before and after the experiment. Letting X=the lung space and reducing all gas volumes to normal (0° and 760 mm.), the value of X can be found from the equation. This is done

[1] Haber, *Intereferometer.*

TABLE OF RESULTS

Rest					Work						
Date, 1913	Min. Vol. Liters	Pulse Vol. Cu. Cm.	Pulse	O_2 Cons. Cu. Cm. per Min.	Date, 1913	Min. Vol. Liters	Pulse Vol. Cu. Cm.	Pulse	O_2 Cons. Cu. Cm. per Min.	Time of Work	Work in Kgm. per Min.
June 9	5.63	93.8	60	398	July 9	4.30	41.3	104	1225	50′	296
June 26	6.63	85.0	78	407	July 21	10.57	97.8	108	1414	72′	348
July 19	4.83	67.1	72	438	July 23	11.07	92.3	120	1915	61′	391
July 28	4.71	60.4	78	480	August 2	8.02	55.7	144	1424	124′	399–454
					August 9	6.93	50.2	138	.....	24′	500
Average	5.45	76.6	72	431	Average	8.18	67.5	123	1495	.....	.....

for the preparatory work and for the principal part of the experiment. The two values should agree closely and the average may then be taken.

2. *The nitrous oxide consumption.*—A balance can be made between the nitrous oxide at the beginning of the principal part of the experiment and at the end, according to the volumes and percentages as shown by the gas analysis, showing how much N_2O has been absorbed.

3. *Absorption of nitrous oxide by the lung tissue.*—This must be added to or subtracted from the nitrous oxide consumption according to whether the nitrous oxide tension rises or falls during the principal part of the experiment. Or it may be included in the balance struck in No. 2.

4. *The mean nitrous oxide tension.*—This is best taken from the end of the first inspiration to the end of the experiment.

5. The time of the principal part of the experiment.

6. The absorption coefficient for nitrous oxide.

Then if $2=c$, $3=b$, $4=p$, $5=t$, and $6=a$, the minute volume $=\frac{a(c \pm b)}{pt}$

and pulse volume $=\frac{\text{minute vol.}}{\text{pulse rate}}$.

RESULTS

In the table is given the results of four rest and five work experiments taken by Professor Müller on the writer. The table gives the minute volume, the pulse volume, the pulse, and the oxygen consumption. In the work experiments, the length of work done and the kilograms of work per minute are given. The work was done on a stationary bicycle weight ergometer and the subject continued working during the experiment.

CONCLUSIONS

The study of heart volume is not yet advanced to a point where absolute conclusions can be drawn, and the present series of observations is not extended enough to be at all final. The nitrous oxide method, however, furnishes a practical and reliable method of research from which we may hope shortly to secure facts of extreme importance regarding the work of the heart, important alike to the physician, the athletic trainer, and the student of the physiology of exercise. The effect of work, speed resistance, temperature, altitude, air pressure, bathing, drugs, etc., should be studied. To these and similar questions Professor Müller and his students are devoting themselves. The pioneer work has been done.

The present study seems to indicate an increase in the minute volume (5.45 to 8.18 liters) and a decrease (76.6 cu. cm. to 67.5 cu. cm.) in the heart beat volume with moderate work. In other words, as the heart beats faster it fails to completely empty itself.

DEPARTMENT OF SCIENCE INSTRUCTION

SECRETARY'S MINUTES

OFFICERS

President—GEORGE R. TWISS, high-school visitor, Ohio State University....Columbus, Ohio
Vice-President—CHARLES E. SIEGERFOOS, professor of animal biology, University of Minnesota, Minneapolis, Minn.
Secretary—A. A. UPHAM, normal school.....Whitewater, Wis.

FIRST SESSION—TUESDAY FORENOON, JULY 7, 1914

The meeting was called to order in the Madison School by President Twiss at 9:10 A.M. In the absence of the secretary, J. A. Randall, Pratt Institute, Brooklyn, N.Y., was appointed secretary *pro tempore*.

Vice-President Siegerfoos took the chair during the reading of the president's address on "The Outlook for the Application of the Scientific Method to the Problems of Science Teaching."

A paper was read entitled "Co-operation by Teachers for the Improvement of Science Teaching," by John A. Randall, department of physics, Pratt Institute, Brooklyn, N.Y.

Discussion: Professor Zoleny, University of Minnesota, Minneapolis, Minn.; L. A. Robinson, Bay Ridge High School, Brooklyn, N.Y.; and Julia B. Clifford, East High School, Minneapolis, Minn.

The following papers were then presented:

"Basic Principles for the Control of the Science Curriculum"—George Herbert Mead, professor of philosophy, University of Chicago, Chicago, Ill.

"Geography in Secondary Schools":

a) "In the Large High School"—R. H. Whitbeck, professor of geography, University of Wisconsin, Madison, Wis.

b) "In Village and Rural Schools"—William J. Sutherland, president, State Normal School, Platteville, Wis.

After a general discussion, the meeting adjourned.

SECOND SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The department met at 9:00 A.M., in the Empress Theater, with J. A. Randall, Pratt Institute, Brooklyn, N.Y., presiding.

The following program of motion-picture lectures was given:

"Steel Tube Production—From Ore Bed to Customer"—B. S. Bart, engineer, National Tube Company, Pittsburgh, Pa.

"The Use of Lantern Slides in a Course in Electrical Measurements"—Charles P. Frey, engineer, Weston Electrical Instrument Company, Newark, N.J.

"Motion Pictures as an Aid to Education"—Alfred H. Saunders, manager, educational department, Colonial Motion Picture Corporation, New York, N.Y.

Discussion: David Snedden, commissioner of education for Massachusetts, Boston, Mass.; J. H. Beveridge, superintendent of schools, Council Bluffs, Iowa; Hugh M. Gilmore, superintendent of schools, Mason City, Iowa; Nathaniel M. Graham, superintendent of schools, South Omaha, Nebr.; and Peter Olesen, superintendent of schools, Cloquet, Minn.

Upon motion, a vote of thanks was unanimously tendered to Messrs. Sullivan and Considine for their courtesy in providing the department with a theater; to the National Tube Company, of Pittsburgh, Pa.; to the Weston Electrical Instrument Company, of Newark, N.J.; and to the Colonial Motion Picture Corporation, of New York, N.Y., for sending to us their lecturers.

THIRD SESSION—THURSDAY FORENOON, JULY 9, 1914

President Twiss called the meeting to order at 9:10 A.M., and announced that the business meeting and election of officers would precede the formal program.

The motion contained in Mr. Randall's paper was again read and unanimously passed.

The nominating committee, which had been previously appointed, presented the following list of officers:

For *President*—J. A. Randall, department of physics, Pratt Institute, Brooklyn, N.Y.
For *Vice-President*—Ellwood P. Cubberley, professor of education, Leland Stanford Junior University, Stanford University, Cal.
For *Secretary*—Emma Conley, state inspector of domestic science, Madison, Wis.

Motion was made and passed that the department president appoint a committee of not to exceed eight or ten members to investigate the educational uses of the motion picture and to take such steps as seem appropriate to guide its introduction.

The following papers were then read:

"Biology in the Secondary Schools"—James E. Peabody, head of the department of biology, Morris High School, New York, N.Y.
"Physics in Secondary Schools":
a) "A Lecture on Fluid Motion with Experiments and Hints on Teaching"—W. S. Franklin, professor of physics, Lehigh University, South Bethlehem, Pa.
b) "Physics for Girls by the Scientific Method"—Emma J. Fordyce, head of the departments of physics and chemistry, high school, Cedar Rapids, Iowa.

Owing to the lateness of the hour it was agreed by common consent to hear the remainder of the program at the afternoon meeting.

FOURTH SESSION—THURSDAY AFTERNOON, JULY 9, 1914

President Twiss called the meeting to order in the Wilder Charity Building at 2:30 P.M.

The business session of the morning was continued. "The Preliminary Report of the Committee on the Improvement of Physics Teaching" was read by J. A. Randall, Pratt Institute, Brooklyn, N.Y., chairman, as follows:

For the purposes of this report we are continuing last year's plan of discussing the work under three headings or sections.

SECTION 1

Blueprints and laboratory direction sheets showing methods of building new objects of instruction and suggestions as to how to use them have been distributed to the number of about twelve thousand. It is proposed to continue this work for the coming year.

SECTION 2

Additional monographs are being prepared showing how schools are successfully using commercial articles as objects of instruction. Monograph 5—*The Mechanics of the Sewing Machine*, Singer Sewing Machine Company, New York, N.Y., will accompany the Proceedings. Others may be had free upon application to the chairman. An announcement and return postal card will accompany the Proceedings for the convenience of those interested. The Weston Electrical Instrument Company, Newark, N.J., has provided us with two very valuable charts for classroom use which the committee is also distributing free upon application.

SECTION 3

An exhibition by your committee at the Panama Pacific International Exposition was proposed. Funds and labor for this are not at our command. We, therefore, propose to ask commercial exhibitors to show, especially during the time of our convention, all the material possible illustrating how their product is being used in schools to aid instruction.

On motion, it was voted to continue the work according to the plan outlined by the committee.

A paper on "The Teaching of Chemistry," by Louis Kahlenberg, professor of chemistry, University of Wisconsin, Madison, Wis., was read by G. W. Walker, superintendent of schools, Mayville, N.Dak.

Discussion followed.

"The Report of the Committee on Janitor Service" was then given by George R. Twiss, Ohio State University, Columbus, Ohio, member of the committee, in the absence of the chairman, Helen C. Putnam, M.D., Providence, R.I.

FIFTH SESSION—FRIDAY FORENOON, JULY 10, 1914

The department met in joint session with the Department of Vocational Education and Practical Arts and the Department of Secondary Education and was called to order by Arthur L. Williston, principal, Wentworth Institute, Boston, Mass., in the Madison School, at 9:30 A.M.

The following program was presented:

"The Adjustment of the High-School Curriculum to Modern Needs"—John H. Francis, superintendent of Schools, Los Angeles, Cal.

"The Tendencies and General Status of Courses in General Science"—William H. Timbie, head of department of applied science, Wentworth Institute, Boston, Mass., and Fred D. Barber, professor of physical science, State Normal University, Normal, Ill.

"Applied Science—Its Relationship to Shop Work and the Rest of the Curriculum in an Up-to-Date Technical High School"—Adelbert H. Morrison, head of science department, Mechanic Arts High School, Boston, Mass.

Discussion: P. P. Claxton, United States commissioner of education, Washington, D.C.

J. A. RANDALL, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

THE OUTLOOK FOR THE APPLICATION OF THE SCIENTIFIC METHOD TO THE PROBLEMS OF SCIENCE TEACHING

GEORGE R. TWISS, HIGH SCHOOL INSPECTOR, OHIO STATE UNIVERSITY, COLUMBUS, OHIO

Are the methods of teaching which largely prevail at present effective in securing for the pupils the great benefits that we believe should accrue to them as results of scientific study, or are they not? We do not know. We have many decided opinions on the subject, but no decisive evidence. Why has so little been done toward applying the scientific method to the task of finding out the real truth about it? Is it not passing strange that

we who profess knowledge of the scientific method of study have not applied that method to the solution of some of our pressing pedagogical problems?

The items of educational value that we have claimed for science study are: first, that the pupils get useful information out of it; second, that it causes them to acquire habits of careful and intelligent observation; third, that it teaches them efficient habits of thought; and, fourth, that it awakens and fosters in them a permanent interest in scientific information and study.

Now of those science teachers who may hear or read what is said here, there are probably three classes. First, there are those who have always taken it for granted that the results of their teaching would be what they are generally assumed to be and have never given the opposite possibility any serious consideration. I fear that a representative sampling would show that this class far outnumbers all the others. Second, there are those who are convinced and frankly admit that in the case of a large majority of their pupils the results of their teaching are not what should be hoped for, and who seriously question the efficacy of the prevailing subject-matter and methods, but who as yet have made no important departures, either in theory or in practice, from the procedure that is established by authority and sanctified by tradition. Third, there are a few who have cast off the shackles of hoary traditions and dogmatic syllabi, have freed their minds and speech from the false inferences and misleading terminology of the dogma of formal discipline, and are experimenting empirically with subject-matter and methods that differ in some essential ways from the old.

It is from the two latter classes only that we may hope for progress thru the application of the scientific method to the problems of science teaching. Teachers of the third class are already making some experiments in choice of matter and variation of methods, and believe that they have made some progress. Teachers of the second class are in a state of mind favorable for doing so if they can be brought under effective leadership and direction.

The greatest difficulty of the situation lies in the wide variety of conditions under which different teachers work. This variability of basic conditions makes it very unsafe to draw general conclusions from the results obtained by any one or two teachers, and makes it imperative for each teacher, so far as he is able to do so, to make a careful scientific study and record of the materials which he is handling, of the conditions under which he is dealing with it, of just what he is doing with it, and of the effects produced by each step of the procedure when he has completed it. In other words, we science teachers can never claim professional standing or preferment comparable with that enjoyed by engineers or physicians until a considerable number of us, each in his own place, find ways of measuring and recording the status of our pupils as to their interests, capacities, and abilities; of appraising the various factors in their environment and the conditions under which we are teaching; of standardizing the various steps in our pedagogical procedure; and of measuring after each step the improve-

ment in the pupils that results from it. Until we have made some progress in this direction and can draw conclusions from the results of measurements that are in some degree standardized and on an objective basis, instead of from counting noses and finding percentages of opinions and counter-opinions, we can never claim rank with real scientific workers.

Let us suppose it to be agreed that progress must begin with scientific studies by individual teachers of their own pupils, their own environmental conditions, and their own pedagogical procedure under these conditions. Let us suppose also that the results can be measured with some degree of objectivity; that is, stated in figures as to the exact meaning of which a large majority of competent observers would agree. Then obviously the first question for each teacher who undertakes such scientific study of his own work is, "Am I really failing or succeeding in my attempts to realize the four kinds of educational values of science that have been enumerated?"

If any teacher can prove to himself and others by objective tests of their performance that his pupils are realizing some or all of these values to a satisfactory degree, then the methods he is using are good methods. If such tests show that they are failing to realize most or all of these values, the methods must therefore be bad; and other methods should be tried and tested until with the given pupils and under the existing or necessary conditions such methods are found as result in a reasonable amount of those kinds of progress, as revealed by the appropriate tests.

For many years we have been using tests in the form of written examinations. From the standpoint of school administrators these tests have been fairly satisfactory in whole or in part; but from the standpoint of scientific measurements of the status and achievements of pupils, they are far from satisfactory. They consist mostly of questions that test ability to respond, when certain familiar schoolroom cues are given, with verbal statements or formulas representing condensed and abstract bits of information, or of made-up school problems most of which are never met with in daily life. There are notable exceptions, but this is true of a large majority. Thus, while information and ability to think are tested to a certain extent by the ordinary examinations, the grades given mainly represent ability to respond with certain answers to a limited variety of schoolroom cues—and the ability to respond with appropriate behavior to the real situations of life, wherein scientific information and scientific observing and thinking are required, is for the most part not tested at all.

Analysis of the first factor of the problem, that of testing information, leads to two propositions which I shall here state without argument: (1) Information is useful to any individual only when it has in it elements that belong to the life-situations in which he is placed, or is likely to be placed, and that are significant to some real present or future need that is apparent to him. (2) Information is useful to an individual only when that individual has acquired it in such a way that when he is placed in

situations where it is significant and is needed he will be able to recall and apply it.

With reference to scientific testing of useful and usable information, then, we want first a great multitude of questions calling for the kinds of scientific information that one needs to have in solving the problems that present themselves to children in school and to all kinds of people in the adult industrial, social, and civic life under urban, village, and rural conditions. These will have to be collected by science teachers with the help of farmers, merchants, manufacturers, physicians, nurses, public-service employees, architects and builders, mechanics and artisans, householders, and the children themselves. Secondly, these questions will have to be assorted according to their relations to the principles of the various sciences and tested out and arranged in grades with reference to their relative difficulty to high-school students. Thirdly, these questions will have to be framed in such a way that they can be presented to the pupils as nearly as possible in the forms that they take when they present themselves in the activities of daily life. They must not be presented exclusively in the form of conventional schoolroom activities. Fourthly, in order to afford objective measures of the pupils' stocks of information, such questions must be so arranged that their answers may be easily scored, that so far as possible the scores are of equal values, or multiples of equal values, and that competent judges would agree fairly well on these values. If this can be done, the scores could be handled in accordance with the simpler modes of statistical treatment and would be in some degree objective and quantitative.

On account of the great variability in the performance of the same individual at different times and of different individuals at the same time, the results should be expressed in distributions, or tables of frequencies, and illustrated by curves, or surfaces of frequency. For each distribution, the most appropriate central tendency, such as the average, the median, or the mode, or, if need be, all three, should be given, and the variabilities, such as the average or median deviation from the central tendency, should also be given.[1]

A great deal of valuable information can be extracted from ordinary school marks, if they are thus treated; and it is particularly desirable that teachers should get into the habit of listing their pupils' school marks in the order of their numerical values or ranks, or as deviations from the average or median, as well as in the alphabetical order of the pupils' names.

For experimentally testing habits of observing, we want a great variety of easily arranged situations in which the pupils will have to observe certain things in order to find the answers to questions about which their curiosity is aroused. Such situations are afforded by any really good laboratory experiment, but in order that our classroom and laboratory experiments may be used as real scientific tests, instead of as formal exercises, experiments

[1] Cf. E. L. Thorndike, *Mental and Social Measurements*, chaps. i–iii.

must be chosen that involve problems or questions to which the pupils really want to find answers. Not only must the customary experiments be recast or replaced so that they represent real, concrete, problematic situations to which the pupils will react in a vital way, but the things to be observed must be listed and evaluated so that the performances of the students can be scored objectively and the scores treated statistically as has just been suggested for items of information.

With regard to thinking ability and to possible methods of testing it objectively, I would suggest this proposition: that no one ever thinks unless he is up against a problem of some sort that he wants to solve; and his thinking is more likely to be vital and educative if he wants to solve it because he is interested in it rather than because he is interested merely in satisfying the teacher or escaping the disagreeable consequences of not solving it.

Hence if we are to make scientific tests of thinking ability, or ability to use the scientific method, we must seek out and collect a great number and variety of concrete interesting problems that the students will take hold of with enthusiasm and try to solve. We must find ways of splitting up these situations so as to score the pupils' performances in analyzing a problematic situation to find out what factors in it are significant to its solution, in getting appropriate hypotheses and in testing out these hypotheses one by one by deduction and experiment, and in reaching conclusions from them. Many of the school problems now in use call out and employ the pupils' abilities to do these things; but we need more and better problems than we have; and we need also to analyze and arrange them so that the pupils' performances with regard to these factors of the scientific method of thinking and investigating can be scored objectively and subjected to simple statistical treatment.

For testing permanent interests it must be evident that only one path lies open. The students must be followed up after they leave the class, and such evidences of permanent interest as experiments made, books and articles read, scientific information used, and so on, must be obtained from them. The well-known "recognition tests" now used so widely in experimental psychology could easily be used in this field also, employing advertisements, pictures, objects, or short magazine articles representing things of scientific nature.

With such methods of testing results at hand, we shall be able to prove what now we may only surmise and to state some things as facts which are now mere matters of opinion. When we are able to do this, I believe we shall find that we must proceed in accordance with educational principles that are quite different from the theory of formal discipline which still so largely prevails.

As a basis for experimentation by those who are already convinced that the prevailing formal methods and disciplinary theories are inadequate,

I propose the following as working hypotheses. They represent in the clearest manner at my command the inferences from the results of experimental and educational psychology and may be taken as a fair statement of the views of the most advanced students in psychology and pedagogy of the sciences.[1]

1. Children can be trained into efficient habits of thinking only by being made to think under guidance day after day; and they can be made to think only by placing them in problematic situations.

2. The problems presented to them must be within the range of their needs and interests, of their concrete knowledge, and of their powers of abstraction at the particular stage of their development at which the teacher finds them.

3. Command of the technic of effective, rational thinking can be gained only by much practice in connection with numerous and varied problems in which the methodical procedure of scientific problem-solving is used.

4. In order to develop concepts of method, attention must be directed to the method in every problem; and the common elements of method in the various modes of attack must be pointed out. In connection with each problem attention must always be called to numerous other problems among the various activities and processes that are going on within the scope of the children's knowledge and to which a similar method is applicable.

5. Since the solution of every problem requires a certain amount of knowledge of the content of the subject—its facts, laws, concepts, and principles—this subject-matter must be acquired along with the methods, thru the mental work done in solving the problems. And thus acquired, under the spur of immediate interests and immediate needs, this content is learned under the circumstances of attention, association, and repetition that are most favorable for its retention, organization, and availability for later use.

6. The ability to recall and apply such information when needed will be in proportion to the number of times and the number of ways that it has been interestedly associated by the learner with the situations and activities of everyday life, and in proportion to the amount of elements that it has in common with them.

7. In all this work the advantages of methodical procedure and accurate knowledge should be pointed out and emphasized wherever it can be made apparent to the pupils, so that they may become inspired with an ideal of methodical procedure, correct thinking, and accurate, organized information, which may be carried over into all their other work.

8. In order to teach pupils how to organize acquired information for present or future use, they must be led, mainly in connection with frequent reviews, to arrange facts, laws, and principles in logical ways, particular cases under general laws, and these in turn under more general, so that all may be more surely retained and more easily recalled when needed. So far as possible, several different motives of organization should be used, so that habits of organizing information with reference to various motives and needs may be formed.

These propositions represent the theoretical basis for the heuristic or problem method of teaching. Fellow science teachers, it is up to you. Shall we listen silently to the papers presented during these sessions, return to our homes without discussing them, and continue blindly to do the things we have always done? Or shall we begin forthwith to apply the scientific method to our teaching problems and carry on a process of evolution in methods, not by the slow method of trial and error, as of yore, but by a consciously directed process of variation, testing, and selection?

[1] For an elaboration of these hypotheses consult the chapter on "The Teaching of the Sciences" by the writer in *The Principles of Secondary Education*, edited by Paul Monroe (New York: The Macmillan Co., 1914), and the writer's *Principles of Science Teaching* (The Macmillan Co.), which will appear in 1915.

CO-OPERATION BY TEACHERS FOR THE IMPROVEMENT OF SCIENCE TEACHING

JOHN A. RANDALL, DEPARTMENT OF PHYSICS, PRATT INSTITUTE, BROOKLYN, N.Y.

A co-operative plan which is simple, which will work, and of which all science teachers will gladly approve—that is what we all desire. Professor Judd and Professor Suzzallo read papers on this general subject at Philadelphia at the 1913 meeting of the National Council and of the Department of Superintendence. In recalling their papers to you, I want to impress upon your minds with what intense insistence they urged our entrance upon a constructive program of organizing the half-million teachers of this country into a professionally co-operating unit. They have said that it is the responsibility of the teachers of this country as a body to solve the problem of a public-school education better adapted to fit Young America for his life's work. They have said that it is the Association's duty to establish a code of professional ethics. They have said that the Association should muster such strength as to enable it adequately to champion the best interests of public education before legislatures and to oppose the interference of politicians in the purely professional field of the teacher. These authors have broadly outlined the ideal and future field of the National Education Association as a whole.

Let us see where we stand in this department.

We elect a new inexperienced body of officers each year and they prepare for us a program. The speakers are chiefly selected for their reputation as educators and orators, for their interest in some live problem, and for their availability. Each year about seven papers, very general in statement, appear in the proceedings of this department. They range from such broad topics as eugenics and conservation to technical and specialized subjects such as janitor service and the technic of classroom presentation of each science. In the last four years, two of the speakers have successfully urged the appointment of committees. The speakers themselves have acted as chairmen of the committees, and, from resources supplied outside of this body, the two committees have collected educational data and performed a large service. They have distributed more pages of valuable technical data among the teachers than has this department thru its proceedings. They have gone to teachers and helped them when they needed help, instead of filing the results of a post mortem. Out of twenty-four papers presented in this department during the last four years, only six pretended to give scientific data and all of the facts upon which the authors based their conclusions. And let me tell you that four of these six papers were the result of the activities of one of these committees.

It looks to me as if we could well have some more real live committees. Why don't we have a committee to look over some of the facts recorded

in the last census? It contains facts worthy of careful analysis by school men. Have you weighed the significance of the fact that in the last ten years the value of the energy sold by central electrical power plants has grown to be more than the value of the output of the general chemical industry? Have you sensed the truth that the curves of growth of various industries as shown by the census point to the automobile industry as having a rate of growth so much more rapid than the other large industries that it has already outstripped the general chemical and is fast overhauling the electrical industry? Why don't we take a sharp look at the direction in which our industrial growth is carrying us and put the information before teachers in a way to make them realize that this world does move and to make them realize in what direction it is going?

Some of us are beginning to wonder if we have not been doing a foolish thing in the last few years. In our meetings we have presented the latest theory and generalizations relating to education, confident that once the fundamental principles were stated all teachers would successfully apply them. Let us look at one of these new, fully accepted, fundamental principles:

In teaching we must go from particular to general, from concrete to abstract, from here, now, and the real to the tomorrow, or yesterday, and the hypothetical. We have made a really great discovery about the way the human mind efficiently works, but we have expected teachers to reverse the universal process by going from theory to practice, from the general with unerring certainty to the particular details of good educational practice.

Let us consider what would happen to a live suggestion in the business world. Suppose a telephone inspector wishes to bring forward a new logical idea. Does he publish it in technical literature and is it at once adopted? No! He reports it, with detailed drawings and all the other data and computed results obtainable to his district inspector. If the district inspector thinks well of it, he adds any suggestions and comment he may have and sends it, if it is an equipment improvement, to the plant superintendent. If it is acceptable to this officer, it is revised, further elaborated, and probably sent to the plant engineers. The plant engineers "set up their case," work out all costs and economic data for both a trial of the improvement and for a complete installation of the improvement. The papers then travel to the chief engineer and, in the case of expensive operations, to the board of directors for approval. With official approval, the engineers get orders to try it out in one exchange or more, in a small way, and make a study of its efficiency and economies. Only after the study has "proved in" the innovation as a saver of money or an improvement in service does the matter appear in technical literature and become a part of the standard practice. Under this system the American telephone exchange has become the marvel of the world. The engineer or the physician leans heavily on records of experience and scientific data. We,

who deal with that most complex and unknowable thing, the mind, seem to think that we can help one another most by passing on a priori generalization and high-sounding logic.

We do not overestimate the value of the proceedings of the Department of Science when we say that they contain contributions of great and indisputable worth. Yet it is clear that only a pitiably small service is rendered in view of the need. Speaking in round numbers, there are at least fifty thousand teachers of science in the United States, and at least ten thousand recruits are added to the number annually. About two hundred people, presumably science teachers or school administrators, passively listen to each of these papers of their department, elect a new roster of officers, and go away. Do you imagine that up to this time the science department of the National Education Association has directly reached even 1 per cent of these teachers? All that can be said is that we have given a restricted publicity to a few advanced theories and practices. Professor Judd and Professor Suzzallo have, on the other hand, urged the need of a professional organization and pictured the opportunities for establishing a true technical literature such as has already been produced in the legal, medical, and engineering profession.

Accordingly, it does not seem improper to suggest that this department undertake a program of reorganization to better fulfil the purposes set forth in our Act of Incorporation and to test out the practicability of a plan which, in the light of our experience, may be used later to serve as a pattern for the other departments.

In presenting any plan it must be remembered that anything really worth doing takes time—time measured not in years but often in decades. This fact alone demands that this department should have a permanent policy, that the department should avail itself of all the widsom it can get and proceed with plans which will be adhered to so long as their wisdom is not disproved. In getting permanency of policy we must not shut out the influx of new leaders who will bring fresh ideals and enthusiasm with their young blood. We must adhere to an organization that is representative and democratic.

We have within our Association a precedent to guide us, in the history of the National Council. Can we not form a science teachers' council associated with the science department which will guide and direct educational experiments and the accumulation of a truly technical literature on science instruction?

I, therefore, offer the following motion:

1. I move that the present officers be empowered and directed to proceed in the organization of a science teachers' council.

2. That the purpose of this body shall be to promote the application of the scientific method in the collecting of data on scientific education, to promote scientific methods of educational experimentation, to take measures to unify the efforts of local science teachers' associations, and in other ways to "elevate the character and advance the interests

of the profession of teaching, and to promote the cause of education" in so far as it relates to science instruction.

3. That the members of this council shall be:
   a) All past presidents of this department except as provided in (*d*).
   b) The other active officers of this department during term of office only.
   c) One accredited representative of each local science teachers' association and of each science section of a state teachers' association which shall maintain active membership in the National Education Association, provided that there shall not be more than one such representative for each state.
   d) Absence from three consecutive meetings shall be considered as a resignation from membership.

4. That the presiding officers of the science council shall be the retiring officers of the department unless otherwise arranged by a vote of the science council.

5. The meeting shall be on call of the retiring department president except that no meeting shall conflict with a department meeting. The annual meeting shall be held within twenty-four hours after the close of the last session of the annual department meeting.

Today there is a nation-wide desire to see this body get down to business and really do something. If you adopt this plan I believe that the forty and more organizations which are eligible to send delegate members will gladly welcome the opportunity to co-operate with us in perfecting plans whereby we can unite the efforts of all progressive science teachers.

TOPIC: GEOGRAPHY IN SECONDARY SCHOOLS

A. GEOGRAPHY IN THE LARGE HIGH SCHOOL

R. H. WHITBECK, PROFESSOR OF GEOGRAPHY, UNIVERSITY OF WISCONSIN, MADISON, WIS.

What is the present situation in this country with respect to geography in the high schools?

1. Ninety per cent of the students who enter normal schools and colleges are deficient even in the elements of general geography, a condition which has no adequate defense.

2. Geography is discontinued too soon in the grades. St. Louis, for example, reports that only 4.8 per cent of the recitation hours of the elementary schools are given to geography.

3. The physical geography of the high school does little to improve this condition so far as a knowledge of general geography is concerned.

4. The physical geography of the past generation has not proved wholly satisfactory and is being replaced by the so-called "humanized" geography. It is feeling the effect of the socializing of the curriculum.

On the other side of the situation appear the following facts:

1. Geography as a college study is developing rapidly, and trained teachers for the high schools are becoming available, a condition which has only lately existed.

2. There is a growing interest in geography among educated people generally, both evidenced and helped by the great circulation of the *National Geographic Magazine* (350,000) and shown by the increase in geographical societies and in their activities.

3. Textbooks in humanized geography have already been issued and have been heartily received, and there is a demand for even a further emphasis upon applied geography in high-school texts.

4. The geographical element in other branches of learning is receiving increased recognition. For example, the United States Department of Agriculture has trained geographers at work on the preparation of an agricultural atlas of the United States. The Carnegie Foundation has historians and geographers at work on an atlas, *The Historical Geography of the United States*. The geological surveys of Wisconsin, Illinois, and some other states are issuing geographical as well as geological reports, especially for educational purposes.

5. Geographical knowledge is an essential part of an education and upon its own merits will command and hold a place in the schools. But behind any study there must be an organized body of teachers to guide its development and maintain an *esprit de corps*. The conviction is growing that there must be a national organization of geography teachers as there is of history teachers, English teachers, Latin teachers, etc.

FOUR AIMS OF HIGH-SCHOOL GEOGRAPHY

There are at least four things which must be accomplished by a high-school course in geography. First, it must give the pupil a fund of useful geographical knowledge, the kind that will serve him in the various activities of life where intelligent citizenship is required. We shall find it difficult to defend the teaching of the causes of the Peloponnesian War, the details of the Amphictyonic Council, and scores of similar matters of ancient and mediaeval history, which we drill into school children, and then excuse a school which makes no serious effort to give its pupils an understanding of modern Germany, Japan, or Argentina. The life and industries of the people of Babylon and Thebes is a proper subject of study, but it is not a substitute for a knowledge of modern Mexico, Canada, or Russia. Fossil facts are not worth more, they are as a rule worth less, than living facts. Before an impartial jury what defense has the study of the two-thousand-year-old struggle between Sparta and Athens or between Persia and Greece for crowding out of our schools anything like an adequate treatment of the countries which dominate the world today? The geography which is going to be demanded tomorrow is the geography which makes people reasonably intelligent about the cities and countries and peoples of their own day. This is politico-economic geography. It is a social science, but it will, I hope, be built upon a knowledge of the principles of physical geography. In Germany, France, Holland, Austria, Switzerland, and

Scandinavia, geography is nearly always closely affiliated with history and is often taught by the same teacher.

Second.—If the first requirement placed upon the study of geography is a knowledge of the facts about the peoples and nations of today, the second requirement is acquainting students with standard sources from which such facts may be gleaned. The textbook is normally the main source of the facts studied in the class, but that is not enough. We shall miss our duty if we do not teach pupils where these and additional facts, frequently revised, may be found. The course in geography should train the pupils to use the atlas, the encyclopedia, the gazetteer, the statistical abstract, the census reports, the *Statesman's Year Book*, and the *World Almanac*. If these sources are consulted from time to time in the regular routine of study, their use grows into a habit, and it is a good habit.

Third.—The constant use of maps, the careful study of maps, and the occasional making of maps is an integral part of a course in geography. One of the very most valuable assets which we may derive from geography study is a collection of clear mental pictures of the map of the world and its principal countries—mental map pictures which we may call up at will. If geography does not give us those pictures it has failed at one of its critical points.

Geography teachers, if you have not a collection of wall maps for your classroom, give your principal no peace until you get them. As well try to teach literature without books as geography without wall maps. There is one greater sin than not having wall maps; that is not using them when you have them. Out of this map study grows a knowledge of locational geography. At present this is a vulnerable spot in the high-school student's mental equipment. Yet there is probably no one phase of geography which is so useful as map knowledge—knowing where places are. The fact that our fathers and mothers had to learn three hundred capes and bays is scarcely a reason why their grandchildren should not learn any. Every geography teacher should make a list of countries, cities, rivers, seas, mountains, and other geographical features which she deems of real importance, and she should then see that no pupil escapes from her custody until he knows where those places are and at least one good reason why every item in the list deserves a place there. The Springfield, Ill., schools have adopted such a list for the grades. D. C. Ridgley, of the Normal University of Illinois, is working on such a list. The Springfield list was published in the June, 1914, *Journal of Geography* (Madison, Wis.).

Fourth.—So much for the knowledge of facts, of sources, and of maps. A fourth purpose must be to impart a knowledge of, and an appreciation of, geographical causes or influences. This is the substance of rational geography. It has appeared so constantly of late in the literature of geographical pedagogy that I need say little more about it. The causal idea is recog-

nized as the keynote of modern scientific geography, but its emphasis belongs more to the advanced than to the elementary stages of the study. Woven into the very warp and woof of good teaching will be this causal relation which pervades geography; yet it is also well to remember that geographical causes always work in conjunction with many other causes. The location and growth of New York or Minneapolis are due partly, not wholly, to geographical influences. Pupils should know that geographical influences are real, and that they often determine men's decisions in locating factories or railways or towns; but that, after all, men, not geographical influences, are the active forces. Indians and Eskimos do not react to geographical suggestions as Anglo-Saxons do.

THE COURSE IN HIGH-SCHOOL GEOGRAPHY

In this country we are already committed to a type of geography which is a combination of physical and applied geography. Geographers are practically agreed that the first half-year of the course must teach the essentials of physical geography. They are not a unit, however, regarding the most appropriate phase of applied geography for the second half-year. Of the two most recent textbooks, one has adopted regional geography of the world for the second half-year's work; the other devotes its latter chapters to such topics as: "Inland Waters as Related to Navigation, Irrigation, Power, and Water Supply"; "Mountains and Plateaus and Their Relations to Life"; "Plains and Their Relations to Life"; "Coast Lines and Harbors"; "The Industries of the United States"; "Distribution of Population and Cities." A still different arrangement consists in using a textbook in physical geography the first semester and a textbook in commercial geography the second.

While not strongly favoring one of these plans above another, I am conscious of a preference in the matter. It may be only a temporary preference but it has been growing upon me. My leaning is toward a course which combines some things from each of the plans just mentioned. I cannot get away from the conviction that the high-school pupil ought to have a chance to study, in a more mature way than he can do in the grades, the politico-economic geography of the nations which today dominate the world's affairs. In a sense this is regional geography, but the regions to be studied are nations, rather than physical or climatic provinces. The physical or climatic province is possibly a more logical, more scientific unit, but it is not much used outside of school books. In the world of men and affairs, Russia, for example, is a single geographical unit, Germany another, and France another. Everybody thinks of them as units quite irrespective of the climatic or physiographic provinces which they may include or which may include them. Everywhere in real life, the political divisions are the ones that count in our thinking, our reading, and our loyalty. Virginia includes parts of several physiographic provinces—

the Coastal Plain, the Piedmont, the Blue Ridge, the Great Valley, and the Allegheny Plateau, yet, to the Virginian, the thing that counts is Virginia, his state. The Canadian or the Mexican boundary lines and most of our state lines are more significant boundaries than are the boundaries of the Coastal Plain or of the Great Basin or of any other physiographic or climatic provinces. In regional geography, the study of the political divisions of the world is at the present time my preference. This does not preclude the recognition and the study of natural divisions quite irrespective of political boundaries. He who prefers a different plan has the same right to his preference.

DETAILS OF THE COURSE

Had I Aladdin's lamp with its power to summon up the genii, that is, in general plan, the sort of course I think I should command my genie to prepare for a class in geography in the city high school (I reserve the privilege of changing my mind, however). The course should provide for a map-study review of the essentials of the locational geography of the world. It should devote from one-third to two-fifths of its time to those parts of physical geography which time has shown to be of real interest and of practical value. Geography, by common consent, is not the study of the physical and untenanted earth, nor is it the study of contemporary history; but it is the study of the physical earth inhabited by people. The textbook should contain problems calling for thought, questions for testing, and questions for review. The great majority of teachers who use our high-school texts are not trained in geography; many of them have never studied it beyond its elementary phases. They need all of the help the book can give them. I never knew a teacher who felt insulted because the author placed questions in the book. Reviewers sometimes say they are an insult to the teacher. The experienced teacher need not use them unless she wishes. They do her no harm and they do help the other teachers. There should be some sort of practical exercise or laboratory exercise in every chapter if possible. There should be a section devoted to the industrial geography of the United States; and the final two-fifths of the book should treat of the countries, the nations of the world, working under the limitations imposed by their physical environment and actuated, at least in the present age, mainly by economic motives.

Geography in its modern sense consists, then, of (*a*) a study of the physical conditions and resources of those parts of the globe which the leading nations occupy; (*b*) the study of mankind acting as organized political groups or nations; (*c*) the interaction of the people and their environment—the nations working for political and economic advancement but mainly concerned with the development of industries and commerce.

CONSIDERATION OF METHOD OF TEACHING

But what of the method of teaching high-school geography?

Some years ago when we were teaching only the physical aspect of the subject, we classed geography with physics, chemistry, and biology, and regarded it as a laboratory science. Laboratory manuals were published, and, in a considerable number of large cities, school buildings were equipped with geographical laboratories. In the relatively few schools which had teachers prepared to carry on formal laboratory work, a reasonable degree of success was attained. But the movement did not gain headway and seems to have lost ground with the growth of the demand for humanized geography. Laboratory work in college geography is, on the other hand, increasing in its effectiveness. Friends of physical geography have always held that it is essentially a field study and that the laboratory is a very unsatisfactory substitute for the field. Geikie has said that one hour of instruction in the field is worth twenty hours of listening to lectures. His ratio of 20 to 1 is pretty high, but the general principle no one can deny. We all recognize how hard it is to do field work with city classes. There are a dozen genuine difficulties, yet field work can be done and is done. Not long ago John Mellish, a farmer boy in Cottage Grove, Wis., wanted to study astronomy. He had had little schooling, and he had no telescope and no observatory. Yet under difficult conditions he acquired the knowledge; he actually made a highly effective telescope, grinding the lens himself, and with it made discoveries of such importance that they brought him in one year two American medals and one foreign medal; which merely suggests that difficulties are designed to deter the timid and half-hearted, but not the resolute.

With the increasing emphasis which is now being placed upon geography as a social science, there is usually a decline in the demand for formal laboratory and field work. This does not mean that practical exercises, problems, map work, drawing, and plotting are not an essential part of humanized geography, for they most emphatically are.

In addition to the preparation of textbook assignments, each pupil ought to work out with care two or three special topics; this is a work which not only acquaints him with sources where materials are to be found, but it gives him training in the organization and presentation of topics, a training which often proves more beneficial than the knowledge itself. This independent, constructive work ought not to be omitted.

B. GEOGRAPHY IN VILLAGE AND RURAL SCHOOLS

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The treatment of the assigned subject seems to suggest a firstly and a secondly. Standards of geographical values, however, are not so flexible as to permit entirely different ends and aims in shifting from one phase of public-school education to another. That is, the ends and aims of geographical instruction in a village school are essentially the same as in a rural school. The same can be said concerning geography instruction in city graded and high schools. The difference in aim is a difference in degree to which instruction can be carried, rather than a difference in fundamental principles. Therefore any change in passing from a firstly to a secondly is not a change that grows out of different aims or ends, but rather a change that is necessitated by the administration of instruction under different conditions. What a teacher might do in a closely organized and well-supervised city graded school or high school may be quite different from the work possible of accomplishment by a teacher in a village school where three or four grades are placed under the tuition of a single teacher. Method of teaching geography, then, is modified more by the conditions and advantages under which the teacher works than by any inherent differences in aims and ideals.

Sufficient progress has been made in the new geography to establish, in the minds of progressive teachers, higher educational standards in this subject. Further progress and improvement in geography instruction demand a more universal establishment of rational aims and ideals. It would seem that this end is possible of attainment. That the great mass of teachers may become very proficient in the knowledge of geographical instruction can hardly be hoped. But it would be pessimistic, indeed, to assert that improvement in geography teaching is impossible. But how can advancement be made? True it is that the most genuine progress comes as a result of advanced scholarship and a genuine appreciation of geographical science; yet ludicrous would be the proposition that every teacher shall first be transformed into a geographer. The wheels of educational machinery must continue to turn; there must be less friction; the teacher's time must be conserved; to this end educational architects must lay out the work so clearly and so systematically on the trestle-board that even the novice will be guided toward the accomplishment of more reasonable ends.

In the light of the foregoing statements, and the further consideration that geography is the most mixed and composite of all the school subjects, is it not apparent that a change in the mode of attack, a new method of study, lies at the very basis of improvement and progress? The method of study must be shifted at once from the dogmatic to a problematical or

heuristic treatment. The adoption of such method of study immediately and definitely demands a consideration of aims and values of geographical study. And right here is found the strongest argument for the introduction and establishment of this new method of study in all departments of geographical instruction.

Before proceeding farther it would seem well to give concrete illustrations of the proposed method. Suppose the following to be a lesson selected and planned for grammar-grade pupils to prepare:

WHAT CONDITIONS HAVE CONTRIBUTED TO THE DEVELOPMENT OF MINNEAPOLIS AS THE GREATEST FLOUR-MILLING CENTER IN THE WORLD?

1. Make one sketch which will show the outlines of the three states, North Dakota, South Dakota, and Minnesota.

2. On this map draw the Mississippi, Missouri, Minnesota, and Red rivers. Show the exact locations of Minneapolis and St. Paul.

3. Read your text carefully to see if there is mention made of "falls" in any of these rivers. Where? What are the names of these falls? What advantage to manufacturing do water falls offer? Make a check in your map to show where each of these falls is located.

4. Read your text to learn especially what is given concerning Minnesota. Is any mention made of old Lake Agassiz? A considerable strip of land on each side of the Red River was once covered by this lake. On your map shade the Red River Valley in light yellow. Consult your text to find a statement describing the soils now found in this old lake bed. Write a sentence or short paragraph telling how these soils were formed.

5. What crop is largely grown in these states? In what part of the United States is the population densest? In what general direction will a food produced here be shipped? Would wheat shipped from the Northwest be likely to go thru the Twin Cities? (Consult a railroad map to note the general direction of the railroads.)

6. Consult your text to find out the head of navigation of the Mississippi River. Where is it? How are navigable waters southward an advantage to the milling industry?

7. Name three ways that the natural conditions at Minneapolis have favored the milling industry. Write each in a terse sentence.

8. Two of the great milling companies are located in Minneapolis. Find out the names of these two firms.

Efficiency and economy in teaching demand the most definite aims and the most rational methods of realization. Perhaps no subject in the elementary curriculum has been subject to greater looseness of treatment than has geography. It seems to have been a sort of "time-killer," which has served as pointless "busy work" for children and a semi-rest period for the teacher. The results have been commensurate with the meager interest and the passive and vacillating attention of the old dogmatic method of study. The situation demands new methods, new aims, new activities—a renaissance familiarly referred to as the "new geography," tho the term is yet little more than a "by-word and a hissing."

There are two guiding principles relating to the teaching of geography both especially applicable to the theme in hand: (1) The highest interest and maximum functional value of geography reside in the study of the

pupil's own environment. (2) From a psychological point of view the pupil should be introduced to the subject-matter of geography thru the study of pertinent problems. In no phase of geography teaching do these principles apply more directly than in village and rural schools. Let us see why!

The village teacher usually handles several grades. She is often overworked and generally has insufficient time, energy, and geographical insight to select subject-matter and to organize it into problematical units for her pupils to study. The only remedy is a workable manual to guide pupils in their study and to assist the teacher in the now laborious task of preparing lessons that promise to bring better results. The manual, in the mind of the author, will be as pointed and definite as a well-written manual in chemistry or biology. Every lesson will develop a very particular geographical consideration or principle. Activity will be imperative on the part of both teacher and pupil. The procedure will be sequential and inductive. The pupil will be compelled to think, to reason, and to infer as truly in geography as he is now required to do in arithmetic. The exercises must be workable and within the range of the pupils' comprehension. They will require pupils to record results, to tabulate, graph, draw, and model. They will require a high degree of rational thinking. Facts, items, and details, now regarded as so essential in geographical knowledge, will be subordinated and made reasonably familiar to pupils in an incidental manner, thru their use as mere data in reaching the real Q.E.D. of the geographical problem. And best of all, while the busy village or rural school-teacher is conducting her reading classes or correcting her spelling papers, the pupils will find in their geography manuals a lesson that leads them to a particular conclusion, a lesson that is sufficiently disentangled and definite to hold their attention, and a lesson they will enjoy because it makes them think.

If, then, genuine educational results are ever attained in country and village schools, methods must be adopted that will insure independence and initiative on the part of pupils in working out well-planned geographical problems. Teachers in rural and village schools are so busy with numbers of things that serious study of subject-matter with a view to selections and organization is rather difficult; while a thoughtful study of method, with a view to whipping it into a form of presentation that will challenge and interest the child mind, seems quite impossible. To meet these needs, an elementary geographical manual for the upper grades seems to be the only solution and, until some student of science and pedagogy contributes this piece of constructive work, geography teaching in all grades of schools will slide along in the same old channels.

Again, if better results are attained, lessons in geography must relate to the environment of particular classes of pupils in particular environments. As already asserted, this is not because, fundamentally, the aims are variable, but rather because local environment should form the intro-

ductory and later the unifying element in the study of general science of which geography is the principal representative in the elementary schools.

In the rural school, especially, geography lessons should often be the outgrowth of community industries, and, if presented ideally, the generalizations will later function in community life. In rural schools the study of topography, drainage, rainfall, temperature, soils, and, until agriculture is better established, even the study of cultivation and farm crops are of first value. The same is true, also, of geography in village schools, inasmuch as a country village represents no new interest or industry, but is simply a sort of local clearing-house for community activities. If a locality represents any typical industry, certainly such industry should be studied in its completeness and should eventually become the organizing thread by which many geographical considerations can be held together. As already illustrated in the suggested problem, the flour industry in the Twin Cities, meat-packing in Kansas City, wheat culture in the Red River Valley, iron-mining in the Mesaba Range, etc., are pertinent topics. A careful and comprehensive study of almost any carefully selected problem will involve not only a large amount of vital geographical material, but, if treated with wisdom and from the human point of view, will have a true social bearing. Life responses together with inorganic resources determine the industries of regions. Industry is the secondary response to physical environment. Eventually the prosperity, temperament, impulses, culture, and ideals of people are social responses to the larger environment made up of physical, industrial, and economic elements.

This argument holds that there is no special aim of geography in rural and village schools that warrants special consideration. However, the differences in conditions under which the teachers of geography in these schools are forced to work, together with the lack of geographical apparatus, make their problem of teaching geography more difficult than it is in the graded school, in which the teacher has but a single grade under her instruction. Then, too, the teacher in the village school, having under her management three or four grades of pupils, finds it especially difficult to take the geography class on excursions. The same difficulty obtains in a large rural school. Ofttimes these schools are poorly equipped with maps, charts, globes, and illustrative materials, hence the teacher works at the maximum disadvantage. Every geographical help should be furnished the teachers in these schools if excellent results are to be obtained. The writer, however, is convinced that a well-written geography manual, outlining the lessons for the upper grades with precision and accuracy, is the only way that geographical instruction can really be transformed from the dull lifeless grind, now so common, into a genuinely vitalized school exercise. Such a manual is not to replace the textbook, but rather to accompany it and point out the topics and problems that are pertinent, purposeful, and genuinely educational in character. The advantages of such problematical methods

are apparent. First of all, probably, should be mentioned the help afforded the teacher in assigning and directing the work; a heavy load would at once be lifted from her shoulders by the use of such a manual. The second benefit would probably come to the student, who would learn to be an independent and thoughtful worker. Mere passive work would soon become a thing of the past. Initiative would be cultivated on the part of the pupils. The study hour would, as the result of thought-provoking problems, become a period of mental activity rather than of the listless passivity now so characteristic of this period.

So long as the old-fashioned dogmatic or empirical method of teaching geography continues, just so long will there be dissatisfaction concerning results. Long enough has this method obtained, and the time has come when entirely new methods must enter the schools. Particularly helpful and especially necessary is the problematical or heuristic method of teaching in graded and village schools, if we would secure genuinely educative results thru the teaching of geography.

THE USE OF LANTERN SLIDES IN A COURSE IN ELECTRICAL MEASUREMENTS

CHARLES P. FREY, ENGINEER, WESTON ELECTRICAL INSTRUMENT COMPANY, NEWARK, N.J.

We have been informed that, before long, moving-picture machines will be used extensively in schools for educational purposes. When this becomes a fact, we shall take steps to supply instructors with films relating to electrical apparatus.

We do not question the utility of moving pictures as aids to the educator, but at present very few high schools are equipped with a machine and usually rent one for special occasions, which is operated by a professional exhibitor. Schools which can afford such expenditures are, of course, to be congratulated, but we believe that, in the teaching of physics in the average high school, students can get more benefit from slides than from films, first because each picture may be exposed on the screen as long as may be necessary to fully explain it, and secondly because the instructor may exercise his own judgment in arranging the sequence of his illustrations. It is not, however, my intention to invite immediate discussion on this subject, but rather to take advantage of the present opportunity by displaying a few slides which may be of interest.

We plan to supply instructors with a set of slides at the actual cost of production and to issue another monograph, in which forty or fifty slides will be reproduced as illustrations. This publication will be distributed gratis to all science teachers and will give them an opportunity to decide whether the slides to which the text refers will be of service to them. As

already said, we plan to do this, but whether we go on with this work depends upon the approval of the National Education Association and the co-operation we receive from science teachers. We therefore exhibit some of these slides for your consideration, invite criticism, and extend a general invitation to visit our booth at the Armory, and our works at Newark, where we shall endeavor to entertain you. We shall thankfully receive any suggestions you have to offer.

MOTION PICTURES AS AN AID TO EDUCATION

ALFRED H. SAUNDERS, MANAGER, EDUCATIONAL DEPARTMENT, COLONIAL MOTION PICTURE CORPORATION, NEW YORK, N.Y.

There are on the market at the present time four machines for projection that have stood the test of time: namely, Edison's Kinetograph, manufactured by the Edison Company at Orange, New Jersey; Enterprise Optical Company's Motiograph, manufactured in Chicago; the Power's Cameragraph, manufactured in New York City; and the Precision Machine Company's Simplex, manufactured in New York City. While I have mentioned these machines in this order, I do not want it to be understood that one has any priority over the other. All are of equal value and are perfect in their work. I cannot undertake to recommend specially or specifically any machine. I shall only raise a note of warning at this stage and say that the first outlay should always be for the best, and, if the auditorium of the school can be used for this purpose, the outlay is one that will prove very remunerative for future work. Other machines besides those mentioned are on the market, but they are not so well known as these. The cost of the Edison machine is $250, that of the Enterprise is $250, that of the Power's Cameragraph is $260, and that of the Precision's Simplex is $300. In addition to the expenditure for the machine it will be necessary in all instances to provide for the construction of a booth, of either sheet iron, asbestos, or brick. The cost for this varies from $50 minimum to $150 maximum.

THE RESTRICTION UPON THE MACHINE

Owing to gross carelessness in the past, thru the employment of operators who have in many instances been irresponsible boys, fires have occurred, hence it is well at this point to speak at length of the situation. Because of these fires, boards of fire underwriters have tried to place the cinematograph in the "extra hazardous" class, an attempt which, in my opinion, is a gross injustice. In the state of New York for the year 1912–13, out of some 7,800 odd fires, only four were cinematograph fires, and the damage done by these fires was a fraction of 1 per cent. For the same period in the city of New York, there were recorded 11,400 odd fires, one of which was caused

by cinematography; the damage in this instance was very small, only the reel of film being destroyed, tho the hands of the operator were burned in putting out the fire. No loss of life is recorded in any of these fires.

If the operator is careful and properly trained (preferably, if possible, the engineer of the school or his assistant), there should never be any fires except thru accident. All machines are now constructed so that in case a fire occurs at the point of contact between the focus of light and the film, it is impossible to burn more than six or seven inches at the most. Some insurance companies try to put prohibitive rates of insurance upon buildings where projectors are used. Under proper conditions, if the projector is fully equipped with safety devices, according to the requirements of the various localities, no extra insurance should be forced upon the schools.

Illustrating the confidence that is now rapidly growing in various sections of the country, the state of Wisconsin is sending lecturers with outfits to the various schools, and an experiment is being made in Brooklyn and New York City by allowing lecturers connected with the board of education to use the cinematograph. It is my opinion, moreover, that in a very short period every locality will learn the absolute safety of the machine as at present constructed. The machine, I think, will even be allowed to stand in the midst of the spectators, so that they may gain greater confidence by seeing it operating. Projectors are on the market at prices ranging from $75 to $150. I do not advise the use of these machines; they are at present only mere toys, suitable for use in drawing-rooms and small circles.

PICTURES AVAILABLE FOR THE CLASS

There are on the market quite a large number of subjects available, but the difficulty has been to gather these into one center. Many of them will require some elimination to make them suitable for the class. Others have been specially prepared and will give great assistance in presenting certain subjects, especially geography and biology.

The corporation which I have the honor to represent is preparing to act upon the suggestions of members of the advisory board, who have studied this question in the various universities, colleges, and schools, to illustrate textbooks that are household works, if I may use the term, to the ladies and gentlemen present. For instance, I may mention such books as Frye's *Geography*, Forman's *American History*, Thorndike and Strayer's *School Administration*, etc.

To the educators who are allied with me on the advisory board, I am indebted for many admirable suggestions of great value to the teacher. These suggestions, coming from men who know (including professors of universities and colleges and your state and district superintendents), are a valuable source of information, and it will be the endeavor of the corporation to put these into practical form.

They include many suggestions for pictures illustrating:

Agriculture
American Literature
Animal Habits and Behavior
Biology
Civics
Chemistry
Drawing
English
Evolution of the Rural School
Feeble-minded Children at Work and at Play
Geography
History
Hygiene
Industrial Subjects
Literature
Life in Foreign Lands
Mathematical Construction
Morals and Manners
Machinery
Mechanics
Metallurgy
Physics
Physiology
Pupil Government
Physiography
Theory of Trades

HOW AVAILABLE PICTURES MAY BE OBTAINED

It has often been said that the supply will always create the demand, but the modern business man wants the demand before he will create the supply. It will need a little patient work and co-operation of teachers with the manufacturers before this matter can be decided in a manner suitable to both; but, judging from what has been done in the past, films could be purchased by the state boards of education and used in circulating-library fashion, so that schools specially equipped which need the films in their classrooms may always be sure of securing them. These films will cost 10 cents per foot, or $100 for a roll of 1,000 feet. Special facilities are now given by the government to educational institutions whereby all films for their exclusive use are allowed to come into the country duty free. This reduces cost to 9 cents per foot on all imported films. Arrangements may be made to rent the films (according to the present prices) at from $3.00 maximum down to $1.00 minimum a reel of 1,000 feet for each exhibition.

This may appear a large outlay to some. The appropriations of the school boards are not always sufficiently large to cover what may seem luxuries, but a way out of the difficulty may be devised by a little successful management. It is my opinion that the time is rapidly approaching when every school that is equipped with a projecting machine may cover the cost of it by allowing the parents to attend exhibitions in the evening. Not for the purpose exactly of competing with the local exhibitor, one or two nights a week might be set aside to exhibit to the parent the films shown to the children during the day. If a small admittance is charged this could be put into a special fund to cover the cost of the machine and films as well as to provide for the purchase of other films in the future. In fact a hundred and one ways may be devised whereby the cost can easily be covered without in any way taxing the local citizens.

For the benefit of those who wish a more extensive study of educational subjects, I would refer you to an article written by myself for the government and published in the *Annual Report of the United States Commissioner of Education* for 1913 (Vol. I, chap. xxvii).

DISCUSSION

DAVID SNEDDEN, commissioner of education for Massachusetts, Boston, Mass.—It is now clear, beyond any question, that the motion picture is destined to be an educational agency of first-rate importance. The public schools, owing to their usual, and perhaps natural, conservatism, have been slow to recognize both the importance and the place of the motion picture as a means of instruction. There is a strong prepossession in the public school, owing to tradition, to make instruction abstract rather than concrete, and, as a result, so relatively concrete an agency as the motion picture receives, as yet, scant consideration.

Furthermore, the motion picture has early been subjected to abuses. It has been made not only a plaything but, in many instances, a somewhat mischievous plaything, especially in smaller communities. Because of this cheapening and vulgarizing of the motion picture, schools and other educational agencies have been loath to attach to it the importance which it deserves.

The time has arrived, however, when all educators should frankly recognize in the motion picture an agency of great importance, providing it is used to proper ends. It should, therefore, be urged upon school authorities, among other things, that new buildings should be provided with suitable equipment for the use of the moving picture, including a fireproof cabin for the machine and a vibration-proof pedestal for its support. School principals should be encouraged to study available supplies of motion-picture material, with a view to introducing such as may prove profitable in various lines of work. A sharp distinction should be drawn between pictures designed primarily to furnish recreation or general culture and those designed to give specific insight and information. Without this distinction, there is danger of permanent confusion between the diverting and the informing. Diversion will naturally be an important by-product of informing pictures, and information a by-product of diverting, or entertaining, pictures. Nevertheless, the function of each is quite distinct from that of the other.

Furthermore, careful attention should be given to the kinds of instruction which the motion picture can offer. For example, geography might be very methodically reinforced by the use of motion pictures as a systematic means of instruction. Similarly, the various science subjects can be illustrated and made clear in this way. It is questionable how far the motion picture should be used in the study of history unless evidence can be presented that the pageants or other dramatic presentations used in the making of pictures faithfully adhere to historical standards. Again, in such a subject as geography, it is essential to repeat that, for example, a travel trip taken with the moving-picture machine, however valuable it may be as diversion and for the giving of general information, does not constitute a study of geography.

It must be remembered that no very effective demand has yet been made upon the makers of moving pictures for strictly educational presentations. Let such a demand as this once arise, on a generous commercial scale, and, without doubt, there will be a large response to it, and we may expect a considerable amount of inventive genius to devote itself to the making of pictures which are, in the highest and truest sense of the word, educative.

NATHANIEL M. GRAHAM, superintendent of schools, South Omaha, Nebr.—It is the business of the school to give the child impressions which cause him to think and to train him to express his thought. Against the old school with its course of uninteresting abstract principles, there has been a revolt. Gradually we have been enriching this course, making it more concrete and humanistic by utilizing various means of appealing to the child's interest. Impression and expression very exactly epitomize the field of education from the kindergarten to the university.

Pictures are a universal language. They are regarded as an essential accessory to gaining information in every field of knowledge. Pictures have always been used to

convey information, and picture language preceded the alphabetic. In this modern age the two are supplemental. No text is considered complete without illustrations. But at best pictures in books are necessarily limited. Only a single scene can be given at a time.

The motion picture multiplies the advantages of the ordinary picture a thousand fold. It is the means of the greatest possibilities in the way of information. Its benefits are incalculable. It may be regarded as a great educational lever whereby a very great portion of our present-day schoolroom work may be lifted out of the shadows of the valley of the abstract into the clear sunlight of human interest.

I verily believe that our failure in language work, both oral and written, is due to the lack of information and haziness of impression. Consequently we have faulty and poor expression. But how great the contrast between the possibilities of the motion picture and of those projected on the screen by the lantern! The usefulness of the motion picture is recognized as potential in every branch of instruction. It simply remains for the manufacturers to produce practical films for the schools. We all believe that encouragement by this body of educators will result in motion pictures being made available for every department of school work. Who can tell in how short a time motion pictures will be as great an accessory to education as is the printed text?

PETER OLESEN, superintendent of schools, Cloquet, Minn.—In less than twenty years, the motion-picture business has secured a hold on the minds of people which is almost equal to that of the school and the daily press. Just how far its influence does reach we cannot say, but this we know, that in this country, each day, from seven million to twelve million people find their way to the moving-picture theaters, and spend in them each year, of their own free will and accord, approximately three hundred million dollars.

The "movies" have not been helpful to the schools, for the reason that by far most of the pictures shown are for idle amusement only. I believe that one reason why it is hard to interest some children in school today is that their minds have been filled and their imagination thrilled with too vivid motion pictures, and, when these children come to school, they are disappointed because the teacher cannot make the subject as interesting as a motion-picture show.

But if it be true, as many believe, that today the movies do more harm than good, it should be borne in mind that pictures are only inanimate objects, that they are man-made, and that if they are not an influence for good it is because the saying of the Great Teacher that the children of this world are sometimes more shrewd in their business than the children of light is still true. I fear that as educators we have been too slow to recognize the value of the movies. We may as well make up our minds that they are here to stay, that they are now and always will be potent factors in American life. Our business is not to condemn them, but to enlist them for human service.

It is the twofold function of education to impart information and to train the mind to become strong, active, quick, and obedient to the will. Of the two, the latter function is by far the greater. It demands serious wrestling with difficult problems. To this end motion pictures can be no help. Their value is for information. But here their value is great. They may be used for this purpose from the kindergarten to the graduate school, and the teaching for information in geography, history, agriculture, and many other subjects may be either simplified or amplified thru the movies.

But some will say there is no place for moving pictures in our already crowded curriculum. To this I simply answer that moving pictures save time. A business man told me this morning that he always took a car for even a short distance because it saved time, and to him time was money. It is so with the movies. They can save time for the children. Certain information may be had in one-quarter the time by means of the movies and learned more correctly than thru a lecture or a book; and some things can be taught thru them that could not be taught in any other way. I feel that, when Mr. Saunders

presented the day-by-day, yes, the hour-by-hour development of the prenatal existence of the chick, information was presented which up until now has been called mysterious.

Again, I repeat that it is our business to enlist the movies for human service and to make them willing servants of knowledge, and I predict that, if the educators neglect their use, the people will, within a few years, demand that the movies be used in the schools in the daytime to instruct the children and in the evening to impart information to the parents.

BIOLOGY IN THE SECONDARY SCHOOLS

JAMES EDWARD PEABODY, HEAD OF THE DEPARTMENT OF BIOLOGY, MORRIS HIGH SCHOOL, NEW YORK, N.Y.

I believe I can epitomize most of what I wish to say this morning in a sort of cabalistic formula which would read $C+C>C$. This formula I shall interpret in a few moments.

First, however, may I give utterance to a heresy most unorthodox in such a conference as this? It is a heresy, however, to which twenty years of observation and experience in high-school teaching have compelled me most reluctantly to subscribe. Here it is. *Science courses are not making good*—or, at least, they are far, far from measuring up to their educational opportunities. I shall not attempt to defend these propositions, but instead let me briefly state some of the reasons why we science teachers are so frequently, and it seems to me so justly, put on the defensive.

1. Science is, relatively speaking, one of the newest subjects to demand recognition in the high-school curriculum. Latin, mathematics, English, and history have been taught for centuries, science for scarcely decades—at least this is true of biology. And, if I mistake not, we are far from knowing just what we are driving at or what methods to adopt in order to reach a desired goal.

2. The choice of subject-matter in our science courses too often has little or no relation to the life of the average boy or girl. We try to present too many abstract principles, do we not, and too few applications of these principles.

3. The average science teacher is not well prepared to present his subject either in its scientific or in its pedagogic aspects. In biology, at least, we are still far too much under the domination of Huxley's *Crayfish*, Sedgwick and Wilson's *Fern and Earthworm*, and Gray's *Structural Botany and Plant Classification*. In physics, if I mistake not, the college-entrance requirements have squeezed about all the juice out of an otherwise most interesting and profitable subject. What we most need is a crop of science teachers with a large fund of constructive imagination, who have been trained by college and university professors who bow somewhat less reverently before the shrine of research and realize rather that the kingdom of heaven can be found in the lives of growing boys and girls.

I am now ready to return to the formula which I placed before you at the beginning of my address and to consider the fourth and fifth reasons why so much of our science teaching is more or less futile. Both these reasons are the exact opposite of the two *C*'s I have put at the left of the sign of inequality.

4. Perhaps our greatest handicap in teaching the sciences is the lack of *continuity* (this is the word I would substitute for my first *C*), as to both time allotment and subject-matter. The claims made for the educational value of English, the foreign languages, mathematics, and history can be largely substantiated because of the fact that for two or three years in succession each of these subjects is studied, and the cumulative value of this training, at least at the end of the course, usually becomes apparent. So convinced am I of the truth of this statement that I am planning for my own children who are now in high school, regretfully it is true, the conventional classical course in preparation for college.

How different as to continuity is the high-school work in the sciences! Point to a school, if you can, where a well-organized course in science is offered a student during three successive years. On the contrary, is it not the common practice to teach a science for a single year or for half a year only? What training can be expected from such fragmentary and discontinuous treatment of any one of the great fields of scientific knowledge?

5. This leads me to a brief consideration of the final objection I have to our present methods of science instruction, namely, the want of *co-operation* among the teachers of the various sciences, and the lack of *co-operation* between most science teachers and teachers of English, civics, history, and mathematics. If our high-school boys and girls are to be developed most effectively, we must make a profound study of this principle of co-operation, and we must substitute this attitude in our teaching for the *competition* among courses which too often prevails in our school systems. Instead of being so anxious to secure our rights, let us rather seek more earnestly to perform our duties to the child and to the community.

The formula, then, in its completed form, will read something as follows: *Continuity* in science instruction, plus *co-operation* in the various science courses and with those in other subjects, will yield far greater returns than will *competition*.

NOTE.—The preliminary report of the Biology Committee of the Commission on the Reorganization of Secondary Education was then read. This report is published in the January, 1914, number of *School Science*, Chicago, Ill.

PHYSICS FOR GIRLS BY THE SCIENTIFIC METHOD

EMMA J. FORDYCE, HEAD OF THE DEPARTMENTS OF PHYSICS AND CHEMISTRY, HIGH SCHOOL, CEDAR RAPIDS, IOWA

The scientific method of teaching physics to girls includes "applying observations of principles and deductions from facts" to the girls themselves as well as to the subject. In working out the teaching of physics in this way it has been shown:

1. That girls reason as well as boys, but the material must be interesting to them.

2. That exemplifications of scientific principles worked out in the laboratory interest girls more if they are from the household, from everyday life, from out of doors, and from those fields in which many people are directly concerned.

3. That girls work better in divisions by themselves than in mixed divisions of girls and boys, because they are not embarrassed by lack of knowledge which the boys have of common things and because their applications of laws and principles are different.

4. That girls like to think better in personal terms than in general terms.

5. That girls did not like, in the laboratory, the very fine measurement work.

6. That special applications which the girls enjoyed and for which they did fairly good work were: studies of the city water plant, gas, electric lighting, disposal of garbage, location of wells, fire protection, street cleaning, ice manufacturing.

7. That girls displayed special interest in studies of the home plumbing and machines, lighting, heating, cooking devices, fireless and waterless cookers, ranges, ice chests, electrical appliances, economy in using gas, ventilation of home, music reproducers.

8. That girls were interested in calculating percentage of moisture in the air of the schoolroom and the amount of air entering with the percentage of needed air that is supplied.

9. That, in teaching physics to girls, emphasis is to be constantly placed upon the soul power which comes thru knowledge of, and obedience to, law; upon the capacity it gives for service to city, state, and nation; upon the greater life to which it opens the gates.

REPORT OF THE COMMITTEE ON JANITOR SERVICE

The Committee on Janitor Service, whose recommendations last year were adopted by the department, was continued for the purpose of promoting the establishment of pupil-health officers. "To standardize janitor service, or school housekeeping," as stated in its report, "the first step is

to get the facts. Every building, as every room in it, has its own conditions to be learned and controlled. This can be done with least expense and greatest effectiveness by enlisting pupils' co-operation. Expense is negligible. Effectiveness is along three lines: (1) practically constant supervision which good housekeepers find indispensable; (2) permanent records of sanitary details in place of guesses and opinions; (3) interest of future voters and homemakers in such details by practice in regulating them."

A gratifying amount of success has followed the year's efforts. This has been accomplished chiefly thru two channels: co-operation of the press and the traveling exhibit of the American Academy of Medicine.

1. *The press.*—Various educational periodicals have published the recommendations, some of them assisting in other ways, notably the *Journal of Education*, the *American School Board Journal*, and the *Educational News Bulletin* issued by the state superintendent of Wisconsin; also several public-health, medical, and special periodicals, as the *Journal of the American Public Health Association*, the *Bulletin of the American Academy of Medicine*, the *Journal of the Missouri State Medical Association*, the *Child-Welfare Magazine*, the *Springfield Republican*, and other newspapers, some of the latter running daily articles supplementing the traveling exhibit in cities where it was being used.

2. *The traveling exhibit.*—The American Academy of Medicine, thru its committee on school hygiene, exhibited at the Fourth International Congress on School Hygiene at Buffalo. A cabinet 9½ feet high by 10½ feet wide was built, the five folding panels containing statements, statistics, and cartoons of sanitary conditions reacting between school and society. From small cases on the middle panel folders are distributed entitled "Summary of Recommendations by the Committee on Janitor Service, Department of Science Instruction, National Education Association." (One hundred of these are inclosed for distribution at the session.)

This traveling exhibit had an excellent position in the exhibition of the International Congress in early September. Since then it has been shown in several normal and high schools, offices of boards of education, teachers' institutes, lecture halls, show windows on public squares, etc. Twenty-five thousand copies of the summary have been distributed by this means. The rates for renting are planned to cover insurance, damages, wear and tear, expressage, and to include one thousand folders. The folders are also purchased by the thousand and by the hundred; but the exhibit cannot be loaned without the folders.

3. *Results.*—The results following announcement of these recommendations, that have come incidentally to the knowledge of the chairman, are encouraging. Pupil-health officers, sometimes called monitors, are now appointed in several large cities and in several small ones. They are, however, with a few exceptions, concerned chiefly with reading thermometers, not reporting on relative humidity, air currents ("ventilation"),

cleanliness, etc. In some schools the work is not done as systematically as it is necessary for efficiency. Pupil officers in numerous open-window schools are doing good work in making known actual facts existing in these schools, thus showing what others might have with benefit to both scholarship, health, and future citizenship.

In addition to all this, both educational and popular literature are mentioning, with growing frequency, school housekeeping, janitor service, and related details, showing the increased focusing of attention on definite points that mean progress in health matters.

4. *In conclusion.*—For reasons given in this and in former discussions, the committee strongly urges the department to continue to present to teachers of the sciences the importance of systematically utilizing the opportunities of school premises in problems of practical sanitation. These offer exercises for laboratory work and methods in studies of dust and its removal; of micro-organisms on cups, towels, and other objects used in common; of air currents and systems or methods of ventilation; of humidity and temperature; of various instruments such as thermometers, hygrometers, anemometers, etc.; of disinfectants, soaps, plumbing, and other sanitary details that depend on the sciences of biology, physics, and chemistry. Such adaptation would strengthen and popularize the teaching of science to a degree it has not hitherto experienced.

There is in the schools no instruction with greater possibilities for service in solving present problems in school sanitation and child hygiene, and for improving homes and citizens in consequence, provided pupils are trained in systematically applying their principles to details of environment, with accurate record-keeping.

Respectfully submitted,

Committee { HELEN C. PUTNAM
FRED H. COWAN
GEORGE R. TWISS }

THE TENDENCIES AND GENERAL STATUS OF COURSES IN GENERAL SCIENCE

I. WILLIAM H. TIMBIE, HEAD OF DEPARTMENT OF APPLIED SCIENCE, WENTWORTH INSTITUTE, BOSTON, MASS.

Let us consider for a moment, as we begin the discussion of this subject, the history and development of general science teaching in the high school and other departments of education.

It is comparatively easy to trace this development and to appreciate the influence of science instruction in the field of higher education. We have merely to glance at any college catalog of fifty or sixty years ago. We all are familiar with the curricula there outlined—philosophy and pure mathematics, heaped upon course after course in ponderous succession of

Latin and Greek. Contrast this old-time catalog with this year's catalog of even the most conservative college in the land. It is now filled from cover to cover with science courses. Note the array of botany, biology, chemistry, physics, physiology, hygiene, astronomy, geology, meteorology, government, and economics—all science studies. The spirit of modern science has completely revolutionized higher education. Not only have scientific methods and the scientific spirit crept into and permeated all the older forms of education, but they have so impelled, and so guided, and so generously given a new keenness of interest to the ever-increasing amount of study and investigation of the modern university that the terms "higher education" and "scientific thought" are practically synonymous.

Now let us look at the other end of the educational ladder, the field of the elementary school. Here in the very beginning of a child's school life, science and scientific methods are quickening and directing his powers, and, with habits of accurate observation, are laying the broad foundation for his success in his future studies. All these benefits are the results of science teaching and of its introduction into the elementary schools. The science has given life, interest, and zest to the whole curriculum. It has changed the listless, unwilling schoolboy into an alert, eager seeker after knowledge, and the very atmosphere of the schoolroom seems charged with the spirit of inquiry and investigation.

Now we turn to the history of science in the high school, and we cannot help contrasting its record here with its brilliant achievement in higher education and with its equally great success in the elementary schools. No one can seriously question the statement that the results of science teaching in the high schools have been most disappointing—especially disappointing to those pioneers who prophesied such great things for it. It hasn't grown in favor or responded to the hopes of teachers, pupils, and parents. On the one hand, it has failed to attract the multitudes of boys and girls into our high schools as it has drawn men and women to institutions of higher education, and, on the other hand, it has not added the absorbing vital interest to the high-school work that it has added to the work in the elementary schools. It should have done both. It has failed to do either. So far indeed has it failed to do these things which everybody said it was going to do that there has existed of late years a serious discussion as to whether or not science courses should be dropped from the high-school curriculum.

If science has done so much for the elementary schools and has in higher education so far exceeded the wildest expectations of the most enthusiastic pioneers, why has it not been able to do this in the high school? I shall try to suggest a few reasons.

First, let us take, for example, the subject of physics. Here are a few samples of the subject-matter which is being served up to thirteen- or fourteen-year-old boys and girls in the United States. These

samples are taken from the four textbooks in physics which are in most general use.

> Inertia is the property which all matter possesses of resisting any attempt to start it if at rest, or to change either the amount or direction of its motion.

The author must consider this very important because he puts it in italics, and probably most pupils are compelled to learn it by heart. This surely is a most alluring introduction to the study of physics. Compare the stupefying effect of such dead material upon a high-school pupil with the quickening influence of the real live garden upon the primary pupil.

From another popular text:

> We can measure three fundamentally different kinds of quantities—length, mass, and time—and we shall find that all other measurements may be reduced to these three.

Then follow nine pages describing the C.G.S. and other units.

Of course you can choke all this down the throats of high-school boys and girls and call it science. Do you wonder that we are disappointed at the results of such science teaching?

Picking up another textbook, we find:

> There are three classes of levers which are distinguished by the relative positions of the fulcrum and the points of application of the applied force (power) and the resistance (weight).

There must be a fearful dearth of physical material that we have to make all of these artificial distinctions and fill up the pages of the textbooks with descriptions of bygone appliances which at the best did not find a wide use except in old-time physics laboratories.

In a fourth textbook we find the following definition:

> If in one second a force gives a velocity of 1 cm. per second to a mass of 1 gram, it is said to act with a force of 1 dyne.

It seems to be a mania with physics textbook writers to search out unfamiliar and impracticable units and either use these to the exclusion of all units with which the student is familiar or base all demonstrations and derived units upon these. Now a dyne is so small that a five-cent piece weighs about 4,900 of them. It has absolutely no practical value either in physics or in daily life. The electrical units, to be sure, used to be referred back to the dyne as their basis, but, if the authors would only get up-to-date information in their science, they would know that even the legalized electrical units no longer depend upon this absurd unit. We have such a common and useful unit in the pound. Every boy is familiar with weighing things in pounds. But I suppose it's too well known and altogether too commonplace for a textbook, so we have introduced the extremely exclusive unit of the dyne.

The success of science in the primary schools is due in a large measure to the fact that it deals entirely with commonplace things, commonplace phenomena, and common-sense explanations. Physics textbook writers

should take the hint from the primary schools and not despise material with which the boy is already familiar, phenomena which he can comprehend, and explanations which appeal to his common-sense. Let us leave our abstractions and inject subject-matter into the course which will contain these enlivening elements.

Some of you will say that the textbooks in physics nowadays contain much that is practical and that they are filled with familiar applications of these abstract principles. That is true, and I am glad to say that textbooks are improving a little in this respect. But the trouble is, all of the practical material and all of the commercial applications are put secondary to the abstract material. Every book is confessedly and manifestly written for the sake of the abstract and theoretical and is therefore abstract and theoretical in spirit from cover to cover.

This brings me naturally to my second point. The method of presentation of the subject is pedagogically incorrect.

If so much of the subject-matter is ridiculous, how shall we characterize the method of presentation? Where did we ever learn anything thru such pedagogy as is practiced in our physics courses? From a study of the methods we use, one might logically infer that we are so ashamed of our subject-matter that we are actually trying to sneak as much as possible of it by the student without contaminating him with it. If that is our aim, we are certainly a highly efficient group of teachers.

We say rightly that our aim is to teach the student the fundamental. Accordingly we state for him a law which we know is fundamental. After this we may demonstrate it experimentally for him; or, worse yet, prove it algebraically. Then, in order to fix it in his mind, we often cite numerous applications of the law, and we may even send him into the laboratory to confirm what we have just told him. Isn't that a fair statement of our procedure? *And it's all wrong from start to finish.*

A few years ago the Westinghouse Manufacturing Company decided that it would train its own salesmen. So it started a salesmanship school. Each year a large number of college graduates came to this school and for nine months or a year studied the fundamentals of salesmanship. If any body of men ought to be able to learn the fundamentals of salesmanship, it ought to be this carefully selected group of college graduates. Yet the results proved to be very unsatisfactory. The men, when they went out into the field, proved that they did not know the fundamentals of selling, often after a whole year's study. Since the position and salary of the directors of this school depended upon its success, these men immediately set to work to remedy these defects and finally evolved the method which is in successful operation today. Now, when the young college graduate comes to them, they do not place him in the classroom to learn the fundamental theories of selling, but send him immediately into the field and tell him to sell. Here for a month or two, or sometimes three, he tries

hard to make sales. He is getting experience and gathering selling data. After a while he himself sees the need of knowing the principles of his business, and then, and not until then, the company puts him into the school. Here his experiences are interpreted and his data are correlated for him. He now can learn the principles of selling because he knows the facts of selling experience. The whole thing is no longer a theory to him but a living reality.

In sending this student first into the field to gather experience and then into the school of salesmanship, the Westinghouse Company was merely sending him first into the laboratory with no further instructions, mind you, than to perform certain experiments. Then he was taken into the classroom, and the results of his experiments were discussed and interpreted for him.

Again, we can all learn a lesson from the methods of any successful football coach. This coach must somehow teach the candidates the theory and the principles of the game. Does he get his men together in a classroom and explain to them the theories and the fundamentals before he sends them out to practice? I never knew one to proceed in this way. Rather, he sends them out into the field to practice punts, tackling, and signals, puts them thru a scrimmage, and then gets them together occasionally in the clubhouse and pounds in the lessons which their experience of the field practice warrants. If you please, he puts them first into the laboratory to get experience and data; then into the classroom to discuss these experiences and data and to learn from them the fundamental principles upon which the game depends.

These two illustrations show that whenever a group of persons have been trained to meet real competition, and also when the position or promotion of the men who do the training depends upon the success of that competition, this laboratory-first, classroom-afterward method is always followed. Results from this method are satisfactory because the method is pedagogically correct. This order is the order of evolution. It is the order by which the race has learned every lesson since the world began. It is the order of self-instruction.

The material in our science courses, we have said, is improving in spots. But the method of instruction has from the beginning gone from bad to worse. To correct this, a right-about-face movement must be executed. It must be reorganized so that no fundamental principle can be taught in the classroom before the student has secured experience and data relative to it in his daily life or in his laboratory experience. This is the way we learn everything that we really know. We learn to talk first by talking, and then we learn the principles of grammar by study of our practice. We are made to conduct ourselves properly from the first. Later we are taught the ethical and religious principle upon which proper conduct is based.

There are also minor ways in which we can strengthen science courses. Most of these improvements, however, will take place automatically if we

correct our method. For instance, my third criticism would be: The time allotted to science is far too short. There is a decided reluctance on the part of school authorities to allot enough time from the curriculum for the successful learning of physics; or, for that matter, of any other science. The student should be in the laboratory at least three times a week for at least two consecutive periods each time and in the recitation room three periods a week. This is the absolute minimum. The main objection that I have heard advanced against this arrangement is that it upsets the established schedule. I know that some educators have been accused of putting the good of the course above the boy's good, but it seems that there are some who even put the convenience of the schedule above both.

Another cause of unsuccessful teaching is the lack of laboratories: A teacher is just about as much justified in attempting to teach physics without a laboratory as he would be in attempting to teach swimming without water, navigation without a ship, milking without a cow. It can't be done. A pupil may go thru the motion of study, may memorize page after page of textbooks, but please don't call this instruction in science, or scientific methods, or scientific thought, or anything scientific, except unscientific "cramming."

As a final point: We are making improper use of the laboratories that we have. Most of us, I am glad to say, have some laboratory facilities and a laboratory equipment of a sort. It is the same old cry of "Our duty is to teach the students fundamentals only and these in their simplest forms." Accordingly our laboratories are built with the fundamentals of an equipment instead of a real equipment. We have weightless levers, weightless pulleys, frictionless cars, and a lot of senseless toys, instead of life-sized block and tackle, machine-like gears, working cranes, roof trusses, arches, boilers, pumps, motors, and generators of practical size and capable of doing a real job.

These are the pieces of equipment from which a boy or a girl can obtain a physical experience and physical data out of which he may construct his fundamental law. To be sure, the fundamental laws apply just as much to the toys and imitation apparatus as they do to the real things, but a boy's mind cannot derive the laws, assimilate them, digest them, and apply them when they are given to him in this way. It would be just as sensible to argue that, because a child needs to assimilate certain fundamental elements into his system in order to grow, it would be just as wise to feed him on just the right quantities of these fundamental elements in their simplest form. We should, therefore, feed the baby so many ounces of oxygen, so many of hydrogen, and so many of carbon, so many grains of sodium, so many of iron, etc., instead of good plain food, and then expect the child's system to digest and assimilate them by a sort of synthetic process. This plan won't do. We don't know why it won't, but we accept the fact. That is, however, the way we are actually feeding the minds of

our boys in our laboratory and expecting their minds to do the assimilating and digesting. No wonder they don't like the flavor of the dose and long for a little solid food. No wonder the teachers get tired of forcing this diet, or rather lack of diet, upon their unwilling patients. No wonder parents marvel at the emaciated and starved minds of their children; and at their ignorance when it is a question of any practical and scientific knowledge which they know and which we know the children ought to be getting.

Therefore, instead of being so careful to put into our laboratories bare, uninteresting, uninviting, and "dinky" apparatus, designed to teach some special principle only, let us fill the space allotted to us with attractive machinery which is large enough to command the student's respect, commercial enough to stimulate his imagination, and familiar enough to arouse a desire on his part to handle and study. This is what I mean by "food for his mind"; real growth will result from such a diet.

In the lantern slides which follow are some inviting meals of the right kind of brain food which have been picked up in different parts of the country. There are nearly enough of these here, if they were all brought together in one school, to make a good year's nourishment.

There is no subject that has more natural fascination than the physical sciences which explain all the mysteries of nature and the workings of all the inventions and the industrial developments of man. There is not a child—old or young—who is not eager for real information that will help him to understand these wonderful things, and, when we have learned to make our courses in science simple, direct avenues to this kind of information, our problem will be solved.

II. FRED D. BARBER, PROFESSOR OF PHYSICAL SCIENCE, STATE NORMAL UNIVERSITY, NORMAL, ILL.

One characteristic marks off the nineteenth century from all preceding centuries in the world's history. That characteristic is the achievements of science and man's mastery over the forces of nature. The nineteenth century opened with about such means of transportation and communication as were enjoyed by Abraham when he journeyed out of Ur of the Chaldees unto the land of Canaan. Under such conditions man for forty centuries perforce led an isolated life. Within one century, thru the influence of the railroad and the trolley line, the telegraph and the telephone, the ocean cable and the ocean greyhound, the wireless and the newspaper, time and space were all but annihilated and the whole civilized world became a single social unit.

A second phase of the achievements of science was the recasting of all the activities of daily life. The achievements of science during the last century completely revolutionized the home, the school, and its surroundings, every phase of country, town, and city life, all methods of heating and light-

ing, of ventilation and sanitation, of obtaining food and clothing. To fit understandingly into this modern world anywhere, some knowledge of the living world and the physical forces about us is necessary. The social significance of science in modern life gives it ever-increasing importance as a subject in our public-school curriculum.

Again, the content of our knowledge concerning the natural world and physical forces is increasing with a rapidity and a certainty almost beyond the comprehension of the human mind. For convenience, the mature scientist, viewing this new world of knowledge philosophically, divides it into many so-called sciences; and the mature student aspiring to do research work and make some contribution to our fund of knowledge necessarily confines his study to some small portion of a single science. Moreover, he can hope to succeed only by acquiring the technic of the specialist.

The great mass of humanity, however—those engaged in the world's work—laboring in the humbler walks of life, in production, as in agriculture, horticulture, gardening, stock-raising, or mining, or in the manufacturing industries, or in trade and commerce, or even in many of the professions—these people have little or no need of such special training and technic. They need an insight into the broad general principles of science, and, above all, to see clearly and to comprehend the significance of science as it molds and remolds the social fabric.

To neglect the training of research workers in the field of science would be fatal to further progress in man's control of nature and her forces. It would mean stagnation in material progress and that must ever mean stagnation in mental, moral, and spiritual progress. But, on the other hand, to neglect the interpretation and dissemination of scientific knowledge and the training of the masses of common people in scientific thinking is to rob humanity, in a large measure, of the fruits of scientific research. It is to the interest of all humanity that even the humblest laborer toiling with pick and shovel shall have some knowledge of the laws of science as related to his labor and his living. Modern civilization and all that is most significant to the common people in the way of improved living conditions, of more efficient labor, of shorter hours of labor, and of greater facilities for recreation and pleasure depend largely and primarily upon, first, the achievements of the research worker in revealing the truths of science, and, second, upon the dissemination of those truths and the training of the masses in thinking scientifically.

We are confronted today with no danger of neglecting the training of research workers in the field of science. Every great university in the land is chiefly engaged in this work. The ablest men in their science departments are spending their energies in training research workers in their graduate departments. The undergraduate departments of these universities and most of our colleges are largely engaged in preparing students to enter these graduate schools, while the science courses in our high schools are

largely shaped and determined by college-entrance requirements. Our high schools are vestibules to the college; our colleges are vestibules to the graduate schools of the university. From top to bottom and from bottom to top the science work in our educational institutions is so shaped and planned as to furnish a direct path for the training of research workers. It is necessary that such a path be provided. But we must not lose sight of the fact that it is equally necessary that the needs of the masses of young people preparing, not for research work but for the ordinary activities of life, receive some consideration. Science falls far short of fulfilling its mission unless the fruits of scientific research fall upon fertile soil and take root in the daily life-activities of the masses.

Are our educational institutions preparing the masses to appreciate and to utilize the products of research work? This can be done directly and effectively only thru science instruction in our public schools where the masses of young people should learn to interpret and to understand the significance of science as it affects their life-work—to think scientifically as they work. And where are our great educational institutions which stand out conspicuously for their efforts and accomplishments in the training of science teachers for our public schools? Where are our great universities which emphasize the art of interpreting and disseminating the fruits of scientific research as they emphasize the art of research itself? Where are our institutions of higher learning which enjoy renown because of their own skilful teaching of the significance of science in modern life to their undergraduates?

It is a fact well known to students of education that the percentage of students studying science in our public schools is on the decline and has been on the decline for twenty years. Leading educators have from time to time called attention to this fact. The commissioner of education has repeatedly shown it in his reports. And yet, the rank and file of public-school superintendents, principals, and science teachers have until recently sat idly by, alternately boasting of the triumphs of science and lamenting the slowness of the farmer, of the laboring classes, in fact, of the masses everywhere to avail themselves of the fruits of scientific research in their daily life-activities.

In commenting upon the tendencies in our high schools the commissioner of education, in his report for 1911, reviewing the educational progress of the decade, says:

> Latin is holding its ground; French and German are gaining; algebra occupies a large share of time and is steady; geometry is gaining; English and history have gained materially; all the older sciences, rather strangely, are relatively falling off.

At last we are waking up to the situation. We are beginning to realize that something is wrong—radically wrong—with our public-school work in science. What is the trouble? Have you diagnosed the case? Have you a remedy to suggest?

From careful study some of us are convinced that the malady with which public-school science is suffering is directly traceable to an overdose of specialization. The needs of the research specialist are dominating and determining largely the college courses in science; college-entrance requirements almost completely determine the character of our high-school courses in science. We have built our science courses from the top downward. We have attempted to start every fourteen-year-old boy and girl entering the high school upon the path laid out for the benefit of the exceptional boy or girl who may become a research worker in the university. We have presumed that every fourteen-year-old youth is eager and ready to think in abstract terms. We have attempted to feed him on abstract principles and generalizations, never pausing to inquire about his likes and dislikes or to study the fundamental characteristics of the adolescent mind. We have failed to note that boys and girls of fourteen are chiefly interested in learning things for the sake of knowing those particular things. The adolescent is not yet a philosopher seeking the unity of the universe. Abstractions, generalizations, and type studies are foreign and distasteful to the normal adolescent mind. Youth is ambitious, but it ever seeks the short cut. Necessity also plants its iron heel firmly down upon the ambition of the youth from the laboring classes. The wail and clamor from hungry mouths, the pleadings for the necessities of life are ever ringing in his ear and in the ear of his parent. If he enters the high school at all, it is generally for the purpose of spending one, two, possibly, in exceptional cases, three, or four years in better preparing himself for life's work—for the struggle of earning a living. The boys and girls from the laboring classes, indeed, from the masses of the common people everywhere, as well as their parents, have a right to demand that they be shown the worth-whileness of the tasks set before them. Can our high-school principals and science teachers do this successfully while following the usual courses in special science shaped and molded, as I believe, for a different purpose?

The disregard of the nature and character of the adolescent mind, together with the failure of the high school to offer subject-matter which appeals to the boys and girls from the masses as being worth while, largely accounts for the fact that only about 30 per cent of the boys and girls of high-school age ever enter the high school and that 40 per cent of those who do enter quit the first year. Educators are beginning to realize this fact and to study the causes of this elimination of pupils from our public schools. The widespread conviction that our science courses in the high school must be revised is one of the results of this awakening. The experiment of putting general science in the first high-school year is a part of this movement.

The task assigned me was to discover whether general science is making good. In attempting an answer, I endeavored to ascertain where and in how many high schools courses called general science were being taught, and later

to obtain from the principals of some of those schools information as to what they were attempting to do and with what measure of success their efforts were meeting. From the investigation, I conclude that not fewer than 250 or 300 schools in the United States have attacked the problem of revising their science courses by offering a course which they call general science, while a large number of other schools seriously contemplate doing so soon. This movement is most pronounced in Wisconsin, Kansas, and California, but it is to be seen in spots in most of the states of the Union.

About June 1 a questionnaire was sent to 180 of the schools reported as offering a course in general science. With few exceptions these were addressed to the principals. Up to June 25, replies from 73 schools had been received. No course in general science was reported from 6 schools. Replies from 67 schools indicate that they have seriously attempted work in general science as they understood the term. A few replies to the questions of opinion were received from schools not giving a course in general science. All the questions were framed with the idea of stimulating thought rather than obtaining ease of tabulation. Some of the replies were consequently rather difficult to tabulate, but it is the belief of the writer that a truer expression of ideas was obtained.

A complete analysis of this report is unnecessary and would be unprofitable. Facts, if correctly reported, are facts and therefore undebatable. They are, nevertheless, of the greatest value, since they furnish the only reliable basis for opinion. I shall call attention to but two items under the questions of fact. First, in replying to the second question (concerning the length of the general science course), but one school reports a course in general science more than one year in length. I will predict that a similar investigation ten years hence, possibly five years hence, will reveal many schools offering such courses two years in length. Second, in reply to the sixth question (concerning texts used), the replies indicate that eleven different texts were used in giving so-called general science courses. To one at all familiar with the science texts now available, the answer to this question indicates that up to the present date no generally satisfactory texts have made their appearance. I am also convinced that for some years to come, at least until there is available a supply of teachers especially trained to teach general science, textbooks will be as necessary in general science as in special science.

Passing to the questions of opinion: Opinions are always debatable, but the answers to the first and second questions indicate clearly, to my mind, that thus far the experiments with so-called general science have generally met the approval of the principals of the schools in which they have been tried. It was most interesting to me to discover that the only person answering the first question: "Has the work in general science been a success?" in the negative answered the second question: "Has it been as successful as special science under the same conditions?" in the affirmative.

In my judgment the most significant question in the entire set was the sixth in the second list: "Should the units of instruction in general science differ materially from those in special science?" And yet there were fewer answers to this question than to any other. The term "units of instruction" seems not to have been understood and yet from the replies one is warranted in concluding that many of the correspondents have no clearly formulated ideas regarding the real nature and real significance of the general science movement. Science organized and developed into units of instruction not materially differing from the units of instruction in special science can be nothing other than special science. To attempt to organize science material without recognizing the fundamental difference in the organization of special science and general science is certain to result, it seems to me, in a mere collection of loosely related principles picked from the various special sciences. Those principles may be the most interesting and striking principles of the special sciences and yet such a course might easily have considerably less significance as educative material than any course in special science.

General science as conceived by its leading advocates is quite as much a new mode of organization and a new mode of attack as it is a new and different selection of material. Much of the material which has thus far appeared in texts called general science consists of clippings from the special sciences. To less extent the same is true of the outlines received. In many cases there is evident little or no unifying idea giving significance to the unit of instruction. In my judgment, the advocates of special science, with justified reverence for logical thinking, may well call such a course "hodgepodge" and dub it a "spineless wonder."

If general science is to be a success, it must consist of well-organized units of instruction. These units must be as definite and as well organized as are the units in special science. They will differ, however, from the units of special science in the fact that they are units of practical science, or applied science, instead of units of theoretical science. The core of the unit in general science will be some process, or some device, utilized by the individual or by society in the ordinary activities of modern life. To illustrate: In special science, physics, under "Light" we find such units as these: Light; Its Rectilinear Propagation; Shadows; Photometry and the Law of Reflection; Mirrors and the Formation of Images; Refraction of Light; The Formation of Images by Lenses; Optical Instruments; Color and Spectra; Nature of Light; Interference and Polarization. In marked contrast, general science, adapted to the ninth grade will, in my opinion, be developed thru units of instruction somewhat of the following character: Primitive Lamps; Candles; How the Candle Burns; Discovery of Petroleum; Kerosene Lamps; How Kerosene Burns; Evaporation, Boiling-Point and Distillation; Crude Petroleum; Distillation of Petroleum; Gasoline; Why Gasoline Is Dangerous; Inspection of Oils; Cautions in Using

Kerosene and Gasoline; Gasoline Lamps; Gasoline Gas; Illuminating Gas; Distillation of Coal; Coal Gas; Water Gas; Acetylene Generators and Acetylene Lighting; Electric Lights and Electric Lighting; Natural Lighting of Rooms; Direct and Diffused Light; Importance of Diffused Light; Intensity of Light Required; Cost of Artificial Lighting.

A course in general science, properly conceived, has unity and logical development. It has educational value of the highest order. It is adapted to the adolescent mind and at the same time it appeals to the pupil as worth while. It trains in scientific thinking and deals with material with which the pupil is already somewhat familiar. It starts with the known and proceeds to the related unknown. It is concrete thruout because it deals only with material which is significant to the pupil. It gives the pupil control of his environment and an appreciation of the significance of science in modern life. Such a course in science study is general science because it disregards the artificial boundaries of special science. To study tallow and paraffin candles, how they are made, how they burn, and their significance in the development of civilization involves material from several different special sciences. Such material as this is adapted to the adolescent mind and at the same time it appeals as worth while to the pupil whose school days are numbered.

When we recognize the value of these two principles in dealing with the adolescent, and so adapt all our high-school courses that they conform to them; when we recognize the needs of the millions of young people who will never see the inside of a college or university; when we give up the idea that we must attempt to make profound scholars out of all the boys and girls of the generation or, failing in this, crowd them from the high school; when those in charge of our public high schools come to recognize the fact that the greatest service they can render is to make their high schools of such a character that they will attract and hold the great mass of young people till they can be trained into fairly intelligent, self-supporting, and self-respecting citizens, then and not until then may we hope to see high-school mortality lessen and science study in the high school again assume the relative position which its importance in modern life justifies.

APPLIED SCIENCE—ITS RELATIONSHIP TO SHOP WORK AND THE REST OF THE CURRICULUM IN AN UP-TO-DATE TECHNICAL HIGH SCHOOL

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In the following paper it is assumed that it is no part of the purpose of a technical high school to prepare pupils for a technical college. Some of you may be disposed to argue this assumption, but I think experience has

shown that better preparation for such a college is obtained in the non-technical high school. The type of mind that is best adapted for advanced technical training is the one capable of dealing with abstract problems, which is not the type usually attracted by a technical high school; while the time spent in shop work and drawing constitutes a handicap which puts such a school at a decided disadvantage in the preparation for college-entrance examinations.

The aim of a technical high school, as it seems to me, should be to prepare pupils to enter the industries with mental equipment and knowledge of commercial processes that will greatly increase their chances of advancement over those persons not so trained. The attainment of manual skill in mechanical processes, on the other hand, seems to be no part of the legitimate aim of such a high school, but is the particular province in education of the trade school.

The object, then, of the science course in a technical high school is to acquaint its pupils with the applications of science to the industries and not to prepare them to pass examinations upon abstract scientific principles. This means that the application should be made the starting-point in the science teaching and that the theory should be of secondary importance. Such a procedure reverses the ordinary method, but I am convinced by experience that it is good pedagogy and the correct method to follow.

I have had an opportunity during the past four years, in teaching applied science to senior boys, to experiment along this line and have been much pleased with the results. The interest manifested by the boys has been one of the most gratifying features of the work and has been far greater than any that I have ever been able to arouse in courses conducted along orthodox lines. In fact, the interest has been so great at times as to become embarrassing, on account of the desire of boys to spend study periods in the laboratory rather than in the preparation of other lessons.

I am tempted to give a little local history, because the character of the whole course of study in the school in which I am teaching is to be completely changed in such a way that it will be, I believe, unique among technical high schools. Last spring the Boston School Committee invited C. A. Prosser, secretary of the National Society for the Promotion of Industrial Education, to outline a new course of study for the Mechanic Arts High School, which should prepare boys to enter the industries on the productive side and eventually become non-commissioned officers, that is, foremen, managers, superintendents, etc., just as the commercial high schools supply the minor officers on the distributive side. The plan submitted by him is to be put into effect beginning with the incoming class in September, and we are about to try an experiment that will, I believe, be watched with the keenest interest by educators all over the country. The school authorities of Boston hope that this will prove to be another long step toward the articulation of education and the industries, and that it will help materially in

building up a system of technical training that will enable us to regain the ground lost to Germany, England, and France in the productive industries in which we were once without dangerous rivals.

The science work is to give a working knowledge of the uses of physics, chemistry, and electricity as a branch of physics, in their applications to strength and properties of materials; design, construction, and operation of tools, machines, and engines; the generation, distribution, and consumption of power; the construction, sanitation, heating, lighting, and ventilation of buildings; the utilization of by-products and waste; modern means of transportation and communication; the properties, production, and use of fuels like coal, oil, and gas; the manufacture, distribution, and consumption of light; the properties, production, and use of building materials like cement, concrete, tiling, stucco, brick, stone, and structural steel.

The science work is to extend thruout the four years of the course, in periods of ninety minutes each every other day. These periods may be devoted entirely to laboratory work or partly to laboratory work and partly to lectures, recitations, or study, as occasion demands. No home study will be required in this or any other department, as the school day is to extend from 8:30 A.M. to 4:00 P.M.

The first year will deal in general with the properties of materials and elementary mechanics; the second, with the development of heat, light, and power, including steam, electricity, and gas; and the third, with industrial chemistry and the strength of materials. The fourth year is to be devoted to unifying and organizing more practical experience of the previous years and to work of a more intensive and quantitative character in mechanics, industrial chemistry, and power. It is in this year that the emphasis is to be laid more particularly on the theory and law underlying the physical and chemical phenomena with which the pupil has been brought into contact in the previous years. In general, it may be said that the work of the first three years is to be qualitative and practical and of the fourth year quantitative and theoretical.

In the early part of the course, the applications of science to industry and to everyday life are to be made the starting-point in the laboratory wherever possible. The apparatus used will be entirely of a commercial type rather than the variety made by apparatus companies and suitable only for school purposes. Especial attention will be given to efficiency under working conditions, original cost, and the cost of maintenance and renewal. The customary problems in which pupils are told to disregard friction or heat losses will be eliminated. Such topics as falling bodies, frictional electricity, practically all of sound, and most of light will also be omitted.

No textbooks will be used, for the reason that none that are at all suitable for such a course have ever been published, but each laboratory

will be amply supplied with reference books, handbooks, charts, catalogs, trade publications, and periodicals. Sheets will be prepared for each exercise and printed in the school printing plant, giving any information that will be necessary to complete the so-called apperceptive basis for the exercise, the directions for performing the work, a number of questions intended to bring out the purpose of the exercise, and a list of references to books, pamphlets, or magazines where additional information may be obtained.

In the laboratory, pupils will be divided into groups of two to four boys, working, especially in the later years of the course, on as many different exercises, possibly, as there are groups in the laboratory. The classes are to be limited to twenty-six pupils, in charge of an instructor and a laboratory assistant, making it possible to maintain effective supervision over the work of each group.

In the first year's work, the following topics will give an idea of the nature of the work as it will be put into operation in September, but experience will undoubtedly lead to many changes and additions. It should be noted also that the order in which the topics are given has no significance, as this order may be changed at any time at the request of any of the other departments.

Under the general heading "Properties of Materials" will come a consideration of:

Woods: Kinds, distribution, lumbering, transportation, grain, weight, strength, hardness, shrinkage, suitability for particular uses.

Iron: Distribution of ore, kinds, mining, reduction, uses and properties, structure, weight, etc.

Steel: Kinds, manufacture, composition, properties, and special uses.

Copper: Distribution, mining, reduction, properties, and uses especially in the electrical industries.

Brass and other alloys: Their composition, properties, and uses.

Lead: Particular attention being paid to its use in paints.

Zinc: Especially for galvanizing purposes.

Emery, corundum, carborundum, and other abrasives.

Solder and fluxes.

Glass, putty, glue, and sizings.

Plaster, mortar, cement, and asphalt.

Sand and sandstone.

Clay, brick, and tiling.

Crude oil and its products, especially gasoline and lubricating oils.

Graphite and lampblack.

Asbestos, celluloid, rubber, leather, paper, etc.

Thus far there is very little that bears much resemblance to the science work that is usually taught in such courses, but it all has a definite purpose, namely, to supplement the work of the shops and drawing-rooms. Some of the topics do not lend themselves readily to laboratory work, and for these use will be made of the stereopticon, lectures, and supplementary reading.

Under "Mechanics" will come:

Measuring devices: Scales, micrometer, calipers, caliper rule, gauges, and the vernier.

Determination of weight: Spring balance, beam balance, platform scale.

Use of plumb line and level.

Simple lever: Kinds and applications, laws, efficiency; the idea of moment of a force, mechanical advantage, displacement, and velocity ratios.

Block and tackle, and chain hoist, especially with regard to efficiency under varying loads.

The jackscrew, winch and derrick, and other compound machines, including a study of friction.

The construction and operation of water and gas meters, speed counters, tachometers, and clocks.

Reading meter dials.

Pressure and vacuum gauges.

Pressure and head of water.

Hydraulic press and elevator.

Pumps and syphons.

Specific gravity, especially the use of hydrometers.

Compressed air: Air blasts and brakes.

Convection currents in air and water.

Expansion and contraction of heat.

Heating and ventilating systems.

The second year will be devoted to the construction and operation of:

The gas and gasoline engine.

Difference between two- and four-cycle engines.

Functions of the carburetor, clutch, and ignition system.

Transmission, differential, muffler, and cooling system, as applied to automobile engines.

The steam boiler and engine.

Pumps, injectors, super-heaters, and condensors.

Slide valve and rotary valve engines.

Indicators and indicator cards.

Care and operation.

The dynamo, motor, and transformer.

Primary and secondary batteries.

The telephone and telegraph.

Wiring systems for light and power.

Cost of light from gas and electric lamps.

Efficiency of electrical appliances.

Cost of running lathes, planers, milling machines, etc., with individual motor drive.

Waste and running shafting, pulleys, and belts in a shop where power is obtained from a single motor.

The third year will deal partly with the strength of materials and the design of trusses and compound machines and partly with the chemistry of air, water, soaps, lubricating oils, dyeing, tanning leather, etc., while the fourth year will include more work in industrial chemistry and a review of those portions of the subject of physics touched upon earlier in the course, but with greater emphasis upon the theory and mathematics of the subject.

Thruout the whole course pupils will be given considerable practice in making freehand sketches and diagrams involving the use of the various conventions in common use on drawings to be found in the industries, and these sketches and diagrams will be submitted from time to time to the inspection of the drawing department for criticisms and suggestions.

The close correlation between the mathematics and other departments has been provided in this course by allowing the mathematics a much smaller proportion of the time on the program than is usually given to the subject. This necessitates teaching in the shops and laboratories much of the mathematics needed in those places, and this will naturally be done at the time when the necessity arises. The mathematics department will be kept informed of such work as it is taken up, and sufficient drill will be given to make sure of its permanence.

Close co-operation, too, between all the other departments must be the particular business of the heads of all the departments, and it would seem to be one of their most important duties to create and foster such correlation, not by decree but by patient and persistent constructive work and guidance.

DISCUSSION

PHILANDER P. CLAXTON, United States commissioner of education, Washington, D.C.—I am very glad to be here and to have an opportunity to say just a word about science teaching. My mind runs back to my early manhood when I began life in a country school, teaching, among other things, natural science. I love nature; and I recall the difficulties that I encountered in trying to arouse in my classes the same affection for it that I had. These difficulties, I recall, created an early desire for more rational textbooks, and, for some time, it was a cherished ambition of mine to write a more practical series of science textbooks than was then in common use. Interest in practical things attracted me to Johns Hopkins University, where I trained myself to become an electrical engineer. I know, therefore, from my own experience, that the practical applications of science have a strong appeal to the young mind. The strongest force that has come into the world is the scientific mind.

We need to have enough science put into our curriculum for children to learn that this world is ruled by laws and to make them look for the laws that explain what is going on about them. We must teach enough science, not only that children will observe all that is going on, but that they may be able to interpret the things that they see. When people go about seeing things only, they are blind. Science is needed to open their eyes to the significance of things and to give a full understanding of how things and events are molded by the application of laws.

Among the subjects that I should include in the course, that everybody in high school should study, would be astronomy. The interpretation of the grandeur and magnitude of natural laws, as they appear in astronomy, and as they were revealed to me thru my study of astronomy, have made an indelible impression upon my life. As I think of the textbook which we used, Steele's *Fourteen Weeks on Astronomy*, I cannot but feel that our modern textbook writers have much to learn from the example which this book set. Anyone who can write a modern series of science textbooks, and who can put into them the charm and point of view which was put into this book of Steele's, will win great honor, and, also, a fortune that will enable him to endow institutions of learning.

Most of us have not the ability to give the children a genuine love of learning science, but it is an ideal toward which we should continually strive. I found, when I first studied science in a disconnected and probably superficial way, that after a while there would suddenly come over me an appreciation of the fuller significance of what was being taught. In the meantime, I had been in contact with the things under discussion, the natural objects or events upon which the teaching was based, and my science course was correlating and interpreting these things, of which I had only been partly conscious. All science teaching must grow out of contact with real things and from the casual and disconnected observation and study of nature.

The boy or the girl needs to be made to discover that he knows already what is being taught. He needs to be made to go farther on to appreciate the value of correlating his knowledge and of cultivating the ability to apply it to his future experience. As a boy, I have, myself, seen my father at his grindstone, and as he held the axe, and I supplied the power to turn it and poured the stream of water over the stone, I have watched the peculiar smooth way in which the water flowed over the edge of the axe; I have swung a pail of water at arm's length; and I have listened to the whistling sound as I twirled a horse-chestnut at the end of a string. It is out of such experiences as these that the teacher should build a science course and develop a child's appreciation and love of science.

There is another thing that I must say at this time. The science teacher and every high-school teacher should forget that there is such a thing as a college. I believe that it is true now as it used to be some years ago, when I was in more intimate contact with the details of college requirements in physics, that the specific requirement for entrance is sixty laboratory experiments—sixty mystic units like the chips with which a child plays and builds one on top of another until the last chip is put in place and the whole structure tumbles and falls into an incoherent mass; and I suppose that year after year we have been trying to build up this tottering pile of sixty units without the reinforcement of contact with real things and without any reference to what is in the minds of the children.

Go out and bring together a few things that have reality and let the pupil see if they are in harmony and conform to some fundamental laws; and then teach them to apply these new laws or principles to a thousand and one situations. And then I would have you go one step farther and point out to them how these principles may be put to practical use. There may be persons who are interested in learning things for the sake of knowledge; but I cannot see why we should learn anything unless we purpose to put it to some sort of practical application.

I am interested in the plan that is being put into operation by the University of Cincinnati, where the young men work in the shops and factories for a week and then go to the university and learn the theory that makes significant the experience that they have had in the shops. I look forward to the time when everywhere in all schools we may have students who, for a few hours a day, work at some gainful occupation and for the remainder of the day attend a school where the full significance of their experience may be brought out. It may be true that for all communities this may not be practicable. If this is so, we must have, instead, schoolrooms, shops, and laboratories in which the economically valuable products are made and later are put to their full economic use.

We have talked about schools as being somewhat apart from life. We have talked about culture and cultural education, until we have, by unfortunate association, come to think that the attainment of culture as a process is apart and removed from the realities of life.

I want to say to you that culture is not that, but it is that intangible something that comes only from intelligent labor rendered in the service of our fellow-men. Then get together and work out a form of science teaching which would take one-third of the time of a six-year high-school course. This science course which is to take a third of the

student's time should be based upon ordinary experience which the boy or girl has had or is having. But in whatever direction this course may travel, it should finally lead to working out an application of this science into a training for some definite vocation. Such a science training should result in emancipation of our working people and our artisans from the slavery of the "rule-of-thumb" methods. I hope that you may effectually co-operate in the working-out of such a science course; in the rebuilding of texbooks; and in all other needful things necessary to bring about this desired end.

As I look at such beautiful objects of nature as Niagara Falls and listen to the outcry that is made concerning the secretion of the supply of water which constitutes its grandeur, I cannot find myself entirely in sympathy with the agitation. To be sure, the water is being put to a noble use in creating such a magnificent attraction, but to my mind it is put to a more noble use when its power is made to feed and clothe and aid in the labors of the people.

It may be hard for a teacher of English to make his instruction lead from the experience of the child to a greater vocational power. It may be hard for the teacher of history to associate present thought with practical application, but it will always be easy for a teacher of physical science to keep the student traveling from a point in his past or present experience to such applications as he will need to make for the rest of his life. I can scarcely find words of sufficient emphasis to state that it is not a non-ethical thing that I here propose to do; it is not a non-cultural thing; it is not an unmoral thing. It is the most religious thing that we can do, for have we not been told that we can best serve Him by serving our fellow-men? I believe that if the author of the quotation to which I have just referred were writing instructions now he would urge that we give as the greatest preparation for service the knowledge of nature and its laws. Those men who have been teaching science, not as a beautiful thing, but as an aid to service, have been doing more to educate and assist than any single group of persons that I know.

DEPARTMENT OF SCHOOL ADMINISTRATION

SECRETARY'S MINUTES

OFFICERS

President—W. R. HODGES, president, Associated Minnesota School Boards..Sleepy Eye, Minn.
Vice-President—JOSE D. SENA, president, Board of Education.....Santa Fe, N.M.
Secretary—FRANK M. BRUCE, publisher, *American School Board Journal*.... Milwaukee, Wis.

FIRST SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

The meeting of this department was called to order in Arcanum Hall, Lowry Building, by the secretary at 2:35 P.M. In the absence of the president, who was detained at home because of illness, L. N. Hines, superintendent of schools, Crawfordsville, Ind., presided.

The first in the order of business was the appointment of a nominating committee, to which the chair named:

T. J. Jones, superintendent of schools, West Allis, Wis.
Theodore Hanson, principal, Valley City, N.Dak.
D. H. Painter, principal, Seward School, Minneapolis, Minn.

The first paper on the program was read by Frank Henry Selden, director, department of mechanical science, State Normal School, Valley City, N.Dak., on "Problems in the Successful Teaching of Mechanical Science."

This was discussed at some length by Wilson H. Henderson, director of industrial education, Hammond, Ind.; and Frank H. Ball, director of industrial education, Pittsburgh, Pa.

The next paper was on "The Heating, Lighting, and Ventilating of School Buildings," by James M. Ingold, secretary, Board of Education, Cedar Rapids, Iowa, which was discussed by S. A. Challman, state commissioner of school buildings, Minneapolis, Minn.

J. M. Malmin, secretary, Board of Education, Blue Earth, Minn., read a paper entitled "A State Teachers' Employment Agency under the Supervision of the Department of Public Instruction." E. T. Critchett, assistant inspector, state high and graded schools, and director, State Teachers' Employment Bureau, St. Paul, Minn., then discussed "The Success of a State Teachers' Employment Agency Law after Two Years."

The nomination committee reported as follows:

For *President*—O. M. Plummer, director, Board of Education, North Portland, Ore.
For *Vice-President*—Edward C. Elliott, professor of education, University of Wisconsin, Madison, Wis.
For *Secretary*—Frank M. Bruce, publisher, *American School Board Journal*, Milwaukee, Wis.

Motion made and seconded to adopt report.

FRANK M. BRUCE, *Secretary*

PAPERS AND DISCUSSIONS

PROBLEMS IN THE SUCCESSFUL TEACHING OF MECHANICAL SCIENCE

FRANK HENRY SELDEN, DIRECTOR, DEPARTMENT OF MECHANICAL SCIENCE, STATE NORMAL SCHOOL, VALLEY CITY, N.DAK.

Briefly stated, the difficulties of introducing mechanical science courses are the same as those attending the introduction of any improvement. It is the tendency of the established order to interpret the improvement in terms in harmony with itself and to make it in reality nothing but a changed form of something in the old order, and then, after having taken all the newness out of it, to discard it as being no improvement and of no value. In tracing the school-shop movement, we learn that this is exactly what has been done and that we are now in yet another stage—that of attempting to find some new material after the original movement has been rendered abortive and set aside. To state the principle concretely, the school-shop movement has been robbed of its vitality, and now attempts are being made to gain the values that should have resulted from the original movement by the establishment of all sorts of trade, continuation, vocational, and similar schools. It is not my purpose to name any specific remedy for the present condition, but rather to point a sure method that will lead, not only to finding the remedy, but also to a certainty of its being applied.

I believe you will not object to the ideas I advance, simply because they are new, or because, from a superficial consideration, they may appear to be the same as have been considered in times past. Nor will you give them less attention because they appear to be at variance with the doctrines of some of our most esteemed leaders of educational thought.

I can do no more than suggest some plan of action that will lead to the determining of what is best; for the duty of bringing the best out of these conditions rests upon the administrative part of the educational machinery. However much we may wish to shift some of this responsibility to superintendent or teacher, yet in the final analysis the board is responsible. Many a superintendent would do more effective work if he knew that his board members were so thoroly informed of what was being done that they were definitely in sympathy with his work. Many teachers would work harder and get far better results did they know that the details of improvements were known and appreciated by those in authority. When, by such a searching inquiry as I suggest, the administrative factor is thoroly informed, there can be no doubt as to what action will be taken, for the great majority wish our schools to yield the largest possible returns in good to all. Last, but not least, the whole educational machinery would run smoother and accomplish far more if every unit felt that there was such a definite knowl-

edge of what was being done that there would be no mistakes in rewarding the efficient and in eliminating the inefficient.

It has been my opinion for some time that the most urgent need in solving the present problems in education is a more extensive study of these problems on the part of school-board members. As I have listened to the many eloquent addresses at this meeting, this need has been greatly emphasized, and I have been compelled to add to the list of serious difficulties that of the great power of the highly trained intellect to enforce with great appearance of wisdom the most ill-advised theories in regard to the school-shop movement. This appears to result, not from any lack of desire to say and do that which is best, but rather from the difficulty of getting a proper grasp of a movement that is based upon subject-matter with which these people had no experience as they passed thru their school work.

To gather the necessary information on which to base judgments is not easy. May I encourage you to take up this important task with a conviction that nothing but first-hand facts are to be used by those in administrative positions. May I also suggest that there is sometimes a vast difference in the conclusions that are drawn from casual observation and from the searching inquiry. We have in our administration of schools too many judgments formed upon casual observation and hearsay testimony. We see men in these positions deciding important questions on information of a kind that would be given no weight whatever in determining their business activities.

Probably the most common error in judging of any part of school work is the neglect to consider the personal factor. We should consider not what the pupil is on leaving school, but rather to what extent and in what manner the school has worked a change. This is especially true in determining the school value of any mechanical or industrial work. We need to make a close inspection to determine how many pupils are helped by the school shop and how many simply survive it. To know that certain boys go out from the school shop into industry and succeed is of no consequence whatever in determining the value of the shop work; because there are in every community boys who will succeed in spite of bad schooling. That which must be determined is the actual effect of the work by tracing the various pupils thru the school and out into industry. As has been said, we must count the failures, we must determine the number who have been helped and also those who have fallen out by the way, and then we must determine if in any school or by any system of work these failures could have been avoided or to any extent lessened.

It is "dead easy" for a teacher to point to a few successes and then lay the blame for the failures to the lack of ability on the part of those who fail. In any American community there are both boys and girls who can do most excellent work in wood and metal if provided with tools, materials,

and a place in which to work. Therefore if the teacher can point only to some nice finished projects as the result of his work it is quite possible that the money spent for that teacher has been wasted. The pupils who have not achieved success, those whose work usually is not shown, are the ones whose records should be most thoroly scrutinized. It is the special duty of the administrative part of education to determine with certainty whether these failures are due to the pupil or to the mistakes of the administration in selecting an incompetent teacher or an incompetent superintendent who is not getting the best out of the teacher.

From a somewhat extensive study of this particular question in regard to shop work, I can say that with pupils of similar talents attending various schools the proportion of failures to successes varies from nearly all failures in some schools to nearly all successes in other schools. This means that the administrative part of the educational machine is badly out of repair in some cities; it means that those in authority are being satisfied with results far below that which should be gained. And I may add that I have sometimes found those who are the most deserving of censure to be those who are most outspoken in their certainty that their shop work is of the best.

But this is not all. The pupil of limited talent is the very one who needs help, and, however limited his talent, if he is above idiocy, the greater is the necessity of raising his level of industrial efficiency, for he is certain to join the ranks of industry, while the one of large constructive talent, tho making a record in the school shop and helping out on exhibition day, is almost certain to enter some other line. For the constructive faculty that may shine in industry is the same as that which makes the great business man and the great professional man.

Now why this great difference? For neither the efficient nor the inefficient teaching is confined to any particular class or type of schools or to any particular geographical area. I think you will find, if you investigate with proper care and thoroness, that it largely depends upon whether we teach principles or processes. It matters little by what name the work is called or in what kind of school it is given. You will find many gradations from the all-process to the largely-science teaching in schools of all grades, and sometimes great variations in the same school system, even in the same building. I have seen excellent instruction in science in the common graded schools and the merest sham at teaching processes in keeping with the methods of bygone ages in nationally known trade and industrial schools. This could not be were the administrators doing their duty.

The fundamental principles of working solid materials may be taught successfully and thoroly by the use of wood alone in the one-room country school, in the consolidated school, in the regular high school, and in the technical school. On the other hand, pupils may spend long hours in the making of things from toy doll houses to real dwellings, from the useless sloyd models to sets of furniture; they may work every material from

plastilina to steel, and yet thru all this extensive course in either common or special schools they may not learn one single principle of working solid materials. They then go out into industry with the ideals and mental equipment of the ancient Egyptian craftsman rather than with those of the modern scientific workman. It therefore is not safe to judge of the work of any school by the magnitude of the institution, the extent of the equipment, or the credentials of the instructors or the principal.

The cause of all this interminable discussion, this ever-increasing demand for efficient workmen, lies not in the fact that young men as they enter industry cannot make things and make them so they will be salable at some price, but rather in that these young people have been trained to be craftsmen rather than modern scientific workmen, and therefore are unadaptable, incapable of grasping modern ideals of workmanship, and cannot produce work on a profitable basis. How may we expect to remedy this condition unless those in authority have a sufficiently definite knowledge of what is being done to distinguish between the craftsmanship of bygone days and modern scientific workmanship?

We may build industrial, special, continuation, or what-not kinds of schools until we have duplicated our present system, and we shall yet be as far from solving this question of efficiency as we now are, except in so far as we teach in those schools the science of working solid materials rather than the processes.

What then are we to do? Simply get right down to a thoro study of the problem from this standpoint and determine what is essential to the teaching of the science and also determine what forms of work lend themselves to the illumination of the study of this science. There should not be the least objection raised by anyone to such an inquiry, altho there are many reasons for objecting to a superficial or partial investigation. For one not an expert in this line to make a proper study of the shop work of any school will require considerable time; and it will be found far better to visit a few schools and come away with the actual knowledge of what is being accomplished than to rush thru many schools and form erroneous conclusions, which I know to have been often the case.

We must not go into this study with our heads set in favor of some special method or model and dead set against some other. There is no question but that the set of models usually thought of as representing the Russian system was originally used to teach tool processes to the entire neglect of the science. Yet some of those models have been used with great success in teaching the science.

Permit me to make a few suggestions in regard to what constitutes authority in an investigation of school-shop work. If one wishes information in regard to teaching Greek, he goes to one who both knows Greek and knows how to teach it. If one wishes to know how to teach mathematics, he goes to one who both knows mathematics and also knows how

to teach that subject. Then may I ask you, as you pursue your investigation of school-shop work, to take with great caution the advice of those who neither know the subject-matter of school-shop work nor have shown any evidence of being able to teach even the most elementary lessons in this work.

I care not who they are nor how eminent are their positions as educators, if they wish to establish their ideas in regard to teaching this subject we must ask them to prove by some means that they have the requisite material from which to formulate such theories; and, when they wish us to accept their theories in refutation of demonstrated success by those actually engaged in this work, I caution you to hesitate before permitting the assumption of authority to override actual demonstrations. It is at this very point that most of our troubles entered. Trace the early work, and we will find that it is largely because of accepting the advice of those not familiar with the school-shop movement that the work lost its value, and we are by no means away from this same difficulty.

Today we hear much said about educational shop work in our regular public schools under the name of manual training, manual arts, and similar appellations. Usually the advocates of these kinds of work claim for them great educational values and also claim that they have not and ought not to have any industrial value.

If we trace the history of this kind of work and these claims, we shall learn that this work is simply the shadow of the real educational and industrial shop work as at first established, and that only after the utter worthlessness of this shadow as a preparation for industry had been demonstrated did its advocates crawl under cover by claiming that it was purely for educational values and that it should not be expected to yield industrial values.

I for one most seriously doubt the statement that there is educational value worth while in such work. If my experience counts for anything at all, the industrial value of school-shop work will keep pace with the educational value, and when the industrial value ceases all values worth the expense have ceased. To say that the work is educational is to attempt to cover up a failure. There is no such thing as educational manual training apart from industrial manual training. The very elements that are essential to give educational value are the very foundation values of industrial efficiency. Put these values into the work and you have the very best possible industrial education, tho it may be given in a regular school. Omit them and you have only educational bluff no matter by what name the instruction is called or where it is given.

My final message which I wish to leave with you is no longer to take the word of anyone in this matter but to make for yourselves the most thoro inquiry in regard to the values of the school-shop work as at present given in your own schools and also in other schools.

THE HEATING, LIGHTING, AND VENTILATING OF SCHOOL BUILDINGS

JAMES M. INGOLD, SECRETARY, BOARD OF EDUCATION, CEDAR RAPIDS, IOWA

Let me bring to your attention some palpable errors in school-building construction.

The outside appearance of the school building has perhaps received an undue amount of consideration. The architectural schools have taught schoolhouse planning from the outside-in instead of from the inside-out. Exterior decorations and embellishments have dominated, irrespective of interior results. The subjects of fenestration and orientation have been confused—and windows, chimneys, vent flues, cloakrooms, sanitary equipments, heating and ventilating apparatus, etc., have not been placed and operated in accordance with natural laws.

A few years ago some well-meaning individual announced that every schoolroom should receive sunlight at some time during each day. At first thought the theory sounded plausible, and many buildings have been designed accordingly. In order to obtain the proposed results, it was stipulated that the main corridors should extend north and south, being flanked with study rooms on either side. The assumption was that the rooms east of the corridor would receive the sunlight in the forenoon while the rooms west of the corridor would receive the afternoon sun. The actual working of these buildings is somewhat as follows: In the first place, every window in a building so designed would necessarily have to be equipped with unsanitary dust-catching window shades. On the east side of the building, these shades must always be drawn in the forenoon to prevent the sun shining in the faces of the pupils occupying this portion of the building, while the same precaution must be taken in the afternoon to protect the teacher and pupils in the west half of the building. Consequently, we find that direct sunlight has actually been excluded from the building entirely and that the only direct sunlight which has been permitted to enter the buildings during the entire day is the infinitesimal quantity that enters the windows at the south end of the corridor, and this during the noon hour when the building is vacated. It is a fact that the light effects in a building planned in this manner are perhaps better on a cloudy day than on days of sunshine because of excluded light on other days.

There is no single element connected with schoolhouse construction that plays so important a part as light. The work of the school calls for constant and strenuous use of the eyes, and this takes place during the formative period of the child when the overtaxing or abuse of the eyes works irreparable injury. Imperfect and unnatural lighting of schoolrooms has impaired the vision and destroyed the health of millions. *Why should these mistakes be continued?*

It has been demonstrated that disinfectants will not take the place of an intelligent practical system of continuous sanitary ventilation. The neglect properly to take care of these and of many other features of school-building construction amounts to criminal negligence as well as civic disgrace.

We believe that most pronounced steps have been made in school architecture within the past five years. A new type of building is taking the place of the hit-and-miss variety, even tho the latter is still being adopted in some localities. This new type of structure has been styled the unit system of school-building architecture and has been indorsed by educators and teachers who have investigated the merits of this better type of building. In general terms, the plan recognizes the individual schoolroom with its accessories (cloakroom and sanitary equipment) as a unit complete within itself. Therefore, if ideal conditions have been obtained in a single unit, the problem of a more perfect or larger building becomes simply a matter of duplication.

In the assembling of these units, a certain classification of the school building as a whole gives this result—simplicity, proportion, standardization, and utility thruout the building. The fundamentals of the unit system are applicable to every kind and any capacity of school building, from the one-story rural school up to the hundred-room five-story city school. This type of building permits of the same diversity of architectural embellishment to both interior and exterior as do any of the old types of structure. Entrances may be located on one or all of the four sides, so that buildings can be designed to front toward any desired point of the compass, conforming to any local conditions.

SCHOOLROOM VENTILATION UNDER THE UNIT SYSTEM OF CONSTRUCTION

The program for ventilation adopted by the unit-system type of building is one in which the circulation of the air is not confused with the heat program, and while all of the advantages of forced draft and compressed air are retained, yet the superheating coils in the basement plenum chamber together with its battery of deadly mixing dampers has been entirely eliminated. The fan and tempering coils are retained and assigned to the problem of circulation only. We believe that the theory of a maximum distribution of heat thru the medium of wall radiation located against the outer walls under the windows gives the most practical results. This wall radiation is divided into sections and controlled automatically.

The fact that we regard the subject of heat and ventilation as a part of a great architectural problem is emphasized by double windows with dead air space. The insulating value of dead air is well known, and double windows, besides effecting a saving in the quantity of fuel consumed, contribute to the more important feature of health by making possible the heating of the air to the least possible amount above the 70 degrees

required in the breathing-zone of the schoolroom so that the air may not be vitiated and the moisture extracted. There is little need of humidifiers or moistening devices if the natural laws pertaining to heat distribution are followed.

The unit system stipulates that in every instance the main corridor shall extend east and west and that the study rooms, which comprise approximately 60 per cent of the school building, shall be located north of the corridor. The remaining portion of the building, such as recitation, office, and rest rooms, auditorium and gymnasium, kindergarten, domestic-science, manual-training, and all other special rooms are located south of the corridor, where they may receive the advantages of direct sunlight. The auditorium, gymnasia, or the community-center feature, with ceiling usually one and a half or two stories in height, is provided with a generous system of skylights which parallel the corridor, admitting the direct rays of sunlight thru glass doors or partitions directly into the corridors on each floor. By this system of fenestration, the direct rays of sunlight are permitted to enter the very heart of the building and to flood all corridors with sunshine regardless of whether the building is one or five stories in height. No attempt is made to supply direct sunlight to the study rooms north of the corridors, but these rooms receive the steady uniform north light unhampered by window shades.

It will be observed that all pupils in the study rooms face toward the east and receive light over their left shoulders. Thus we have the maximum amount of north light, and at the same time have provided for the admission of direct sunlight in every portion of the building where it is most needed.

THE SANITARY FEATURES OF THE UNIT SYSTEM

The best effects in sanitation and hygiene have been reached thru the unit-system plan of sanitation. These results have been obtained thru the employment of a very simple and practical system of sanitary ventilation in conjunction with individual toilets. The cloakrooms are located between the study rooms and the corridor. The upper portion of both the north and south walls of the cloakrooms is composed of glass partitions. The entrance to each schoolroom from the corridor is thru a vestibule. This vestibule is a part of the schoolroom proper and is designed to avoid congestion and to reduce the floor space of the schoolroom unit.

The individual toilet rooms occupy a corner of the cloakrooms adjoining the ventilating ducts. Asperating coils are located in the sanitary vents in such a manner that an equal amount of air is exhausted thru the baseboard of each individual toilet. In the larger buildings, an exhaust fan may be used for this purpose, but in every instance the method of circulation employed for the sanitary system must be separate and apart from the forced draft in the schoolroom. The pull principle should be

employed for the sanitary equipment, while the push system should be retained for the schoolrooms, each acting supplementary to the other, yet operating absolutely independent of each other.

The advantages of the individual toilet in the cloakroom under the direct supervision of the teacher are numerous. I will mention only a few: (1) segregation in the toilet room is secured; (2) marking on the walls is a thing of the past; (3) absolute control over pupils by the teacher at all times is secured; (4) the sanitary equipment becomes a promoter of discipline instead of an agency of discord; (5) the elimination of mock modesty and the substitution instead of culture and refinement is obtained; (6) the individual toilet is more isolated in the cloakroom than in the stack arrangement on each floor level, or in the basement.

In the general plans of a variety of unit-system designs ranging from one room to eighty rooms, it will be seen that no excavation is contemplated except for boiler installation and air tunnels under the sanitary equipment. It will be at once apparent that we design no basements unless at request. If our entire layout is to be above ground it will be conceded that every part of the structure is capable of the highest possible development, and that the greatest latitude is allowed, thereby promoting a logical classification of the building as a whole.

The ample, spacious, sun-lighted corridors in the very heart of the building are an innovation which will meet the approval of every student of sanitation and hygiene. The compactness of the study-room units, taken together with the system of vestibule-alcoves, gives a convenient and economic layout that merits the approval of all. The recitation rooms and all special rooms covering every phase of educational activities may be located in the wings projecting toward the south, where every department is susceptible to direct sunlight and may receive its full quota. This portion of the structure as well as the combination auditorium-gymnasium-assembly with stage, dressing-rooms, and galleries may be of any stipulated dimensions. The flexibility of the sunshine portion of our building must appeal to everyone who appreciates the value of community work—likewise the ease with which the classrooms can be thrown together either in the original plan or later on so as to conform to changing school conditions.

The most popular school building of the future will be the one that will most readily adjust itself to the needs of the community which it serves. If there is any one thing in the unit-system theory of design that is emphasized more than another it is the fact that every feature of the modern school has been brought to the highest degree of efficiency in this adaptation to varied needs. There was a time when no kindergarten was required. The unit-system design accords the most scientific treatment to the kindergarten and its requirements. There was a time when no gymnasium was required. The unit system provides the widest possible latitude for the special uses which the gymnasia of the future will require. There was a time

when the school building was not burdened with the housing of mechanical drawing, manual training, domestic science, and other branches of vocational work. The modern school building must needs meet all these requirements and in addition must meet the requirements of community interests and social club life.

There must be a best way of doing everything. Why should not the statutes stipulate that certain things must be done and unless they are done then contractors and others cannot collect money for their work? Is there any reason why a school-board building committee should not be held liable on its bonds for moneys paid on buildings not constructed according to law? Is there any good reason why the general fundamentals necessary to produce a desirable school building should not be defined by statute?

The time has arrived when the use of combustible materials in school-building construction should be discontinued. The excess in cost of fireproof construction is so small that when the cost of upkeep and years of increased fire insurance premiums is considered, to say nothing of the advantage of the elimination of the fire hazard and the imperiling of innocent lives, we are forced to the conclusion that fireproof construction is a permanent investment and should not become an item of recurring expense.

Economy and utility should be the keynote for the modern school building, which should lead in the architecture of the community, in the elements of simplicity, dignity, and art, and in the aesthetic education of the public at large.

Dr. Kepford, the well-known white plague and health expert, has, after a thoro inspection of the unit-system buildings, estimated the increase of daylight efficiency to be at least 25 per cent in excess of the old type of structure. Dr. Kepford adds that the efficiency of the school as to sanitation and hygiene has received an increase in a ratio probably equal to or greater than that of light.

Consider with me, in closing, the possibilities of the individual, the true worth of the child, each without its duplicate in nature, each unique in itself, each a creature of vast possibilities. Shall we hamper one of these lives in development? Shall we handicap them in the responsibilies of life? Shall we minimize their possibilities of achievement by not giving them good physical conditions under which to prepare for the higher functions of life? I can hear you all say "No!" It is the will of every teacher, it is the yearning desire of every father and mother, it is the wish of every good citizen that a better type of school building be given the child in order to give to the community and nation a better type of manhood and womanhood, for the generation of the future will be according to the advantages given to this present generation, and education is never complete that does not bring out all as well as the best that is in the child.

DISCUSSION

S. A. CHALLMAN, state commissioner of school buildings, Minneapolis, Minn.—The paper just read emphasizes the desirability of a few well-founded and generally accepted standards as to schoolhouse construction. The writer of the paper has well said that economy and utility are the two main factors to be considered in the planning of a school building. I am inclined to reverse the order of these factors and consider utility of first importance. Economy is essentially a relative factor, since that which affords the greatest service is, after all, the most economical. These factors, however, need not exclude the attractive, for a pleasing exterior and a cheerful interior are more a matter of taste and design than of increased cost.

We must not forget that our public-school buildings leave an indelible impress upon the minds of the children who attend them. Their very appearance is an education in itself, with which each community and the nation at large must reckon. We speak rightly of school architecture and must not forget that architecture is one of the fine arts. We have no more right to violate the established principles of architecture than we have to violate the principles of hygiene or pedagogy. Our duty is to harmonize the various factors which enter into the problem and out of the whole produce a result which shall embody all that is true with respect to hygiene, mental growth, and aesthetic values.

This can be done only by recognizing certain established essentials. These essentials must be the outgrowth of intelligent observation. Their value will depend upon the relative importance of the advantages to be secured and the disadvantages which must be endured. No one man is likely to possess the wisdom which such selection entails. This department of the National Education Association is the natural sponsor for a movement looking forward to the ultimate establishment of such essentials as should be incorporated in all our school buildings. At present we are pursuing a policy of local and occasionally state direction of our school-building projects, and the results are about as harmonious as the results of our various marriage and divorce laws. What one judge seals the other sunders. We conclude to agree but find that we must disagree. The writer of the paper has made a very emphatic statement as to the advantages of north light in the schoolroom, and still many of us must disagree with him when all the factors of the problem have been considered. Let us have a commission which will go into this problem of schoolhouse construction with a view to winnowing the chaff from the wheat and then accept the findings of the commission until it reverses itself. The fire insurance companies have found this to be a happy solution of many of their difficulties, and the rules of the National Board of Fire Underwriters are generally accepted by architects and men in the building trades.

Some states have already enacted laws in regard to construction of schoolhouses. These laws vary considerably in detail, from Minnesota's simple statutory provision, which empowers the superintendent of education to make all rules in regard to schoolhouse construction, to Indiana's and Ohio's comprehensive codes, which include many details, the wisdom of which can be determined only by the actual results of a strict compliance with the law as enacted. Personally, I cannot help but feel that, until the essentials have been agreed upon, little can be expected from legislation which enters into details that may or may not be found ultimately to be of prime importance.

The present unrest as to the proper methods of ventilation would indicate that it is unwise to incorporate into the code of any state definite provisions as to the particular features which a system of ventilation must contain. On the other hand, a rule which may be altered in accordance with scientific deductions will have all the force of law, if authorized by statute, and still be elastic enough to allow for such modification as conditions will warrant. To some this may seem as allowing too much power to individuals or boards, but after all the administration of law is seldom more exacting than the personal convictions of the man or men charged with their execution.

The problems connected with schoolhouse construction depend primarily upon school organization. Definite class units affording maximum efficiency of instruction and units of floor space for the various subjects need careful consideration and should be fixed, not by academic discussion, but by scientific deduction. Every foot of space not required by the organization of the school is an economic waste and every needed foot denied is an indefensible blunder. The two factors of school organization and physical equipment are interdependent upon each other and must be harmonized in order to secure the proper results.

A STATE TEACHERS' EMPLOYMENT AGENCY UNDER THE SUPERVISION OF THE DEPARTMENT OF PUBLIC INSTRUCTION

J. M. MALMIN, SECRETARY, BOARD OF EDUCATION, BLUE EARTH, MINN.

When I first became interested in school management, back in the nineties, the secretary of the board of education received vast numbers of applications direct from teachers seeking positions, but in later years these direct applications to the secretary have been very few.

I began to wonder if this decrease in applications was due to the scarcity of teachers or if some other course had been taken by them to secure positions. Upon investigation I found that the teachers' agencies had prevailed upon many teachers thruout the state to enrol with them upon payment of a registration fee, while in addition a cash commission or note settlement was made with such agencies for 5 per cent of the entire first year's salary. A particular case that interested me was one in which we had secured a teacher in the middle of the school year at a salary of $75 per month. To my surprise the teacher so employed was asked to pay 5 per cent commission for the following one-half school year, upon re-election by our board. This made a commission of $37.50 net to the agency, besides the regular filing fee. In our opinion, this was an unjust charge as all the agency did in the case under discussion was to notify the teacher of the vacancy.

Payment of such commission works a hardship upon the teacher and eventually increases the expense of the district. Some may ask, "What interest have the districts in the private expenses incurred by the teacher, and are the teacher's affairs ours?" I would say that most assuredly the teacher's interests are our interests. He or she becomes a part of our district and should be considered one of us and anything that tends to increase high cost of living or causes additional expense to the teacher must eventually be borne by the districts thru increase in salaries which are in many cases insufficient.

So long as the teachers' agencies keep within their sphere and do not interfere in legislative affairs or school management, there can be no serious complaint to enter against them except as to their exorbitant charges. The fact that the teachers have listed with them, knowing the terms of the

contract, proves conclusively that agencies are necessary as a modern convenience in order to secure positions.

It does not seem good policy, however, from an economical standpoint, for a community or state to expend large sums preparing people for work so valuable to society as that of teaching, and, after their education is completed, to turn the finished product or the person so educated, principally at the expense of society, over to private institutions for profit to them, when the state without great expense to itself or to the community can conduct its own agency, as has been proven by the Minnesota Teachers' Employment Bureau established in 1913. In order that the proposition of establishing an agency should not meet with opposition from the Legislative Appropriation Committee, wherein most conflicts are centered, no provisions were made to finance the agency when the bill was passed. Nevertheless it has prospered beyond all expectations and, if the $3.00 filing fee can be used for expenses, the agency will be practically self-sustaining.

Among the advantages of a state agency, the following items may be cited: (1) Economy, as previously mentioned. (2) No frequent changes in positions are suggested in order to gain additional fees and commissions. (3) The manager is an experienced teacher, with knowledge of local conditions, and his recommendations may be taken safely without any additional expense of investigation. (4) The agency is conducted to promote the interest of the teacher and the district and not for private gain. (5) The applicants are not considered a commodity sold on commission basis, as stocks and bonds.

Judging from the many favorable comments from persons who are in a position to judge and from the director's report of the work of the state bureau and its still greater prospect for the future, it would appear that no state could well afford to neglect the opportunity of establishing an agency. What has been done along these lines in Minnesota may be done in other states. A failure can come only thru poor management or by the supporting of private interests rather than the interests of the state. We have no fear of this in our state, however, but if any report reaches you of the failure of any state agency you may lay the blame to the management or to lack of co-operation on the part of school authorities.

It is not a small matter, however, to secure the passage of such a bill, as the private agencies, like other private institutions, will do all in their power to retain their position and patronage. Consequently united efforts must be put forth by all interested.

In our case the president of the School Board Section of the Minnesota Educational Association was asked to appoint a committee of three to act as a legislative committee. As chairman of the committee, the first step I took was to secure able members who would draft and introduce the bill and do their utmost for its passage. Two senators were secured, one from

the city districts and the other from the county districts. The same plan was applied to the members of the House of Representatives. The next step was to confer with the state superintendent, the state inspectors, and the leading county and city superintendents having the welfare of the state at heart. Influential board members who were not present at the Minnesota Educational Association were also consulted. All did their part to aid in procuring the passage of the bill. In this connection, I must not forget to mention the press of the state, which so kindly advocated the passage of the bill by printing articles favorable to its passage. The legislators are in most cases fair and anxious to work for the advancement and interest of their constituents and the state at large, but we must not expect them to be as well posted on questions of school management as we who are in closer touch with the minor affairs. Consequently their attention must be called to such matters.

Copies of the bill may be had at any time and I am also sure that the Minnesota department of education will be pleased to aid you in every way possible, should you, in your respective states, undertake the passage of a similar bill.

THE SUCCESS OF A STATE TEACHERS' EMPLOYMENT AGENCY LAW AFTER TWO YEARS

E. T. CRITCHETT, ASSISTANT INSPECTOR, STATE HIGH AND GRADED SCHOOLS, AND DIRECTOR, STATE TEACHERS' EMPLOYMENT BUREAU, ST. PAUL, MINN.

At the outset I wish to correct any false impression that may have been given from the topic assigned to me upon the program, to the effect that our States Teachers' Employment Bureau has been in operation for two years. The fact is that the act authorizing the establishment of this bureau was approved April 25, 1913, and about the first of June the first steps were taken toward the organization and operation of such a bureau. The first registration was received June 23, 1913. Previous to this time, much interest had been shown by school boards, superintendents, and teachers, and many inquiries had been made as to the time when we could begin to serve them by naming teachers available for positions in various lines of work. This co-operation on the part of school authorities and teachers has been continued thruout the year during which we have been operating, and we feel that we have the good-will and support of all those whose co-operation is necessary in order to make successful a bureau of this kind.

Up to the present time, our total registration numbers eight hundred, divided as follows: rural, 61; grades, 305; high school, 230; special, 110; supervisory positions, 94. Out of this total of teachers registered with us, we have placed, directly, in the neighborhood of four hundred. One of

our greatest difficulties arises from the fact that after teachers register with us, altho at the time of enrolment they specifically agree to notify us when they have accepted a position, they fail to give any definite information as to the positions which they have accepted and such information does not reach us until some time after such acceptance. Thus it will be seen that it is exceedingly difficult to state the actual number of teachers we have placed.

It certainly is of value to teachers that statements regarding their credentials and their success in teaching should be collected and kept on file at a well-located central point and that this information should be available at any time to those seeking teachers. We are ready at all times to furnish, to those employing officers who may ask for the same, copies of statements on file regarding teachers registered with us. We have a definite and distinct understanding with those who give us this information that under no circumstances shall such information be given to the person about whom it is written.

The salaries of the teachers whom we have placed during the first year amount to at least $250,000, at the minimum estimate, and it will be seen that thru our service a considerable amount of money has been saved those teachers who have made use of our bureau.

By law a registration fee of $3.00 is payable at the time of registration, and payment of this fee entitles the person so enrolled to the services of our bureau for twelve months from the date of registration.

During the first year, receipts from this source have amounted to $2,400. Our expenses may be summarized as follows:

Clerical work	$100 a month—total	$1,200
Postage	50 a month—total	600
Printing and supplies		200
		$2,000

It will be seen that our receipts are amply sufficient for the running expenses of the office. The director is listed as state school inspector and his salary is drawn from another fund. Our office is located in the department of education and for that reason no rental expense is involved.

Our sole purpose at all times has been to serve the schools, and if we were unable to name a teacher whose qualifications seemed to meet the needs of the school where the vacancy occurred we did not hesitate to state that such was the case. During the fall of 1913, we could have placed at least one hundred and fifty teachers in the rural schools if such teachers had been registered with us. At no time during last fall were we able to furnish all the teachers needed for upper grammar-grade work.

It seems that this bureau can be of service to the state in estimating the needs of the public schools of the state, so far as the different classes of teachers are concerned. For example, we should state from our expe-

rience during the past year that at the present time there is in Minnesota a surplus of teachers who are prepared to do high-school work, and there is no doubt that many such teachers in the secondary-school field will be unable to find satisfactory positions in Minnesota for the coming year. There is an apparent surplus of teachers for the primary and lower intermediate grades, but the same does not hold true in the upper intermediate grades and the grammar grades. For the past two or three years a shortage had existed in the supply of teachers in several lines of industrial work, but the supply is now ample for all industrial lines and teachers can be furnished for all vacancies that are reported.

The question has frequently been asked whether this state bureau discriminates in any way in favor of the graduates of certain institutions. I wish to state emphatically that we have tried to carry out impartially the provisions of the act under which our bureau operates, which states that "any person having a certificate to teach in this state, or who has completed a course of study as required for the issuance of a certificate, or who may be found entitled to receive such certificate, and who is deemed to be a fit and capable person for teaching, shall be entitled to enrol with said State Teachers' Employment Bureau, and shall be entitled to the privileges and services of said bureau for the term of one year." Graduates of all of the normal schools in the state and from accredited courses of similar schools in other states, as well as of the smaller Minnesota colleges and of the University of Minnesota, have been registered and the majority of those so enrolled have been placed in satisfactory positions.

The question has also been asked whether the charge of favoritism might not arise when two teachers having the same or equal qualifications for a position are recommended by this bureau. In reply to this question, I would state that no such complaint has reached us and if such had been made undoubtedly we should have received such information.

In view of the number of teachers enrolled in our bureau and the number who have been located in satisfactory positions during this, our first year of service, we feel that this department has shown ample justification for its existence, and that it has been of great service to the schools of the state by bringing well-qualified teachers into communication with employing officers who desire to fill vacancies in their schools.

LIBRARY DEPARTMENT

SECRETARY'S MINUTES

OFFICERS

President—WILLIS H. KERR, librarian, State Normal School..... Emporia, Kans.
Vice-President—MRS. P. P. CLAXTON.....Washington, D.C.
Secretary—HARRIET A. WOOD, school librarian, Library Association of Portland..Portland, Ore.

FIRST SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The Library Department met in joint session with the National Council of Teachers of English, in Elks Hall, St. Paul, Minn., and was called to order at 9:00 A.M., with President Kerr in the chair.

In the absence of the secretary, Mary C. Richardson, librarian, State Normal School, Castine, Me., was appointed secretary *pro tempore*.

Matthew S. Dudgeon, secretary, Wisconsin Library Commission, Madison, Wis., read a paper on "The Library's Debt to Culture."

William B. Owen, principal, Chicago Normal School, Chicago, Ill., read a paper entitled "The Cultural Possibilities of School and College Libraries."

A Symposium on "Successful Experiences with Home Reading-Lists" followed. Papers were read by the following: Helen M. Baker, high school, Brownton, Minn.; Minnie E. Porter, State Normal School, Emporia, Kans.; and Franklin K. Mathiews, librarian, Boy Scouts of America, New York, N.Y.

Discussion: E. H. K. McComb, Manual Training High School, Indianapolis, Ind.; Miss Andrews, St. Paul, Minn.; Miss McBride, Worthington, Minn.; Miss Webster, North Yakima, Wash.; Miss Ritchie, West Texas Normal School, Canyon City, Tex.; O. S. Rice, state library clerk for Wisconsin, Madison, Wis.; Miss Meyers, Sheboygan, Wis.; Mr. Hibbensteel, State Normal School, Stevens Point, Wis.; E. R. Barrett, State Normal School, Emporia, Kans.; and Martha Wilson, supervisor of school libraries, State Department of Education, St. Paul, Minn.

SECOND SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

This session of the department was in charge of the Committee on Rural-School Libraries. It was held at the University Farm, and was called to order at 2:30 P.M., by Martha Wilson, St. Paul, Minn., chairman of the committee.

The following program was given:

Topic: Rural-School Libraries

"The Country Child in the Rural Library"—Josephine Corliss Preston, state superintendent of public instruction, Olympia, Wash.

"Rural Schools in Maine"—Mary C. Richardson, librarian, State Normal School, Castine, Me.

"Making the Library Earn Its Salt"—Willis H. Kerr, librarian, State Normal School, Emporia, Kans. (Printed in *Public Libraries*, Chicago, April, 1914.)

The Committee on Rural-School Libraries presented its report in three parts: The Book, the Teacher, and the Community. Martha Wilson, chairman of the committee, presented the first part, which was entitled "A Standard Foundation Library for a Rural School," and was prepared by Harriet A. Wood, school librarian, Library Association of Portland, Portland, Ore., and Walter Barnes, State Normal School, Glenville, W.Va.,

members of a subcommittee. The second part of the report was prepared and presented by Delia G. Ovitz, librarian, State Normal School, Milwaukee, Wis., and was entitled "Training of Rural Teachers in the Use of Books." The third part of the report, entitled "Community Service from the Rural-School Library," was prepared by a subcommittee composed of Elizabeth B. Wales, secretary, Missouri Library Commission, Jefferson City, Mo., and T. N. Carver, rural specialist, United States Department of Agriculture, Washington, D.C. This part of the report was presented by Martha Wilson.

THIRD SESSION—THURSDAY FORENOON, JULY 9, 1914

The Library Department met in joint session with the Minnesota Library Association and was called to order at 9:00 A.M., with Martha Wilson, president of that association, in the chair.

George B. Utley, secretary, American Library Association, Chicago, Ill., brought the greetings of that association to the department and to the Minnesota Library Association. He told of the advances in general library organization and referred especially to the many helpful school-library publications of the American Library Association Publishing Board.

The following program was presented:

"The Newspaper Morgue, the Library, and the School"—W. Dawson Johnston, librarian, public library, St. Paul, Minn.

"Libraries and Schools: Educational Co-operation"—Willis H. Kerr, librarian, State Normal School, Emporia, Kans.

"Normal-School Training in Library Methods"—Delia G. Ovitz, librarian, State Normal School, Milwaukee, Wis.

Miss Ovitz recommended that a committee be appointed by this department to co-operate with a similar committee appointed by the School-Library Department of the American Library Association on Standardizing the Course of Study in Library Instruction in Normal Schools.

Discussion: Willis H. Kerr, librarian, State Normal School, Emporia, Kans., and O. S. Rice, state library clerk for Wisconsin, Madison, Wis.

A motion was carried to appoint a Committee of Three, including Mr. Kerr, as recommended by Miss Ovitz.

The following committees were appointed by the president:

COMMITTEE ON RESOLUTIONS

W. Dawson Johnston, librarian, public library, St. Paul, Minn.
Delia G. Ovitz, librarian, State Normal School, Milwaukee, Wis.
Alice N. Farr, librarian, State Normal School, Mankato, Minn.

COMMITTEE ON NOMINATIONS

Martha Wilson, supervisor of school libraries, State Department of Education, St. Paul, Minn.
Mary C. Richardson, librarian, State Normal School, Castine, Me.
Marie A. Newberry, reference assistant, public library, New York, N.Y.

A delegate from the Mississippi Valley Historical Association, O. M. Dickerson, State Normal School, Winona, Minn., told of a Committee of Seven authorized by that association to standardize library work in connection with the teaching of history and asked that one member from this department be appointed to serve on that committee. Florence M. Hopkins, librarian, Central High School, Detroit, Mich., was appointed.

FOURTH SESSION—FRIDAY AFTERNOON, JULY 10, 1914

The meeting was called to order by the president of the department at 2:30 P.M.

Topic: High-School Libraries

Marie A. Newberry, reference assistant, public library, New York, N.Y., read a paper on "A Normal Budget for the High-School Library."

Discussion.

The Committee on High-School Libraries was requested to continue its investigation on the subject of more definite knowledge of what it costs to start and maintain a high-school library.

"High-School Branches of Public Libraries" was the subject of a paper presented by Purd B. Wright, librarian, public library, Kansas City, Mo.

"The Report of the Committee on Normal-School Libraries" was read by Mary C. Richardson, librarian, State Normal School, Castine, Me., as follows:

The work of the Committee on Normal-School Libraries for this year has been to prepare an exhibit on library work with schools and with children in all parts of the United States. This has been done largely by Ida M. Mendenhall, chairman, as she was the only member of the committee who could go to Washington and give her time to the work. The exhibit was collected thru the co-operation of the United States Bureau of Education and is in the permanent care of the Bureau. It may be borrowed for exhibit purposes by any educational organization. The committee expresses its appreciation to Miss Mendenhall and to all who have helped by sending material for this exhibit which we consider very illuminating and destined to have a far-reaching influence.

A rising vote of thanks was given Ida M. Mendenhall, library school, New York Public Library, New York, N.Y., chairman of the committee, for her work in preparing the school-library exhibit.

"The Report of the Committee on High-School Libraries" was then read. A vote of thanks was given to the chairman, Mary E. Hall, librarian, Girls High School, Brooklyn, N.Y., and her committee.

The Committee on Resolutions presented the following report:

1. *Resolved*, That we record our appreciation and thanks to the American Library Association Publishing Board for its encouragement of the school-library movement by the publication of several school-library documents.

2. *Resolved*, That we record our conviction that as a part of their educational equipment and staff, all schools should avail themselves of the same highly efficient library organization and service with which the general public is served. We regard the properly equipped and administered school library as fundamental in modern educational work; it facilitates, applies, and enriches the whole process of education. We therefore adopt the statement adopted by the American Library Association, as follows:

"In view of the rapid growth of the school library and the importance of its function in modern education, the following statement is presented for the consideration and approval of educational and civic and state authorities:

"First, Good service from school libraries is indispensable in modern educational work.

"Second, The wise direction of a school library requires broad scholarship, executive ability, tact, and other high-grade qualifications, together with special competency for the effective direction of cultural reading, choice of books, and teaching of reference principles.

"Third, Because much latent power is being recognized in the school library and is awaiting development, it is believed that so valuable a factor in education should be accorded a dignity worthy of the requisite qualifications. Further it is believed that in schools and educational systems the director of the library should compare in scholarship, talent, and teaching power, equally with the head of any other department of instruction in the same school; should be enabled, by having necessary equipment and assistants, to do progressive work; and should be recognized equally with the supervisors of other departments as an integral part of the educational system."

3. *Resolved*, That we extend our heartiest thanks to the St. Paul and Minneapolis librarians for their generous hospitality during our stay among them, and especially that our appreciation be extended to the Minnesota Library Association for the dinner given the members of the Library Department.

The Committee on Nominations recommended the election of the following officers for 1914–15:

President—Harriet A. Wood, school librarian, Library Association of Portland, Portland, Ore.

Vice-President—W. Dawson Johnston, librarian, public library, St. Paul, Minn.

Secretary—Lucile Fargo North Central High School, Spokane, Wash.

The report was unanimously accepted and officers declared elected.

The president appointed the following Committee on Standardizing the Course of Study in Library Instruction in Normal Schools to co-operate with a similar committee of the American Library Association:

James F. Hosic, head of the English department, Chicago Normal College, Chicago, Ill., *chairman.*

Martha Wilson, supervisor of school libraries, State Department of Education, St. Paul, Minn.

Willis H. Kerr, librarian, State Normal School, Emporia, Kans.

A motion was carried that the newly elected officers be requested to give careful consideration to the matter of holding a session of this department at the meeting of the Department of Superintendence or of obtaining a place for a paper on the school-library question on the program of that department.

The meeting was adjourned.

MARY C. RICHARDSON, *Secretary pro tempore*

PAPERS AND DISCUSSIONS

THE LIBRARY'S DEBT TO CULTURE

MATTHEW S. DUDGEON, SECRETARY, WISCONSIN LIBRARY COMMISSION, MADISON, WIS.

In discussing the library's debt to culture we define the cultured person as one who is sensitively appreciative of, and actively responsive to, the beauty and virtue which is within one's world. We assume that such culture makes men, makes them "capable, high-minded men," who will "make of themselves capable and sensible lawyers, merchants, politicians, artisans." We believe that a wide familiarity thruout life with the best literature is inconsistent with an entire absence of culture.

We urge that all children, in city and country alike, should have access to books, and that the book-hunger of rural communities calls aloud to all libraries and to all librarians.

We maintain that the book work must begin with the lowest grades thru which all children go when their minds are prehensile, before competing interests have appeared, when they are greedy for good books; that the child must be kept thruout his school life in close contact with what is worth while in literature. We insist that to give any but the best to a child is a crime. We urge that the school and the library owe it to every pupil to fix upon him reading and library habits that will follow him when he leaves the schoolhouse for the factory or shop. We hold that the librarian or teacher who knows not good books is impotent to impart the love of good books.

In considering the cultural possibilities of the library, we are not unmindful, however, of the value of the strictly utilitarian. If the library can aid in teaching the world's workers to do the world's work more effectively, it is a most important function. It is, of course, perfectly true that

if the pupil now in school grows into an adult unable to earn his living—a non-productive, non-earning individual—such cultural tastes or tendencies as may be his are of no use either to him or any one else. Neither do I fail to recognize the principle that to learn to do the simplest utilitarian service with complete thoroness and understanding has a distinct cultural value.

But, granting this, it is still true that "men are men before they are lawyers, or physicians, or merchants, or manufacturers, or mechanics; and, if you make them capable and high-minded men, they will make themselves capable and sensible lawyers, merchants, politicians, artisans."

DISCUSSION

SYMPOSIUM: SUCCESSFUL EXPERIENCES WITH HOME READING-LISTS

I. Helen M. Baker, high school, Brownton, Minn.—Miss Baker told how as teacher and librarian in a small town she had been able to give aid to pupils on Fridays after school. By informal reports upon reading from printed lists furnished by the library she kept in touch with the reading of pupils. Extra credit was allowed for such reading. Each year the English teachers made a new reading-list of books easily and certainly accessible to the pupils. At first these lists were given out with only general suggestions, but later special suggestions to individuals were made in the library. The lists included fiction, poetry, and biography, with the greatest number of titles in the first class.

II. Minnie E. Porter, State Normal School, Emporia, Kans.—Miss Porter described the experiment in home reading that she had carried out with success, aided by Miss Gretchen Flower, school department librarian in the library of the Kansas State Normal School. The basis of her report was "A List of Books Recommended by Our Class for Reading by Our Class," copies of which were distributed to the audience. Most of the young people in this first-year high-school class were from the country and had little background of reading. Some came from homes where there were genuine scruples against the reading of fiction by young people. The recommendations made by the pupils to each other are the result of four months' use of the books and facilities of the school department of the normal-school library, under the direction of Miss Porter and Miss Flower. The comments were selected by a committee of the class and were printed verbatim. By following the successive recommendations of these boys and girls as they learned to read books, a growing change in their taste may be detected. Miss Porter emphasized the need of fitting the reading to the class and the home environment of the individual pupil. Four girls recommended *Anne of Green Gables* as a "story of a small girl whose imagination was so great that it some times got the best of her; it is very comical and amusing." *College Years* was recommended by two boys: "Three men on bases, two out, three balls, last half of ninth inning." *Treasure Island* was recommended by a boy and two girls: "A story of buried treasure and brave men who go to seek it but discover that six-sevenths of the men on board are pirates and bad ones at that." *The Sky Pilot* was favored by a girl whose home was a lonely prairie farm: "About the western hill country and a little girl who always wanted to be outdoors; she loved to drive cattle."

III. Franklin K. Mathiews, librarian, Boy Scouts of America, New York, N.Y.—Mr. Mathiews related that the leaders of the scout movement, in their effort to bring back the spirit of the old-time home and to magnify the work of the child, had found it

necessary to arouse parents to be concerned in the outside activities of the child. These leaders also found that to make their organized work more effective they must influence the home-life of the scouts. Thus came about their offer to parents to furnish reading-lists for individual boys to fit the boy according to an analysis of the boy furnished by the parents. To counteract the influence of the trashy fiction for boys which still exists but disguises its harmful nickel quality under an attractive binding and a higher price, sometimes using the scout name, the Boy Scouts organization has established the *Everyboy's Library*, a growing collection of well-selected and approved books, sold at the uniform price of fifty cents per volume. The first twenty-five titles are fiction, but the list will grow into other fields. Thus the boy-scout list, selected wisely by experts, can be relied upon by all purchasers, and this list will offer a very successful and practical solution of the problem of selecting home reading.

THE COUNTRY CHILD IN THE RURAL LIBRARY

JOSEPHINE CORLISS PRESTON, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, OLYMPIA, WASH.

The country child to me means the child of isolation, because the twentieth-century country school is, in many instances, a school with few pupils. Isolation is the dreaded problem in country life today. The city attractions and the large land holdings have brought us a nation-wide stay-on-the-farm movement. It was my privilege to work for a number of years as county superintendent of schools, and I made many visits to the isolated rural schools and thus personally met the country boys and girls.

I remember one morning in visiting a country school I listened to an interesting reading-lesson on Hawthorne's *The Great Stone Face*. The boy who read this lesson, with his teacher, enjoyed and manifested a deep interest in the picture of the boy growing up under the influence of a high ideal. The granite profile on the mountain side, which he sees each morning from his cottage door, expresses to him what is best in human character. He comes to love it, and loving it grows to be like it. The country boy, who was the only one in his class, seemed to forget his isolation and lack of classmates in his intense interest in learning of the boy in the story. He felt inspired as the result of the companionship with the great and the good as he and the teacher took turns in reading paragraphs from this beautiful story. *The Great Stone Face*, with its underlying allegory, is an incentive not only to the young to seek that which is noble, but to those who are responsible for the training of the young to see that a right environment is provided for these charges.

Our country schools especially need a library of the world's best literature, because in these books we find a world full of boys like Robinson Crusoe, with whom we may build a stockade, or our boys may care to roam in the woods with Hiawatha, or sail the seas with Sindbad, or play at football with Tom Brown. The city boy's mother spends much thought on the associates for her son or daughter. Many times the neighbor's children

do not seem quite good enough. One is polite but untruthful, another good-natured, another rowdy, still another has no visible virtue, but a generous allotment of original sin. Each neighbor is, in turn, equally critical, and many times thoughtful mothers and fathers come to realize that there are no ideal children from whom to choose companionship. They look to books to guide and overcome the evil influence of intimate city companionship.

The country boy's mother does not need this world of books and boys because of the many playmates who claim so much from her boy, but because, if she has neighbors, they are usually of such a distance that, except thru the school recess or noon intermission, or trips going to and from school, country children are not thrown much in contact. In fact, our twentieth-century "little red schoolhouse" is not crowded with pupils, and we find too often a few boys and girls with little to develop a school spirit. In this type of school the teacher needs to give the best that is in her, because she must make up to the boy and girl much that they lack thru a larger association with the boys and girls of their own age. The mother and father realize this, and, in their effort to supply their boy and girl, they turn to the same books that help the city father and mother, and they encourage association with Hiawatha, Tom Brown, Robinson Crusoe, Sindbad, Galahad, and other notable youths in the world's literature.

From these boys and girls in our best books, the country child will receive lessons in thoughtfulness, bravery, manliness, and straightforwardness. The country child finds comfort in these books of noble companionship. The country child depends on the school library, then, very largely for companionship and inspiration. The environment is not attractive in many parts of our rural communities, and the isolation of the farm furnishes an opportunity for wider reading if it is properly guided. In this day, when our counties are furnishing circulating libraries, our state libraries carrying on extension work, and even our city centers planning to carry out a county-wide extension library movement, no boy need live without his playmates or his boon companions, for he finds them in *Hiawatha*, in *Robinson Crusoe*, in the *Swiss Family Robinson*, the *Knights of King Arthur*, and in many other books of standard worth.

Some believe that the taste for reading comes as a gift of the gods. This is only partly true. It is true just as far as that a generation of culture may be expected to produce in the child an aptitude, which, under favorable conditions, will develop into taste; but the corollary is not true, that the child who is born without this gift is doomed to barbarism. He simply must work harder and will be in the end stronger for the effort.

We who are interested in the country child must see that he becomes familiar with the best literature adapted to his widening range of thought in the early years of his school life; and despite his ancestry we shall find taste for the best that the world has to offer him.

REPORT OF COMMITTEE ON RURAL-SCHOOL LIBRARIES

MARTHA WILSON, SUPERVISOR OF SCHOOL LIBRARIES, STATE DEPARTMENT OF EDUCATION, ST. PAUL, MINN., CHAIRMAN

I. A STANDARD FOUNDATION LIBRARY FOR A RURAL SCHOOL

(PREPARED BY HARRIET A. WOOD, SCHOOL LIBRARIAN, LIBRARY ASSOCIATION OF PORTLAND, PORTLAND, ORE., AND WALTER BARNES, STATE NORMAL SCHOOL, GLENVILLE, W.VA.)

The committee has compiled a list of 122 titles because it seemed that a short list would be most helpful to the average country-school teacher. If he has no library, he can start one with this list better than with a longer one, since only the choicest books are given. If he has a small library, this list will surely suggest additions. If he has a large library, he will need a longer list than the committee can compile as a foundation.

Of the 122 titles, about 60 are "literature" books, 40 are "information" books for the children's reading, and about 20 are reference books, most of them suitable for both pupil and teacher. The fear that the price would prevent the purchase of important titles has led to the reluctant selection in some cases of inexpensive editions.

The books are graded according to the reading interests of children: one to three, primary; four to six, intermediate; and seven and eight, advanced. In general, all the children within a section will enjoy the same book. An exception to this rule is made in regard to the first-grade pupils. The mechanical difficulties of learning to read make it necessary to select books for them that third-grade pupils would consider too infantile. Younger pupils will listen with interest to older books if read aloud, and upper-grade pupils will find much of value in the simpler books.

GENERAL

Author	Title	Publisher	Price
Bryant	How to tell stories to children	Houghton	$1.00
Cabot	Ethics for children	Houghton	1.25
Champlin	Young folks' cyclopedia of common things, 3d ed.	Holt	3.00
Champlin	Young folks' cyclopedia of literature and art	Holt	3.00
Champlin	Young folks' cyclopedia of persons and places, 6th ed.	Holt	3.00
Evans and Duncan	Farm life readers, vol. 4	Silver	.45
	vol. 5		.50
	Everyman encyclopedia, 12 vols., reinforced cloth	Dutton	8.00
Schauffler	Arbor day	Moffat	1.00
Schauffler	Christmas	Moffat	1.00
Schauffler	Thanksgiving	Moffat	1.00
Wallace	Uncle Henry's letters to the farm boy	Macmillan	.50
	World almanac (paper), edition for current year	Press Pub. Co.	.30

Books for First Grade

Author	Title	Publisher	Price
Blaisdell	Boy Blue and his friends	Little	$0.40
Bryce	Child-lore dramatic reader	Scribner	.30
Free and Treadwell	Reading-literature: primer	Row	.32
Free and Treadwell	Reading-literature: first reader	Row	.36
Lucia	Peter and Polly in summer	Amer. Bk. Co.	.35

Fairy and Folk Tales, Fables, Myths, and Legends

Grade	Author	Title	Publisher	Price
4–8	Aesop	Fables; selected by Jacobs	Macmillan	$1.50
4–6	Andersen	Stories	Houghton	.40
4–6	Arabian Nights	Stories from the Arabian nights	Houghton	.40
4–6	Brown	In the days of giants	Houghton	.50
4–6	Carroll	Alice's adventures in Wonderland and Through the looking-glass	Grosset	.50
4–6	Collodi	Pinocchio	Ginn	.40
1–6	Grimm	German household tales	Jacobs	1.00
7–8	Hawthorne	Wonder-book and Tanglewood tales	Jacobs	1.00
4–6	Jacobs	English fairy tales	Burt	1.00
7–8	Kingsley	The heroes	Ginn	.30
4–6	Kingsley	Water babies	Dutton	.50
7–8	Lamb	Adventures of Ulysses	Heath	.25
4–6	Lang	Blue fairy book	Longmans	1.00
4–6	Mulock	Little lame prince	Heath	.30
1–3	Perrault	Tales of Mother Goose	Heath	.20
4–6	Pyle	Some merry adventures of Robin Hood	Scribner	.50
4–6	Ruskin	King of the Golden river	Heath	.20
4–6	Scudder	Book of legends	Houghton	.25
1–3	Scudder	Book of fables and folk stories	Houghton	.45
7–8	Stevens and Allen	King Arthur stories	Houghton	.40
4–6	Swift	Gulliver's travels	Heath	.30

Poetry

Grade	Author	Title	Publisher	Price
7–8	Bryan	Poems of country life	Sturgis	$1.00
4–8	Chisholm	Golden staircase. School ed.	Putnam	1.00
1–3	Hazard	Three years with the poets	Houghton	.50
4–6	Lear	Nonsense books	Little	2.00
Ref.	Longfellow	Complete poetical works. Autograph ed.	Houghton	1.00
7–8	Montgomery	Heroic ballads	Ginn	.50
1–3	Mother Goose	Mother Goose, illustrated by Kate Greenaway	Warne	.60
7–8	Shakespeare	Merchant of Venice. Ben Greet ed.	Doubleday	.60
1–3	Stevenson	Child's garden of verses	Rand	.50
1–3	Waterman	Graded memory selections	Educ. Pub. Co.	.25

Stories

Grade	Author	Title	Publisher	Price
7–8	Alcott	Little women	Little	$1.35
4–6	Aldrich	Story of a bad boy	Houghton	.50
7–8	Andrews	Perfect tribute	Scribner	.50
7–8	Blackmore	Lorna Doone	Crowell	1.50
7–8	Bunyan	Pilgrim's progress	Ginn	.30
7–8	Cooper	Last of the Mohicans, illustrated by Boyd Smith	Holt	1.35
4–6	Defoe	Robinson Crusoe	Jacobs	1.00
7–8	Dickens	Christmas carol and Cricket on the hearth	Macmillan	.25
4–6	Dodge	Hans Brinker	Grosset	.50
4–6	Eggleston	Hoosier school-boy	Scribner	.50
4–6	Greene	Pickett's gap	Macmillan	.50
7–8	Hale	Man without a country	Ginn	.25
7–8	Hughes	Tom Brown's school days	Harper	1.50
4–6	Page	Two little confederates	Scribner	1.50
7–8	Scott	Ivanhoe	Lippincott	1.50
4–6	Smith	Jolly good times	Little	1.25
4–6	Spyri	Heidi	Ginn	.40
7–8	Stevenson	Treasure island	Jacobs	1.00
7–8	Twain	The prince and the pauper	Harper	1.75
7–8	Twain	Tom Sawyer	Harper	1.75
7–8	Wiggin	Rebecca of Sunnybrook farm	Grosset	.50
4–6	Wyss	Swiss family Robinson	Jacobs	1.00
4–6	Zollinger	Widow O'Callaghan's boys	McClurg	1.25

Animal and Nature Stories

Grade	Author	Title	Publisher	Price
1–3	Brown	Plant baby	Silver	$0.48
7–8	Brown	Rab and his friends	Heath	.20
4–6	Eddy	Friends and helpers	Ginn	.60
7–8	Harris	Nights with Uncle Remus	Houghton	1.40
7–8	Kipling	Jungle book	Century	1.50
4–6	Kipling	Just so stories	Doubleday	1.20
4–6	Long	Wood folk at school	Ginn	.30
1–3	Potter	Tale of Peter Rabbit	Warne	.50
4–6	Seton	Lobo, Rag and Vixen	Scribner	.50
4–6	Sewell	Black Beauty	Jacobs	.30
4–6	Weed and Murtfeldt	Stories of insect-life, vol. 1	Ginn	.25
		vol. 2		.30

Arts and Sciences

Grade	Author	Title	Publisher	Price
Ref.	Bancroft	Games for the playground	Macmillan	$1.50
7–8	Barstow	Famous pictures	Century	.60
1–3	Beard	Little folks' handy book	Scribner	.75
4–6	Benton	Little cookbook for a little girl	Page	.75
4–6	Fairbanks	Home geography for primary grades	Educ. Pub. Co.	.60
7–8	Forman	Stories of useful inventions. School ed.	Century	.60
Ref.	Griffith	Essentials of woodworking	Manual Arts Press	1.00
Ref.	Holden	Real things in nature	Macmillan	.65
Ref.	McGlauflin	Handicraft for girls	Manual Arts Press	1.00
4–6	Miller	First book of birds. School ed.	Houghton	.60

Geography

Grade	Author	Title	Publisher	Price
4–8	Allen	Industrial studies: Europe	Ginn	$0.80
4–8	Allen	Industrial studies: United States	Ginn	.65
4–6	Carpenter	Asia	Amer. Bk. Co.	.60
4–6	Carpenter	Europe	Amer. Bk. Co.	.70
4–6	Carpenter	How the world is clothed	Amer. Bk. Co.	.60
4–6	Carpenter	How the world is fed	Amer. Bk. Co.	.60
4–6	Carpenter	How the world is housed	Amer. Bk. Co.	.60
4–6	Carpenter	North America	Amer. Bk. Co.	.60
4–6	Carpenter	South America	Amer. Bk. Co.	.60
4–6	Chamberlain	How we travel	Macmillan	.40
4–6	Chamberlain	South America	Macmillan	.55
4–6	Chamberlain	North America	Macmillan	.55
7–8	Hall and Chester	Panama and the canal. School ed.	Newson	.60
1–3	Shillig	Four wonders: cotton, wool, linen, silk.	Rand	.50

History and Biography

Grade	Author	Title	Publisher	Price
7–8	Antin	Promised land	Houghton	$1.75
7–8	Baldwin	Abraham Lincoln	Amer. Bk. Co.	.60
4–6	Baldwin	Fifty famous stories retold	Amer. Bk. Co.	.35
Ref.	Brown	Epoch making papers in United States history	Macmillan	.25
4–6	Eggleston	First book in American history	Amer. Bk. Co.	.60
1–3	Eggleston	Stories of great Americans for little Americans	Amer. Bk. Co.	.40
Ref.	Elson	History of United States	Macmillan	1.75
7–8	Franklin	Autobiography	Houghton	.40
Ref.	Gulliver	Friendship of nations	Ginn	.60
Ref.	Haskin	American government. School ed.	Lippincott	.80
4–6	Pumphrey	Pilgrim stories	Rand	.45
7–8	Tappan	Old world hero stories	Houghton	.70
7–8	Warren	Stories from English history	Heath	.65

II. TRAINING OF RURAL TEACHERS IN THE USE OF BOOKS

DELIA G. OVITZ, LIBRARIAN, STATE NORMAL SCHOOL, MILWAUKEE, WIS.

The school library presents three problems: first, the organization and administration; second, the training of pupils to know and love good literature; third, the training of pupils in the effective use of books. The third of these problems should, I believe, be given first place in importance. While it is necessary for a large library to be cataloged, if a choice had to be made between a teacher who could catalog and one who knew books, I should unhesitatingly take the latter. Once teach a pupil to use books as tools and you have given him a good start on the road to knowing and loving good literature.

I have been asked to discuss the training which rural-school teachers should have in the normal school, county training school, agricultural high school, or teachers' training department of the high school that will enable him to train the pupils of the rural community in the effective use of books as tools.

In his essay on "Books and Libraries," James Russell Lowell writes with cheerful optimism: "All that is primarily needful in order to use a library is the ability to read." The phrase is so neat and so plausible that it is a pity that, for practical purposes, it is more likely to prove false than true—as false, let us say, as that knowing how to drive a nail is all that is necessary to make a good carpenter. As a matter of fact, there are a good many people who never have learned and never will learn even the rudiments of the art of using a library—that is, of so using it as to get from it just the special knowledge that they are seeking, and, what is more, getting it in a minimum of time. Lowell, of course, was speaking purely from the standpoint of the man of letters: he was thinking not of any one kind of library, public or private, general or technical, but just of libraries in the abstract.

But it is not at all in this sense that the phrase "how to use a library" is employed in the present paper. Our schools and colleges have kept pace with educational progress in almost every line of work except that of training pupils to find and use intelligently the material that is all about them. But it is never too late to learn. I quote from John Cotton Dana on the subject:

> In our colleges and technical schools little is taught of the world of print, very little. Most colleges spend more on gymnasiums than on print, and far more on machines, chemicals, retorts, and dynamos than on any laboratory of printed things. This seems incredible but it is true. The printed record of man's thoughts and deeds in every field—nothing is more important in the world. How to use the world's accumulated knowledge down to and including what was learned and printed yesterday—no learning can be as important as that. Yet, this is not taught well in the colleges. It is not even in the curriculum, save in rare cases and in minute quantities. Of course, if the colleges do not teach all this, the graduates do not when they in turn become teachers in high and

normal schools; and, therefore, the common-school teachers, coming from the normal schools, do not; and, therefore again, the boy is not taught it when he goes to school; and, therefore, once more, when the boy gets into business, he does not readily learn that in the world of print must be the very information that will help him, that will shorten his processes, prevent foolish experiments, and guide him straight to the end he wants to reach.

If it is important that high-school teachers receive this instruction, it is a thousand-fold more important that the rural teacher receive it. The high-school teacher will usually have a well-equipped public library at her disposal; when questions come up which she cannot answer, she can turn her unsuspecting pupil over to the librarian. In the rural community, however, in which there is no other source than the school from which parents and children may secure information, it is most important for the teacher to have a broad knowledge of books, magazines, and pamphlets, and to know where to get all material on any subject that might come up for discussion either in the school or in the community. To too many teachers is the library of their own school a closed book. Teachers read, but many of them read for entertainment only. The teacher who goes into the rural community will find an intensely practical class of people, who as a rule read very little. It is her great privilege to bring to these farmers and their children the books that will make them better farmers—bulletins explaining how to make all farm operations more profitable—books that will make them masters of their problems. But all too often the teacher's training has not been such that she can render this service.

For the sake of getting at something definite as a basis for discussion, I have outlined a ten weeks' course in the use of books which I think should be required of every rural-school teacher: this has been tried out with success for several years:

First, a general talk on the importance of training in the use of books and on the scope of library work, with special emphasis on the helpfulness of a library in continuing the education of the individual; explanation of the scheme of classification showing the main classes with some of the subdivisions used in our library; study of the floor plan of the library with attention to the location of the different classes of books.

Then follows an explanation of the card catalog with the various forms of cards used; study and comparison of the dictionaries, encyclopedias, and special reference books; periodical literature, its value and importance; the value and use of the magazine indexes; public documents, value in school work, sources, methods of filing; children's books, what constitutes a good edition (paper, printing, binding, illustrations); the parts of a book, their uses, their position in the book, abbreviations used in books; helps in book selection; value of a course in reference work for the grades and high school.

Work is outlined for each grade, lesson-plans written, and practice in presenting the work is given.

Finally all the agencies that stand ready and willing to help the teacher, such as library commissions with traveling libraries, the university extension division with its package library designed to meet the demands of students along all lines, state libraries, experiment stations, and public libraries, are discussed. We have a traveling library at the school for the purpose of demonstrating the manner of obtaining the library, how it may be used, and how the books are charged.

In connection with this work, a rural-school library, not a model one, but a real one, is being cataloged. We are fortunate in being able to secure at any time a library in the county that needs cataloging; the county superintendent conveys it to our school. All the mending, labeling, accessioning, and cataloging is done by the pupils; this, I feel, is the very best practice possible. The "Township Library List" of our state is used as a textbook for this work.

So much for the outline. It is impossible in this limited time to go into detail as to the method of presenting the various topics. After each new subject is discussed, a set of problems is assigned the student; these problems necessitate the handling of the tools discussed. In the discussion of reference books, I invariably start out with a set of questions, the answers to all of which may be found in the dictionary. For example:

1. Who was Becky Sharp?
2. When did Bismarck die?
3. When was Oklahoma admitted as a state?
4. What is the meaning of the phrase, "Esprit de corps"?
5. What is the Monroe Doctrine?

I say to the class, "I do not care for the answers, but where would you refer a seventh- or eighth-grade pupil for the answer, should he ask you any or all of these questions?" The fact that not more than 10 or 15 per cent of the entire class ever receive a passing grade shows very clearly that the graduates of high schools are not familiar with the resources of the dictionary. The next day another set is given, to be reported on the following day, which probably necessitates the use of the *Statesman's Yearbook*, the *World's Almanac*, and possibly a book of quotations. Thus each day's work adds a new book of reference.

We endeavor to make our questions such that they dovetail into the work being done by the teachers in the other departments, in order that from the start the students may be able to see the practical value of the work. Sometimes the students are required to write up the answers, but more often only to name the sources; it is always the source that we emphasize. This is training that will make the student alert and able to stand on his own feet and answer his own questions for himself.

Sometimes the problems are all based on current events; again a set is given, "Who's who and why," consisting of a list of prominent men and women of the present day. Much interesting and amusing information

is brought here. For example, P. P. Claxton is a novelist, author of *Little Lord Fauntleroy;* William Chandler Bagley, keeper of curios, London; M. V. O'Shea, an Irish dramatist—all this and much more from high-school graduates. Plainly their education has not acquainted them with the men and women who are today doing constructive work in education.

When I am sure the students are fairly familiar with the resources of the dictionary, *Statesman's Yearbook*, *World's Almanac*, *Bartlett's Familiar Quotations*, *Brewer's Handbook*, the *Blue Book*, the *Reader's Guide*, and possibly two or three others, we begin to get acquainted with the reference books in the particular field in which the student is to teach. Those who intend to teach in a rural community are introduced to *Bailey's Cyclopedia of Agriculture* and *Cyclopedia of Horticulture*, yearbooks of agriculture, farmers' bulletins, publications of experimental stations, and a group of inspirational books such as Field's *The Corn Lady*, Carney's *Country Life and Country School*, Eggleston's *Hoosier Schoolmaster* and *Hoosier School Boy*, Grayson's *Adventures in Contentment* and *Adventures in Friendship*, and others adapted to the community needs and bearing upon the farm and the farmer, upon his occupations, his home, and his daily round of duties. Always we emphasize the fact that the teacher must study the community and be of practical service to the people in it. A set of questions similar to these is then given:

Where will you find material on:

1. How to raise alfalfa
2. How to build a silo
3. Rotation of crops
4. Sweet clover
5. Canning fruit
6. Tobacco-curing and marketing
7. Means of improving the soil
8. Spraying
9. Babcock test
10. Weeds
11. Birds of value to the farmer
12. Use of concrete on the farm
13. Good roads
14. Draining wet places
15. Poultry-raising
16. Bread and bread-making
17. Modern conveniences for the farm home
18. Preparation of vegetables for the table
19. Care of eggs

Some fifty or more subjects are listed, students suggesting subjects in which they are interested. After a general discussion as to possible sources for material, each student is asked to select any one of these in which he is the most interested and write a long theme on it, at the close of which he lists all the sources consulted. As much of this material is treated in public documents, the student begins to realize the value of these

publications and gets his first practical lesson in how and where to procure these documents, as well as other inexpensive reference material.

Rural-school teachers above all must become acquainted with the material which will enable them to keep their libraries up to date with the least expense. Too much emphasis cannot be placed on the value of public documents, national, state, and municipal, the value of bulletins and monographs from educational institutions, and pamphlets from big manufacturing concerns. These last, while sent out as advertising, are valuable acquisitions to the small library. For example, the International Harvester Company sends out a little bulletin, *For Better Crops*, in which appear splendid chapters by experts on "Care and Protection of Farm Equipment," "Wheat Crop," "Corn Crop," and others. Another pamphlet by the same firm, called *Golden Stream*, gives the leading dairy breeds, tells how to care for dairy products, etc. Proctor & Gamble Company send out a bulletin on *Approved Methods for Home Laundering*, which is very valuable in a rural community where the laundering is done at home. Railroad and steamship guides are another valuable source. This is material which it will pay the teacher to know about. We supply students with mimeographed lists of such material which may be had for the asking.

Of course every teacher will not want all of the material we discuss. We always try to impress upon them the importance of getting acquainted with the farmer, of studing the community, and of knowing the needs, and always and forever trying to co-operate with agencies, which are already established, such as farmers' clubs, boys' and girls' clubs, of trying to forward the cause of good farming, and of being constantly on the alert to see what other teachers have found successful.

Frankly, if I were a rural-school teacher I should not be so much interested in whether or not a child read the classics, but I should be tremendously interested in finding out every child's hobby, whether it were poultry or orchards, bees or dairying, and, having found out, I should help him to all the books available on that subject, so that when he leaves school he may have enough interest and enthusiasm for that one thing to be able to make more of a success along that line than his father did before him.

If we want the library to be the great continuation school for boys and girls we must early acquaint them with its resources. Last winter I had the opportunity of working in a social-center library. At first the men and boys looked askance at the library and passed by the door to go to the poolroom, billiard-room, and any one of the several other activities in operation. Gradually, however, they began to drop into the library to look at the daily paper. We set about to discover the various occupations of these men and the next time they came in had books relating to their work for them to examine. In two short months we had between thirty-five and forty men coming regularly once a week for technical books. One

carpenter said to me, "I didn't know a library had books on carpentry, I thought they were all love story books." And another man said he had found out that the "library ain't only to brag about."

As soon as the teachers realize how tremendously the library can supplement and vitalize their teaching, the libraries in the rural school will grow and the right use of the material will follow.

How shall this training be given in the rural schools? The geography, history, and language classes offer splendid opportunities for the work. The opening exercises may be utilized. The old game of "stand up and spell down" may furnish the model on which to conduct an exercise in reference work. After a pupil has had the various tools explained to him he must learn to use them by being referred to them not once but many times. Let the teacher begin referring to them the first day of school and keep it up every day of the year.

We follow a hard-and-fast rule in our library: we never answer a question for a student that he can answer for himself. Many times when students apply for help and we are driven just at that minute, the easiest possible means of getting rid of them would be to answer their questions; but we want our students to have the ability to stand alone and help themselves when there is no one at hand to help them. Our question to an applicant for help is, "Where have you looked?" We do this to familiarize him with authors and get him out of the red, blue, and green book habit. Many times he is on the right track. If he is not, we set him aright by giving suggestions as to the particular book in which an answer might be lurking, and always we try to keep an eye on him until he has finally found the information desired. The next time a similar question comes up, it will be solved with less effort, and the next time almost automatically. The teacher will soon discover that these lessons are time-savers rather than time-consumers, and the pupils will be forming library habits which will hold them after their school days are over.

The teacher should be so thoroly saturated with her subject that the minute a question comes up she will know whether the card catalog, the reference book, or the magazine will be her surest source, and she should endeavor to transmit that power to her pupils. Many of you here have spent hours in searching for a bit of information you might have found in five minutes if you had been trained in school to know your tools.

Without this training, the librarian, teacher, and pupils are handicapped in their work and the library fails of its greatest usefulness. Such training is infinitely more valuable in later life than knowing a few textbooks from cover to cover.

My plea in closing is that rural teachers be so trained in the use of books that the rural library will be the true center of the community.

III. COMMUNITY SERVICE FROM THE RURAL-SCHOOL LIBRARY

(PREPARED BY ELIZABETH B. WALES, SECRETARY, MISSOURI LIBRARY COMMISSION, JEFFERSON CITY, MO., AND T. N. CARVER, RURAL SPECIALIST, UNITED STATES DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.)

Your committee approached the subject first from the point of individual service and endeavored to secure data for gauging the possibility of present service in the issue of books to adults in the community from the library of the school. To do this the old method of a list of questions was followed.

This list of questions was sent to the state superintendent in every state in the union and a supplementary request was sent to each library commission. Up to June 20 answers had been received from twenty-eight states. The tabulation of the returns showed most inadequate records of the rural-school libraries. Three superintendents frankly wrote that they had no records that would give the information. Many estimates were given and in states from which two reports were received the opinions of the library commission and state superintendent were frequently at variance. The states answering indicated that the rural problem as such exists largely in the northwest, middle-west, and southern states. Conditions on the Pacific Coast and in the northwestern states show special features which bear differently upon the problem of the rural-school library. (See appendix for tabulated statement.)

In answer to the question regarding the number of books in rural-school libraries suited to adult circulation, a percentage was shown, from one-tenth to one-half of the schools having enough books; out of twenty-one answers to the questions concerning the kind of books, only six believe the rural schools are likely to have the books needed; two say the books have been selected with too much reference to the adult reader (New York and Virginia). The question of management evoked twenty-three answers, twenty of which mentioned the teacher as the distributing officer. In most cases, it was held the teacher should do the work out of school hours. The common opinion seems to be that the school board would be justified by the opinion of the community in encouraging such work by the teacher; two states thought the board might object to such use of the school library (Missouri and South Dakota); two others thought the community opinion would not justify such work at present (Minnesota and Virginia).

On account of the small proportions of the answers received, your committee does not believe that satisfactory conclusions can be drawn from the questionnaire regarding the ability of the rural school to undertake the work. It appears, however, that the present condition of the rural schools does not fit them to be the center of this extension work if it is to be done efficiently. The constant tendency, however, to better the rural

school, to secure a more permanent teacher for the rural school, as well as to develop the consolidated school for the rural district, holds out considerable hope for the future, and we hold the ideal condition in mind in making the following suggestions.

An effort should be made to develop this service from the rural-school library along definite community lines rather than in the direction of individual culture. Let the teachers get in touch with the county agricultural agent and the state college of agriculture. A good consulting committee might be made up of the county superintendent of schools, the county agricultural agent, and the secretary of the local farmers' association.

Get some of the free bulletins concerning agricultural problems. Gather the district school families at the schoolhouse and read from one of these bulletins of method. Cases have been known where much interest has been taken in such reading by those who heard it. Disagreement may be discovered and discussion may be encouraged. Often it is not the high railroad rates but the expense of hauling to the railroad station which produces the undue cost of transportation; often the farmer does not know what it costs him to raise crops. Questions like these will assist in withdrawing the attention of the community from the national questions to a consideration of its own economic welfare. Many a company of people will enjoy a book if it is read to them better than if they had to exert themselves to read it.

The organization of consolidated schools and county or township high schools forms an excellent nucleus for this progressive community work. Wherever possible an agricultural library should be collected under the supervision of the school and county agent.

Further work is suggested as follows: Select a few states that are now developing under the county agricultural agent and keep in touch with their experience.

From the state superintendent of schools learn the names of the county superintendents where community work is being done; ask the names of teachers whose schools are doing this work. Write for personal experience from these counties and schools.

We have plenty of individual instances where good service is done by the rural-school library. In each case the initial effort has come from the teacher or some progressive member of the community. Such work should be encouraged by all possible influence from outside but can better be done by local enterprise. L. H. Bailey has said, "I can picture to myself a rural library so alert as to give advice to its constituency where and how it may get in touch with new methods and discoveries." This is the ideal rural library for which we hope and toward which we work.

THE NEWSPAPER MORGUE, THE LIBRARY, AND THE SCHOOL

W. DAWSON JOHNSTON, LIBRARIAN, PUBLIC LIBRARY, ST. PAUL, MINN.

The scrapbook is one of the most honored of all books in the library, but the "morgue" as a department of the library has not as yet received the attention which it deserves. It was established in the St. Paul public library as early as 1892, but it was not until the American Library Association conference of 1909 and the discussion excited by the description of the *Youth's Companion* reference library in the following year that it received serious consideration from librarians.

The present condition of historical science, the present condition of the literature of current questions, particularly journalistic literature, and the experience of librarians in this new department make a review of the subject desirable on this occasion.

Recent criticism indicates that our historical literature must be classed with fiction, that the study of history must be delegated to specialists, and that historical method, while of the greatest value in scientific research, is of less value in instruction than the method of observation.

This change in the attitude of the scientist and educator toward history must be accompanied and is in fact being accompanied by a change in the relation of the librarian to this subject. It is more and more widely recognized that good material relating to the history of the twentieth century is of greater importance to a community than material relating to the sixteenth century, and material relating to local affairs more useful than the most valuable histories of the greatest cities of antiquity.

Perhaps the most important factor in establishing these new standards of intelligence is the newspaper. The newspaper has created a demand for current and local information and has done much to satisfy the demand which it has created, but it has not done everything. In order to secure as large a circulation as possible, the newspaper confines itself largely to the news and gives as large a variety of news as possible.

Careful discussions of current problems are left for the most part to writers for the metropolitan magazines, and the study of these discussions is left to the readers of these magazines. The domination of Wall Street in finance is as a consequence paralleled in a measure by the domination of Grub Street in the world of ideas.

A partial remedy for this condition of affairs has been found in a few places in the publication of local magazines. These are issued either by a municipal bureau or by a civic organization and are of the greatest value to the communities in which they are published.

In communities where no such publications exist, the library is doing something to meet this need and will, I believe, do more and more. In the first place, it must preserve local news after it has ceased to be news and

preserve it in such a form that it will be as accessible as it is in the newspaper morgue. In the second place, it must cull from non-local sources all the most important material relating to questions of local interest and make that equally accessible. In other words, it must preserve the best in the local press as far as it can. It must furnish information of interest to the masses and also information of interest to the specialist only. It must represent not only the opinion of the majority but also that of the minority.

The material in this new department of the library is unbound. It consists of pamphlets, booklets, circulars, broadsides, magazine excerpts, newspaper clippings, letters, manuscript memoranda, maps, views, plans, portraits, and cartoons; advertising literature, institutional announcements, trade catalogs, and the literature of propaganda.

It comes from such sources as those described by Miss Booth in her article on "Material on Geography Which May Be Obtained Free or at Small Cost," published in the *Journal of Geography* for January, 1914 (reprinted by the American Library Association Publishing Board, 1914, ten cents). It is taken from duplicate magazines which have been either purchased for circulation or presented to the library by subscribers who do not wish to preserve files. It is taken also from discarded or duplicate newspapers (New York public library, *Report* for 1913).

PREPARATION OF MATERIAL FOR FILE

The importance of making this material immediately accessible, together with the fact that it has for the most part mere fugitive value, makes it undesirable that time and money should be spent in accessioning or cataloging it. It is essentially material received on approval.

The aim being to make this material as accessible as possible, and as soon as possible, it is desirable to eliminate cataloging altogether, to postpone it, or to abbreviate it.

In the District of Columbia public library, the rule is to catalog a pamphlet if printed cards are obtainable and enter it in both official and public catalogs by author and subject. The cards are stamped "Pamphlet collection—consult assistant in reference room."

Other material is referred to, as in the Harvard University library, by multigraphed cards on which the subject is typewritten and the following is printed, "For pamphlet material and clippings on this subject consult assistant in reference room."

It is certain that the latter practice is to be preferred except for special classes of literature and in special libraries. Neither the use of library catalogs nor the use of this material warrants the expenditure of time and money involved even in temporary entries, or even the expenditure involved in filing cards already prepared.

The absence of a record in the catalog will, however, make careful classification of the material more essential. In the St. Paul library, a

much modified dictionary plan of arrangement has been found most satisfactory despite the fact that the decimal system of classification is used in shelving the book collections. For example, literature relating to an individual institution is filed with the literature of other institutions of the same class, and excerpts relating to an artist are filed with excerpts relating to other artists of the same school. This practice makes desirable a list of subject headings and cross-references used. The heading is written on the left margin of the pamphlet.

It is possible to mount the material thus collected and classified or to inclose it unmounted in envelopes or folders.

The New York public library, which has only recently been able to inaugurate such a collection, mounts pamphlets and clippings alike on manila backs $7\frac{1}{2}$ by $10\frac{1}{2}$ inches. Material which extends beyond the mounts is folded to a convenient size and clips used to preserve the folds. In the District of Columbia library, manila envelopes without flaps large enough to hold typewriter paper, i.e., 9 by $11\frac{1}{2}$ inches, are used. In other libraries, the more accessible folders of the same size are used also, mounts being used only for pictures and similar material and envelopes for the smaller formats and large collections of loose material.

In St. Paul, the newspaper clippings have been preserved in a separate file mounted by means of round-head paper fasteners on cover paper cut 9 by $12\frac{1}{2}$ inches and folded in three to form a case 9 by 4. Other libraries keep newspaper clippings in envelopes, size 4 by $9\frac{1}{2}$ inches.

The collections are kept in vertical filing cabinets and guide cards are inserted to facilitate the use of the more useful material. The cabinets are installed in the reading-room with other reference material. As rapidly as envelopes or folders become filled, or as the material in them becomes antiquated, they are withdrawn from the vertical files in the reading-room and placed in pamphlet boxes in the stack, a dummy card being inserted in their place, which reads, "See shelves." Whether the pamphlet boxes shall be shelved in that part of the stack nearest the reading-room or with the other literature of the subject, and how long it shall be preserved depends altogether on its use.

In the larger libraries, it has been found desirable to divide the collection, keeping material of general interest on current questions in the general reading-room and sending other material to the special reading-rooms. In the District of Columbia library, for example, material on industries is sent to the industrial department, and in the Chicago public library current material on theatrical and dramatic subjects is kept in the study room for women.

The importance of having this kind of material readily accessible and the difficulty of replacing it make it unwise to circulate it with the same freedom with which books are lent. The package libraries of the Minnesota Library Commission and of the University of Wisconsin Extension

Division are, however, sufficient evidence that the material should circulate, and, if urban communities are to enjoy the privileges which rural communities possess, it must circulate with the greatest freedom possible.

It is not enough, however, that the librarian make better use of newspaper and other material on current questions. Teachers also must study newspapers and newspaper methods and give instruction to their pupils in the use of newspaper and newspaper methods. There can be no better material for the study of civics, as many have found; there can be no better exercise in the art of reading than that which is necessary in skimming a newspaper; and there can be no better introduction to library methods than that involved in deciding on subject headings for material which is to be filed.

The newspaper is the truly common school.

LIBRARIES AND SCHOOLS: EDUCATIONAL CO-OPERATION

WILLIS H. KERR, LIBRARIAN, STATE NORMAL SCHOOL, EMPORIA, KANS.

A compilation of the landmarks in the history of co-operation between library and school, edited by A. E. Bostwick, librarian, St. Louis Public Library, is being published this summer. It is a most inspiring summary of developments from 1876 to 1911. From an examination of the table of contents, however, one gains an impression that the co-operation has been almost solely on the part of the libraries. Now you can't co-operate with a man who does not know and understand you. Equally, to co-operate, you must know and understand your man. Moreover, you can't co-operate with a man who does not co-operate with you.

Without being alarmists and without reflecting upon anyone, let us face the facts: How many state superintendents of public instruction really know and value the school library? How many county superintendents in your state adequately know and value the school library? Is it the majority or the minority of cities and towns in your state that have school libraries worthy the name? Answer the same question for the rural schools of your state. How many of the 190 odd public normal schools of the United States have adequate library facilities? Answer the same question for the small colleges and for the universities known to you.

In the struggle for adequate libraries in all schools, we have touched only the outer edge of the field. The problem before us now is to make our co-operation educational. We must maintain the teacher's attitude and method. We must have frequent contact with teachers like the powerful meeting yesterday morning with the National Council of Teachers of English. The Library Department of the National Education Association must continue to attract teachers, as it did yesterday afternoon out at the University Farm. We shall not get at all parts of the field until there are

well-supported library sections in connection with professional bodies of teachers such as the Central Association of Teachers of Science and Mathematics, the Classical Association of the Middle West, the Modern Language Association, the Mississippi Valley Historical Association. We shall thus make progress from the top downward till the whole educational field is permeated by the library idea.

The Library Department of this Association might well adopt a permanent policy or program of work to be accomplished, the various steps to be outlined clearly and to be kept before us until finished. Probably most of the committees should be permanent, or nearly so, in membership and function. The office of secretary might well be permanent, for long periods at least. The advisability should be considered of holding at least occasional meetings of this department at the same time with those of the Department of Superintendence—fully as much in order that the superintendents may get at us as that we may influence the superintendents. In both cases there should be progress from the top down.

What should be the relation of these various library departments? One answer is: Make the School Library Section of the American Library Association the organization for the discussion and accomplishment of professional library interests in the educational field. Make the several library departments, and especially the Library Department of the National Education Association, the co-operating points. And let the co-operation be mutual and real.

NORMAL-SCHOOL TRAINING IN LIBRARY METHODS

DELIA G. OVITZ, LIBRARIAN, STATE NORMAL SCHOOL, MILWAUKEE, WIS.

When I was invited to discuss the subject of "Normal-School Training in Library Methods," I was asked to outline the following: How much should be attempted according to the periods allotted? Which are the most important things, and what is the order of their importance?

So much has been said and written on the subject of library methods in schools during the past ten years, and the reasons for giving these courses have seemed so apparent, that it would appear unnecessary to discuss the subject again. But when we read the report of the Library Department of this Association of last July, we see that, as yet, there is no uniformity of requirement in the normal schools, and, until the normal schools and colleges adopt some sort of standard for these courses, the library instruction in the grades and high schools will continue to be given in the hit-and-miss fashion in which it is being given today.

For a number of years it has been my privilege to give to teachers in training courses in library methods. What I have to say, therefore, tho not new, will be based directly on experience.

My plea, then, is for a required ten-weeks course in reference work in every normal school. This course should be planned with two objects in view: first, the value of the work to the student himself; and, second, the value of the work to the children the student is to teach. The course should teach the student the intelligent use of all library tools such as the card catalog, periodical indexes, and bibliographies. It should make him familiar with a group of books of ready reference: the *Statesman's Yearbook*, the almanacs, the encyclopedias, dictionaries, books of quotations, debating aids, newspapers and periodical literature, and public documents; the material that may be secured from various manufacturing concerns, railroads and steamship lines, and educational institutions. It should acquaint the student with the various institutions to which he may apply for aid in case the school library is lacking the material he needs. And special emphasis should be put on the value of the course in library work for the grades and high school. This latter work should be further emphasized by requiring students to do practice work in connection with the points discussed.

Some there are who think this work may best be taught by the individual teachers in connection with the special subjects taught. I disagree most heartily.

In the words of J. Cotton Dana:

> There are still those among the teaching force who cannot see clearly the place of the library in the educational field; there are others who are so interested in their own special field of teaching and so thoroly satisfied with just what they have been doing along their own line that they do not care to go out of well-worn paths. There are others, however, and happily this is the larger number, who do realize the place and the value of the library. But some even of these feel that there is so much ground to be covered and so little time in which to do the work that anything not actually required by the course of study will have to be excluded or their classes will not measure up to the final test at the end of the term.

On the other hand, the librarian's training has emphasized the use of books as tools; she is peculiarly fitted for the task. It therefore appears best to me that the librarian give this work.

The course will fail, however, of its greatest usefulness unless the librarian plans the course so that it will correlate with the work being done by the other teachers; all problems assigned must have immediate bearing on the work being done in the school.

Again the librarian seems to be the one best fitted to do this work, because she is in direct touch with all departments as no other member of the faculty. In the school with which I am connected, after the lectures on a certain phase of the work are given—for example, the lecture on reference books—each student is given a set of problems bearing on the subject discussed. The English department the following day or days will use these problems as a basis for their oral and written themes. Other sets are given in geography, botany, history; the student in these special subjects selects

one of the problems in either or both of these sets as a basis for a long theme and is given credit for it by the geography, botany, or sociology department as the case may be. In like manner when the magazine indexes are discussed, sets of problems on current events are given, each student selecting a topic and either compiling a bibliography or writing a short theme. Credit for this is given in the civics class. Thus the student begins to feel that this work is of immediate practical value to him in his work. While the librarian gives the course, therefore, it is in the interest or indifference of the teachers that the success or failure of the work lies. The great cry is for the practical; as soon as you convince teachers and pupils that the work is of immediate practical value your battle is won.

The comparison of the relative merits of the magazines forms a most interesting and profitable part of the course. As a result of the work along this line started in the reference course, the members of a class in civics subscribed for *The Survey* for three months; members of a history class took either *Current Opinion*, *Review of Reviews*, or *The Literary Digest* for the same length of time; and a class in English subscribed for the *Atlantic Monthly* for three months for their work on the essay. The introduction of these magazines as texts emphasized as nothing else could the value of the magazine in current history as supplementing and bringing up to date the material in the textbooks.

The course in reference work is required of all students who enter the Milwaukee Normal School and is given preferably the first quarter so the student may have this introduction to all his tools at the very beginning of his work. The verdict passed by teachers and students is that this work is most valuable.

No teacher should be permitted to teach till she has taken a course that gives her such an acquaintance with children's books as will enable her to direct wisely the reading habits of her pupils. Such a course might well consist of the following: history of bookmaking; earliest records; history of writing and famous manuscripts; origin and development of printing; early printers; noted modern presses; book illustration; growth of the book trade; principles and aids in book selection; study of types of the best children's books; story-telling, what stories to tell and how to tell them; also how to arrange stories from the classics for dramatization; the literature of knowledge, including books on science, history, geography, should be included.

A course as mapped out above would take at least ten weeks. This work should be given by someone in the English department with the proper qualifications for the work.

And lastly there should be in at least one normal school in each state a course designed for teacher-librarians with the aim of preparing a few teachers to organize and administer small school libraries. Admission to this course should be granted only to those who have taken the other

two courses and should include the following: helps in the selection of books for school libraries; guides to the choice of books for individual reading; school and public-library interrelations; ordering of books; mechanical preparation of the book for the shelf; classification of books; cataloging; administration; care of material other than books, i.e., pamphlets, public documents, clippings, pictures, educational exhibits, etc.; how to make the resources of the public and school library available to pupils in school; library lessons in the grades.

If the school library is to come into its own and be the laboratory for students while at school and the continuation school for all after leaving school, it is very necessary that this instruction be given in all schools.

A NORMAL BUDGET FOR THE HIGH-SCHOOL LIBRARY

MARIE A. NEWBERRY, REFERENCE ASSISTANT, NEW YORK PUBLIC LIBRARY, NEW YORK, N.Y.

Why do we need a normal budget for the high-school library? To show school superintendents, school boards, and taxpayers just what the probable first cost will be and what to expect as the cost of maintenance. Not only must we be prepared to prove that the library is of great value in the high school, but we must also be ready to state the cost and show that it is a wise investment of public funds. Here is our work. We who have been administering high-school libraries under various conditions and situations must pass on the knowledge gained as to primary cost and maintenance and incidentally help and be helped in the discussion of the problem.

There are many conditions affecting the budget: the size of school, size of library, and the existence of a public library in the town come immediately to mind. Location of the library in the school building lessens the cost materially, because heat, light, janitor service, and possibly part of the equipment, such as chairs, tables, and cases, come from the general school fund in such instances. Another important element is the existence of the school library as a part of the public library system or as an independent institution. In the first, the cost of certain routine work, as cataloging, could be defrayed from the general library fund. However, many feel that the cataloging of the high-school library is far more satisfactory when done under the direction of the high-school librarian who knows the demand made upon the catalog from day to day. When the high-school library is an independent institution, it is more easily adapted in administration and form to the needs of the school than when it has also to maintain itself as a part of another system with different ideals and needs.

The amount of money available has also been a factor. Many a school librarian is told how much she may have and with this she does the best she can, be it little or much. The preparation of the normal budget would

enable her to test her work, and would also provide a standard for the school authorities to determine whether or not adequate results are attained for a stated expenditure.

Not long ago a high-school librarian said that "socials" were the means by which her library was financed, and we all know how uncertain that is. Yet this librarian has displayed remarkable ability in winning the co-operation of others. The manual-training department of this school made filing-cases for pictures and clippings, and equipped the library while obtaining training in the use of tools. Such co-operation might make the furniture less expensive and would tend to decrease its defacement and so be an aid to discipline.

What are the necessary initial expenses of a high-school library? First of all, salary of the librarian. You would not think of installing expensive physical laboratory apparatus without having a teacher who knows and understands its use in education. It is more necessary to have a librarian who knows and understands the use of the library in education, because more pupils are directly affected thereby. The salary of this librarian will vary with salaries in the school system, but in any case should equal that of the head of any other department, and her qualifications should be as high. Library schools are refusing to send out graduates to positions paying less than eight hundred to a thousand dollars per year; if this amount is above the salary of a department head in a given school system, recourse may be had to the summer library schools. But for this important position keep the standard as well as the salary as high as for your best teachers and see in addition that the person selected has had some special library training.

An inefficient librarian with fine library equipment will do less than a capable person with poor equipment. Therefore, I say, first the salary of the librarian; and, second, equipment, room, books, chairs, tables, cases, library supplies. The cost of this equipment, as in the rest of the school, will vary with the quality chosen.

The items to be considered in arriving at the cost of maintenance are: first, salary increases; second, book funds; third, periodicals; fourth, binding; fifth, Library of Congress cards, if used; sixth, supplies and new equipment. Just what these amounts will be under the varying conditions given above—viz., size of school, size of library, its location and unit of administration—remains to be determined, and also the proper proportion of the funds expended for the items under maintenance.

We need a statement of the probable cost of necessary equipment, of that desirable but not required, of the supplies needed for one year, and of the proper relative amount to be recommended for books, periodicals, binding, and supplies. I understand that the Committee on High-School Libraries is now at work upon this and will report when the investigations are completed.

During the past year, the New York High-School Librarians Association has been working on the normal budget for the high-school libraries of New York City; the figures quoted below are taken from the report given by the association to the board of education. It must be remembered, if the figures seem large, that they apply only to the very large schools in the very large cities.

LIBRARY EXPENSES FOR SCHOOL OF:

	1,000 Pupils	2,000 Pupils	3,000 Pupils
Books	$350.00	$500.00	$750.00
Periodicals	50.00	75.00	100.00
Binding	60.00	80.00	100.00
L. C. cards	15.00	25.00	36.00
General supplies	30.00	45.00	60.00
Totals	$505.00	$725.00	$1,046.00

The association recommended also that a fund of from fifty to one hundred dollars, according to the size of school, should be placed at the disposal of the librarian for library purposes without ordering thru the board of education. This is very necessary where action thru the board would delay purchase of books and supplies needed immediately.

The result of an examination of figures supplied by a superintendent of schools in a town of about seven thousand, where a school library was established fifteen years ago, with an experienced librarian in charge ever since, may be of interest. The library serves not only the high school, with about three hundred pupils, but also four graded schools, and is just now cramped both in growth and work by its crowded quarters. It contains now nearly 8,000 volumes. In 1899, $576.94 was expended for library purposes, $300.00 of which went for salary. In 1913–14, $959.33 was expended, of which $675.00 was for salary. The cost of maintaining the library in the fifteen years has not quite doubled, while the salary has more than doubled. Three hundred dollars seems a very small beginning, but the high-school library fifteen years ago was in the experimental stage, and the fact that this school has been willing to raise the salary so much proves that the efficient librarian has made the library a success and an active force in the school life. In fact, the superintendent says, "I can hardly conceive of maintaining a school system without a well-organized library in the hands of skilful librarians." In 1899–1900, the cost of maintenance was $267.94; in 1913–14, $284.33; and the average for the last four years is $294.03; so that for the maintenance of the library in the small high school an annual appropriation of $300.00 seems to be sufficient. At least, this is a starting-point for discussion.

There is an old adage which seems particularly appropriate to the investment of school funds in a high-school library, where after a period of

five years not only does the equipment remain and most of the books, but the high-school pupils have had the advantage of their use. This goes to prove that there is such a thing as "eating one's cake and keeping it too."

HIGH-SCHOOL BRANCHES OF PUBLIC LIBRARIES

PURD B. WRIGHT, LIBRARIAN, PUBLIC LIBRARY, KANSAS CITY, MO.

If there has been a failure in the proper development of the branch library in connection with the high school, it has been brought about by a misunderstanding on the part of the librarian of the actual needs of the teacher, lack of sympathy on the part of the teacher for the work the library is trying to do, or, perhaps, failure on the part of one or the other to co-operate in the work. This is placing the blame where it belongs—on the individual rather than on the idea.

The public library is one of the youngest of the great educational aids, but it is developing rapidly and in no direction is it accomplishing more than in the establishing of branch libraries. Some of these are in close proximity to high and grade schools; some are conducted by separate boards under joint agreement as to support and maintenance; while here one may be supported by the library for school use, and there an effort may be made to serve both school and public in a limited way. All of which shows that the use of the book is making its way. Strange as it may seem, however, its progress is all too slow. How many will recognize the following as applying today as well as when written in the *School Review* for February, 1906:

> There is no problem relating to the equipment of the high school which is more pressing than that of the library. School authorities have agitated the question of better buildings, better heating and ventilation, until conditions in larger communities are generally very good. To those of us who went to school in the old barracks, the modern structures seem almost palatial. Laboratories for physics, chemistry, botany, and zoölogy are being rapidly supplied. In many schools in the cities, they are far better than those in the colleges of a score of years ago, or even better than those in all but a few select colleges now. But the library problem has scarcely been touched. Few books, few current periodicals, absolutely no bound files of the periodicals, and few of the accessories of a good library, is the library story in practically all schools in small towns and in most larger ones. I have visited a great many schools in various states, and the superintendents in piloting me about usually take me to the laboratories, the cabinets of fossils, the pickled frogs, the manual training and the writing and drawing exhibits. I am glad to see them and have examined some splendid equipment and results of work. But seldom am I taken to a real library. Often when I inquire, I am conducted to a close, stuffy room, almost windowless, the books piled in confusion, at which I am not surprised, for frequently most of them are musty, abandoned, dog-eared, out-of-date textbooks. Intentionally planned and adequately equipped rooms are as scarce as suitable laboratories were a quarter of a century ago.

There is an improvement over this occasionally, for here and there over the country, school and library authorities are striving to better condi-

tions. The work in Cleveland, Philadelphia, St. Louis, Newark, Brooklyn, Utica, and some other cities shows a decided advance over the situation indicated by the editorial from the *School Review*.

One of the greatest difficulties to overcome has been that of different management—the schools under one body and the library under another. This is not always a source of trouble, but frequently is a cause for disagreement if not real dissension.

At the risk of being accused of talking on personal matters, I shall attempt to outline the plan just put into operation in Kansas City. In Kansas City the public library is supported by and under the control of the Board of Education. For the purpose of the experiment, this makes for ideal conditions. In planning the high-school buildings, in addition to the study halls and school reference library, provisions were made for distinct branch libraries. The library quarters just completed have an actual shelf capacity of 16,000 volumes, fully supplied with modern library equipment, susceptible of enlargement. The library is situated in the corner of the building, with a main outside entrance, distinct from the school entrance, but with a door leading to a main hall of the school proper. For all intents and purposes, it is a complete branch library, while, at the same time, it will answer every purpose of the special school library. It was planned and will be operated to meet the requirements voiced by Mary E. Hall, librarian, Girls High School, Brooklyn, in the Report of the Committee on High-School Libraries, made to this section two years ago.

In the management of this branch of the public library, it is proposed during school time to use the reading-room for student use from 8:30 A.M. to 12:30 P.M., in periods of 45 minutes, by classes of 50 pupils each, classes or pupils being assigned by the heads of the school departments. Thus 250 pupils will use the library daily, doing the work required as well as acquiring a knowledge of how to use a library. And as to the importance of this, let me quote the reflections of that eminent teacher-librarian, the late Dr. Canfield:

> Instruction in the most efficient use of a library should form as important a part of the curriculum as instruction in language or in history. It will exert more influence on the pupils' career than any two subjects in the course of study. The library, rather than the school, makes possible and probable a continuation of intellectual activity and progress after school life is finished.

This specific school service will in no way interfere with the use of the library by the general public. Special tables will be reserved for the usual library patrons, but little use will be made of these. An investigation of branch use in a number of cities shows that small demand is made for books by the general public in the morning hours.

Within easy walking distance of this building are located three large grade schools, and it is the intention to give regular library service to these pupils.

In every other respect the branch will render the same service to adult patrons as does the general library, specializing in the actual needs of the community.

Aside from rendering the cultural service required in the high-school work, with trained library workers in charge, it is the fervent hope and belief that still another good will come from the close co-operation—that of increasing the number of pupils attending the high school after graduating from the grades, thru familiarity with it from a frequent use of the library.

No fear is felt of lack of patronage of the branch library by adults, as is often the case where libraries are located in school buildings, for the reason that the auditorium of the building is also being used as a social center. The swimming-pools are now open three nights a week to the general public. As a broad result, the building is likely to become one of the most used institutions in the city. No fear is felt on the part of those connected with the library but that results on broad lines will prove all that could be wished.

On the score of economy and efficiency, much is hoped for the new branch. The pupils in the high school have at their service a much larger collection of books than would otherwise be possible. Many titles are available that would hardly be found on the shelves of a high-school library, because of their limited use—books which a general community use will demand. Any high-school teacher or librarian can tell of many titles which are seriously needed in some studies for a week or two, the recommendation for purchase of which is withheld from the school authorities for fear of the charge of extravagance. Naturally, many of this sort of books will be found on the shelves of the progressive branch.

Another value to the high school of this sort of a branch library, which should not be lost sight of, is the broad, general interest of the public in its work brought about by contact with its various activities. In this instance, it is hoped and believed that the old saying will be reversed, that "familiarity will breed" support and enlarged use.

All this may sound prosaic or an overdevelopment of the utilitarian side of the work-a-day world. But it is the most progressive age the world has ever known. The cultural side must keep in step, grasping at every chance offered, or there will be cause for grief over lost opportunities.

A point which should receive passing consideration is the fact that four or five such branch library buildings may be erected at the cost of one separate and distinct average branch building. The cost of operation and service shows nearly the same economy. All of which means more and better books, more competent service, therefore more satisfactory results and more lasting good.

So surely is the department of education of Kansas City of this belief, that a second high-school building now under course of erection contains

just such a branch library as is herein briefly described. In addition, the plan is carried still farther and three large grade-school buildings, to be completed within the year, provide for similar branches. One of these, in a district peopled largely by foreigners, a thirty-room building, contains a swimming-pool, auditorium, and roof garden. And of course the library has a good corner, and will have a share in the development of a new brand of citizenship.

You will have noticed by this time that I have avoided touching too closely upon the technical working and details of management of the high-school library. As someone else has truly said, "There's a reason"—indeed many of them, all patent. These are to be found in the *Proceedings* of the National Education Association, in the *Proceedings* of the American Library Association, and in the columns of *Public Libraries*, and the *Library Journal*. For a most readable article and a comprehensive bibliography of the subject, those interested are referred to an able paper in the *Library Journal* of April, 1913, by Edward D. Greenman, of the United States Bureau of Education library, Washington, D.C.

In conclusion, let it be borne in mind constantly by both librarians and teachers that their work is mutual, and only by their getting this viewpoint of each other, understanding the end sought by each, can satisfactory results be obtained. The school graduates its pupils, the library never does.

REPORT OF COMMITTEE ON HIGH-SCHOOL LIBRARIES

MARY E. HALL, LIBRARIAN, GIRLS HIGH SCHOOL, BROOKLYN, N.Y., CHAIRMAN

The past year has been a notable one in the development of high-school libraries. From all parts of the United States have come letters of inquiry as to the best methods of reorganizing high-school libraries so as to put them on an efficiency basis according to modern library ideals and methods. Of special significance is the fact that these letters come to the committee from school superintendents and members of boards of education—the very persons who have authority and power to suggest changes and bring them about. Teachers of English and of history have shown especial interest, and librarians of public libraries have aided the movement by offering to establish branches in high schools and place the high-school libraries in charge of trained librarians.

In New England the events of chief importance are the establishment of public-library branches in the high schools of Manchester, N.H., and Somerville, Mass. In Somerville the same high standard for the librarian was adopted as in the Barringer High School, of Newark, N.J., that the librarian should be a college graduate and a graduate of an approved library school. These two cities, with Hartford and Winsted, Conn., are far in advance of most of the cities in New England. As far as can be

ascertained, the high schools of these four cities are the only ones in that section of the country which have placed their libraries in charge of trained and experienced librarians who can devote their entire time to the development of the school library. Providence and Boston report an awakening of interest in the possibilities of the high-school library, and it has been proposed that there be appointed a committee on high-school libraries in the Massachusetts Library Club to help further the movement in Massachusetts.

In the middle states the events of importance are:

1. A conference of teachers, school principals, and librarians in Philadelphia to consider the problem of high-school libraries in the city. It is hoped that this conference may lead to the introduction of a trained librarian in every school to make the library the educational force which it has become in the William Penn High School under the direction of Helen Hill, a graduate of Drexel Library School and the only trained librarian in the Philadelphia high schools.

2. In Olean, N.Y., where commission government has just been put into force, there has been appointed a graduate of the Simmons College Library School. This is probably the first city in New York state to take advantage of the new state law passed this year by legislature, making it possible for the state to grant $100 toward the salary of a librarian in a high school, and to set up certain standards as to what the librarian should bring to the work in the way of professional training and experience. Heretofore the only cities in New York state to place their high-school libraries in charge of graduates of library schools have been Albany, Rochester, and New York. This state aid will make it possible for other cities to follow suit, and we look for great advance in the state of New York as a result of the new law, which is the work of Sherman Williams, superintendent of school libraries for the State Education Department.

3. In New York City there has been great progress in the high-school libraries. The eyes of members of the Board of Education have been opened, and they are beginning to recognize the position of librarian as a teaching position rather than clerical. Resolutions have been passed to that effect, and the finance committee has increased the salary of the head librarian of a high school so as to make it more or less commensurate with that of a teacher.

At the suggestion of Darwin L. Bardwell, district superintendent of schools, New York City, an effort has been made by a committee on school libraries of the New York Library Club to determine upon a proper budget for a high-school library in a school of a certain size. This committee invited the co-operation of the New York High-School Librarians Association, and statistics were prepared as to the cost of maintaining a high-school library in schools having 1,000, 2,000, and 3,000 pupils. The items of expense determined upon were: purchase of books, binding, periodicals

subscribed for, library supplies, incidental expenses. The report has been placed on file in the Department of Education for reference in making out estimates for the Board of Estimate and Apportionment. It is a first step toward placing the libraries on an efficiency basis.

A second and most important event in New York City is the interest shown by the Board of Examiners in securing for the New York high schools the best possible candidates for high-school library positions. In December, an examination was given for the position of high-school librarian, and a special letter sent out to every library school in the country which was of sufficient standing to be approved by the regents of the University of the State of New York. This circular letter outlined the work of the librarian, the requirements of fitness as to executive ability, teaching ability, personality, and knowledge of boys and girls of high-school age. The schools were asked to send their graduates to the examination, and as a result, the city of New York has a new eligible list for high-school library positions which promises unusually fine work in the future. Out of eighty candidates who took the examination, sixteen were placed on this eligible list. Of these, most were college graduates and also graduates of library schools. Albany, University of Illinois, Pratt Institute, Simmons College, New York Public Library School, and the Drexel Library School have graduates on the new list.

In Kansas, an interesting and valuable investigation of high-school library conditions was made, and it is to be hoped that a similar examination of high-school library conditions can be made in every state in the Union. The committee feels that the Kansas report (*Record*, State Normal School, Emporia, Kans., May 15, 1914) should be read by all interested in the movement and a similar investigation conducted by a committee on high-school libraries appointed by every state library or state teachers' association or the state education department.

In the West, California has made greatest progress in developing its high-school libraries. Riverside and Oakland report librarians appointed recently and several other cities report progress.

In Canada, two cities have sent to the chairman of the committee for suggestions as to the best methods of reorganizing their high-school libraries, what appropriations should be made for librarian's salary, for books, etc., also what standards as to qualifications of librarian, experience, etc.

In the National Council of Teachers of English, a Committee on High-School Libraries has been appointed, and the American Library Association conference on school library work has brought together the leading librarians in high schools to outline a policy for the American Library Association in this movement.

Two publications of especial interest to those purchasing books for high-school libraries are the list of books for high-school libraries, compiled by Martha Wilson, of the State Education Department, St. Paul, Minn.

(sold by the American Library Association Publishing Board, Chicago, fifty cents), and another list compiled by the teachers in the high-school department of the School of Education in the University of Chicago and published by the Bureau of Education. Another publication of great importance is the pamphlet of the high-school branch of the Newark, N.J., public library, written by Elizabeth McKnight and John Cotton Dana. This is most suggestive as to planning a library room for a high school and its equipment, what kind of work a high-school library should do for each department, the qualifications for the librarian, an outline course of instruction for high-school pupils in the use of a library, etc.

What is needed now is an organized campaign for the appointment in every state of a state supervisor of school libraries who can do for the state such work as has been done in Minnesota by the supervisor of school libraries, Martha Wilson. In order to bring such appointments about, we urge that every state library association have a standing committee to work with the state teachers' association in furthering the development of normal-school, high-school, and rural-school libraries.

DEPARTMENT OF SPECIAL EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—M. P. E. GROSZMANN, educational director, National Association for the Study and Education of Exceptional Children.....Plainfield, N.J.
Vice-President—JAMES J. DOW, superintendent, School for the Blind.....Faribault, Minn.
Secretary—W. E. TAYLOR, superintendent, Idaho School for Deaf and Blind..Gooding, Idaho

FIRST SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The Department of Special Education was called to order by President Groszmann at 9:30 A.M., in Arcanum Hall, Lowry Building.

After an introductory address by President Groszmann, L. R. Alderman, superintendent of schools, Portland, Ore., read a paper on "An Effort to Make the School Fit the Needs of the Exceptional Child."

A paper by Mabel Morrison Hawkins, San Francisco, Cal., entitled "What to Do with the Exceptional Child—An Attempt at Solution thru the Open-Air School," was read by the secretary of the department.

In the absence of Franklin W. Barrows, M.D., medical inspector of schools, department of health, Buffalo, N.Y., his paper on "The Function of the Public School in the Care of Subnormal and Abnormal Children" was read. This paper was formally discussed by W. E. Struthers, M.D., chief medical inspector, Board of Education, Toronto, Canada, and Samuel B. Allison, district superintendent of schools, Chicago, Ill.

After the discussion, District Superintendent Allison moved that a committee be appointed to act with a like committee from the National Association for the Study and Education of Exceptional Children to consider the classification and terminology of the exceptional child. This motion was passed and the president reserved the appointment of the committee until a later date.

The following Committee on Resolutions was appointed by the president:

L. R. Alderman, superintendent of schools, Portland, Ore.
Carrie B. Levy, supervisor of classes for the blind, Milwaukee, Wis.
Catherine J. Tracy, Ethical Culture School, New York, N.Y.
W. E. Struthers, M.D., chief medical inspector, Board of Education, Toronto, Canada.

SECOND SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

The session was called to order at 2:00 P.M. in the Madison School.

The following officers were elected for the ensuing year:

For *President*—M. P. E. Groszmann, educational director, National Association for the Study and Education of Exceptional Children, Plainfield, N.J.
For *Vice-President*—L. R. Alderman, superintendent of schools, Portland, Ore.
For *Secretary*—Samuel B. Allison, district superintendent of schools, Chicago, Ill.

In the absence of L. Pierce Clark, M.D., New York, N.Y., his paper on "The Organization and Workings of the Mental Clinic for Psychopathic Children in New York Public Schools" was read.

Tom A. Williams, M.D., Washington, D.C., corresponding member, Society of Neurology and Psychology, Paris, France, read his paper entitled "Fear and Its Cure."

Mary R. Campbell, associate psychologist, psychopathic laboratory, municipal courts of Chicago, Chicago, Ill., read a paper on "Methods for Making Surveys of Public Schools, with Suggestions to Principals and Teachers for Recording Data on Subaverage, Subnormal, Backward, or Defective Children."

THIRD SESSION—THURSDAY AFTERNOON, JULY 9, 1914

The department met in joint session with the National Society for the Study and Education of Exceptional Children and was called to order at 2:30 P.M. by President Groszmann in the Madison School.

Messages were read from a number of distinguished people. Among them were Secretary J. P. Tumulty, for President Woodrow Wilson; Secretary of State William Jennings Bryan; Harvey W. Wiley, M.D., director, *Good Housekeeping Magazine*, Washington, D.C.; William H. Smiley, superintendent of schools, Denver, Colo.; H. K. Bush Brown, secretary, National Committee of Five Hundred to Establish the University of the United States; Lewellys F. Barker, M.D., president, National Society for Mental Hygiene, Baltimore, Md.; Mrs. William Cumming Story, president, National Society, Daughters of the American Revolution, Washington, D.C.; Ben Blewett, superintendent of instruction, public schools, St. Louis, Mo.; Elizabeth E. Farrell, inspector of ungraded classes, department of education, New York, N.Y.; Theodore Toepel, M.D., Atlanta, Ga.; and A. Emil Schmitt, M.D., medical director, Ethical Culture School, New York, N.Y.

The first address was given by President Groszmann on "The Work of the National Association for the Study and Education of Exceptional Children."

This was followed by a paper entitled "Notes on Delinquent Children" by George E. Judge, judge in the Children's Court, Buffalo, N.Y., which was read by the secretary.

This paper was discussed informally by Leonard P. Ayres, director, Division of Education, Russell Sage Foundation, New York, N.Y.; C. P. Cary, state superintendent of public instruction, Madison, Wis., and others.

FOURTH SESSION—FRIDAY FORENOON, JULY 10, 1914

The Department of Special Education met in joint session with the Department of Kindergarten Education and the Department of Elementary Education and was called to order in the Auditorium at 9:00 A.M.

The following program was presented:

"Standardizing the Work in the Kindergarten and Elementary Schools"—Georgia Alexander, supervising principal of schools, Indianapolis, Ind. (For this paper, see Department of Kindergarten Education.)

"A Practical Experiment with Backward Children"—John W. Carr, superintendent of schools, Bayonne, N.J.

"Reading and Arithmetic as Tests of Mental Ability"—Clara Schmitt, child study department, public schools, Chicago, Ill.

"The Montessori Message—True Education the Basis of a New Civilization"—Louise Dixon Boyle, New York, N.Y. In the absence of the writer, this paper was read by the secretary of the department.

Discussion: P. P. Claxton, United States commissioner of education, Washington, D.C.; Catherine J. Tracy, Ethical Culture School, New York, N.Y.; Joseph S. Gaylord, professor of psychology and pedagogy, State Normal School, Winona, Minn.; and others.

The president announced that the Committee on Resolutions appointed by the Department of Special Education had been unable to meet and that the same committee would be continued to the Oakland meeting in 1915.

The president appointed the following Committee on Survey of the Public Schools which was authorized by motion:

Mary R. Campbell, associate psychol ogist, psychopathic laboratory, municipal courts of Chicago, Chicago, Ill., chairman.

J. E. Wallace Wallin, professor of clinical psychology, School of Education, University of Pittsburgh, Pittsburgh, Pa.
Elizabeth E. Farrell, inspector of ungraded classes, department of education, New York, N.Y.
Samuel B. Allison, district superintendent of schools, Chicago, Ill.
L. R. Alderman, superintendent of schools, Portland, Ore.
Ben Blewett, superintendent of instruction, public schools, St. Louis, Mo.
John W. Carr, superintendent of Schools, Bayonne, N.J.
F. B. Dyer, superintendent of schools, Boston, Mass.
James Y. Joyner, state superintendent of public instruction, Raleigh, N.C.

The following committee authorized by motion was appointed by the president to act with a like committee from the National Association for the Study and Education of Exceptional Children to consider the classification and terminology of the exceptional child.

COMMITTEE ON CLASSIFICATION AND TERMINOLOGY

Samuel B. Allison, district superintendent of schools, Chicago, Ill., chairman.
Leonard P. Ayres, director, Division of Education, Russell Sage Foundation, New York, N.Y.
Robert J. Aley, president, University of Maine, Orono, Me.
J. Stanley Brown, superintendent, Township High School, Joliet, Ill.
M. V. O'Shea, professor of education, University of Wisconsin, Madison, Wis.
Carroll G. Pearse, president, State Normal School, Milwaukee, Wis.
M. E. Pearson, superintendent of schools, Kansas City, Kans.
W. E. Taylor, superintendent, Idaho School for the Deaf and Blind, Gooding, Idaho.
Catherine J. Tracy, Ethical Culture School, New York, N.Y.

The meeting then adjourned.

W. E. TAYLOR, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S ADDRESS

MAXIMILIAN P. E. GROSZMANN, EDUCATIONAL DIRECTOR, NATIONAL ASSOCIATION FOR THE STUDY AND EDUCATION OF EXCEPTIONAL CHILDREN, PLAINFIELD, N.J.

Special education covers a much larger field than had been thought by those who first organized the Department of Special Education. Heretofore, the discussions of the department referred exclusively to the mentally defective or feeble-minded child and to the blind and the deaf. These groups form a relatively small portion of the large number of children requiring special education. The upper end of the problem, namely, the problem of the unusually gifted child, has received much scanter attention than that of the feeble-minded. And yet from the ranks of the gifted are recruited the leaders of society, in culture, in science, in art, in commerce, in invention, and in constructive work of all kinds. The very strength of the initiative power of the gifted may make them dangerous elements if they are not imbued with right motives and social ideals at the start. They, above all, need careful guidance and specially differentiated education.

Between the two ends of the line there are hundreds of thousands of children handicapped in one or another way. There are different types

of minds which are not reached by the average system of education. There are children of impaired nervous constitutions and others who are distinctly psychopathic. Children's diseases play havoc with their progress in school, and medical inspection has revealed surprisingly large percentages of ailments in children who are thus prevented from doing their best in school work. Backwardness is a condition caused by many factors of which economic pressure is certainly not one of the least. Then there are racial differences in our conglomerate population which do not yet receive sufficient recognition in our school education. The problems of juvenile delinquency and of prostitution are intimately associated with all these handicaps. The aim of special education must be to prevent children from growing up to become misfits and failures in life.

In order to ascertain the differences in individual children, proper methods of classification and diagnosis must be developed. The Binet tests which have been so eagerly taken up and widely advertised have been shown to be quite insufficient and ofttimes misleading. It has, therefore, been considered helpful to have in connection with these meetings a series of clinical demonstration tests. In addition to the Binet tests, systems of anthropometric measurements, the Giessen tests, and my own system of tests will be demonstrated. These latter comprise as minute a "child history" as can be ascertained; a schedule of medical examinations; and a series of physio-psychological and mental tests quite different from the Binet schedule. They differ also in this—they base the classification, not upon mental years, but upon periods of development. The co-operation of several St. Paul physicians, psychologists, and social workers has been secured. It will be well to consider in these meetings the desirability of some step toward a generally acceptable classification and terminology of exceptional children.

These meetings are notable also for the fact that for the first time in the history of the department the meetings are held jointly with the National Association for the Study and Education of Exceptional Children. This circumstance has given us an additional meeting, inasmuch as that association holds its own meeting in the course of the week and our department joins in it. Finally we have a joint meeting with the Department of Kindergarten Education and the Department of Elementary Education. In this manner, we are exceptionally well represented on the program.

AN EFFORT TO MAKE THE SCHOOL FIT THE NEEDS OF THE EXCEPTIONAL CHILD

L. R. ALDERMAN, SUPERINTENDENT OF SCHOOLS, PORTLAND, ORE.

The effort I am to speak of is the effort of one year in the Portland public schools.

By the exceptional child in this paper, I mean the child that is above or below the average. By the exceptional child, however, many people mean

the under-developed child. First of all, therefore, I shall tell what we are doing for the slow pupil. We have a special school for the defectives, with an enrolment of about forty children. There are only two teachers, but both are specially trained for this sort of work. While the results in this school have been remarkable, yet we are sure that the present arrangement is not ideal. In the first place, some of these children are not capable of taking instruction except by long years of drill. Hence, we think they should be in custodial institutions. The other pupils probably would fare better if they were not associated with children of so low a degree of mentality. We are planning to secure ground on the outskirts of our city where we can approximate farm home conditions. With the custodial pupils segregated, we hope to gather up a larger number of pupils who are mentally slow, yet who are capable of receiving instruction, and thus extend the usefulness of this school.

For exceptional pupils who are not classed as defectives, we have in most of our large schools ungraded rooms, where the teacher has on the average about twelve pupils. These pupils may be in her room for only a month or so until they can be more properly graded. In a few cases, children in the ungraded room have made as many as three grades during this year. In a number of cases a dominant interest has been discovered. In all cases, the teacher has talked with parents and has received in many instances much help from them in correcting bad habits and in forming good ones. The ungraded room has met a real need and does give the teacher an opportunity to better know the child. Every teacher of the ungraded rooms has found her work extremely interesting, and, while she says it is harder, she prefers it to the regular schoolroom work.

The principals of our schools have been making a special study of the exceptional child and have reported children with special talent. This, of course, has not been done very systematically, but enough has been done to show the importance of this kind of work.

One may ask what we do for the pupil with the special interest when he is found. So far, we have only reported cases to the special supervisor of the subject in which the child is interested, who in turn reports the pupils to the organizations devoted to that subject and who are always on the lookout to help children with talent. For instance, those interested in music are reported to the musical clubs of the city; they have been invited by these clubs to attend rehearsals; they have also been the guests of these clubs when outside talent has appeared. The Portland Symphony Orchestra has invited to its public rehearsals as many as fifteen hundred students at one time, and other musical organizations have given recitals at various schools for the pupils' benefit. Credit for music studied outside of school is now given by our high schools and will count toward graduation.

We hope to have next year at least one school in the city where special work will be given in music. We hope also to have one where drawing will

receive special attention. We have already a school where arts and crafts works seem to be the dominant idea. In all the schools in neighborhoods where there are many German people we are putting German into the grades. We are extending the German this year. To my mind all foreign-language study should begin in the grades. We have several schools in which gardening and nature study are given special attention. One school is making a specialty of the care of animals: almost every child has its pet. I am inclined more and more to think that the care of animals is a very important factor in the education of children. The giving of one life into the hands of another seems to develop a sense of responsibility and a degree of sympathy not secured in any other way.

As time goes on, we hope to specialize our schools so that the parents of each child may select some school that will fit the needs of the child more nearly than the present arrangement permits. We have allowed parents this year to select a school, and when there has been too much crowding we have simply put on more portables. Incidentally, this has done away with the old worry about boundaries and saved much time for administrators as well as for parents. With our fifty-seven schools, which we call our fifty-seven varieties, the parent has had some choice as to what should be the dominant note in the child's education.

In Portland, we have one of the few trades schools in the United States, and here many children with exceptional talent find the work they are best fitted to do. In order to enter the school of trades, it is not necessary for a student to have passed the eighth grade, but more and more students are coming in who have had the full grammar-school course, and some who have had high-school work. This year the attendance at the school of trades was so large that we had to divide the school into two departments. In the girls' department we teach millinery, dressmaking, cooking, general sewing, and home economics. In the boys' department we teach electrical engineering, mechanical engineering, woodworking, plumbing, and blacksmithing.

We have our night school so organized that the work counts one-third as much as that of the day high school, and the student who studies during the forenoon in school and works at some "gainful occupation" in the afternoon may, by studying at the summer school, graduate in four and one-half years.

Our health inspection is done by the board of health of our city. They have four special doctors and one nurse. While these are not enough for our thirty thousand pupils, yet their work does a great deal of good, for at least it causes the teacher to feel that it is her duty to look after the health of her pupils. One school has an open-air room for the benefit of those who need it most, and we expect to have many such rooms next year.

In this same school we are using the "half-day" plan. We have morning sessions for the "regular" work, and devote the afternoon to music, drawing, sewing, playground recreation, gymnastics, and excursions.

I think the time is coming when our schools either will follow the Gary plan of much varied activity and long hours, or else they will have only the half-day session with the activities of the rest of the day directed by the parents.

With individual children all over the city we are now using a half-day plan. In many cases the parents of nervous children have been advised to keep them out of school in the afternoon. Few of us are aware how such children are affected by being with a large number of people. Jenny, for instance, is nervous when she comes to school in the morning and is made more so by being with a number of children. She goes home at luncheon time too highly keyed up to eat and to assimilate her food, partly because of her anxiety to get back on time to the afternoon session. The afternoon study, and even the play with a large number of children, adds to her state of nervousness so that she is unable to eat the evening meal or rest at night. As a consequence her health declines, and, of course, she falls behind in her school work. The principal advises the parents to keep Jenny out in the afternoon, saying that the main studies will come in the forenoon. Jenny goes home at noon with her school work over, her nerves calmed down. She is able to eat luncheon in a normal state of mind; she takes a little rest; plays naturally by herself or with one or two little neighbors whom she knows well; and comes back to school the next day in a much improved condition. It is really remarkable how much some pupils have improved by attending only half-day sessions.

We have reduced the nervous strain on all the pupils by doing away with all uniform examinations. I mean by this questions made in the central office. Of course, there have been examinations given by the teacher. Promotions have been made on the recommendations of the teacher and principal and are considered to be trial promotions, the test being ability to do the work of the grade. While examinations have their place and are of educational value, I think the uniform examination has done more to keep the teacher from studying every child and from meeting the needs of the exceptional child than any other one thing in our educational system. Instead of having the child in mind the teacher has had the examination in mind, and with the fear of not having her class come up to standard has always been tempted to become a mere drillmaster.

The first thing that we want of a teacher is that she should be a teacher of boys and girls, and after that a teacher of subjects. In order that she may better know the pupils, we aim to keep the classes small, and, instead of having her change classes every year or half-year, we are encouraging each teacher to advance with her class, keeping the same pupils for three years; thus we make the personal element as important as possible. A large majority of the teachers have chosen to take up the work of the next grade for the sake of keeping the same pupils.

With the regular teacher, however many special schools there may be, rests a great deal of the care of exceptional children. She "sorts out," in the first place, those who need extra care, and she still keeps with her a great many who are in one way or another exceptional. To help her in this special work, we must give her few enough pupils so that she may know them, time enough to get acquainted with them, and a great deal of freedom; she must have confidence that help is at hand when needed, and be given a sympathetic appreciation of her work. She teaches the largest number of our exceptional children.

DISCUSSION

W. E. STRUTHERS, M.D., chief medical inspector, Board of Education, Toronto, Canada.—In any discussion of the function of the public schools in the care of subnormal and abnormal children one is immediately at a loss to know what is meant by these terms "subnormal" and "abnormal." Almost any individual who has made any study of children who are not normal has his own idea of the meaning of these terms. I suppose we shall always have difficulty until we have a generally accepted standard of terminology. We shall have to remember also that the different types are not separated by a marked and distinct line, but gradually merge into each other. Most investigators admit that there are certain types of children who should not be in the regular grades in the schools, but there is a truly wonderful variation of ideas about the types of children who should be in special classes. It would seem that every teacher and every investigator has a somewhat different opinion. The usual reasons given why these types should not be in the regular grades are: because it is harmful to the child itself, and because of interference with the work of the normal child.

The abnormal child becomes discouraged in school work because he is competing with children above his standard. This child requires more individual attention than possibly can be given in the regular grade. Because of the necessity to give more attention to these children, the normal child is retarded in his work. Again, the abnormal child is not adapted by nature for normal social existence, and when placed in the social conditions of normal children is more or less unhappy. We are agreed, therefore, that abnormal children should be in special classes or special institutions.

The next point to agree upon is the types of children who should be in special classes in the public schools. I wish to disagree with the proposition that all children of higher mentality than the idiot should be organized into special classes in the public schools. In my opinion it is difficult to estimate the injury done to society and these poor, unhappy children themselves by the propagation of this idea. The general public believes that all that it is necessary to do for a child belonging to the imbecile or moron type is to get it into a special class, and presto! the child shall come forth a normal individual. Widespread discredit has been brought upon the efforts of earnest and painstaking investigators to bring about some really humane action on behalf of these children. I will not say that these children have been deliberately used and deliberately exploited to create individual reputations but little deserved. Nevertheless the public and too often parents have been cruelly deceived by the flamboyant public statements of the results of certain workers in this field. Too often the public has thrust upon it reports that indicate the individuality of the investigator rather than a sane effort on behalf of the child. This field of work too frequently furnishes examples of modern miracles, and it is to be regretted that the public press so frequently presents this side of the work. As a matter of fact, of course, there is rarely, if ever, any truth in the modern miracle.

Something better than special classes in the public schools should be provided for these children. It has been said that "the child who is subnormal or abnormal will remain essentially what he is today." I agree with the broad meaning involved in that statement, but surely if this be true the public school is not the place for these children. Are we to train and develop the limited resources of these children to their highest degree and receive them into public society? We say that even their highest capabilities do not fit them for an independent social existence. This is not so much a question of educability as of responsibility. If they are essentially irresponsible, then we are committing a crime against society by training and educating them and thrusting them upon the world more acceptable to society. Such efforts to improve the life-conditions of these children will simply result in the aggravation of the danger to the state. We should keep constantly in mind that the special class can fit only the subnormal child (I do not mean the backward child) for a happier, wider, and more useful life under proper management and supervision. That means under custodial care. It is my opinion, therefore, that the highest types of these children should be cared for in a special residential school, and when these feeble-minded children reach adult age they should be passed along to government institutions for feeble-minded men and feeble-minded women. I am very strongly of the opinion that the public school as such is not in a strategic position to care for these children, and that its function is to find them, not to care for them. The large amount of money spent by American cities for special classes for children of the moron and imbecile type I consider a regrettable waste of public funds. It is more than that. It will, I contend, increase, instead of diminish, the number of feeble-minded children, and we are therefore in the serious position of increasing, instead of decreasing, the state burden. We have had in mind the helpless child, and we have desired to improve, if possible, its life-conditions, to help these wrecks of society, but this is not a case of salvage. It is not a case of making these children into normal children. We should remember, too, that these children are happier with their own kind. It is not a cruelty to separate them from society. Nor is it a cruelty to separate them from their own families. It has been said that the feeble-minded child is very affectionate, but I think it is equally true that it will shower that affection upon any individual who is kind to it. Moreover, I have frequently had mothers tell me of the great burden such a child is in a normal home, of the tremendous nervous strain on the mother to look after such a child without any of the facilities or the opportunities of doing it properly. Such a special school as I have mentioned could very reasonably, I think, also undertake the training and education of children who are very backward, whose minds will probably always be sluggish in action. Then if by any chance children of a higher grade or type were sent to this school they would develop and before long be capable of returning to their regular grades. Care should be taken that such a school should not be given a name that will attach a stigma to the child, such as "School for the Feeble-minded," or even such a term as the "Training School." I believe that such a consequence could be avoided by giving the school a proper name, such as the "Lincoln School," or the "King George School." There would be less danger of such a stigma being attached where it was known that children came from this school again to the regular grades. It would be better, too, not to admit to such a school any child lower than a high-grade imbecile. Low-grade imbeciles and idiots should be in colonies apart. Such a school should have ample grounds and should provide all kinds of manual and agricultural work, physical culture and cadet drill, and the different sports and games.

FEAR AND ITS CURE

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Every teacher of young children must have encountered at some time what is commonly known as the "nervous" child, with whom all her efforts have availed nothing. The real condition of the child may be apparent only to an experienced observer, whereas to the inexperienced it may pass for a natural twist in the character or disposition of the child. The child may receive severe reprimands or punishments for a physical condition she is as powerless to overcome alone as she would be to cure herself of measles or any other childish complaint. For the future well-being of the child the fact that these conditions exist, and are by no means rare, should be fully recognized by those undertaking the instruction of the young, so that they may know, at least, what to look for. With this knowledge the teacher will better understand child nature and will realize that, when she finds herself unable to cope with certain situations, neither she nor the child is to blame, but that it may have become a situation not for the school-teacher but for the psycho-pathologist.

The cause of the inefficiency may be the outcome of some long-forgotten event in the life of the child, such as, for example, the recital of a terrifying story. The child is often ashamed of her fears, is afraid of being laughed at, and so hides her terrors within herself, in many cases to the detriment of her mental and physical health. The effect of emotions like fear has now been studied by experiments in animals, by which it has been shown that the secretions of the glands[1] can be so changed as to cause even death. However, the effects soon pass away unless the emotion is kept in mind by an association of ideas connecting it with some oft-recurring object or event. It is in these cases that the psycho-pathologist can unravel the often complex conditions which keep in the patient's mind distressing mental attitudes.

The cases related here are given as illustrations to show the great sociological importance of conditions purely psychological and to show that these can be removed with precision by physicians who are trained in doing so. In gaining the confidence of the "difficult" child, the teacher herself may find the cause of the trouble and help to bring about a more normal condition of mind and body. The following cases illustrate the persistence of such terrors when these are not adequately dealt with. The case which follows illustrates the persistence of such a night terror.

A girl of sixteen was referred to me for examination by Dr. Lichfield, of Pittsburgh, November, 1913. On account of great nervousness for years, she had never been regularly to school until the fall, when she had been

[1] See the work of Pawlow on the digestive glands, of Cannon on the adrenal gland, and Crile on the thyroid gland.

sent to boarding-school after convalescing from appendectomy, but had become so nervous that she had to return home after two days. Inquiry showed that she would frequently wake in the night very much afraid unless she were soothed by someone sleeping with her, so that she could never sleep alone. Further inquiries showed that a servant had told terrifying stories to her sister as a child; the horrors this brought ran thru a family of three children, but they passed away from all of them except this patient. She had been much indulged between the ages of three and six, and had been somewhat spoiled since owing to a supposed weak heart, and had always been considered a weakly child. Her father and an aunt had been timorous as children; the latter for nine years had not dared to be alone for a moment.

Examination showed feeble reflexes becoming active on reinforcement; muscle tone fair; weight 108 pounds; pulse 104 during examination, altho patient said she was not excited; cardiac sounds closed; chest expansion free; appetite said to be good, with certain dislikes; walking tired her, but dancing and tennis did not. Glasses had been prescribed for heterophoria, but she did not use them.

Psychic functions were unimpaired, except that she just wanted someone with her when in bed. Her fears were either of fires or of burglars, and they occurred only when in bed or asleep. She whined when dreaming and would wake frightened, but she never screamed, only clutching her companion desperately for reassurance. She was sure she wanted to get rid of this trouble; she could not remember the first occasion of fear. Noises such as creaking floors made her think there was someone in the house. She knew positively there was not, but she could not make herself believe it. She was ashamed of the emotion and would go to bed alone altho terrified if there was not someone else upstairs. She imagined a burglar might hurt her if pushed to it. Analysis showed that there was no definite fear of what he might do to her, but that the fear was of the unknown, and, altho it might have helped her to know it, it might have been too terrible. Her agitation upon speaking of this she attributed to her shame of appearing "babyish." I explained that there is no shame in what one cannot help. She was not less frightened when away from home. By touching any person in the room, her fear upon wakening would be tranquilized. The night fear was quite different from any fears in the daytime. Her dread was mingled with self-contempt at her "silly babyishness."

Three dreams were obtained. The first and second were of a burglar entering a window. The analysis showed only that the intruder aimed to shoot her sister, who was standing up behind her; a dream of fears of elevators led to no pertinent associations. As the dream analysis was so unfruitful, I believed it best at once to proceed to reconditioning the psychological reactions. This was attempted in the first place by studying

the child's power of understanding what I gave her to read about the psychology of fear, and by making clear to her what she could not understand alone. In the second place, she was given exercises in mental concentration, and, as she became more proficient in these, she was urged to apply them to the study of her own feelings of nocturnal apprehensions. The principle she was made to grasp was that fear and shame of her fears prevented her from facing and examining them, which was the essential preliminary to the understanding which would make them disappear. In ten days she returned home, not yet able to sleep alone but beginning to obtain mastery. A month later her mother wrote me that she was entirely well and when she wakened in the night would quietly turn over and go to sleep without troubling anyone and was physically and mentally better than at any time in her life. This condition still persists.

A case where night phobia was prevented.—The formation of a night terror was nipped in the bud in the case of a boy aged three and three-fourths years. I shall try to explain the method. For several weeks he had been visiting the zoölogical garden every afternoon, in the company of a French maid of exceptionally forceful character and apparently free from the superstitiousness of the average nurse. For a long time all went well, until one evening he began to cry in bed soon after he was left for the night. At this unusual occurrence, I mounted the stairs and inquired the cause of the boy's trouble. He said there were lions in the house and that he did not want to stay alone, as he was afraid they would eat him. The source of the idea had been that the lions had roared more loudly than usual on that particular afternoon, and he had been much impressed, standing for some time quite motionless before the cage, tho unterrified. I soon convinced the boy that the lions had to remain in their cages and could not get out, hence there were none in the house, so that there was no occasion for fear. Of course, it was first necessary to give him the feeling of security gained by embracing me, and secondly to begin the conversation by talking of something else, I have forgotten what. In this way the state of terror was dismissed, and the feeling of protection was induced before we returned to the subject of the lions; then we made rather a joke of the funny roaring of the lions before we had finished, and he finally lay down with the solemn purpose to go to sleep and think, as I proposed, of the tram cars and motors passing outside his open window. It was all a very simple substitution, but it was the prevention of what might have become a serious fear-psychosis if injudiciously handled.

It should not be difficult to see that these night terrors are a product of a suggestion while awake, implicit or explicit. It should not be difficult for those who are forewarned to prevent morbid fears of this type. I may cite the case of a southern lady who could never enter a dark place without feeling an indescribable horror. No hereditary psychopathy could be invoked to explain her dread, for none of her three daughters had the least

fear of the dark, and, indeed, they used to be sent by their school fellows into dark and eerie places without experiencing the least trepidation. The difference was that as children they were protected by their mother from tales told by the plantation negroes, who knew that dismissal would follow transgression of the prohibition.

If I say to a small boy that a bear will eat him up, the effect upon his emotions depends upon whether I make the remark with portentous gravity and horror, or whether I say it with bubbling joviality, as evidently a huge joke. In the first eventuality, the boy will rush to my side in terror and try to be saved from the bear, and a phobia is in course of construction. With the latter proceeding, the boy will laugh, and it would not take much to make him enter the cage and strike the bear. But even when terrified, a child feels a refuge in the protection of his elders during the day when they are rarely absent.

At night, however, the child is alone, and his little consciousness cannot find the support of others. Before the kaleidoscope of his dreams pass the various images and accompanying emotions of his waking life, so that, if any of these images has become linked with fear, it is certain to bring with it terror, as it surges into dream in the night, and the child jumps up, awakened, in panic, finding no one near him upon whom to lean.

It must be remembered that explicit utterance is not essential for the conveyance of ideas; for in the child a vague general notion is quite as effective for producing emotion as a clear-cut concept. Thus in Henry James's novel, *What Maisie Knew*, the whole suggestion conveyed by the governess to her two charges was implicit in her general attitude, for until the end there was not one explicit statement of her fear. Now, the explanation of this is very simple; it depends upon the fact that gesture precedes speech as a vehicle of thought. The infant comprehends the varying attitudes and vocal tones of its mother long before it can distinguish different words; and in most people this channel of information remains an important mode by which they are influenced, often quite unconsciously. Those of us who have studied the psychology of crowds are well aware of this, as likewise are the observers who compare nation with nation as regards gestural expression. Even adults of the same race, except the more cultivated, are swayed by a comedian much more thru his gestures and intonation than by his actual utterance. So with an orator or debator, or, indeed, with anyone who tries to persuade us even to purchase something from them. Our foolish minds are guided by the stress of an intonation, the cut of the hair, the character of the clothing, the glance of the eye, far more than by the arguments used or the words uttered; and with children this is so to a much greater extent.

Impaired efficiency from psychological causes is quite common in children. When a nervousness of this origin shows itself, a proper analysis of a child's mind is the first step toward its removal. A number of cases

of this description, the first ever published, were reported by me to the American Psychopathological Association.[1] In one of these, the ardent affection of a little girl was mistakingly repulsed by the parents. This led to melancholia. After one hour's analysis, she was cured in two weeks and restored to the class of normal children. On account of the over-anxiety of his mother, a little boy developed terrifying hallucinations even in the daytime; and, of course, school was out of question as the boy was supposed to be of a hopelessly nervous temperament. Half an hour's analysis served to explain this condition; and a few weeks of special training enabled him to return to school quite well. All these were cases of poor adaptation, which was supposed to be due to inherent nervousness more or less hopeless. They were really the results of faulty handling and required only a proper comprehension of their psychological constitution. All were the children of people of superior attainments and conscience.

METHODS FOR MAKING SURVEYS OF PUBLIC SCHOOLS, WITH SUGGESTIONS TO PRINCIPALS AND TEACHERS FOR RECORDING DATA ON SUBAVERAGE, SUBNORMAL, BACKWARD, OR DEFECTIVE CHILDREN

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The purpose of this monograph is not primarily to present the needs of abnormal children, but to indicate what types and varieties of children in the public schools should be subjected to special examination and to suggest methods for their observation. Such a procedure will serve:

1. For the early identification of subnormal, antisocial, and criminalistic children in the elementary public schools while still of teachable age.

2. As a means of ready classification of the subnormal and antisocial children into special classes without tedious psychological examination.

3. As a preventive measure to reduce the number of the retarded but apparently normal children in our schools.

4. As an economic measure to reduce the enormous expense and burden to the taxpayer of caring for the dependent delinquent and criminal classes in the state charitable and penal institutions after they are beyond help and have seriously harmed society.

I intend, first, to point out the imperative necessity of making use, and that immediately, of the means already at our disposal, viz., our public schools, for the early identification of incipient mental and moral defects in individuals while still of school age, and secondly to submit to you a practical and economical method whereby this end may be attained.

The public school is the logical clearing-house for detecting incipient subnormality, insanity, and criminality.—The machinery is already there and operating. There is no need of intricate laboratory tests, except for

[1] See *Journal of Abnormal Psychology*, February, 1913; *American Journal of Medical Sciences*, December, 1912; *Post Graduate*, 1913; and *Medical Annals*, January, 1913.

the extreme problematic and obscure cases. Here we have a typical community of future citizens, for we have "all the children of all the people."

Some may argue that we have no right to utilize the public schools as clearing-houses for such purpose; but since many of the individuals who pass thru the school become public charges later on as adult delinquents and offenders, why not identify them, teach them, and help them while they are of teachable age? I shall present to you what I consider a feasible and easy method of preventive work along this line. It has a further value —that of being economical.

In order to illustrate the necessity of children, particularly those of immoral or criminalistic tendencies, being identified early, cases are cited from the Milwaukee Industrial School for Girls, from the district attorney's office in Milwaukee, from Coulter House, Chicago—a home for girls rescued from the vice districts—and from the morals court and psychopathic laboratory of the municipal courts of Chicago. The average age at which the majority of these girls and women left school was about twelve, thirteen, or fourteen years of age (the fourth grade was the average grade), at which time they were already from three to five years retarded in their school work—a pathologic retardation which should have been detected during their school days. Many of these girls could have been saved morally, if not mentally, had proper educational work been given them so that they might have stayed in school longer. The downfall of these girls usually occurred from one to two years after they had left school, when they no longer had proper supervision. The majority of the women brought into the morals court, professional women of the street, who were tested by me during a period of two weeks, May 13 to May 27, 1914, showed an average mental age of nine and a half years, with the physical ages varying from ninteen to fifty-two years! With these figures to prove the necessity of a modified curriculum for the slightly subnormal girl, and also the necessity of having such individuals identified early so that they may be helped in time before they become a menace to society or are harmed by society, I shall demonstrate an extremely simple method of making a survey or inventory of abnormal children in the schools, in order to locate such individuals while they are of teachable age.

1. An extremely simple method based upon the age-grade scale plus rate of progress of children is submitted in this paper. This age-grade estimate is the quickest, most suitable, and economical way of establishing a norm for the pedagogical status of children. The age-grade scale plus a report on the rate of progress or attainment of a child quickly gives an index to his mental caliber. The only criterion upon which a child is judged should be his rate of attainment or progress in relation to his native ability. What is his native ability in relation to his environment? Is he living down or up to his environment—or is he reacting normally to his habitat? Would he progress more rapidly if he were transplanted?

A child's eligibility to public-school training can be quickly determined even during his life in the primary grades. By means of this early identification, whereby a moderately subaverage child need not be confused with the definitely and permanently subnormal child, the ineligible child can be weeded out and sent, not to special classes, but to residential schools. Every city should have not one but many residential schools for its markedly subnormal children. Every city should have "centers" of three to four rooms each, properly equipped, so that the adolescent subnormal boys and girls may work in separate rooms or classes, and so that the children requiring primary work need not be placed in with the older children and thus allowed to retard the older ones. With such centers properly equipped and with specialists as teachers, the progress of these children would be twice as great. By having each teacher an expert in one line, more immediate results could be obtained for the children.

2. Several valuable recommendations are as follows: Every six months special reports should be made by teachers and principals to superintendents showing children who are one or more years retarded and the cause or causes thereof. By having such reports showing when and why these children begin to retard, and when, why, and how they begin to regain, a permanent subnormality may be prevented, or at least a marked retardation may be arrested. The point of departure from normal to subnormal mentality—that is, the point where the retardation is sufficient to be considered pathologic—will be noted. Such reports would be a great help in studying normal childhood, for they would show the actual individual needs of growing boys and girls, and how such needs could be met by a very necessary revision of the public-school curriculum.

In the many cases of border-line types, where a mental arrest seems to take place on or about the pubertal change, no records are available to show whether, if these cases had been placed under an educational system adapted to their needs, they would have come out of this apparently temporary subnormal condition which has resulted in permanent arrest.

3. Every public-school should have on its staff a clinical psychologist, a physician, and a statistician, who, with the aid of a social worker and a trained nurse, would be able to effect the proper co-operation between the home, the school, and the abnormal, or refractory child who might later on develop into an adult delinquent to be cared for at triple the expense.

4. By keeping a record system in connection with every public school, and with a follow-up system carried into the Bureau of Municipal Statistics, there could be established a plan whereby all individuals who are feeble-minded or pathologically subnormal may be kept account of, so that marriage at least may be prevented and so that society may lend them a helping hand. They will then have the protection of the law and not be subject to the punishments to be meted out to normal individuals.

5. The most precious asset the nation has is its children. They constitute the capital of a nation. We conserve our forests and our rivers, our lake shores and even our wild animals; we study the blind fish in Cuba and the migratory geese of Florida, so as to protect the species; but the human young we do not conserve, in fact, we do not even protect it.

Every year the public schools produce human waste products, or by-products, as is evidenced by those who pass thru our various courts and psychopathic laboratories. Why not conserve the children in the public schools by having a special report every few months on those who are slightly retarded and are beginning to lag behind, so that the deviations from the normal may be studied in time to prevent mental and moral disaster later on? Many an immoral act has its genesis in the discouraged boy or girl. By such a system as indicated, the "soul value" of our children may be conserved.

From one-fourth to one-tenth of the taxes in many of our states go to support the dependent, delinquent, and criminal classes after they have become charges of the state. Why not reverse our method of procedure and give all this special care to the young while their abnormalities are still in their incipiency? The amount thus applied to preventive work in detecting the minor subnormalities of children and in identifying the slightly subnormal while still in the elementary school would soon be saved to the state. The problem therefore is one of economics, one factor of which is prevention along the lines indicated.

THE WORK OF THE NATIONAL ASSOCIATION FOR THE STUDY AND EDUCATION OF EXCEPTIONAL CHILDREN

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The movement started by the National Association for the Study and Education of Exceptional Children has assumed great influence since its last annual conference. Branch associations and committees of activity have been established in California, Oregon, Virginia, Georgia, and Washington, D.C. Pedagogical clinics and research work, under the auspices of the association, have been founded in several places. The systems of examinations and tests elaborated by the research clinic of the association have been studied widely and have been tried out and approved of in many places. Our classification and terminology have been steadily gaining ground; they form the texts in many university courses, and have, in their essential features, become accepted as the basis of all attempts at classification. The work of the association has been indorsed by a large number of

professional men and women in the medical, educational, and social fields of work all over the country and also by a number of national, state, and local organizations. Two presidents of the United States have expressed their appreciation and confidence; the national Bureau of Education is in fullest sympathy with our efforts.

The influence of the association has extended far beyond the boundaries of this country. We have been approached for advice and co-operation from such distant countries as far-off India and Australia. Correspondence and co-operation have been established with England, France, and Germany, and we have even been in communication with St. Petersburg, Sofia, and various places in Italy and Switzerland. Everywhere it is conceded that our association has reached down to the very foundation upon which civilized society is built, and that it has given the clearest perspective of the problem of differentiated education ever yet shown. It has sounded the keynote of all educational reform.

A PRACTICAL EXPERIMENT WITH BACKWARD CHILDREN

JOHN W. CARR, SUPERINTENDENT OF SCHOOLS, BAYONNE, N.J.

In the spring of 1911, the New Jersey legislature passed a law requiring all pupils "three years or more below the normal" to be taught in special classes. The law provides that the number of pupils per class shall not exceed fifteen and that the commissioner of education shall prescribe the necessary rules and regulations for carrying the law into effect.

In the fall of 1911, the city of Bayonne established seven classes for backward pupils, but as the commissioner of education had not yet interpreted the meaning of the expression, "three years or more below the normal," we placed pupils in these classes who were three years or more below grade and also those who were semi-incorrigible. Many of these pupils proved to be backward, not on account of lack of mentality, but because they were of foreign birth and had not been regular attendants at school, or had not applied themselves, or for other reasons than low mentality. The result was that many of these pupils did the work of normal children; several, in fact, did two or more years' work in one year. The experiment demonstrated that special classes for backward pupils were helpful, but just how helpful we did not know.

Before the close of the school year 1911–12, the commissioner of education had interpreted the law of 1911 and had formulated rules for the organization of special classes. By his interpretation, "three years or more below the normal" meant in mentality and had nothing to do with classroom grading. He also laid down rules for certificating teachers of special classes and for determining what pupils were "three years or more below the normal."

In the fall of 1912, our special classes were reorganized into groups.

1. Pupils who were three years or more below the normal in mentality according to the Binet test were placed in one group. An expert was employed to make the test. Five such classes were established.

2. Pupils who were semi-incorrigible, but who were not three years or more below the normal in mentality according to the Binet test, were placed in another group. One such class has been maintained. This class is not considered in the discussion which follows.

3. Pupils who were of foreign birth and unable to speak and to understand the English language were placed in a third group. These pupils were in no way below the normal either in mentality or in conduct. Many of them have shown remarkable talent. I shall not consider this group in the discussion given below.

If schoolroom facilities had been available, at least one other kind of special class would have been formed: namely, for pupils who are backward for other reasons than those mentioned above, but who are not mentally defective.

One of our difficult problems has been to secure suitable teachers for these special classes. None of our teachers had been specially trained for such work, but with one exception each has taken special courses since assignment to teach a special class. These courses consist of work in abnormal psychology, manual training suitable for defectives, and observation and practice in teaching backward pupils. Each teacher had had a normal-school education and, with a single exception, several years of successful experience in teaching.

The course of study for subnormal children is necessarily very flexible. In fact, each teacher has been given great latitude in selecting the work which the pupils seemed best able to do. At least half of the time has been devoted to manual work of various kinds—sewing, crocheting, sloyd, joinery, basketry, caning, reed and raffia work, painting, clay-modeling, hammered brass work, and the like. There is some differentiation of the work of boys and girls, yet many of the boys have shown aptness in sewing and some of them may become tailors. Each class is not required to do the same work that the other classes do, but great latitude is allowed. One class took the home as a center of interest. A miniature two-story house about five by six feet was designed and built by the boys and equipped with miniature furniture. The boys even wired it and had it lighted with electric lights. In addition to making miniature furniture, the children made many usable articles such as tables, benches, towel rollers, bread boards, broom holders, flower-pot stands, picture frames, tool boxes, stools, tool racks, and the like. Several boys made small express wagons. One boy was offered six dollars for his wagon. The boys were taught to paint their wagons as well as to make them. The girls in the same class were taught to sew, knit, darn, embroider, draw, and paint. They made caps,

aprons, simple dresses, slippers, and sewing-bags. Another year we hope to teach them how to cook.

Another class consisting entirely of boys did hand work as follows: woodwork—small articles, mechanical toys, footstools, taborets, sewing-tables, picture frames, screens, etc.; basketry—reed and raffia; sewing—tailor work, making skirts, making curtains to darken assembly; home decoration—use of stencils, application on articles for home use, sofa pillows, table runners, screen panels, etc.; gardening—raising vegetables for home use; knitting and crocheting—slippers, bootees, baby sacques, sweaters for personal use, afghans, etc.

Only about one-half of the time is devoted to academic work—reading, writing, spelling, the mechanical processes in arithmetic, and language work. Most of these pupils do fairly well in writing, but many of them have great difficulty with the academic work. Much time is given to phonics and word drills as reading is very difficult for them to learn. The language lessons consist chiefly of story-telling and the writing of easy sentences and short letters. Most of them learn how to write their names and addresses, and how to address a letter. Considerable time is devoted to sight spelling, only the most common words being given them to memorize. Even with the best of teaching, only comparatively few do good academic work. These are placed in classes with normal pupils.

In addition to manual and academic work, special attention is given to gymnastics and group plays. They are taught games and folk dancing. Sense training is also emphasized. Exercises are given to train the senses of sight, hearing, taste, touch, and smell. By means of games and otherwise, they learn to distinguish color.

The cost is more than three times as great per pupil in these special classes as it is per pupil in classes of normal children. Special equipment is required for manual work, and much more material is used than is given to normal pupils. Larger salaries are paid to teachers of these classes than to other elementary teachers. As the maximum number of pupils is fifteen, it is readily seen that the number of teachers per hundred pupils is nearly three times that of normal children. The cost could be diminished one-half by increasing the size of these classes to thirty, but the results would be much less satisfactory. The state allows five hundred dollars per teacher for the special teachers of backward pupils, thus relieving the burdens of the local taxpayer to some extent.

What results have we attained for this increased expenditure of time, talent, and money? Is the game worth the candle? We have not conducted these special classes long enough to give a final answer. Some tentative answers follow:

1. The regular classes have been relieved of these backward pupils, thereby enabling teachers to devote their time and energies to the instruc-

tion of normal children. This is of itself a matter of great importance to the school and certainly compensates in part for the additional expense.

2. For the first time these backward children have been given a fair chance to develop the best that is in them. They are not expected to reach standards set for normal children, neither are they made the butt of ridicule if they do not succeed as well as others do. But they are given something which they can do, and then they are encouraged to do their best. All have shown marked ability in some lines. During the last two years, forty-two of these supposedly defective pupils have been transferred to regular classes; thirty-four of these, or 81 per cent, have been able to keep up with regular classes. Probably none of these would ever have done satisfactory classwork if they had not been placed in special classes.

3. The pupils in these special classes are far happier than they ever were before, and their attitude toward the school has entirely changed. These children have not been accustomed to receive special attention, neither have they ever before been able to do things which would attract attention and call for commendation. Now visitors come to their rooms to see their work, and whenever an exhibition of school work is made, their exhibits are among the most attractive. No class of children are hungrier for praise or appreciate it more. As a result of being given hand work which they like and commendation for their efforts, their whole attitude toward school has changed. Several of these pupils who had been confirmed truants are interested in their work and regular in attendance. In fact, the attendance of the pupils of these classes surpasses that of the regular classes. One class had perfect attendance for more than a month and some others did nearly as well.

4. As to discipline these pupils differ greatly. As a rule most of them have not been troublesome, yet some are extremely erratic and non-dependable. One boy in particular often screams out without cause and becomes for a time unmanageable, then quiets down again. Most of them have weak wills and are extremely susceptible to example or suggestion. They find it extremely hard to stick to any one thing or to do anything on their own initiative. Weak wills and lack of initiative are likely to cause their undoing in the future.

But what is to be the final result? Will these children ever be able to become self-supporting and respectable members of society? No one is able to give definite answers to these questions. Time alone will tell. The one best guess is that some will be able to be self-supporting, many will not be. Thirty have already been exempted from school attendance to go to work. Exactly half of this number have been able to keep their jobs.

All teachers give it as their opinion that about half of these children under proper supervision may become self-supporting and that the other half will always be a burden to their family or to society. As to what these

children will become morally is still more problematic. The home surroundings of some are very poor. Some of the children are underfed. "A majority of these children," says one teacher, "are fed on bread and coffee. The family never sits down to a regular meal." Many are out to picture shows every night. They come home at all hours and their parents never question them. Many are suffering from physical infirmities—poor eyesight, bad teeth, adenoids, and the like. The mentality and will power of all are below par. Under such circumstances, it will not be surprising if many meet with moral shipwreck.

What are we going to do in the future? In the first place, we shall continue to study our problem. We shall endeavor to work out a better course of study and to improve our methods of instruction. We shall try to remedy more physical defects by closer medical inspection. We shall also strive to improve home conditions. By so doing, we hope to make all these children happier and to save many to lives of usefulness and honor. In the second place, we hope to convince society that many of these children should be permanent wards of the state, kept at healthful occupations under proper supervision, and prevented from becoming alike a menace to society and the prey of society.

READING AND ARITHMETIC AS TESTS OF MENTAL ABILITY

CLARA SCHMITT, CHILD STUDY DEPARTMENT, PUBLIC SCHOOLS, CHICAGO, ILL.

The reading process may be measured with reference to two things, quantity and quality. The term "quantity" relates to the pronunciation of words from a purely mechanical standpoint. The term "quality" relates to the ideas or complexes of ideas aroused in the mind of the reader.

The reading tests were given to seventeen children of each grade from the first to the sixth. The same tests were given at the same time in the same schools to forty-eight defective children between the ages of ten and sixteen, all of whom had been in a special room for defectives not less than a year and many had been in such a room for several years. The defective children tested seven years of age by the Binet scale and had passed other tests showing good visual perceptive abilities.

The tests were the story of "The Fox and the Grapes" on p. 100 of the *Howe First Reader*, and the following paragraph:

"It was a fine spring morning in the year of 1826 about ten o'clock, when Mr. Amos Bliss, manager and one of the proprietors of the *Northern Spectator*, might have been seen in the garden behind his house planting potatoes. He heard the gate open behind him, and, without turning or looking around, became dimly conscious of the presence of a boy. But the boys of country villages go into whosesoever garden their wandering fancy impels

them, and, supposing this boy to be one of his own neighbors, Mr. Bliss continued his work and quickly forgot that he was not alone."

The data noted were: time for reading the selection, verbatim reproduction of each selection, the child's interpretation of the motive of the fox in saying that the grapes were sour, and the number of words mispronounced.

The story of the fox and the grapes is a lesson given to the first grade about the end of the year. All the first-grade children of the test had had this lesson. All the children chosen for the test were average good readers for the grade. The defective children had had much experience with this lesson.

The reproduction of each selection was classified as *scant*, *adequate*, or *full*. A reproduction which did not contain all the essential elements of the story was classed *scant;* one which contained only the essential elements was classed *adequate;* one which contained most of the details of the original story was classed *full*.

The following table shows the data for the first test.

DATA FOR READING TEST I

Grade	Number of Children	Average Time	Average Number of Errors	Reproduction			Interpretation	
				Scant	Adequate	Full	+	−
I.....	12	82 seconds	.5	3	9	0	6	6
II.....	17	62 seconds	0	0	9	8	6	11
III.....	17	48 seconds	0	0	4	13	13	4
IV.....	17	48 seconds	0	0	5	12	15	2

The following table shows the data for the second reading test.

DATA FOR READING TEST II

Grade	Number of Children	Average Time	Average Number of Errors	Reproduction		
				Scant	Adequate	Full
II.....	17	194 seconds	7.8	14	3	0
III.....	17	91 seconds	2.8	13	4	0
IV.....	17	74 seconds	1.0	6	7	4
V.....	17	54 seconds	.5	0	9	8

The errors in pronunciation made by the normal children were always in favor of a word which had considerable visual or phonetic resemblance to the correct word. The errors made by defective children, in the first selection, which was very familiar to them in content at least, were phonetically or visually absurd but were calculated to fill in a remembered context.

The reading of the defective children presents such irregular characteristics that averages which would present any meaning are difficult to obtain. Twenty-four of the forty-six defectives could read the first selection with less facility than the first-grade children; twelve were graded as equal to the first-grade children; ten were graded equal to the second-grade children as regards the qualitative and quantitative aspects of the second test. Two of the defective children who read the second selection gave adequate accounts of the selection; all the others gave scant or no accounts.

DEPARTMENT OF SCHOOL PATRONS

SECRETARY'S MINUTES

OFFICERS

President—Mrs. William S. Hefferan, National Congress of Mothers .....Chicago, Ill.
Vice-President—Mrs. L. L. Blankenberg, General Federation of Women's Clubs
Philadelphia, Pa.
Secretary—Mrs. Louis Hertz, Council of Jewish Women.....San Francisco, Cal.

FIRST SESSION—Thursday Afternoon, July 9, 1914

The Department of School Patrons met in the Knights of Columbus Hall and was called to order at 2:30 P.M. by the president.

The following program was presented:

"President's Report"—Mrs. William S. Hefferan, National Congress of Mothers, Chicago, Ill.

"Summary of Reports of State Joint Committees and Affiliated Organizations, 1913–14"—Mrs. W. S. Hefferan, National Congress of Mothers, Chicago, Ill.

"Report of the Committee on School Health"—Mary Elizabeth Bates, M.D., Denver, Colo., chairman.

"The Responsibility of School Patrons with Regard to School Questions":

a) "School Health"—Maggie W. Barry, head of department of English, North Texas College, Sherman, Tex.

b) "School Revenue"—Francis G. Blair, state superintendent of public instruction, Springfield, Ill.

Discussion: Mrs. Clarence L. Atwood, president, Minnesota Federation of Women's Clubs, St. Cloud, Minn.; and Margaret E. Schallenberger, commissioner of elementary schools, Department of Public Instruction, Sacramento, Cal.

Edward J. Ward, Bureau of Social Center Development, University of Wisconsin, Madison, Wis., presented a resolution indorsing a bill to be presented to the Wisconsin legislature to create the office of civic secretary for public-school social centers. The resolution was adopted.

Mr. Ward also introduced a resolution to make the principal of the school the supervisor of elections when such elections take place using the public school as a polling-center. Much discussion took place but the resolution was not passed.

The president of the department presented a vote of thanks to Mary Cunningham, chairman of the local Committee of School Patrons, and also to those who took part in the program.

It was moved, seconded, and carried that the executive committee of the Department of School Patrons be empowered to conduct the work of the department during the year.

The following officers were elected for the ensuing year:

For *President*—Mrs. Louis Hertz, Council of Jewish Women, San Francisco, Cal.
For *Vice-President*—Mrs. Philip N. Moore, trustee, College for Women, University of the South, St. Louis, Mo.
For *Secretary*—Mrs. E. L. Baldwin, state chairman, Department of School Patrons, San Francisco, Cal.

SECOND SESSION—Friday Afternoon, July 10, 1914

The department met in joint session in the Auditorium with the Department of Secondary Education and was called to order at 2:30 P.M.

The following program was presented:

"The Responsibility of School Patrons with Regard to the Teaching of Sex Hygiene"—William B. Owen, principal, Chicago Normal School, Chicago, Ill.

"The Responsibility of the Teacher with Regard to the Teaching of Sex Hygiene"—Ralph E. Blount, instructor in physiology, Waller High School, Chicago, Ill. (For this paper, see Department of Secondary Education.)

"Some Experiments in Sex Education"—James E. Peabody, head of department of biology, Morris High School, New York, N.Y. (For this paper, see Department of Secondary Education.)

MRS. LOUIS HERTZ, *Secretary*

PAPERS AND DISCUSSIONS

PRESIDENT'S REPORT

MRS. WILLIAM S. HEFFERAN, NATIONAL CONGRESS OF MOTHERS, CHICAGO, ILL.

The Department of School Patrons, with the represented host of over a million volunteer workers from the five great national women's organizations—the General Federation of Women's Clubs, the Congress of Mothers, the Council of Jewish Women, the Association of Collegiate Alumnae, and the Southern Association of College Women—feels that the past two years have meant much in positive results but more in the laying of foundations for increased community co-operation with the schools.

The department plan, as tested, has shown the wisdom of those who approved its beginnings; all educational work attempted or countenanced is to receive previously the seal of approval from the national body of professional educators, and is to be desired expressly by the local school authorities. The avenues of effort are everywhere—strong existing organizations uniting for this concerted and professionally guided effort. The possibility of friction or waste is avoided. Thus the wisdom of the highest educational authority and the enthusiasm of the most successful volunteer groups are systematically transmitted to the entire circle.

Joseph Swain, President of the National Education Association, says:

> I believe that the most important work can be done by the Department of School Patrons by focusing public attention in all parts of the country on school reforms provided by the best expert knowledge.

Work undertaken the last year, as heretofore, has been the arousing of public opinion for desired legislation for the enforcing of existing provisions, for the increase of revenue for school purposes (bond issues and other means of financial support), for school health and all it means in the way of medical inspection, school nurses, proper ventilation and lighting of schools, and for rural-school improvement.

In general, by state-wide effort, the three lines of advance, school health, revenue, and rural-school improvement, have been followed. Locally, the joint committees in each state suggested not the immediate end to be

gained, but where to learn that end—at the office of the county or city superintendent, the principal, the teacher. The means are any or all groups of public-spirited workers, including, whenever possible, the parents of the children in each school.

At present almost the whole burden of child direction is resting on the schools—the mind, body, morals, work, and play. This burden is heavier than should be borne. There seems no wise solution except to secure direction from the schools for the parents until these parents can be trained into wisdom in regard to the welfare of their own children and of all children, which means universal parenthood. In this great co-operative undertaking the Department of School Patrons hopes to be the useful channel.

SCHOOL HEALTH COMMITTEE

This committee has worked consistently for medical inspection in the schools, using the Colorado law as a copy. The committee feels that the new conception of school health involves the adaptation of the school to the child instead of vain attempts to force the child to fit the school.

Leland Hoag, of Leland Stanford Junior University, says:

> The modern school-health officer must be a specialist carefully trained in the problems of child hygiene, particularly as this applies to the school child.
>
> The division of school hygiene should include in its functions not only the health supervision of school children and maintenance of healthful school environment, but also supervision of the teaching of hygiene, of the health of teachers, of physical education, and of a public lecture department for parents, where topics on the home and school hygiene of the child may be presented.

SCHOOL REVENUE

A great educator, in a recent address, said that the old education—education based on the textbook alone—was inexpensive, as to both equipment and teachers, but that the new education with its very broad curriculum was expensive—expensive as to equipment and as to the quality of teacher needed for its development. It is interesting to note that school patrons are always clamoring for better schools, better equipment, and better teachers, but rarely concern themselves with the source from which these must come, namely, school revenue. It is high time that school patrons bestir themselves to become better acquainted with the manner of obtaining funds for school purposes in each state and that they unite to obtain increased revenue thru intelligent legislation.

For instance, it takes no argument to prove that the state as a whole should assume a fair share of the burden in educating its future citizens, and that the annual appropriation made by the state should keep pace with the increase in population and wealth and should parallel the ever-increasing demands of the state for the greater efficiency of her citizens. The state should provide at least one-eighth of the amount required for school purposes. Not more than a third of the states have enough revenue for their

schools and less than one-fourth of the states make an annual appropriation of a fixed sum.

Attention is drawn to the advantages of a fixed rate of taxation on property for educational purposes rather than an annual appropriation of a fixed sum. As property values and the number of school children increase, the revenue for schools increases if there is a fixed rate of taxation for school purposes, whereas it remains the same if the annual appropriation is a lump sum. In the latter case the amount is difficult to increase, while in the former it increases automatically as property values rise. Here is a definite bit of work for revenue which a group of patrons might undertake. People may differ as to how the revenue for school purposes is to be obtained, but the fact remains that better schools and teachers will cost money. How can this money be secured? By every school patron taking an interest in school-revenue questions and working for helpful legislation in the matter.

RURAL-SCHOOL IMPROVEMENT

P. P. Claxton, United States commissioner of education, sent the following definite suggestions to the Department of School Patrons, which were printed and circulated among the members:

Probably the most important problem in education in the United States today is the improvement of public schools in rural communities. In the very small towns, villages, and open country nearly two-thirds of the total school population live—probably a larger percentage of the native school population. These children must be educated in these schools if at all. For many reasons these schools have received less help from the state and the Union than the schools in the larger towns and cities.

The average length of term of the rural school of the country at large is less than 140 days. The average length of the schools in the open country is probably less than 110 days. Most of the rural schools are one-room, one-teacher schools. Enrolment is comparatively large, but the attendance is much more irregular than in towns and cities. The teachers are poorly paid and poorly prepared. Only a small percentage of them have any adequate professional training, and in many states more than half of them have had less than a good high-school education. Most of them are young women scarcely out of their teens. They teach only for a few years, the average length of teaching service being only about five years of six months each, or thirty school months.

Fully 25 per cent of all the teachers in rural schools at the beginning of any year have had no previous experience in teaching. The teachers are migratory. They seldom remain more than two or three years at the same place. Statistics seem to show that more than two-thirds of the teachers in any year are teaching at places where they have not taught before. Rarely does a teacher remain at a place longer than four years. Frequently they are young men or women from the towns. They therefore know little or nothing of rural problems, and nothing of the life of the country child; they have no opportunity to build from year to year on their own work, nor have they the knowledge necessary to adapt the work of the school to the out-of-school life of the child, either its pre-school life or its contemporary life. These young, inexperienced, uneducated, migratory teachers are without the supervision which better educated and better trained teachers have in the city. The county superintendent frequently is not an educator, and seldom has time to spend more than a few hours a year in any school. Seldom are there superintendents for special lines of work. Everything, therefore, depends on the teacher.

I can think of no solution of the problem except to consolidate the schools so as to make them large enough for at least two teachers, to build schoolhouses adapted to a richer course of study, including agriculture, domestic science, and such forms of industrial work as are suited to the country, and to build a home for the teacher at each school. This home should be accompanied by a plot of ground of not less than ten acres—twenty or thirty acres would be better. The teacher should be required to live in this teacher's home, to make it as nearly as possible a model rural home, and to cultivate the ground in such a way as to make it a practical demonstration of the best methods of cultivation of the various crops that can best be grown in the community. This any teacher could do who ought to be permitted to teach a country school. Of course he could easily have the help of the state and federal Departments of Agriculture and of the state agricultural college. The house and grounds should be given to the teacher in addition to his present salary, and whatever he can make off the ground should be his. In this way it would be possible to obtain as teachers in the rural schools men of ability and maturity who can continue in the work and who would remain from year to year at the same place. Of course the assistants should be women who know country life and have the ability to teach domestic science and arts adapted to country life.

During the 1913 National Education Association Convention in Salt Lake City, Commissioner Claxton, in his address before this department, asked that the department aid him in a nation-wide plan for helping the schools thru home education. For such nation-wide co-operation the department is exceptionally well equipped, because of its state joint committees, which in each state unite the great women's organizations of that state for educational purposes. In accordance with this plan of national usefulness, Commissioner Claxton recently honored this department by appointing its president as a special collaborator in the Bureau of Education.

I wish to acknowledge here and now the very great help that the Bureau of Education has been to me and my colleagues in guiding and directing our work and in sending helpful literature of every sort to aid us in our attempts to reach the patrons. The bureau offers rare opportunities to patrons to study school affairs thru the excellent reports on health, compulsory education, rural schools, etc., and I urge its use by all serious students of education among the patrons.

SUMMARY OF REPORTS OF STATE JOINT COMMITTEES AND AFFILIATED ORGANIZATIONS, 1913–14

Reports have been received from the chairmen of State Joint Committees of twenty-four states.

Alabama.—Local taxation and compulsory education are Alabama's greatest educational needs, so the committee's entire effort has been concentrated on these two measures. Publicity has been the keynote of the work, and the main endeavor has been to reach the average citizen.

1. A four-page pamphlet was published under the heading "Facts Every Alabaman Should Know." The facts herein presented were

compiled from the reports of the state department of education, the Russell Sage Foundation, and the United States Bureau of Education. A leading feature of this leaflet was the pictorial presentation of the arguments by means of original charts based upon latest statistics as to attendance of Alabama school children, and white illiteracy in Alabama compared with other sections.

Ten thousand of these pamphlets were distributed at the two state fairs, at the State Convention of Women's Clubs, at individual club meetings, at conferences of teachers called by county superintendents, at a conference of Methodist preachers, at meetings of school-improvement workers, and thru the state department of education. This pamphlet was reproduced in full by the *Educational Exchange*, by the *Birmingham News* (circulation forty thousand), and was copied by various papers thruout the state. On a conservative estimate this publication reached seventy-five thousand individual citizens even on a basis of only one person reading the paper in which it appeared.

2. As part of its follow-up work the committee has published a series of articles on compulsory education in the newspaper with the largest circulation in the state. Copies of the series were sent to numbers of influential citizens and school-improvement workers and to every county superintendent with a personal letter requesting co-operation in the campaign. It went to approximately one hundred women's clubs, with a personal letter requesting that it be read in full before the club. It also went to thirty-five leading newspapers with a personal letter asking that it be copied in full. If only a fourth of those approached complied with our request, the series has reached, on a conservative estimate, three hundred thousand citizens.

3. The committee has complied with requests from numbers of organizations for speakers or written addresses for their open meetings, and has thus reached hundreds of club women, teachers, preachers, patrons, and social workers. The chairman has personally addressed twelve organizations and is now preparing to fill out-of-town engagements. Thru an address before the convention of the Alabama Sociological Congress, compulsory education was included in this organization's list of remedial legislation. After an address before the Jefferson County Teachers Association, a resolution was passed by which that body requested of all county candidates for the legislature a public declaration of their position on compulsory education and on local taxation. Most of the candidates declared in favor of the measures.

Our method of financing this work may be of value to other states, so it is here given. The committee felt that if it would personally finance the work until the movement was well started others would be willing to help. (1) The request that each committee member contribute five dollars brought enough to buy letterheads and to pay part of the first printing; (2) the

pamphlet was submitted to a printer known to be interested in education, and he not only made the lowest estimate on the job ($40), but, in addition, discounted the bill 50 per cent; (3) the series of articles was so prepared as to make good copy according to the newspaper point of view. As a result the largest of the Alabama papers agreed, for the privilege of handling it exclusively, to send copies direct from the office to any list of names we submitted. We were saved in this way an immense amount of clerical work and also secured about $75 worth of papers. To finance the more extensive work necessary for next year, when our legislature is in session, the committee has already adopted its plan. Certain clubs and individuals, known to be interested in such movements, have been invited to become "contributing associates" in our work. All publications will continue to go out as the work of the committee members, but those co-operating financially will also be listed under the above title. The minimum contributions are one dollar for individuals and five dollars for clubs. A number of responses are coming in, so we hope for a most fruitful year in 1914–15.

Arkansas.—All the women's organizations united to obtain compulsory school attendance in all the counties (nine have it now). Also worked for medical inspection in the schools and secured the establishment of a domestic-science department in the University of Arkansas.

Delaware.—There has been united effort to secure a woman's affiliated college for the state, which effort was crowned with success.

District of Columbia.—Concerted effort has been made by all the organizations for better health conditions for school children, lunches for school children, and the general improvement of school conditions. Work for medical inspection in the schools has been pushed and a course of lectures in eugenics has been carried on.

Florida.—The Joint Committee has been working to secure, in the 1915 legislature, a local option compulsory education law; it has also worked for a girls' industrial school, and for a model home for the home economics department of the Woman's College.

Illinois.—The Joint Committee made a comprehensive study of school boards in cities with a population of one hundred thousand or over, with a view to preparing a law for the next legislature providing for small boards elected at large.

Indiana.—Parent-teacher associations have been formed and such questions as "The Gang Problem," "Sex Hygiene," and "Playgrounds" have been considered by these clubs.

Kansas.—There are two measures that will be presented to the next legislature. They are of great importance to the educational interests of the state, and every club is urged to study and discuss them thoroly.

1. The county unit will do more than any one thing to improve the rural schools. A late report made by the superintendent of public instruction shows that there are 7,877 one-room schools in Kansas. By equalizing

the taxes the school standards will be raised, and the boys and girls of the rural schools will have an equal opportunity with those in town. A recent survey in Kansas made by the superintendent of public instruction shows that 80 per cent of the pupils living in urban communities finish the eighth grade and enter the high school and only 20 per cent in the state as a whole. This low average must be caused by the rural school. The young people drop out because of lack of opportunity and incentive to complete their education.

2. Of equal importance to the state institutions of higher learning is the mill tax. This would supply a regular and adequate income that could be depended upon, it would increase with the growth of wealth, and it would enable the schools to meet the new demands and increased expenses without the unrest and anxiety the present system entails. If the state colleges were put upon this basis, it would remove them largely from political influence. Too often they are now made the football of politics and are subject to the caprice of legislatures. Our state institutions cannot reach their highest efficiency until they are established on a permanent and dignified basis.

Kentucky.—All of the women's organizations are endeavoring to lift the stigma of illiteracy from the state. Night schools for adults have been established; these night schools are mostly in the country and the report is made that these adult pupils are enthusiastic and persistent in learning to read and write, using newspapers and the Bible as readers.

Maine.—The Joint Committee worked for a teachers' pension bill and for better sanitary conditions in the schools.

Maryland.—Successful work was done in increasing the scope of the Maryland Agricultural College. Efforts are being made to secure a state-wide compulsory school attendance law.

Michigan.—Secured the local adoption of a measure made voluntary by the last legislature which provides for limited school boards elected at large.

Mississippi.—Legislative: (1) The child-labor law was strengthened by providing for a factory inspector to enforce the law; (2) the age of consent was raised to sixteen years; (3) the office of county agent of home economics was created, the expense to be met by the boards of supervisors. The specific duties of these county agents are to promote and supervise canning and poultry clubs and other organizations for home improvement. This places the demonstration work for girls and women on the same footing as that for boys and men; (4) the appropriation for common schools was increased nearly $500,000; (5) the apportionment for county agricultural high schools was nearly doubled.

Health: The various women's organizations together with the Anti-Tuberculosis Committee of the state Board of Health and the School Improvement Association have formed an effective co-operative force to

improve health conditions in the public schools and particularly in the rural schools. Prizes were offered, health campaigns carried on, bulletins issued, and special days observed. The following report from Carroll County, which won the grand prize for health improvement, gives an idea of the details of this work.

CARROLL COUNTY

Schools in county	53	
Schools reporting	53	
Members local associations	2,448	
Sanitary closets built and cared for in	18	schools
Individual drinking-cups in	53	"
Covered water coolers in	44	"
Wells dug or cleaned in	31	"
Brooms in	46	"
Oiled floors in	24	"
Oiled dust cloths in	20	"
Good ventilation in	25	"
Medical inspection or instruction in	53	"
Drills in care of teeth in	38	"
Drills in care of nails in	31	"
Correlation of school work with health work in	34	"

Each school in the county was visited by R. N. Whitfield, M.D., in a hookworm campaign, and he delivered a lecture on hookworm, typhoid, malaria, and tuberculosis, giving suggestions on the prevention of those diseases. He also inspected the buildings and grounds and offered many suggestions on ways to improve the health conditions of the house and grounds.

"Health Day" and "Clean-up Day" and "Beautify Day" were each observed very generally by the women's organizations as well as by the schools and the teachers' organizations. Special programs for these days were furnished by the state department of education.

Industrial clubs: The women's organizations have encouraged the girls' canning clubs by offering handsome prizes, but best of all by pledging themselves to buy and use the club products as long as they are available and satisfactory. The club girls in 1913 packed 210,000 cans of tomatoes and more than 6,000 gallons of other products for home use and for market.

Montana.—A vocational congress was held at Bozeman to promote vocational education in the state. The women's organizations helped raise sufficient funds to maintain the College of Montana at Deer Lodge.

New Hampshire.—The Joint Committee worked under the direction of the state superintendent of public instruction, holding a conference at which vital school questions were discussed and a "declaration of principles" adopted. These "principles" put special emphasis on the necessity for the immediate enactment of laws which shall make competent professional supervision of schools universal thruout the state.

New Jersey.—Held public-health education meetings addressed by prominent physicians and educators on social, infant, and child hygiene. There was general co-operation with the commissioner of education and the board of education for better health conditions for children.

Oklahoma.—A large number of scholarships are being maintained by the club women. There are five such scholarships in connection with the State College for Women at Chickasha. There is a strong interest in rural-school improvement.

Oregon.—The women's organizations urged the use of the schoolhouses as social centers, with a view to provide night schools in manual training for boys employed thru the day.

Pennsylvania.—The work of the women's organizations includes campaigns for women on school boards, vocational guidance in the schools, improvement of rural schools, and the encouragement of home and school leagues.

Texas.—The women's organizations represented in the Department of School Patrons have shown a marked unity of purpose and method in their activities for the state's general educational advancement and for the enrichment of the child's school life. Efforts have been directed toward adequate local school taxation; toward the removal of the fifty-cent maximum limitation of local school tax; toward the consolidation of rural schools and the transportation of pupils at public expense; toward the giving of instruction in agriculture, manual training, and home economics in rural high schools; and toward graded school libraries, the number of volumes in these libraries having increased 23 per cent in two years. Pictures, pianos, victrolas, stereopticon lanterns, and playground equipment were installed. Books and clothing were supplied to children upon the recommendation of principals, and various means are being used to promote regularity and increase of school attendance.

One of the organizations is investigating teachers' pensions. The campaign for a suitable compulsory school attendance law, for adequate child-labor legislation, and for school-health protective measures continues. Thru the efforts of the women another city incorporated the kindergarten in the public-school system. The movement for the wider use of the school plant is making rapid strides. The number of schoolhouses built during the year is probably not exceeded by that of any other state.

We are advancing and we look hopefully forward to the enactment of certain legislation which will enable a still more rapid and enduring improvement and development of the entire public-school system.

Utah.—The Joint Committee established a central community club which co-operates with the schools. Various women's organizations secured the passage of a law by which cities of the second class were allowed to tax themselves by a raise of two mills, thus securing high schools to

some localities. Home economic associations, covering large territory and contributing to home improvement, have been organized.

Vermont.—Effort has been made to provide better salaries for teachers, to secure medical inspection in the schools, and to establish a department of school hygiene.

Washington.—A letter was sent to each parent-teacher club, collegiate alumnae organization, and the Jewish Council of Women, asking them to discuss school health, with the idea of securing a state school law. A copy of the Colorado law was secured, with the view to working for a similar one in Washington next year.

The School Patrons' Committee has assisted in the work of improving the rural schools, co-operating with the state superintendent. Agricultural contests were held, and in many localities domestic science and manual-training contests were conducted.

Wisconsin.—Recommended medical inspection in the schools, also visiting nurses, and fresh-air schools. Worked for one or more women on the school board. Emphasized the need of vocational training. Worked for better conditions in rural schools.

REPORT OF THE COMMITTEE ON SCHOOL HEALTH

MARY ELIZABETH BATES, M.D., DENVER, COLO., CHAIRMAN

The increase in interest in the subject of school health in all of its phases during the past year has been notable and encouraging. Sanitation as applied especially to school buildings and premises has received more and more attention from the women's clubs as being one field which is admittedly responsive to their best efforts, and one which they should make peculiarly their own because their children's interests are closer to them than they can be to merely delegated authority. Tactful and intelligent help and co-operation will never be repulsed unkindly.

The question of medical inspection grows larger each year. It is fast achieving the importance and dignity of a universal movement, meeting with a more or less organized opposition. The objections urged deal with nothing but remediable imperfections and constitute the most obvious arguments for its adequate development and perfecting. For example:

> No matter how much disease (or defectiveness) is discovered by the medical inquisition, the health of the child is not improved thereby, for the reason that diagnosis is not treatment, and, unless compulsory treatment follows compulsory diagnosis, no progress is being made toward the better health of the individual pupil.—Anonymous circular.

What better argument for compulsory treatment? What an arraignment of parental care! Have parents done better when disease was not discovered? What method will insure parental trustworthiness in matters of their children's health?

In the last analysis, it must be admitted that the sole right to care for the child, to select and provide treatment of whatever nature, rests with the parent or guardian. Compulsory treatment is unthinkable under a constitutional form of government such as ours. The inevitable conviction follows that the money spent by the state to examine school children, merely to discover that many of them are defective, is wasted, since the state has no moral or constitutional right to take the essential step to prescribe the method of eradicating these diseased effects.—Anonymous circular.

What states have not exercised the right to step in between the parent or guardian and the child when the best interests of the child demand state interference and state care? Compulsory treatment is quite thinkable; it exists in Colorado as clearly within the constitutional rights of the state for the protection of children against abuse, cruelty, and neglect. Fortunately for the children, there are parents, tho this critic of medical inspection does not admit the fact, who do give their children proper medical attention when disease and defectiveness are discovered by medical inspection, and who are exceedingly grateful for the information, for which, in comparison to its value, they have paid nothing. The "method of eradicating these diseased effects" is not to be prescribed by the state, but it is required that the parent shall take advantage of the best light of today and "deliver the goods." In default of that, shall child, parents, community, and nation suffer the consequences of such ignorance, stupidity, and obstinacy? By all means, let us complement compulsory examination with compulsory care, by parent if possible, by state if need be.

Medical or other inspection of school children having for its object the physical, mental, and moral betterment of school children is, as yet, in its infancy. Hundreds of thousands, even millions have been benefited. Is it fair to condemn because all examined have not benefited? Has any law, from the Ten Commandments to the latest municipal ordinance, ever been a "success," if what the law aimed to prevent or cure must have been so prevented or cured without exception? As logical to declare all civilization a failure because boys and girls of six years of age cannot show the "promised results" of adult development and achievement. So-called "medical inspection" has some undesirable but remediable features and some that, being distinctly human in character, are not so readily corrected. But let us have sane and sensible physical examination and care of public-school children as nearly right, fair, and effective as possible.

I am pleased to report that New Mexico is looking into the matter with a view to passing such a law, and a campaign in Washington is assured in the early future. The following excerpts from reports will be of interest:

Minnesota.—Mary A. Cunningham, St. Paul, Minn., reports: The work of caring for the health conditions of children is progressing satisfactorily, properly lighted and ventilated school buildings are demanded of the authorities, and medical inspection in our large cities is doing much to improve health conditions.

West Virginia.—Lucy E. Prichard, Huntington, W.Va., reports: The law concerning the common drinking-cup has been enforced this year for the first time.

North Dakota.—Laura B. Sanderson, Le Moure, N.Dak., reports: State-wide campaign for the extermination of flies. Have sent fly posters to every rural school in county. Many counties have taken up medical inspection and this is urged in every section. Have carried it out in this county this year.

All clubs are behind a "Clean-Up Day" movement. Noticeable improvement in towns where there are clubs. I have in all my one-room schools a modern heating and ventilating system, and find that colds among school children have materially lessened. Most of counties of state doing likewise.

Clubs are talking "school health" and are looking after the cleanliness and ventilation of schoolhouses.

Rhode Island.—Mary C. Arnold, Crompton, R.I., reports: We have only the satisfaction of our earnest endeavors.

Delaware.—Lillian W. Hayward, Newark, Del., reports: Educational committees have co-operated with teachers and commissioners in securing better sanitary conditions. The local work of individual clubs has included help for their own schools in a great variety of ways not particularly pertaining to school health but very valuable. The state work of the federation educational committee has been chiefly for the Woman's College. The Delaware club women are to be congratulated on this last achievement, which was made possible by legislative appropriation. They have reason to be proud of their work.

Washington.—Mrs. C. E. Beach, Olympia, Wash., reports: The members of the School Patrons' Committee at a meeting in Seattle in March were unanimous in their decision that compulsory medical inspection for Washington was the thing we wanted, but some of the members felt that before going farther we should have the indorsement of the state superintendent of public instruction. This I have been unable to secure, due to the fact, I think, that she fears the Christian Science opposition that such a measure would bring out.

Last year a letter was sent to each Parent-Teacher Association in the state, of which we have 131, asking them to discuss medical inspection and report the sentiment of their respective organizations in regard to it. I find that in many of the associations very favorable action was taken and in the case of one town, Opportunity, they have decided to have medical inspection for their own town regardless of what is done over the state. In a recent conversation with one member of the state Board of Health, I learned that we would have the very hearty co-operation of that body if we undertake to force the passage of the bill, and I am very strongly in favor of our Mothers' Congress Legislative Committee taking this in hand regardless of the action of the School Patrons' Committee.

Mississippi.—Susie V. Powell, Jackson, Miss., reports:

1. The state Board of Health thru its special Anti-Tuberculosis Committee offered $100 in prizes to the rural schools for health work. Cooperating with this committee were the various women's organizations and the Mississippi School Improvement Association.

2. "Clean-up Day" and "Beautify Day" were observed generally by the rural schools and the women's organizations. Special programs by the state department of education.

3. "Clean-up Days" were observed in all the large towns, results achieved at Meridian, Jackson, and Oxford being especially noticeable.

4. Vigorous health campaigns to inaugurate instruction and inspection in health conditions in the schools were carried out in about forty counties with telling effect. The eradication of hookworm, tuberculosis, typhoid, malaria, and other preventable diseases was pursued with energy.

5. Three thousand school canning clubs are studying questions of pure and wholesome food and are learning to utilize the tremendous quantity of fruits, vegetables, and other products that have been going to waste, by canning these to furnish their families with balanced rations thruout the year. They are studying the physiological need for fruits and vegetables as a part of the daily bill of fare.

In addition, the work of the state Board of Examiners, the Federation of Women's Clubs, and the Mississippi Normal College, reported last year, has been carried on faithfully.

New Hampshire.—Harriet G. Burlingame, Exeter, N.H., reports: During the years since our federation was organized, there has been a growing interest in educational matters thruout our state, in which we believe the women's clubs have had a share in molding public opinion and securing favorable legislation. We request our club members to attend school meetings, and we ask that women have a place on our school boards. We urge our women to examine the conditions of the school buildings as to sanitation, lighting, and ventilation. We ask parents to make themselves familiar with all these essentials which affect so strongly the welfare of every boy and girl.

Maine.—Mary Perry Rich, Rockland, Me., reports: Our committee has issued a questionnaire emphasizing the main points as you wished, and has intensified the work, each member in her own county. In Maine the time is near at hand when communities will really comprehend that it is bad business and an absurdity to spend good dollars in educating pupils who are sure to "die young" or to be incapacitated by illness. Consequently they pay closer attention to conditions for school health, and to teaching pupils the rudiments of hygiene. The number of school physicians, school nurses, and school dentists increases every year.

New school buildings are no longer thrown together "any old way" without thought for sanitation, lighting, heating, and ventilation. The

whole state is interested in every new schoolhouse and the schoolhouses yearly grow more up to date and attractive. The state superintendent of schools is consulted, and modern scientific specialists in school architecture are employed. Club women are the source of much of this advanced public sentiment and community co-operation. They visit the schools wherever they go and try to "keep everlastingly at it."

Washington, D.C.—The National Congress of Mothers has made medical inspection a part of its working platform by adopting at the last meeting the following:

WHEREAS, Medical inspection in schools by physicians and school nurses has lessened the spread of contagious and infectious diseases, and has led to the early discovery of physical defects and dental needs; and

WHEREAS, Such inspection has resulted in the better health of the pupils, and hence better attendance and higher scholarship; therefore be it

Resolved, That the National Congress of Mothers and parent-teacher associations urge upon superintendents, school boards, and school patrons the necessity for expert medical inspection in the schools.

TOPIC: THE RESPONSIBILITY OF SCHOOL PATRONS WITH REGARD TO SCHOOL QUESTIONS

A. SCHOOL HEALTH

MAGGIE W. BARRY, HEAD OF DEPARTMENT OF ENGLISH, NORTH TEXAS COLLEGE, SHERMAN, TEX.

The responsibility of the school patron to the school grows out of two other responsibilities: one developing out of the parental relationship to children in an individual home and another out of a relationship to that larger community group into which modern ideals of service have projected the home.

However poorly he may have met it, man has long had a consciousness of his responsibility in the home—so long in fact that in his enthusiasm and active realization of his long-neglected duties to the larger family, consciousness of the older responsibility is in danger of being dimmed. Wonderful as may be the possibilities for racial betterment in this newly awakened community conscience that has put on the statute book wise sanitary laws, child-labor laws, and many others too numerous to name, nevertheless it has its limitations. Legislative enactments and community co-operation can never in themselves make better children. They can only create better conditions under which better children can be more easily grown.

To grow better children in individual homes is unquestionably the first responsibility of the school patron to the school—to send there a child sound in body, with senses alert, imagination responsive, and with wonder and curiosity still active and eager.

Last summer, while waiting for a train, I picked up a book and casually opening it my eyes fell on this sentence: "I sometimes wonder how Jesus of Nazareth accomplished his great work without being a member of a committee." Naturally my first response was a smile, but the sentence stuck in my mind and the question came, "How did he do it?" My answer was, "Because he was something bigger than a committee, bigger than the most perfectly working social-service system ever conceived." He was a great personality with a perfect physical organ thru which to express itself and give its message to a world of men and women. We may differ as to his mystical relationship to forces superhuman, but all the world concedes him to be the one perfect human type. In our admiration for the spiritual manifestations of Christ's life, we overlook how important a part were the perfect body and mind in this perfection. So two thousand years ago on the shores of the Galilean sea this young Nazarene set up a standard for the threefold man—physical, mental, and moral—and all education of the individual is right just in so far as it approaches this standard. The fact that it may not be possible to measure up to this ideal until after many generations perhaps does not release us from our responsibility in the ultimate achievement and should not diminish our zeal and enthusiasm.

The subject assigned to me as generally interpreted would limit this paper to a discussion of the good body and good brain, but, like the artist and his medium, the personality and its organ are so interdependent that it is impossible to draw strict lines of demarkation if it were desirable to do so.

I cannot speak on this subject from the standpoint of the scientist and would not if I could. In trying to help parents co-operate with teachers, we sometimes forget that fathers and mothers are not generally scientific experts and that it is well that they are not. To have the scientific attitude toward their children would be to lose something of that tenderer and more subtle power that uplifts and upbuilds thru sympathy and personal relationship. They should, however, have that kind of general knowledge of natural and social forces and an open-mindedness that will enable them to co-operate with the expert.

If you should invest in an automobile with the expectation of running it yourself, you would not think it necessary to know its mechanism so perfectly that you could make one, but you would consider it an obligation to know enough of its various parts to be able to run it with safety to yourself and others along the ordinary highways of the country, and to keep it in order and make simple repairs. Granted a fairly good heredity, parents should know enough of the needs and functions of the child's physique to enable them to keep the little machine in good working order and make simple repairs. They should also realize the limitations of their knowledge, that they may call in the right expert at the right time and give him their intelligent co-operation.

Some very wise physician said that diseases that do not yield to properly proportioned amounts of fresh air, exercise, food, and rest, unless they belong to surgery, are practically incurable. Add to these personal habits of cleanliness, and we have the five essentials in developing a good physique. To acquire a knowledge of these five things and their relation to each individual child is an obligation no parent can fail to meet who has the smallest part of a realization of the sacred obligations of parenthood. To meet this responsibility, it is not necessary to know the thousand kinds of bacilli that threaten human life, all their lurking-places, and the percentage of people that fall victims to them each year. Since it is an assured fact that these multitudes of enemies of human life and happiness do not thrive in bodies and minds that are sound and normal, it is better to take out assurance in another kind of knowledge—that which teaches how to help children form right habits of living. The basis of such habits in the child is a proper attitude toward life, and freedom of action.

One obstacle in the way of forming such habits is that parents too often take care of their children instead of teaching children to take care of themselves and giving them an incentive that will add zest and enthusiasm in doing it. I spent several weeks once in a household where there was a little girl of three. There were a grown nurse, a grandmother, and two aunts who devoted their lives to the care of this child. I remember how the bath usually required the combined efforts of the entire household and was followed by a period of exhaustion for everybody, including the child. It was attended with such elaborate preparations and so many scientific details that the little tot was quite justified in the vigorous protest she made. Occasionally, after being duly impressed with the fact that people wouldn't think she was "nice" if she had dirty face and ears, and that she might catch some awful disease if she didn't keep clean, she would submit to the ordeal with patience. How much better to have approached the whole subject from another side—the beauty of cleanliness. Tho she lived in the country, she had never seen the birds refreshing themselves with a morning dip. Nobody had ever told her that the beauty and freshness of the trees and grass after the summer shower was because the generous heavens had given them a bath.

Just as early as possible in their lives children should be allowed to care for their own persons, and ways and means should be provided for this in every household. This helps the child to independence in thought and action. It not only establishes daily habits that keep the human machine in good working order but at the same time develops personality and builds character.

The incentive for right physical habits should come first of all from a carefully inculcated respect for the body as the means, the medium, the instrument thru which all the purposes, the aims, and ideals of the personality have an outlet. This I believe is the basis of personal hygiene

and a personal purity without which social vices can never be eradicated. This idea presented to children in a simple way makes it much easier to interest them in forming hygienic habits of living. The imagination and the emotions so dominant in the child are most powerful aids in forming any habit, and it is of paramount importance that they be utilized in forming good ones.

Early in life I had a decided tendency to turn my toes in and droop my shoulders. I was put thru dancing and physical culture schools and long courses of physiology but with little result. Every member of the family thought it a sacred duty to call "Toes out" and "Shoulders up" every time I passed. When I was about twelve years old an aunt of my father's, a stately dame of the old régime, came to visit us. One day in her presence I bent over and, with quite an effort, picked up a heavy chair. She almost startled me with the severity of her tone as she said: "How dare you have so little respect for your back? It was not made for menial service. It is the aristocrat of the body and must keep erect. Your legs and arms are its servants." With that she came forward and in spite of her seventy-odd years easily bent her knees and with the strong muscles of her arms and legs lightly lifted that chair without apparent effort. The idea caught my imagination at once, the stooping shoulders responded quickly to the thought of the dignity and purpose of the back, and I have treated it with great respect ever since.

From this one idea and that of the beauty of cleanliness can be developed right habits of posture—of sitting, walking, stooping, and standing that make up the daily routine of life. Such habits formed early do away with much of the corrective work so often found necessary in gymnasiums and physical culture schools, with results varying according to the length of time the bad habits have existed and the ability of the director to combine with the work constructive methods of thinking and feeling.

I do not believe parents and educators generally realize the great possibilities for physical development in the stimulation of the imagination and emotional nature of the child. Pictures, poems, and music that call into play emotions of joy, love, patriotism, and devotion expand the chest and quicken all the functions of the body, making it alive, alert, and responsive. It is a real joy to see a class of tired relaxed little bodies sit up and throw back their heads in response to the stirring, vital qualities of freedom and action in that fine old sea-song of Cunningham's:

A wet sheet and a flowing sea,
And a wind that follows fast,
And fills the white and rustling sails
And bends the gallant mast;
And bends the gallant mast, my boys,
While like the eagle free
Away the good ship flies, and leaves
Old England on the lee.

If you want a perfectly unconscious muscular freedom combined with lightness and grace, let two or three little tots join hands and fall into the rhythmic movement of

Sing a song of sixpence
A pocket full of rye;
Four and twenty blackbirds
Made into a pie.

A young minister with a thin, small voice came to the late Dr. Chamberlain, of the University of Chicago, and asked what vocal and bodily exercises he should take to broaden and enrich his speaking tones. The doctor told him to go out alone into the woods for thirty minutes each day and repeat the most sublime passages of Milton's *Paradise Lost*, giving himself up to the emotions of awe and reverence. At the end of a year the young man started forth on his career as one of the most distinguished pulpit orators of his times.

The success of the Montessori method leaves little doubt as to the supreme value of freedom of action in developing both the body and the personality of the child. The whole subject is so comprehensively treated in her own exposition of this method that I need only to mention it here. In the Montessori schools, the relation of teacher and pupil is reversed. The child is in the foreground and the teacher in the background. Her duty is to observe and tactfully eliminate only those manifestations of the child's personality that interfere with the rights of others. Much attention is paid to environment. The child must be surrounded by things that stimulate his latent powers and left free to gratify his creative impulses. This environment is, I believe, the most neglected factor in the development of children in individual homes. Too often Midget finds herself surrounded by objects that stimulate her wonder and curiosity with as little hope of gratification as Tantalus had to satisfy his hunger and thirst from the water around him or the fruit above him.

If children are given freedom and a natural environment, their love for nature, its colors, its fragrancies, its rhythms and melodies in sky, water, flowers, trees, and birds, together with the instinct for play, will make the problems of air, exercise, and rest easy of solution. Wholesome food taken at regular intervals to gratify a normal hunger will be the best preventive of the formation of bad habits of diet.

Unfortunately so many children are reared where there are such limitations of earth and sky that the natural environment is impossible and so it is necessary to create for them an artificial world as nearly like the real one as possible. This can best be done by the co-operation of all the parents in the community in securing wise housing laws, playground reservations, and parks.

During the past hundred years, that powerful impulse of individualism that swept over the civilized world and expressed itself in a reign of terror

in France and a great school of immortal lyrists in England has extended itself beyond the bounds of one's own soul and organized humanity into a great band of brothers. This larger consciousness of self and its relation to other selves forms the basis of the second responsibility of the school patron to the school in matters of health. Under this new social ideal, the school becomes a projection of the home where is to be considered the welfare of not two or three but hundreds of children. Into this larger family is admitted a fourth member—the teacher—and its problems can be solved only thru the intelligent co-operation of parents and teachers.

As to what form this co-operation should take many suggestions have been made. The one that seems to me most simple and feasible in communities of all sizes is a kind of school clearing-house. All organizations in a school district, whether they be social, political, philanthropic, or religious, are directly or indirectly affected by the efficiency of the community school just as every individual is affected by it. All these organizations, each in its appointed way, may be doing something for the betterment of the school, but the potential achievement of all working together is not realized. A school may have a superabundance of books and pictures when it needs playgrounds or a ventilating system, but the literary club in that community is interested in libraries and there is no health organization.

There should be a School Welfare League made up of the mayor, the school superintendent, the president of the school board, and representatives from every kind of activity in the community, with headquarters in the school building. Here the school could report its needs and here individuals and organizations should report their ability to help. This is the idea underlying the State Joint Committees of the five women's organizations of the Department of School Patrons which are appointed in the interests of state-wide educational needs, and it is altogether practical for it to be adapted to any school community, rural or urban. If the social-center idea could also be included in this, and if the entire community could come together now and then in free open discussion of the school and its wants, it seems to me we should have an ideal condition for carrying forward in the school the work of parents in individual homes, and the responsibility of school patrons to the school would be met so as to assure perfect health for the child in the broadest meaning of the term—a sound personality with a sound body and brain thru which to give its message to the world.

B. SCHOOL REVENUE

FRANCIS G. BLAIR, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, SPRINGFIELD, ILL.

The history of education shows a distinct movement from the haphazard, uncertain individual or group method toward a system of scientific certainty. No study of the revenue question is complete without a brief

survey of this development. In fact, school revenues have been both the cause and the result of this long-drawn-out attempt to take the question of the education of all the children of all the people out of the realm of mere chance and place it upon a foundation of certainty.

William Hawley Smith in a series of articles has shown how progress in all human affairs has been thru the substitution of the principle of scientific certainty for the principle of accident and chance. I wish to show briefly that that has been the process of evolution in educational affairs. Certainly in the beginning the question of whether children would have a proper educational opportunity and would accept it was largely a matter of chance. The children of those parents who had the intelligence to see the need of such an education and the means to provide it would receive it. Where parents were lacking either in the intelligence or in the means, the children would not have the opportunity. It was a matter of circumstance. But as certain large ideas came into the world—religious, civic, or social—certain groups, feeling the need of having all the people within their group know these things, began to organize a system whereby all the children within their group were assured, not only of the possibility of the opportunity, but of the certainty of it. The great Christian ideals were organized in this way thru the church, and all who came within the fold were required to learn the things which were considered essential for their Christian welfare. Certain civic and social groups began to organize systems for the establishment of civic ideas and to enact definite requirements which would no longer leave it to mere individual preference or to accident whether the children within these groups should acquire these ideals. With the emergence of the nation and the state and with the consciousness that their perpetuity and safety depended upon the establishment and maintenance of certain standards of intelligence, morality, and citizenship, these large group organizations saw that large areas, including thousands and millions of people, were untouched by the organized educational effort of the smaller groups. Then the state and the nation began to do away with this element of chance and accident, which yet remained, by requiring that all the territory within the state or within the nation should be organized into educational districts within which the opportunity for an education should be provided for every boy and every girl of a certain school age.

This process of growth can as well be shown by the history of education in Illinois as in any other commonwealth or nation. In the territorial days, with our population gathered from north and east and south and with no legal regulation, education was a matter of individual and local preference. Church and private schools were maintained wherever the sentiment was strong enough and the means were available, but not until 1827, nine years after Illinois had become a state, did it set out upon a definite program of making certain that every boy and girl within the state should be

exposed to an educational opportunity. It began in a very timid way, to be sure. They passed laws for organizing the territory of the state into school districts and permitting the levying of a tax which, supplemented by private subscriptions, would maintain a school. Of course, this was a very definite step in the right direction, but it was soon discovered that the same inequalities remained and the same elements of accident and chance were present, for, in some districts, whether thru ignorance or indifference or opposition, no tax was levied and no school was established. The state, therefore, finally reached, after many partial advances, a conclusion that the permissive element did not accomplish the desired end, and that if these standards of intelligence and morality and citizenship were to be secured by the state, the law must require the laying of a tax and the maintenance of a school. In 1855, Illinois took this step. But, again, it was discovered that indifference, ignorance, or opposition in many districts led to a levy of a very small tax and the holding of a school for a ridiculously short term so as to make the effort almost worthless.

Then came the next movement to establish by law certain minimum requirements and minimum terms and a minimum number of subjects to be taught. The state could well feel that it had thus assured to every child a free school opportunity and made certain that he would acquire right standards of citizenship. But it was quickly discovered that it was one thing to offer these opportunities and another to get the children and their parents to accept them. Thousands of children, either thru their own indifference or the ignorance or greed of their parents, did not attend either the private or the public schools. Then came the most drastic measure which any state had ever enacted in public education—the compulsory attendance law. There is only one other law which seems to me to represent such an arbitrary act on the part of government. That is the act by which men are drafted to go forth into battle, and I am persuaded that in the beginning the state based its drastic measure of compulsory attendance upon substantially the same theory. It may be necessary to draft men into service in order to save the state or the nation. It may be necessary to draft children into public education in order to save the state by the erection and maintenance of those standards of intelligence and citizenship thru which alone a democratic state can hope to endure. This compulsory attendance was a long step toward making certain and sure that these standards would be established.

There now began to appear another element of inequality and chance. That was with regard to the length of the school life. We have seen how the state had established a minimum length of school year. But it had left somewhat indefinite the matter of how many years of school life the district should provide. The constitution of the state had said that the legislature shall provide a thoro and efficient system of free schools whereby the youth of the state may receive a good common-school education. The

question began to arise as to what constituted a good common-school education. The phrase "common school" had originated in England, where its primal meaning was a school for the common people as distinguished from the upper classes or uncommon people. That definition could not survive, however, on this side of the Atlantic. Here, it came to mean the educational opportunity which should be in common for all the children of all the people. There were those, however, who sought to restrict the meaning of a common-school education to the "common branches." But in certain favored localities where educational sentiment was strong and means were available, the elementary school was extended downward into the kindergarten and upward thru the high school. Every attempt to make these local extensions general thruout the state was resisted upon the ground that the founders of the common school never intended it to cover at most more than the ground covered in the eight grades of the elementary schools. This question finally reached the supreme court of Illinois. Its decision was that the so-called high school was only the four upper grades of the common school. With that decision, it became necessary for the legislature to provide means by which all the children of the commonwealth might secure a good common-school education. Three plans have been evolved. The first is the district plan. Wherever a district had sufficient local revenues to maintain a high school, the board of education could make such extension without a vote of the people. Seven hundred high schools were established on this plan. It was found, however, that many districts could not maintain both an elementary and a high school on their local revenue. A new enactment made it possible for all the districts in one or more townships or parts of townships to establish a township high-school district to be maintained by a tax separate from the elementary-school tax and levied upon all the taxable property of the larger unit. Under this new plan, over a hundred high schools have been established; and by this new revenue device the high-school opportunity has been extended to thousands of children who would otherwise have been denied. However, the eight hundred high schools which have arisen under these two plans did not make possible a free high-school education to all the children of all the people. Another plan had to be found. It is also, strictly speaking, a revenue matter, called the free high-school tuition act, whereby districts not maintaining high schools must pay the tuition of all their pupils who have graduated from the eight grades.

All of these extensions and modifications brought the question of revenues more and more under careful consideration.

In all considerations of this movement from chance to certainty in education with its consequent inlarged demands for revenues, there are three other items which must be noted. So long as the course of study contained only a few formal subjects, there was little of scientific certainty that the multitudes of children coming down to the public schools would

find there the kind of educational opportunity best suited to their needs. There has been a very slow, but a very steady increase in the number of subjects taught and in the richness and variety of the subject-matter offered. All of the formal subjects have been recast from a new viewpoint. Many practical subjects reaching out into the vocational have been added. All these extensions and additions require laboratories, benches, shops, and even new buildings. Much of the increased cost of public education can be traced directly to this attempt to broaden and deepen the character of the educative materials and exercises within the public school.

In the old school little or no attention was paid to the health and comfort of the children. It seemed to be a general idea that children would learn and progress educationally in direct proportion to the discomforts under which they worked. The new idea of education has brought with it a deeper and larger concern for the health of the children who come into our public-school buildings. The last twenty-five years has witnessed the introduction of new methods of heating, ventilating, lighting, and seating in our buildings. Any building which is constructed with all this modern equipment for preserving the health of children must necessarily cost more per cubic foot inclosed than the plain, old-fashioned buildings. The health movement has, also, brought along with it the gymnasiums and playgrounds with their expensive apparatus. No one confronting the revenue question can overlook these modern demands which have increased the annual cost of public education.

The last item which I shall mention is that of the teacher. In the olden days, it was the merest gamble as to whether a child, upon coming into the common school, would find there a teacher competent to give him any value received for the time spent. The method of selecting the teacher, the requirements set, the pay offered, all tended to secure a mediocre, narrow, dogmatic individual. Much of the failure of boys and girls to have and to use an educational opportunity was due to the fact that poor, ill-trained teachers offended them and drove them away from the schools. The last quarter of the century has witnessed a marked movement toward the preparing of teachers for their work. Normal schools, normal colleges, and schools of education have sprung up thruout the country. The demand is quite general on the part of boards of education that teachers shall be prepared specifically for their work. Not only shall they know the subjects which are to be taught, but they shall be familiar with the psychology of the child's mind and the methods by which these subjects shall be imparted. This required preparation on the part of a teacher, these higher standards of selection, have increased greatly the cost of such preparation for teaching. That, in turn, has helped to increase the salaries of these teachers. Today there is no more certain fact than that the men and women who are the most competent and capable in public education are least adequately paid. While some are overpaid, the great majority are

underpaid. When all this is said, however, the fact remains that the teachers' salary budget has increased with leaps and bounds. Out of a total amount of $37,923,943 expended in Illinois in 1913 for the cost of public education, $20,570,024 was expended for teachers' salaries.

All of these items and considerations have helped to bring before us the great increase of taxation necessary to meet the demands of this program to give all the children of all the people of the commonwealth real educational opportunity. It soon became evident that the district alone could not meet these revenue demands. In Illinois the public-school system has been handicapped and retarded in its development by the dominance of the local district. Slowly, however, there has arisen an increased demand for state appropriations to supplement local appropriations. Today, after much agitation and trial, the state appropriates annually three millions of dollars, while there is raised by local taxation almost thirty-five millions of dollars. This parents' association can consider no more practical and no more important subject than ways and means of securing adequate revenues to meet the demands of modern education. We must go before lawmaking bodies, before commercial clubs, and before business organizations with clear and convincing arguments as to the needs of larger revenues and the best methods of securing them.

DISCUSSION

MRS. CLARENCE L. ATWOOD, president, Minnesota Federation of Women's Clubs, St. Cloud, Minn.—I believe in a socialized, democratized school and community, in a paid supervisor of play twelve months in the year, in motion pictures, music, and drama, and in the school as a social center, but I am inclined to believe that the home does not realize that these social indulgences bring obligation to parents as well as to teachers. A dance beginning at nine and ending at midnight or later with a little supper or joy ride afterward and the parents home and asleep and ignorant of the hour son and daughter appear is a socialized school activity gone wrong. The sunlight dance as conducted at one state university is a very delightful affair preferable in many ways to the evening function, but, if we have the latter, it is incumbent on parents to go to it in large numbers, not as censors but to have a good time visiting with each other, watching their children dance, and dancing with them. Then it will have the right spirit, be conducted with decorum, and seasonable hours will be observed.

Civic work has been standardized till each little village is striving toward well-established ends in its garbage disposal, street-cleaning, market cleanliness, parks, and boulevards.

The activity of the school, while constantly broadening, is measurably definite and efficiently organized. The scope of the home, its place in the new social order, and the duties of parents to their children outside the material realm of food, clothing, and shelter seem in a more hazy condition than the nebular hypothesis.

The strongest force in our lives, on which school and other organizations rest, is the love of parent for child. Thru all the flux of individualistic and social modernity that human passion, parental love, endures. With this wonderful asset which the home possesses as does no other institution, if the homes would pull together as other special interests we should soon find them occupying a well-defined sphere. Why not parents'

conventions as well as bankers', or lumbermen's, or Sunday school? Their efficiency is dependent on their organization and solidarity.

Each mother has individually felt her helplessness when, remonstrating with daughter about transparent waists, narrow skirts, cosmetics, etc., she has been confronted with that time-honored irrefutable argument, "All the girls wear them or use them," or on refusing son permission to go out of an evening she has heard the hoary reasoning, "All the boys go." Our daughters do not understand the sex appeal in many of the fashions, but they can be made to perceive their unsuitability and inefficiency for school work, and if mothers in their clubs would unite on standards of dress, much simplicity could be brought about for school girl and matron with a corresponding decrease in the tax on the family income and nerves and a corresponding increase in concentration on studies. Much has been accomplished by domestic-science courses.

Let me mention one simple obvious rule that the home should enforce. It should set aside certain nights to be known as "school nights," so that it would be regarded as a breach of community decorum for school boys and girls to be seen on the streets, at motion-picture theaters, at parties, or visiting on these nights. There would ensue a higher level of morals and of scholarship. Our children in this rushing age do their prescribed reading, whether it be *The Tale of Two Cities* or Macaulay's *Essays*, in a superficial way as a task and a bore, with no reflection, no living over the scenes. They are satisfied with "pass," if only they don't miss an outing or a society affair. The community has had to step in and pass curfew ordinances, appoint truant officers, and establish many other agencies for the care of school children because the home does not obligate itself in this matter. If it did, there would be less need of sending children away to private schools where rules are enforced, and there would be fewer, far fewer, of these happenings in our high schools, an occasional exposure of which reveals the license the home permits its young and the sorrowful use too frequently made of it.

The more complete the understanding of the responsibility respectively of community, school, and home, the more perfect will be the adjustment. An enlightened public sentiment that will exact from the home, as its duty and privilege, supervision at definite times and on specified occasions will assist much in lessening friction where youth is proverbially headstrong and parents fondly weak.

There are no bodies so prepared to make this adjustment, so influential in creating a compelling public opinion, as the teachers and school patrons. We all are expectant of great results from the social-center gatherings where these two forces meet to deliberate. I confidently look to them to conserve and organize the forces of the home. The school is crippled because of the failure of the home to fulfil its function in the education of the child, and the homes are crying out for a recognized standard of requirements by which they may dam the rising tide of social activity.

We may help the pendulum in its backward swinging, may hasten the advent of those precious home evenings when the family circle is no longer a memory but a living, vital fact, by a more light-hearted entering into our children's pastimes, a greater appreciation of the simple joys of everyday life, a banishing at nightfall of that engrossing material scramble that has enlisted our energy all the day.

DEPARTMENT OF RURAL AND AGRICULTURAL EDUCATION

SECRETARY'S MINUTES

OFFICERS

President—E. C. BISHOP, schools section, Iowa State College.....Ames, Iowa
Vice-President—DANIEL H. HILL, president, College of Agriculture and Mechanic Arts
West Raleigh, N.C.
Secretary—M. S. MCDOWELL, professor of agricultural extension, Pennsylvania State College
State College, Pa.

FIRST SESSION—WEDNESDAY AFTERNOON, JULY 8, 1914

The opening meeting of the Department of Rural and Agricultural Education was called to order in the Assembly Room of the Y.W.C.A. Building, St. Paul, Minn., at 2:30 P.M., by President E. C. Bishop.

Homer H. Seerley, president, Iowa State Teachers College, Cedar Falls, Iowa, presented a paper on "Rural Demonstration Schools and Study-Center Work for Rural Teachers."

"A Beginning in Rural High-School Work and Township Supervision" was the subject of a paper read by Helene E. Glissman, principal of high school and supervisor of township schools, Doon, Iowa.

The United States commissioner of education, P. P. Claxton, was the next speaker, taking for his subject "The Rural High School."

Alice Florer, county superintendent of public instruction, York, Nebr., whose name appeared upon the program, was unable to be present, but sent her paper on "The Hot Noonday Lunch in Rural Schools."

A general discussion followed.

SECOND SESSION—THURSDAY AFTERNOON, JULY 9, 1914

The meeting was called to order at 2:30 P.M.

"The Use of Raw Materials in Teaching Agriculture" was the subject of a paper by W. S. Welles, director, School of Educational Agriculture, State Normal School, River Falls, Wis.

"The Course in Agriculture for Training Teachers in Normal Training High Schools" was discussed by J. L. McBrien, specialist in rural education, United States Bureau of Education, Washington, D.C., and A. V. Storm, professor of agricultural education, University of Minnesota, Minneapolis, Minn.

Discussion.

Following the regular program, a business meeting was held.

It was voted that the Committee on Courses of Study in Agriculture be continued.

A. V. Storm, chairman of the Committee on Conditions and Needs in Rural and Agricultural Education, stated that the report of this committee had been presented before the Commission on the Reorganization of Secondary Education and would be printed by that commission.

Superintendent Evans, of Missouri, suggested that next year the program of the department be offered in two sections in order to give those interested in particular phases of the work fuller opportunity for discussion.

It was moved and seconded that the necessary notice be given that an amendment would be offered at the 1915 meeting making it possible for this department to have a program at the February meeting of the Department of Superintendence of the National Education Association. This motion was unanimously adopted.

It was voted that the president take up with the proper authorities the question of an agricultural and home economics exhibit from the rural schools at the Panama-Pacific International Exposition.

The Committee on Nominations made the following report:

For *President*—E. C. Bishop, schools section, Iowa State College, Ames, Iowa.
For *Vice-President*—M. J. Abbey, professor of agricultural education, University of West Virginia, Morgantown, W.Va.
For *Secretary*—F. L. Griffin, extension service, Oregon Agricultural College, Corvallis, Ore.

This report was unanimously adopted.

The meeting then adjourned.

THIRD SESSION—FRIDAY AFTERNOON, JULY 10, 1914

ROUND-TABLE CONFERENCE WITH BOYS' AND GIRLS' CLUB WORKERS

O. H. Benson, specialist in charge of club work, United States Department of Agriculture, Washington, D.C., outlined "The Federated Boys' and Girls' Club Work."

"What Recognition Should Be Given Vacation and Other Out-of-School Work?" was the subject of a paper presented by J. W. Crabtree, president, State Normal School, River Falls, Wis.

Following these papers, five-minute reports of state and district club-work leaders were presented.

M. S. MCDOWELL, *Secretary*

PAPERS AND DISCUSSIONS

RURAL DEMONSTRATION SCHOOLS AND STUDY-CENTER WORK FOR RURAL TEACHERS

HOMER H. SEERLEY, PRESIDENT, IOWA STATE TEACHERS COLLEGE, CEDAR FALLS, IOWA

The larger problem.—It is conceded that the preparation and the improvement in rural-school teachers are today two of the larger problems of popular education. It is assumed without argument that rural teachers must be given special education and training for their work if this very important service for the rural community is to be improved and developed. It is fully recognized that something more effective and more definite must be done for the encouragement and the development of the rural teacher now in service. These problems are huge because of the numbers of such teachers in a state, because of the inability to reach them by present-day organized efforts, and because they are not in such financial condition as to allow them to give up their school-teaching and make suitable and necessary expenditures for their education and training. So much so is this true that few, if any, of present-day undertakings are of sufficient

size or of sufficient importance to give promise of being able to meet the actual situation.

The preliminary undertakings.—For thirty-eight years, Iowa has granted standard instruction of superior grade to elementary teachers at its normal school at Cedar Falls. All of this time it has been assumed that the work of elementary teaching in the town, in the city, and in the country was not essentially different, and that it was naturally to be expected that the rural districts were to be training-places for beginning teachers, and that as soon as these began to be efficient and progressive they would be employed in the cities and towns as a matter of course. Their acceptance of this condition has left the rural schools without hope or opportunity for betterment, and the situation imposed has grown to be more and more unsatisfactory, it being recognized that, except in education, there was every kind of improvement now expected in rural territory. The last Iowa General Assembly, hoping to relieve some of the untoward prospects, provided by law for wages to be paid teachers according to the standard grades recorded on their certificates issued by the state Educational Board of Examiners. It also decided to require agriculture, home economics, and manual training to be taught in all schools by 1915, and to decline to admit candidates to the examination for teachers' certificates unless they had had at least twelve weeks of successful instruction at some normal school. In addition, there was offered a subsidy by the state as a permanent state appropriation for the successful consolidation of schools, and an enlargement in the financial help given to normal training in high schools if they would successfully undertake to give instruction and training to such high-school students as were willing to prepare to be teachers for the rural schools. These new undertakings were to be supervised by inspectors appointed by the superintendent of public instruction. Such preliminaries made possible certain enterprises at the State Teachers College, at Cedar Falls, that could not otherwise have been possible, and out of such legislation have come the new activities mentioned in this address.

The demonstration schools.—As a part of the training in the teaching department, co-operation has been established with ten rural independent school districts. These schools are to be conducted on the highest plane of efficiency by placing them in charge of well-educated, trained teachers, and by putting them under the supervision of an expert educator, notably qualified to develop interest and to maintain enthusiasm in the industrial activities among the people. The instruction and the training given in these demonstration schools are to be substantially different from the common curriculum, in their attitude toward rural life and home improvement. The people composing these communities are to be as much a part of the educational propaganda for better schools and for a higher social and intellectual life as are the pupils in attendance at the schools, or as are the teachers in service. The school buildings in these co-operating districts

are now the customary one-room schoolhouses found in the state, but they are to be enlarged and reconstructed in the near future in order to provide for the increased privileges and the greater opportunities that are found to be essential and successful in the development of the community and in the improvement of country life. All pupils who are enrolled under this supervision will be given instruction and training in the different branches of elementary education in ways that can be practically applied to the daily life and the actual experience of their environment. This is done to increase their interest in, and to enlarge their appreciation of, the work of education.

In addition, they will be instructed in such industrial lines as their age, experience, and development may make practicable, while they will be trained in suitable industrial activities by the undertaking of such responsibilities and by the accepting of such duties in their homes and on the farms as may be assigned them under the supervision of their parents and teachers. This industrial education and training is a part of their regular course of study, hence appropriate credit will be given for all these new phases of education when they are satisfactorily completed.

On the part of the Teachers College, these demonstration schools become centers for training teachers who are graduating from the special rural-teacher course maintained at the institution. The students taking this training will spend at least a month in continuous employment in these demonstration centers. They will reside in the country, they will participate in the work done in all its phases, and they will acquire an experience in the many lines that are being conducted. The regular teachers in these rural demonstration schools will occupy the province of critic teachers, and they will devote their time to improving the capability of the students in training in their adaptability, spirit, and appreciation, as much as in the actual technic of instructing.

Pupils in these special districts who are advanced in scholarship, beyond the class standards that it is desirable to maintain there, will be granted admission to the training school on the campus including high-school grades, without any tuition being required; and those who graduate from the course of study maintained in these elementary schools will be granted admission without tuition to the high-school department. This policy is inaugurated because it is intended to encourage these co-operating districts to be liberal in their expenditures for the improvement of their own schools. To insure strength to the co-operation thus established, the State Teachers College will appropriate the additional money that is needed to make these demonstration schools examples of efficiency and centers of achievement.

Improvement of teachers in service.—In these days of larger things, the work of teacher-training and improvement can scarcely be sufficient when its activities and undertakings are confined to the college campus. It has

been definitely decided that a teachers' college should develop also an extension service which can improve the teachers who are regularly in employment. To this end, during the past college year, teacher-study centers for rural teachers have been organized in a number of the counties within reasonable railway distance from Cedar Falls, the regular members of the faculty giving instruction on Saturdays to the teachers enrolled in these centers. This movement has proven decidedly acceptable to the teachers in service to such an extent that twelve hundred were enrolled and were undertaking systematic study under the direction of the faculty and the supervision of their county superintendents. These teachers assemble for conference, recitation, and instruction on Saturdays at least once a month. They have assigned to them, for preparation and for consideration, such work as meets their approval and that of their county superintendents. At each day's session of the study-center classes, at least three recitation periods are given by each instructor in charge and a lecture on some special theme suitable to the occasion is given by one of the instructors. In these well-organized endeavors, serious work is undertaken and the most satisfactory results have been obtained. The Teachers College maintains supervision over these study centers for teachers thru a regular member of the faculty who organizes and conducts them with the co-operation of the county superintendents. The Teachers College has provided for the expense of the instruction; the members of the study centers have arranged for places of meeting and for the traveling and hotel expenses of the instructors. In some counties, this latter expense has been paid from the county institute funds. This coming college year, the study centers will begin their year's work in September as soon as the schools are opened, and as many centers will be organized as the faculty of the Teachers College can conduct. It is the intention to expand this extension service so as to cover the entire state, if the General Assembly approves and grants sufficient financial support so that as many instructors can be employed as may be necessary to care properly for this work.

As experience gives opportunity, a more definite system will be adopted and complete outlines for guidance of study and instruction will be published. Credits will be given on some plan of examination, certificates of attainments will be awarded, and, by additional attendance at the twelve weeks' summer sessions to be inaugurated in 1915 at the Teachers College, diplomas and state certificates will be obtainable. It is expected that five thousand teachers in the service of the state may be receiving instruction and training of this kind during the year 1914–15 under the auspices of the Iowa State Teachers College.

A BEGINNING IN RURAL HIGH-SCHOOL WORK AND TOWNSHIP SUPERVISION

HELENE E. GLISSMAN, PRINCIPAL OF HIGH SCHOOL, AND SUPERVISOR OF TOWNSHIP SCHOOLS, DOON, IOWA

O the rolling prairie—broad and wild and free—
O the rolling prairie—that's the place for me!

In the northwestern corner of Iowa, in Lyon County, thirty-six square miles of this beautiful rolling prairie have been designated as Garfield Township. There is no town, no railroad, not even a post-office, within its boundaries; but there are some of the most prosperous and picturesque farms of the prairie section of the United States, and there is a grand opportunity for real country work. The following story is an account of the work that has been carried on for the past five years.

After the eighth-grade graduation had been quite firmly established, and the nine schools of the township had united in these exercises, someone asked why these boys and girls could not have the advantages of higher education and still stay on the farm. The question of consolidating had previously been voted upon and defeated by a large majority. The farmers could well afford to send their children into the high school of the near-by town, but most of the children objected. Just then one of the far-sighted teachers suggested a township high school—transportation, that great objection to consolidation, would be an easy matter for these older children. The Board of Education finally agreed to a high school. A room was built, but not by putting the question of a new building to a vote of the people, for this high-school proposition was carried thru by enlarging the schoolhouse in the center district. The great hope and firm belief of the interested ones was that, if a system of education beyond the eighth grade were once established, gradually all would fall in line, the community spirit would grow, and finally consolidation of the nine district schools would be brought about. So in September, 1909, the township high school was ready for work with twelve pupils enrolled in two grades, the ninth and the tenth. The building was not all that could be desired, and the equipment was far from being complete; but the spirit of determination to win and of loyalty to the farm was the prized possession of the dozen zealous students and their teacher. The very idea of a country high school surprised most of the people, and some dared to prophesy that the attendance couldn't possibly keep up during the blizzard season. A close record was kept, and, after one of the most severe winters Lyon County has known in years, comparisons were made, and it was found that the percentage of attendance and punctuality was even better than the town high schools of the county. What fun it was to get thru those snow-blockaded roads! The farmers along these school routes actually waited for the high-schoolers to open the way. After these cold drives, the pupils always found the

schoolroom well warmed; and after their ride home how they hurried to do the chores, to be ready for the supper that mother cooked! In the face of this enthusiasm, step in, if you can, and talk town school!

Let the mighty and great
Roll in splendor and state
I envy them not, I declare it.
I eat my own lamb,
My own chicken and ham;
I shear my own sheep and wear it.

I have lawns, I have bowers,
I have fruits, I have flowers;
The lark is my morning charmer.
So you jolly ones now,
Here's "God bless the plow;
Long life and content to the farmer."

The long winter evenings are devoted to study. This is the season to do a great deal of home study and special reading, for in the spring and in the fall most of the time outside of school must be devoted to practical agriculture and domestic art.

This township high school uses the up-to-date booster method of advertising. The pupils attend the programs, the basket socials, and the literary meetings. The literary society is a neighborhood organization that has been in existence for ten years. Here comes the scriptural query, "Who is my neighbor?" The high school answered this by making the whole township one neighborhood. The students also attend the little social gatherings held in any district school. Here special efforts are made to become acquainted, for the eighth-grade graduates of these district schools must be enrolled in the high school next year. Five districts have thus far been represented. The high-school pupils usually take some part in the program; and then those wonderful yells—how proud the farmers are! Do you realize that a township spirit is being launched, and that these "hayseeds," as they call themselves, have something to which to attach their loyalty? Garfield pennants and Garfield colors are used instead of the banners of the near-by towns.

What did the children study? The course of study was to be one for farmers—"as practical as possible," the board declared, and the teacher's plea combined with this "as practical as possible," "yet give the youth something to live for as well as to live on."

There was considerable trouble in pursuing the studies outlined due to the different standards adopted by the teachers under whom the pupils had completed the eighth grade. The high-school principal called a meeting of the nine teachers from the district schools to discuss the possibilities of township uniformity. At this first meeting, the teachers decided to form a township association, meetings to be held every fourth Friday afternoon thruout the school year. The aim of this association was to be the

development of the township spirit. An item which might be of interest is that during each of the six years of this association the membership has been composed of nine women and one man.

The first work taken up was that of a general outline for a uniform course of study. The manner in which this was done is most interesting. One or possibly two subjects would be assigned for each meeting. If the topic of arithmetic was to be considered, the teacher who was especially keen along that line would act as chairman and conduct the discussions. This did not mean that the other teachers would come unprepared; they studied all available material on the teaching of this subject. One teacher went to Sioux City to see Fannie A. Foster, assistant superintendent of schools, and secured some valuable help. Another teacher, who had been in Garfield the year before but at the time was enrolled in the state normal, consulted several professors and sent some splendid suggestions. When the time for the meeting came, each teacher had gained ever so much in such preparation, ideas were freely exchanged, and an outline agreeable to all was decided upon. When drawing and construction work were assigned as subjects, another teacher, who had taken some special primary work, had charge of the meeting. This procedure was followed thru all the subjects, and even penmanship and spelling were not neglected. This course of study has since undergone many and varied changes; even at present it is not the acme of perfection, and yet, when one considers the benefit that each school and every pupil in the school received from this special study by the teachers, it certainly must be declared worth while.

The following year special stress was placed upon meetings of parents and teachers. Reports of these meetings were sent to the local papers. Farmers in other townships became interested, and soon a similar organization sprang up in Cleveland Township, tho Cleveland hasn't a township high school. The Garfield Township High School is the only one in the county. This last year the Township Teachers' Association studied, outlined, and discussed one of the state reading-circle books. Occasionally the county superintendent is present, also some of our state workers have appeared, and we are most grateful for the inspiration and encouragement thus received, especially grateful to our State Agricultural College, at Ames, and to the state leader of junior work, E. C. Bishop, of Ames.

The new teacher, meaning the inexperienced teacher attempting her first term, must be mentioned here. For the past two years, the first teachers' meeting has been held the second Friday after school opened. Special efforts are made at these meetings to help the beginners. Class demonstrations or model lessons are given by experienced teachers and, when a question of discipline is being discussed, it greatly encourages the beginners to learn that older heads have had like difficulties to conquer. The older students in the high school, who would probably soon enter the teachers' world, have always been present and some of them are now among

the strong rural teachers. That rural spirit for the rural teachers for which so many fervent and eloquent appeals are made! A most convenient way of answering these appeals is to train the farmer boy or girl to become a teacher in the little country school. One of Garfield's own sons, a graduate from a four-year high school, taught his first term last fall. He followed a teacher who was experienced and who had taught in the same school for two years successfully and successively; she was a town girl and town was uppermost in her mind. The director was asked at the close of the fall term: "What kind of a teacher does Ernest make?" He replied very promptly: "The children learn more in one day from him than they did from the other teacher in a week." Shortly after I asked this young man what he thought of teaching: "Well, I didn't intend to stay at it, but I'm afraid I'm going to like it."

Now as to the question: "Are there no obstructions in this glorious path of work?" Truly there have been several difficulties both among the teachers and among the farmers. Some of the teachers have resigned when they learned of the added duties brought upon them by our township association. Then Dan Cupid, that ever-welcome enemy, has whisked several of our best ones away. Most of the teachers, however, are hired for a year; some stay two years; and a few have taught three years, or are in the third year of work in Garfield. Among the farmers have been many "honest doubters," who require much time for their many doubts, but when once won over they become the strongest adherents. The president of the board, a wide-awake and intelligent farmer, seemed to be against us, so it was indeed a happy piece of news we learned last fall—that he was merely on the fence; and recently it has been discovered that he is for us and for us strong. Hard as it may be to believe, there are even yet some strong knockers, but we have tried to use them as spurs rather than as hindrances.

The average enrolment in the Garfield Township High School is twelve. The lowest at any one time was five; the highest twenty-six. Most of the pupils enrolled in this school are those who could not or would not go beyond the eighth grade were it not for the fact that they can stay on the farm and still pursue the work of the ninth and tenth grades. There are at least three very good reasons why the rural high schools ought not to attempt work beyond the tenth grade: First, the lack of equipment properly to pursue the higher branches; second, the small classes, since one or two students drop out each year; third, there is usually but one teacher, and to undertake four years of high-school work would mean a very heavy schedule, and would necessitate neglecting some of the subjects. A large percentage of the farmers have not been brought to see the necessity of high-school training, so the rural high school is performing a wonderful educational mission in its quiet and unassuming way—a mission that cannot be estimated by a board of inspectors, whose solemn duty it is to examine the course pursued and decide how much credit to give. These boards

cannot see the amount of practical agriculture the boys and girls learn while doing the chores; they cannot see the girls solving serious questions of domestic science. When once an efficient system of credit for home work is established, the farming done by the children on the farm will be recognized and approved. This "being kept busy" outside of school hours is the one great difference between farm and city life, and it must be granted that the difference is in favor of the farmer boy. A quotation will probably illustrate the point in mind:

> How few of us really use our senses! I mean give ourselves fully at any time to the occupation of the senses. We do not expect to understand a treatise on economics without applying our minds to it, nor can we really smell or hear or see or feel without every faculty alert. Thru sheer indolence we miss half the joy of the world! The senses are the tools by which we lay hold upon the world; they are the implements of consciousness and growth. So long as they are used upon the good earth—used to wholesome weariness—they remain healthy, they yield enjoyment, they nourish growth; but, let them once be removed from their natural employments, and they turn and feed upon themselves, they seek the stimulation of luxury, they wallow in their own corruption, and finally, worn out, perish from off the earth which they have not appreciated. Vice is ever the senses gone astray.

Some of the other topics to be considered under rural high schools and township supervision are: the special class of older boys who can attend only from November to March; the Dramatic Society with its amateur performances; the Debaters' Club; the visits of the high-school principal to the district schools; and the township school picnics held at the close of the school year. Last month, at the picnic, a pageant representing some of the historical episodes of Iowa was given. I am merely mentioning these things, for each is a topic large enough for an afternoon's consideration.

This organization, very likely, is far from being an ideal one, but it is an earnest endeavor on the part of the farmers to do something for the boys and the girls on the farm. In closing, listen to David Grayson in his *Adventures in Contentment.* He says:

> Bring out your social remedies. They will fail, they will fail every one, until each man has his feet somewhere upon the soil! My wild plum trees grow in the coarse earth, among excrementitious mold, a physical life which finally blossoms and exhales its perfect odor; which ultimately bears the seed of its immortality. Human happiness is the true odor of growth, the sweet exhalation of work; and the seed of human immortality is borne secretly within the coarse and mortal husk. So many of us crave the odor without cultivating the earthly growth from which it proceeds; so many, wasting mortality, expect immortality.

THE USE OF RAW MATERIALS IN TEACHING AGRICULTURE

W. S. WELLES, DIRECTOR, SCHOOL OF EDUCATIONAL AGRICULTURE, STATE NORMAL SCHOOL, RIVER FALLS, WIS.

Because agriculture is such an important factor in the economic life of the nation, it furnishes the basis for a thoroly rational education for all who come in contact with it, viz., an education for service. Men have spent

themselves without stint to enlarge the body of agricultural knowledge and to discover the principles of this important science for the benefit of the race. If the work accomplished by the investigator is to bear abundant fruit it must be given by instruction to the waiting multitude. Thus the place of the teacher of agriculture has been made for him.

You will agree with me when I say that today the teaching of agriculture is not all we could wish. There is something lacking in the way it comes to our young people. It interests them in a measure, but does not grip their minds with tremendous power. They like it in a mild way for the most part, where there should be the most enthusiastic love for it. The whole relation between the student and his study lacks a vital something to make it virile and gripping and real. Where is the weakness? The divining rod of experience locates it. The unrealized good that should come from a study of agriculture lies buried under a mountain of poor teaching. This does not mean poor school management or wrong pedagogical ideas. It means that the subject-matter of agriculture is not presented to the learner in a way to grip his attention and lead his interest captive. Poor teaching is common in this study, which, of all the studies in our schools, by its very nature demands the highest skill in presentation. Let not the passing-on of facts to a neighbor or to his child be called teaching. It is not. Many think so and are satisfied. But teaching is a stimulation to self-improvement by some subtle power that pedagogy has been trying for years to analyze and define. It will never be reduced to set terms and communicated to men by words. It is something of the spirit, a gift of the gods. And whoever possesses this power to awaken the soul and start the work of self-improvement is a true teacher. We have not reached that place in agriculture where we have a body of such teachers.

Why not? Because agriculture is new? We know that it is as old as man himself. No, it is because we cannot teach it out of a book. Agriculture is not in books. It is not reducible to book form. This has been tried many times, but the soul of the subject escapes from the confines of the book and we find it out on its native hills and in the tilled fields. Here is where it must be studied, and even here it flees the sight of a book. Agriculture must be taught thru its raw materials and in the field if possible. But our teachers have learned to teach bookwise! They must learn to teach agriculture from the things of agriculture: To read in the soil the story of the creation and support of living forms upon the earth, and the work of all the forces that have made them; to search out from the ear of corn its own story of its present state of perfection with the reasons therefore; to dig out the great truths of the potatoes from the potatoes themselves; to learn to question nature's products and read correctly her answers concerning their being, Whence? How? and Why? Until we do this, the greatest opportunity to teach life lessons and educate for service thru service lies unused at our hand.

This is no new thing! Teachers for centuries have made use of raw material in their work. But they have missed the power of its appeal. This material has not been used as the means of instruction and the source of inspiration to study. It has been simply illustrative to be set out on the table and pointed to and looked over in haste with whatever of inspiration or curiosity it might arouse. This illustration will say what I mean.

The corn plant grows up like a tall stalk of grass with long, graceful leaves, and a flower called a tassel at the top, from which comes pollen to fall upon the silks and make the ear of golden corn.

Did these statements of truth gush from a full heart and a throbbing brain as so much of response to the study of the raw material? Not at all. There it lies cold and lifeless, on a page of a book. Was the raw material present? Yes, it was. How was it used? Thus:

Here, children, is a stalk of corn such as we read about. Notice that it is like the stalk of grass here in my hand. See the leaves? How truly our book has described them. And there on the top is the tassel, and what was it that came from the tassel, did the book say?

Weak! flabby! insipid! words! words! words!

I am not degrading the textbook. Instead, put into its rightful place it is a helper. The author of the text studied the raw materials of nature to secure the information and formulate the principles which he gives. His interest was centered upon that material as he studied it. It had power over him and gave him back strength and growth for his labor. The student of agriculture has the same life interest in the materials as did the author of the book. Yet, we tie the student down to a text, put some illustrative material before him, and say, "As you read about this now, look over this material." The joy of exploration and original thinking gone! Inspiration taken away and drudgery over a set of laboratory directions with a mummy accompaniment substituted! I demand the same opportunity for the student to study the raw material as was enjoyed by the writer of the texts, and I demand for him the sauce of a live teacher to go with it. Let us not teach from the text with these things for illustration. Let us teach from these things and use the text as a source of help when we need it. Instead of studying what somebody has written into a book about potatoes, let us get it directly from the potatoes themselves.

But our teachers have not been taught in a way to do the kind of work needed. In classes where most of our teachers of agriculture were prepared the subject-matter is all-important. Its relation to the student otherwise than as a task to be accomplished is not considered. The scheme of classroom instruction as organized today in public schools calls for teaching that leads a student to make generalizations and formulate principles by his own investigation, experiences, and reasoning. It is an exercise in the development of a topic or a point employing the experience and

work of the student. This secures his attention to the point, fixes his effort there, and leaves him in possession of something which is his own product. He has gained in power to approach another topic, since he can go back and trace his progress at each step. The student here is of more importance than the thing he studies, and this must be the point of view of the teacher in the public school.

Now comes the test. Teachers of agriculture are trained to give subject-matter first place. Can they make the transition in the public schools and put the student first? To do this work successfully requires a skill all its own. Some skill is required in teaching by the book and by the guide, but it is the skill of the driver. The teacher goes behind. Teaching a class from the raw materials of agriculture, going into a class and digging out the great truths of potato from the potatoes themselves, is powerful teaching and requires the skill of the leader. The teacher goes ahead. It can be done, has been done. I know how the light breaks upon a class that has been dreaming when one steps in and begins to draw out of the raw material the deeper lessons it can give. I know because I have seen it done, and, if you will not think it egotistical, I know for another reason: I have done it myself. From classes in the country schools, where we go and give the teachers demonstration lessons of this kind of use of raw materials, up to bodies of teachers of all grades two hundred strong, from teachers in rural schools to superintendents, from normal-school professors and school officers comes the same whole-hearted response to the stimulation of the raw materials of agriculture.

And why? What makes a thing interesting to us? Because somewhere in our life experience it touches us. Our insulation is worn off in spots by life's experiences. We come in contact with some live wire of a subject in agricultural study, perhaps a dairy cow, perhaps a weed, or a fine ear of corn. We work along beside that wire following another line when suddenly there is contact at this experience spot! A flash of interest as the current of life relation leaps across. We are thrilled and exalted! There is no contentment now until the surge of questions about that particular thing has been satisfied with answers. We must be able to produce at will that contact of mind and material which makes complete the circuit of life relationship between us and it. We cannot leave that to accident. And it is our business as preparers of teachers of agriculture to see that they have this idea of the life relationship between what is studied and the student. It is our business further to so teach them that that idea working out has become a part of their fixed mental procedure. And it is our business to provide those necessary experiences when lacking. We should teach in the field by actually doing work there. We must all go to school to the cornfield, and the pasture, and thru actual service behind the plow learn the lessons, not of school, but of life in school time. We must develop points of contact with our world.

Every subject of study has wrapped up in it somewhere a point of vital interest to each of its students. There is something there which establishes that life relationship which we must have. Then there is for every topic of study a key question for each of us that will unlock the whole subject and open to our minds its hidden secrets. There is some vital, essential question in each case that will form the bond, make the contact, between the mind and the material. Find that question! And when you have found it, follow it. I have found it sometimes. Those were the days when a spirit of exhaltation seemed to take hold of the class and interest and enthusiasm ran riot.

I can give but little suggestion of value in the way of specific direction for such work. It is not reducible to rules of procedure. First, get the idea that the use of the raw products as teaching material is the open door by which the student of agriculture comes into his world of a realized agricultural self. Second, put in the hardest thinking you are capable of in shaping your course for the time when you come before your class to make every step and every minute big with results for your students. Search out that key question that opens up the subject and arrange your line of questions and suggestions to follow it. Be prepared to accept the suggestions of the students as their minds work, and on all build the structure of a great lesson. Third, see someone teach in this way if possible. Fourth, if successful in the last, imitate that teacher and improve upon his work.

THE COURSE IN AGRICULTURE FOR TRAINING TEACHERS IN NORMAL TRAINING HIGH SCHOOLS

I. J. L. MCBRIEN, SPECIALIST IN RURAL EDUCATION, UNITED STATES BUREAU OF EDUCATION, WASHINGTON, D.C.

This is a subject in which a little learning is a dangerous thing, and in which much learning often makes mad—over-enthusiasm at the expense of other equally important subjects in the high-school course. There is a golden mean between these two extremes.

I shall not attempt to say anything new on this question. I shall endeavor, rather, to place before you the opinions of those interested in this important topic in various sections of the country. You may draw your own conclusions.

President Seerley, Iowa State Teachers College, Cedar Falls, Iowa, says:

> The chief trouble with agriculture for training teachers in normal training high schools lies in the fact that the course is so brief. In fact it is too brief to have any marked effect. I do not know any remedy for the same as the other subjects that are required for college work must still stand. As a consequence the normal training high schools are obliged to give a very limited course. I doubt very much whether the course

will be of very much use to teachers who will go out of high schools and who expect to be teachers in the country, as they will not know enough to compete with the average farm boy.

Charles R. Weeks, professor of agriculture and director of extension work, Winthrop Normal and Industrial College, Rock Hill, S.C., says:

A successful agricultural teacher is not measured by grades made in a few agricultural subjects in college, nor is he a farmer's boy with no agricultural education. A successful agricultural teacher in a high school must possess the knowledge of the student in agriculture as well as the experience of the farmer boy, and then have the ability to mix with, and command the interest and confidence of, farmers and town people alike. He must have a sincere interest in the work and an enthusiasm that will carry him thru many hours of unexpected work and difficulties. No matter what the lack in school equipment, or farm plot, such a teacher will get results in agricultural education anywhere. Until a high school is sure of getting the right teacher, it is vastly better that agriculture be left entirely out of its school curriculum. To avoid aimless drifting in the extended field of agriculture, to assure the adapting of material to the pupils, to the community, and to the season of the year, we should use only the topic method of teaching agriculture.

J. C. Muerman, specialist in rural education, United States Bureau of Education, Washington, D.C., says:

Any course in agriculture for training teachers in normal training high schools should emphasize home agriculture, almost to the exclusion of the present plan followed by so many schools in attempting to do so much in a school garden. The teacher should develop home plans for the boys, using the school garden only as a propagating plan. Another phase of the work is greatly neglected, and that is the preparing and marketing of all kinds of produce. Packing, shipping, and pre-cooling are essential, and yet I find many teachers absolutely ignorant of the importance and meaning of these terms. The study of markets, with special reference to a public market and its use and abuse, of home consumption, of consumers' tastes, acquired and cultivated, is essential to those who receive instruction from teachers who go from high schools that are supposed to have a course in agriculture.

Harry E. Bradford, professor of agricultural education, and principal of the School of Agriculture, University of Nebraska, Lincoln, Nebr., says:

The problem seems to me to be one of reorganization. The present course of study in the average high school still clings too much to the old idea of classic training. Normal training in the high schools has been of inestimable benefit to the rural schools, but another step is necessary before the average girl teacher gets the viewpoint which makes her valuable from the standpoint of the open country. This reorganization may take one of two courses. We may add another year to the high-school curriculum, especially for normal training preparation. This will allow sufficient time for the work which is now being given and for additional work in agriculture, home economics, and pedagogical training in both of these lines. If the extra year does not seem feasible, then the reorganization should come from within, and all thought of preparation for the university should be omitted in planning the course for rural teachers. My thought is that the teacher who would be truly a rural teacher should have a good training in home economics and agriculture and possess a considerable fund of information concerning rural conditions and community service. This means eliminating a number of subjects from the regular high-school course, which, up to the present time, have been considered quite necessary for graduation. It means also foregoing all thought of preparation for college until the college recognizes the value of this kind of preparation, and accepts it as entrance credit.

Fred L. Mahannah, state inspector of normal training high schools, Des Moines, Iowa, says:

The agriculture that we are offering in the normal training high schools differs radically from what should be offered in a high school where the object is to train scientific farmers. We require but a half year's work, tho a number of schools offer a full year. As a general rule, the teacher in charge is the regular science teacher, who has had a summer school's work in the special phases of the subject. We have been trying to raise the qualifications as rapidly as possible, and, by 1915, our requirements will be that the teacher of agriculture must have at least twenty-four semester hour credits in agriculture, unless more than a year's work is offered, in which case graduation from an agricultural college will be required. Our normal training classes in agriculture are made up largely of girls who are prospective teachers, and we feel that the great need in their case is to give them enough knowledge of agriculture to enable them to enter more intelligently and sympathetically into the life of the rural community in which they are engaged as teachers. We have found it extremely difficult to get teachers of agriculture who have had any special training, but we feel sure that the work we have been offering normal training students has been of great value to prospective rural teachers, particularly to those who have been born and raised in town.

W. E. Larson, rural school inspector for Wisconsin, Madison, Wis., says:

In Wisconsin the teachers' training course is given in connection with the regular high-school course, that is, those who are taking the training are also taking a regular four years' course. In this way the Wisconsin method is different from that found in several states. The teachers' training course is, in as many respects as possible, like a regular English course. A special teacher is employed to teach the professional subjects. All that this teacher can really do is to take charge of the professional work and reviews. This teacher is not allowed to take any of the other classes in the high school, unless these classes be considered a part of the professional work. The teaching of agriculture is therefore a part of the regular high-school course, and not necessarily a part of the work in teacher training. I believe that if the high schools are to train teachers for country-school work, considerable of the work that we are now trying to include must be eliminated and certain other fundamental branches must be taken up. Chief among these branches are agriculture and domestic science. The country-school teacher needs to be master of a certain amount of knowledge that is directly needed in the teaching of a country school. The idea of having a high-school teachers' training school and a college preparatory school must be given up, unless the colleges are willing to accept the work done in the teachers' training course as sufficient preparation for the work in the college.

L. S. Ivens, director of agricultural education for Ohio, says:

It is my opinion that teachers who expect to teach in the rural schools should study agriculture at least one year before they take the work in the normal training high school. They should also have agriculture thruout their one-year course in the normal. The course should be half professional and half academic. In other words, half of the time devoted to the study of the subject should be on methods of teaching it. The first term of nine weeks' time should be given to nature-study agriculture; second term to elementary agriculture; third term to advanced agriculture; and the last term to rural organization. The last term should include all kinds of contest work, the organization of farmers' institutes, schools, rural fairs, Chautauquas, granges, clubs, and co-operative associations. The future rural teacher and superintendent must become a rural leader and this will require him to have a better knowledge of the methods of rural organization. Our future rural teachers must make better use of the state's agricultural institutions. In our normal courses that are now in preparation in Ohio, we have set apart special time

for work to be done by men and women from the agricultural college, experiment station, domestic science school, and medical schools. This work will not be merely lectures, but will be mostly demonstration work. The state medical association will send us men who will demonstrate to the teachers better methods of rural sanitation, not only for cattle and hogs, but also for the children. Methods of heating and ventilation, what to do in emergencies, how to maintain sanitary kitchens, and other health rules will be explained and demonstrated by members of the state medical association. Members of the state dental association will explain their work in each county normal training high school.

Rufus W. Stimson, agent for agricultural education, Board of Education, Boston, Mass., says:

We have in Massachusetts no agricultural teacher who has been trained for his work in a normal training high school. Our agricultural teachers either are self-made men, who are thinkers and observers, and have demonstrated their ability to conduct the kinds of farming they are called upon to teach profitably, or they are graduates of agricultural colleges who have also been able to establish a strong presumption of ability to teach farming in such a way as to make it profitable. It will generally, we believe in Massachusetts, be possible to secure farm-bred men who have added to their practical experience the training afforded by one or another of our state agricultural colleges. Considerable attention is being paid to the correlation of the instruction of pupils in rural schools with country life and labor. The state normal training schools of Massachusetts are the sources from which are drawn most of the teachers for this work. Even in our normal schools, however, there is no absolute uniformity in the courses of study. Biology, plant and animal life, with considerable productive effort in the form of home gardening, are perhaps the main factors in the teaching in which the prospective teachers are trained. In Massachusetts, we are unequivocally committed to the value of productive effort carried on in connection with formal schooling.

William P. Evans, state superintendent of public schools, Jefferson City, Mo., says:

Inasmuch as the state is providing aid based on the teaching of agriculture in the high schools, and in view of the fact that many teachers have been trying to teach agriculture this year with inadequate training, this department issues the following requirements which will be insisted upon as the minimum preparation for such teachers next year. For the teacher of agriculture in a third-class high school, five hours of college work in agriculture will be required. Teachers in first- and second-class high schools must have had seven and one-half hours of college work in agriculture. No teacher who has had less than this amount of study of agriculture can do satisfactory high-school teaching in the subject, unless he has had previous first-hand knowledge of farm work. . . . . All of this required work in agriculture may be done by a student in one summer at a normal school or at the state university. It is proper to state that these requirements are higher than previously maintained in Missouri, but are much lower than those in other states north and east of us.

C. J. Brown, state supervisor of rural elementary schools, Department of Education, Baton Rouge, La., says:

Such a course should be established only in rural high schools or in small towns where the rural idea prevails. There should in every case be parallel courses in: (1) *General science*, including those phases of physics, chemistry, and biology which relate in a practical way to agricultural operations; (2) *Rural economics and sociology*, without which the subject of agriculture, however well known, does not assume its due importance or proper

setting; (3) *Farm shop and machinery*, where practical experience may be had in the most common and important phases of such work. The aim of such a program should not be to give a comprehensive course, but should be to stimulate such an interest in agriculture as will cause the prospective teacher to continue learning. Two years should be the maximum time devoted to the subject until the agricultural work in public schools has become fixed and more extensive than at present. The first step should be a survey of the community in which the school is located, touching all phases and conditions of the community; work should then be studied in the light of the principles evolved from such survey. Observation trips in the community should form a very important phase of work. Actual field work should be insisted upon. In many activities observation might serve fairly well, but a certain amount of actual work is necessary. There should be much experience with machinery. The shop will not offer nearly enough, so pupils might assist in assembling parts of machines for farmers. The course would be quite incomplete unless it informed students as to progressive agricultural movements operating in their territory, the relative importance of such movements, how and what the teacher must become as a factor in them. It would seem almost necessary in the present stage of the subject in the public schools to give student teachers a definite idea of just what should be taught in certain grades, of how to teach it, and of the actual apparatus and equipment essential.

E. C. Bishop, schools section, Iowa State College, Ames, Iowa, says:

The old-line college professor thinks that the teacher of agriculture in the rural schools ought to be a specialist in either farm plants, farm animals, soils, or other topics, rather than that he ought to have a general knowledge of fundamental principles as applied to the common things concerned in plant and animal life and farm management. We have a few of those people who think that the normal training course in high schools ought to specialize in one or two of these topics if time does not permit a thoro training in all of them, and they would turn this teacher loose trying to teach farm crops very thoroly, when anyone who has been thru the mill knows that even the elemental phases of soils, farm crops, farm animals, or other subtopics cannot be successfully taught without at least a speaking acquaintance with the elementary phases of the other related topics. They are related in the home, and the teacher cannot make a close division, for the reason that her training was in one topic only.

The late Seaman A. Knapp, of the United States Department of Agriculture, probably did more for the cause of agricultural education, especially in the southern states, than any one man in this country. I quote from his paper before this department in 1909, which, in my opinion, is the best statement yet made for agricultural education in the public school:

The public demand for agriculture has made this error—a lack of definiteness. It would have been much better had legislatures simply demanded the teaching of two or three things, which are universally required and which would have given some greatly needed information to the people. Instead of agriculture, there should be substituted the vegetable and fruit garden, the cow and her products, and poultry. These three lines of instruction would give definiteness to what is required. As it is now, teachers are perfectly at sea, and there will be an attempt to teach almost everything, from pure science remotely to agriculture to the purely mechanical methods of the farm. In the family vegetable and fruit garden would be included all the instruction in soil, in seed selection, how plants feed, how they grow, and in methods of cultivation necessary for the rural town and the country in an elementary form. Practical lessons about the cow and her products and poultry would give the knowledge required in every household in regard to such common food supplies as milk, eggs, veal, beef, and the flesh of fowls; how to

produce economically; their value; and the offices they perform in the human system when used for food. Instruction of this character is along the line of the people's necessities and gives the kind of knowledge required by the toiling masses. There is little danger of teaching incorrect theories or methods upon these subjects, because the object-lessons are at hand for correction. In most schools it would be better to give instruction in only one of these at a time, commencing first with the market garden; second, poultry; and third, the cow and her products. No one should be considered educated who is ignorant of the economic production of these and their great value in the food supplies that must form one of the chief sources of sustenance for the human race.

The foregoing opinions make, as it were, a symposium on the subject assigned me. The following points stand out prominently in these statements:

First, the elimination of some subjects from the old traditional high-school course in order to give sufficient time in which to teach manual training, domestic science, and agriculture to the prospective rural teachers in our normal training high schools.

Second, in order to give agricultural education and rural economics proper dignity in the high-school course of study, our colleges and universities must give due entrance credit therefor when properly taught in the high school.

Third, the most available agencies for training teachers for the rural schools are our public high schools that are qualified to give normal training.

Fourth, the proper agencies for training the directors of the normal training work in our high schools, including the work in agricultural education, are our state normal schools.

Fifth, the greatest problem in agricultural education is the training of a sufficient number of teachers qualified to give such instruction in the rural schools. The *Country Gentleman*, in a recent issue, declared that the greatest problem in agricultural education for the next ten years will be the training of teachers for this work; that if the course of study and equipment are valued at 20 per cent, the qualified teacher should be valued at 80 per cent. As in every other subject to be taught in our public schools, so it is in agriculture—as is the teacher, so is the work. Therefore, let us urge upon our state normal schools, our agricultural colleges, and all institutions qualified to give teacher training to begin here and now a crusade for the preparation of teachers, not only in our normal training high schools, but in our rural schools as well.

II. A. V. STORM, PROFESSOR OF AGRICULTURAL EDUCATION, UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MINN.

Education has become greatly extended and widely differentiated. With this has come a great divergence of opinion among even the leaders in education as to which of the many phases of our public education is most important, and consequently entitled to the most attention.

One of the most prominent city superintendents in America once assured me that if he had to abandon either his high schools or his kindergartens the high schools would have to go. Yesterday you heard from this platform one of the accepted leaders in present-day public education make an eloquent appeal for a recognition of the supreme importance of the American high school. A popular vote would probably indorse by a good majority the statement that the grade schools are the most vital in our system, while there are those of unusual acumen who maintain that the college—where people of vision are prepared for leadership—is of greater significance in advancing civilization than is any other one factor. Parallel with this contention as to which is the most important part of our educational organization (which when finally solved will probably reach the same conclusion as did the famous argument begun by the discontented pendulum) is the contention as to which is the more important purpose of education, the attainment of culture or the attainment of vocational efficiency.

Inextricably involved in the above discussion is the rural school. The rural school is rapidly coming into its own in the amount and kind of attention it is receiving. Having successively served as the object of our blind, bombastic faith, our ridicule, and our pity, it has now come to be a matter of greater concern to more people and to more classes of people than has any other feature of education. The place where the great masses of our conservative and conserving population receive their entire education is now acknowledged to be worthy of the most careful thought of the best men and women of the times.

There are many causes for this deepening interest in rural schools. The development of scientific and practical sociology, economics, science, and agriculture; the lack of free land; the rush to the cities; the practicability of elementary work in home economics and agriculture; the dependence of urban upon rural progress and success—all these and many others have called with a loud voice for a better rural school. "As is the teacher so is the school" has lost none of its truth in the passing years. A better rural school, then, means a better rural teacher. Where and how shall she be prepared? Two years ago I studied the normal training situation in the United States and found that in no state replying to inquiries can the state normal schools furnish an adequate supply of teachers for the schools. Because of many conditions, the rural schools were the ones to feel the lack first and to the fullest extent. The logical conclusion is that the rural teacher must be prepared largely by the local high schools.

How are they to be prepared? The difference in organization will cause this to vary. In most states the high-school normal course is four years long and includes general as well as normal preparation. In Iowa, the special normal work is distributed thru the last two years. In Vermont, it consists of one year of normal work after graduation from the high school. In Minnesota, it has a special year of exclusively normal work which may

constitute one of the four years of high-school work of which one, by statute, and sometimes two or three, by local board authority, must precede the normal year.

In some states, as Vermont and Minnesota, a special normal teacher is employed who teaches nothing else and from whom normal students received practically all their instruction, excepting that in agriculture and home economics, these being taught by the special teachers.

As the investigation showed that over 90 per cent of the students in high-school normal classes in the United States were girls, the topic assigned me resolves itself into a question of how to prepare a high-school girl of the normal class to teach agriculture in a rural school.

This is very difficult. If she takes the regular high-school course, she can take her agriculture in the regular high-school agriculture class. This could be one year of work of the kind indicated below. If the high school has a widely differentiated course in agriculture extended over four years, as Minnesota has, either a special normal class can be organized, or the normal class may take the agronomy year as a part of the regular high-school course.

If the high school has no regular high-school agricultural course, steps should immediately be taken to improve that high school before it be allowed to prepare teachers for rural schools. As a temporary expedient, a special class in agriculture may be organized for the normal class to be taken during the normal year.

Where shall the emphasis be placed? There are four great phases of agriculture, viz., plant industry (including soils), animal industry, rural engineering, and farm business.

Since agriculture is to be studied in the seventh and eighth grades (under certain conditions also in the sixth), the teacher needs to be taught the things these grades of students need to know and which they can most successfully learn in a country school. If I were compelled to make a fractional division of the four topics outlined above for the rural school, it would be to spend half the time upon plant industry and half upon the other three.

A much-mooted question is whether this teacher should know much about one thing or a little about many things. The answer is "Neither." She should know enough about the things most important to the agriculture of the community and to the children at that time to enable her to teach the same in a sound and interesting manner. From one subject so prepared she should increase the number of topics at her command, the breadth of her knowledge upon them, and the vitality of their interrelation. How shall she find time? If necessary, by omitting some other studies usually prescribed for her course but much less likely to function in the few years she will teach in the rural schools. She must be taught her agriculture (as she must be taught much of her academic work) in the same manner in

which she will be expected to teach it to her pupils. Elementary agriculture is more a study of things than of books. She should so teach it, hence she should be so taught. She may have a good elementary text as a guide, but she should be taught mainly from real things—real corn, real soils, real weeds. Laboratory and field work of a practical nature should predominate. The approach should be concretely pedagogical, not abstractly logical. The seasonal sequence should be followed where possible since it coincides largely with the pupils' and the parents' interest. In this approach we must not forget that the interest of child, parent, and community is first an economic interest. Other interests will follow.

There must be plenty of observation and actual teaching work by normal-class students. Many schools that have high-school agriculture have also agriculture in the seventh and eighth grades. If so, the normal class should observe and teach here. A real rural school is better and some classes have this opportunity. A particularly good opportunity is offered for this work in those states, such as Minnesota, that have associated schools. In such schools the normal students may be taken to the rural associated school or the pupils from the associated school may be brought to the central school once or twice a week.

In training this rural teacher, we must be sure that she knows enough about real agriculture, both practical and scientific, to feel safe in attempting to teach it to farm boys and girls. Otherwise she will fail to attempt it or will attempt it and fail.

THE FEDERATED BOYS' AND GIRLS' CLUB WORK

O. H. BENSON, SPECIALIST IN CHARGE OF CLUB WORK, UNITED STATES DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Like the county agent work, the boys' and girls' club work began in the North and West less than three years ago. It has been conducted largely with the colleges of agriculture thru their extension departments, thru which it has been closely co-ordinated with the public schools. Within the county, the aim is to secure club organization thru the leadership of the county superintendent of schools. The county agent supports the club movement as one of the important agricultural activities of the county, advising the teachers in their club work in such ways as seem desirable. His chief support is given thru his sympathy with the work, his technical knowledge, his assistance in the follow-up work, and his general guidance of the movement within the county.

Leadership in country life.—The country needs leadership and recognized opportunities for leadership. The country has the men and women with the unrecognized gifts of local leadership. Club work will find these undiscovered leaders, and will give them opportunity for congenial work and for development thru their interest in the children, and their work

with them and their partnership with state and national leaders of large experience. Thus the country's own resources will be utilized for the benefit of the country.

What is club work?—Club work is the performance of a definite farm, garden, or farm-home interest enterprise, and is based on the best economic practice of the farm and home. It aims to teach better methods of agriculture and home economics. When co-ordinated with school work, it serves greatly to increase interest in all of the school studies and other activities. Children from ten to eighteen years old are organized into local clubs, and these clubs are federated into a county, state, and national organization.

The work of the clubs.—Club projects are usually outlined to cover a season's work of from four to ten months. The club work may be closely correlated with school exercises and made to cover the entire year. Corn, potato, alfalfa, home garden, and canning clubs represent some of the various projects of club work. When possible, the members of the clubs are allowed to receive and keep the net profits resulting from club work. The work requires careful study of instructions, the making of observations, the keeping of accurate records, the making of exhibits at fairs, and the grading, crating, and marketing of the product.

Objects of club work.—The principal objects of club work may be listed as follows:

1. To offer to the young people careful guidance which will lead to a better type of farmers and home builders.
2. To demonstrate thru the boys and girls the best farm and home practices.
3. To enlist the interest and efforts of the boys and girls in problems of efficiency and economy.
4. To illustrate the best methods and to prevent waste in orchard, field, and garden thru canning and better systems of marketing.
5. To offer to young people the proper incentive for their own personal conservation and the conservation of American country life.
6. To establish in boys and girls habits of industry and thrift.

Essentials of club work.—It has been found that schools can make their own classroom and home-study work more interesting and more effective by giving credit for kinds of farm and home work that have a real appeal to boys and girls and also a genuine economic value to the farm and the home. In handling the club work, the following points seem to be the chief essentials of a permanent and workable plan:

1. A plan that provides for the demonstration of approved farm and home practices that will result in a net profit at the end of the club season.
2. Well-prepared leaders whose duties are to inspire, organize, instruct, and lead thruout the year.
3. A well-prepared system of follow-up instruction for each club, the instructions to be sent at seasonable times and in small instalments.
4. A system of instruction in bookkeeping that will teach farm accounts and at the same time will provide accurate records for the annual reports.
5. A local club fair or festival, where the products of club work may be exhibited and where play contests related to club activities may be conducted.

Evidences of good club work.—Club work, however interesting to the children and however excellent in itself, is not the object of club work. The club idea includes the interests of the children as children and the interests of their parents, and it includes the future of the children; so it becomes a valuable part of the system of education that aims to use the child's play interests and his work interests and all his activities in forming habits of learning, thinking, and working that will be of the greatest service to the grown-up child. In time the following evidences of good club work will be apparent—indeed, are now apparent in most of our states:

1. Increased enrolment from year to year.
2. Increased acreage, yields, and profits per member.
3. Increased numbers of club members retaining their interest thru longer periods.
4. Better work by club members—in club activities, at home tasks, and in the schools.
5. Larger attendance at the agricultural colleges of young people ambitious to receive training for the rural occupations.
6. Increased financial support—this is the final evidence of a real appreciation of the service of the club projects to the country.

School extension.—The essence of the extension idea is that the agencies provided for the education of the people shall not confine their work within the walls of schoolhouses and colleges. The school and the college should work for all persons who need the knowledge which school and college can impart, the training which they can give, and the inspiration which comes from the living presence of the gifted teacher. The common school is responding to this new and enlarging idea of service; and this response is finding its outlet in efforts to connect the school work directly with what we sometimes call real life. That is, the life that is lived by men and women and children in the homes, doing the homework, and the tasks of the farm and of the shop and, indeed, of every other industry. The school may well feel that it has continuing relations with its pupils, that it has duties to them and to their parents wherever they may be, whether at school, at home, in study, and in work and play. So the common school has its "extension" functions, which it can perform more effectively thru club-work interests and activities, which can be made most efficient for usefulness and for educational guidance during the long summer vacations.

School credit for club work.—It has been discovered in a number of states that the schools can wisely give school credit for work done at home—the useful tasks of farm and household. It is possible for superintendents and teachers to recognize club work by giving school credit to all pupils who enter clubs, follow instructions, keep complete records of work done, and present final reports showing all items of cost and income. Every alert teacher will quickly recognize the educational value of the reading and thinking which will be necessary to prepare a report of a club project requiring a whole season for its completion. The boy who raises an acre of corn or manages a small market garden, doing all the work, selling all products, and keeping a complete record, will learn more agriculture than

is usually learned by the boy who devotes a year to the study of an elementary textbook in the average school. When the school recognizes the value of this kind of study, and then offers school credit, there will be a new feeling in the country that the school has a real mission to farm life as well as to "education."

Point of view and teamwork.—The secret of success in club work may be summed up in two words, point of view and teamwork. Without vision and the will and the power to work together to accomplish what is worth doing, the large tasks must remain undone. The policy of the department from the beginning of the boys' and girls' club work has been to recognize and work with the extension department of the state agricultural college, this institution, in turn, to recognize the state department of education, the county superintendent of schools, and the local teachers. The farm bureau, if there is one, working thru the county agricultural agent, can be a strong influence for the federation of such local organizations as granges and women's clubs. With the help of these organizations, the county superintendent will find his work much easier. Thru the agent, he will find it possible to get scientific instruction and help in carrying out his follow-up plans.

Local organization.—The best time to form the local clubs is in the late fall or early winter. The most important unit for club organization is the school district or community center. The club work should be presented to prospective members and their definite enrolment secured. A local organization should then be formed, with a president, vice-president, secretary, treasurer, program committee, exhibit committee, bookkeeper, and local supervisor of the home gardens. This supervisor should be an older person—if possible, the local school-teacher or an interested man or woman of the neighborhood who will agree to visit the club plats at least twice during the season and report to the county superintendent or county agriculturist, who will report to the state leader in charge of club work. Arrangements should be made to hold meetings of club members each month during the year, with well-planned programs related to the club work and other country-life interests.

Determining club policies.—Since the organization of the boys' and girls' club work the plan of the department of agriculture has been to invite all of the state and district leaders in charge of club work to a conference at Washington or some other convenient center. At this conference, the general policy for the ensuing year is determined. The particular things on which the leaders agree are the following:

1. The club projects to be undertaken.
2. Rules to govern club projects and contests.
3. The use of labels, trademarks, emblems, premiums, and prizes; fairs and festivals, and means of conducting them.
4. Best method of organization, follow-up work, financing projects.

Only a few club projects should be undertaken in any district or community center, their number to be determined largely by the following considerations: (1) adaptation and profitableness; (2) interest and cultural value; (3) character of club membership; (4) marketableness of the products.

Finding bearings in club work.—Many good ideas fail to develop as they should because of hazy thinking and indifferent planning. The club idea may become a mere show or fad, but it can and should be worked out so clearly and definitely into genuinely useful industry that it will appeal to the most matter-of-fact farmers and business men, as well as to our best educators. Much depends upon the spirit and intelligence of the local leaders—more, perhaps, on their willingness to do the hard work of thinking and planning and consulting with the county superintendent and state and national leaders of large experience.

School garden and home garden.—The school garden has its place in education; but the home garden can be made to have a much more important place in the activities of the common school, and, at the same time, can be made of increasing value as a contributor to the food supply of the home and to the family income. The teacher, working with the county agent and with the children and their parents, can be of great service to the country community by promoting and leading in the garden-club projects; and, at the same time, he can increase his power to make the purely educational or instructional work of his school appeal to pupils and parents with a new force and a more definite meaning. This kind of work gives the school a consciousness of power and gives to its patrons a new appreciation of the school's fitness and purpose to give to book-learning and classroom instruction a real and vital relation to the things of the workaday life of the people.

Wanted—county club leaders.—The county agricultural agent, as a representative of the United States Department of Agriculture and the college extension service of the state, should be both interested and active in boys' and girls' club projects; but he cannot give to this work the time and the close personal attention it needs. It is important, therefore, to have special leaders who can work with the county superintendent and the agent in securing the co-operation of granges, women's clubs, and other organizations. Constructive club work includes a recognition of the importance of vocational training for the farm and the home. So the teachers can work with special interest and intelligence with the county agent and the club leaders, and together they can save our country population from the tendency to become a peasant class.

Club work requirements.—Large cash and other valuable prizes will be less needed when we have more funds and more leaders, and when it comes to be understood that the best reward for intelligence and industry in club work is the reward of net profits actually earned by the

club members. With real profits as a result of the work, every club member becomes a prize-winner; and the best of it is that he earns his own prize money and definitely establishes his rank by his own intelligent planning and his own diligence in using his opportunities. Ordinarily, the age limits should be ten and eighteen years, and the club members should be divided into two classes—one to include those from ten to fifteen years old; the other, those fifteen and over. Prizes should be awarded within these separate classes, so that ten-year-old children will not be in competition with others eighteen years old.

Follow-up work: its importance.—It is not enough to secure a large enrolment of club members. The important thing is to arouse such intelligent and purposeful interest in the work that those who join the clubs will do the work planned and continue to be active members until they are too old to remain in the club organization. Follow-up work keeps the leader in touch with his members, so that he can encourage those who need encouragement, help those who need help, and keep all concerned awake to the importance of the systematic carrying-out of plans carefully laid. Field meetings and demonstrations are important elements of a good follow-up system.

The club and the consumer.—It is not enough, in club work, to grow a crop, even when the grower wins a prize worth much more than the cost of his crop. The crop itself, as a result of labor intelligently planned and systematically done, should find its way to an open market or direct to consumers and should bring real profit to the grower in addition to fair wages for the labor necessarily and efficiently applied in its production. There should be instruction in the proper methods of preparing, grading, and crating, or otherwise preparing products for the market, and study should be made of the best markets and the best means of reaching these markets. All members should be taught how to prevent waste—how to turn to profitable uses the products that so generally are lost.

Results of club work.—During the first cropping season, we had a total enrolment of 60,000 boys and girls in the various club projects, and during the second cropping season, 1913, our enrolment was 71,407. For the 1914 season, we have an enrolment of 103,000. Enrolment and organization work was from twenty-seven of the thirty-three states in our territory. Of these twenty-seven states, only six had paid leadership in charge of the club work in 1913, while in 1914 we have paid co-operative leadership in all but six of the states in the Union.

During the past two years or since the organization of the work in the North, 32 corn-club members made over 140 bushels to the acre, 108 made over 120 bushels, and 463 club members made over 100 bushels to the acre. The lowest net profit made on any of these yields was $5.84. The highest was $64.80 per acre.

During the past year, an effort was made in some of the states to get the older club members to operate more than the one acre as required for club membership. In Illinois, 13 club members managed from $2\frac{1}{2}$ to 47 acres each. The average acreage of each was $17\frac{3}{4}$ acres. The crop reports submitted, their accuracy being attested by two disinterested witnesses,

TABLE SHOWING RESULTS ATTAINED BY BOYS' AND GIRLS' CLUBS

CORN CLUB

State	Name	Post-Office Address	Total Yield in Bushels	Cost per Bushel	Profit per Acre	Kind of Corn
Illinois	Loren Hoffman	Waynesville	117.00	$0.13	$ 51.75	Reid's Yellow Dent
Illinois	George H. Grosse	DesPlaines	113.00	.18	64.35	Golden Beauty
Indiana	Earl Sowder	Heltonville	100.03	.17	45.60	Yellow Dent
Indiana	Everett Schlenker	Gaston	113.10	.10	64.91	Funk's Dent
Iowa	Arthur W. Runft	Reinback	136.70	.095	101.80	Reid's Yellow Dent
Iowa	Earl Zeller	Cooper	123.00	.08	159.58	Reid's Yellow Dent
Massachusetts	Walter T. Clark	Granby	82.50	.58	28.38	Flint
Massachusetts	John E. Devine	North Bradley	117.42	.324	67.57	Flint
Michigan	Grant Winters	Kewadin	87.07	.21	53.65	Murdock's
Nebraska	Jesse Correll	Cambridge	88.00	.27	50.45	Yellow
Nebraska	Walter Plug	Papillion	84.00	.163	36.65	Legal Tender
New Jersey	Ormsby Scudder	Titusville	102.00	.21	65.65	White Cap
New Jersey	Robert Mack	Robbinsville	102.82	.38	62.97	Yellow Dent
New Hampshire	Hoyt Quimby	Windson, Vt.	124.00	.52	20.00	Yellow
New York	Charles Waters	Cuyler	40.00	.78	18.70	White Flint
Pennsylvania	Charles Yohe	Tower City	110.86	.38	79.57	Native Dent
South Dakota	Wallace Mitchell	Hecla	73.50	.145	101.05	Minnesota No. 13
South Dakota	Leonhardt Weidenheft	McIntosh	40.50	.367	55.38	Yellow Dent
Colorado	Ernest Strohmeyer*	Peetz	*38.14	.26	33.15	White Dent

* Record of Ernest Strohmeyer established by dry-land farming.

GARDEN AND CANNING CLUB

State	Name	Post-Office Address	Pounds of Tomatoes	Cost of Production	Receipts from Fresh Vegetables	Profit
Iowa	Agnes Friddell	Cedar Falls	3,403	$25.26	.....	$100.88
New Jersey	Lucy Bale	Augusta	3,980	52.67	$ 8.80	70.58
New Jersey	Jane Stickle	Newton	3,060	23.42	6.00	41.68
Ohio	Alberta Curtis	Chardon	1,736	11.90	17.10	9.20
Ohio	Mildred Tuttle	Thompson	1,434	6.95	11.75	7.92

POTATO CLUB

State	Name	Post-Office Address	Total Yield in Bushels	Cost per Bushel	Profit	Variety
Massachusetts	William Peirce, Jr.	Lincoln	346	$0.40	$162.80	Green Mountain
Massachusetts	Cleon Hammond	Abington	336	.26	186.00	Green Mountain
Utah	Merle Hyer	Lewiston	764	.07	398.40	Early Eureka
Utah	George Cannell	Smithfield	636	.094	321.60	Early Eureka

show that all of these club members made a net profit on their investment.

The best report along this line from any of the states in the corn-club work was submitted by E. C. Bishop, state agent in charge of club work for Iowa. Seventy of his corn-club members managed from $1\frac{1}{2}$ to 60 acres of corn with an average of $12\frac{1}{2}$ acres to each member. The reports clearly

show the influence of the boys' and girls' club work toward the larger farm problems when the club work has been properly organized and supervised, and when the young people have been given a chance to conduct their work on a practical business basis.

In the awarding of prizes for achievement in boys' and girls' club work, it has been the custom for the past two years to recognize the champion of the state in a club project by giving him an educational trip.

The most important educational prize award made in the northern, central, and western states during the past two years is that of offering free tuition and free expense to the champion of each district or county to attend the short course at the state college of agriculture. During the past two years 1,137 club boys and girls attended these short courses, out of which 984 regular club members were sent for the season, with all expenses paid, because of achievement in club work.

WHAT RECOGNITION SHOULD BE GIVEN VACATION AND OTHER OUT-OF-SCHOOL WORK?

J. W. CRABTREE, PRESIDENT, STATE NORMAL SCHOOL, RIVER FALLS, WIS.

I believe that school credit for vacation and other out-of-school work secures the following results:

1. It increases the interest in doing this outside work and brings about a better interrelation between the school and the home.
2. It dignifies labor and causes pupils to take pride in doing chores and homely tasks and in doing their school work.
3. It attaches double importance to the virtues of economy, industry, and thrift.
4. It naturally leads to better effort and efficiency in the school tasks as well as in outside tasks.

I believe that the school is justified in allowing school credit for these reasons: (1) Because the pupil gains in mental attainment from doing these purposeful things, fully as much as from equal time spent on the regular lessons of the school; (2) because this work better fits the pupil into the actual conditions of the home and the community, which is a most essential part of an education; (3) because this work increases the pupil's interest in his lessons, thus adding to thoroness and giving a higher type of general scholarship.

There is no doubt as to the value of this outside work to the pupil, the home, the school, and the community. Does anyone question whether this work has an educational value as well as a vocational value? Then why do we hesitate to give our pupils school credit on this work and to allow these credits to count toward the completion of a course of study? Because of tradition, because we fear what our associates or college professors may

say. There are other reasons also. Any teacher can do things in the traditional way. Only resourceful, enterprising, industrious, and the most efficient teachers seem to take up this outside work and to carry it forward with success. Only the teacher whose life is consecrated to the work of doing good and of promoting the welfare of youth, the one who is so strongly filled with the teaching spirit that he can see the larger purpose of teaching, will ever have a genuine interest in this outside vocational type of work.

I have mentioned a few of the things in which I do believe. Permit me to mention one thing in which I do not believe. I do not believe in asking others to do things which, under similar circumstances, I would not actually attempt to do in my own school. We have done some of this work in our school. Our chairman has requested me to mention some of these things.

What would you think of a normal school's allowing credit on getting one's own dinner and washing the dinner dishes? Let me describe the plan. The course is a three-hour course each semester, called "Course on Self-Boarding."

The hundred girls boarding themselves register for the course on self-boarding as a part of their twenty-hour program. The teacher of domestic science meets these girls three hours each week, has the girls compare menus and results, gives suggestions on such points as how to buy wisely, how to pare potatoes with the least possible waste, how to save gas or gasoline in cooking, how to beautify the study room, and so forth, but, instead of sending these girls to the laboratory, the teacher sends them to their own rooms to get their own dinners and to keep their own rooms neat and clean. The teacher visits the rooms as often as possible. She inspects the dinners every now and then.

Our worthy chairman has himself seen this plan in operation. He took kodak pictures of the girls getting dinner, washing dishes, beating rugs, receiving company, and doing other things, which he used in a farm magazine, giving the names of the girls. That his article was read, we had evidence in certain proposals of marriage which came to some of these young ladies from farmers of a practical turn of mind.

Can there be any question as to the value of this work? This course counts in more ways than have been mentioned. It reduces the high cost of living, which means much to the girl and her parents financially. It gives practical proficiency in domestic science and in actual home-keeping. Because of these many features of self-interest, this course appeals especially strongly to girls of limited means.

Another plan in actual operation is to allow from three to five hours' credit on farm practice to boys who spend the vacation at work on the farm, at the dairy, in the creamery, in the canning factory, or in other acceptable lines of work. At the present time, over fifty of our young men, including all who are to complete the course which prepares teachers of agriculture,

are making college credits on the farm and in the factory during the summer. The schools secured the positions for these young men, and the school requires reports to be made by the students. Boys from cities who are taking the agricultural course show the most genuine interest in this school work on the farm. The boys receive from $30 to $60 a month, together with room and board.

The department of manual training allows school credit on out-of-school projects, such as making farm gates, building silos, making furniture for the home, and carpenter work. Of course, credit is not allowed indiscriminately. The department assigns the work and gives directions or at least knows that the work is done under proper direction.

The school of agriculture is to be open to women next year. The head of the department plans to allow credit on vacation work to young ladies in domestic science, gardening, etc. Our young ladies are taking greater pride each year as this vocational work is developed and are helping with the work in their own homes. The boys also are becoming more useful to their fathers on the farms and in the stores.

We are only getting started in our model school in this work. We have much industrial training running thru the grades. This outside work receives credit for whatever it is worth, and applies on the required industrial work of this school. We prefer allowing credit outright, tho the "with-credit-and-with-honor plan" in force at St. Cloud, Minn., appeals strongly to us as a plan to use in the public school, especially at the beginning. The school-garden movement sweeping over the country is a part of a larger movement of connecting the school more closely with the home and community.

I would allow school credit on all kinds of useful labor. I would allow this outside work during the school year to constitute one-fourth or even one-third of the student's daily program, wherever possible. I would allow this credit in the high school and in the normal school. I would allow credit for any and all the following and many other occupations: Housework, nursing, taking care of children, dressmaking, clerking, reporting, barbering, gardening, raising poultry, caring for a horse, driving an auto, painting, beating rugs, working in the creamery, cheese factory, or store, doing janitor work, grading, and terracing.

Many schools thruout the country are now doing something along this line. It is a general practice to allow credit for private lessons in music. Extension work has had a tremendous influence in convincing teachers and others of the value of vocational work where the shop or factory or farm is the laboratory.

I see no reason why any school should fear ridicule in the matter of allowing credit for this outside work. The time is near at hand when one will be subject to ridicule who refuses to allow school credit for all these forms of vocational work.

DEPARTMENT OF CLASSROOM TEACHERS

SECRETARY'S MINUTES

OFFICERS

President—FLORENCE ROOD, kindergarten director, St. Paul Normal School....St. Paul, Minn.
Vice-President—MARY O'CONNOR, Public School No. 52.....Buffalo, N.Y.
Secretary—MARY ADKISSON, East Denver High School.....Denver, Colo.

FIRST SESSION—WEDNESDAY FORENOON, JULY 8, 1914

The meeting was called to order at 9:30 A.M., in Knights of Columbus Hall, by the president. In recognition of the fact that this was the first session of the department, the program was opened by Joseph Swain, President of the National Education Association, with "Words of Welcome to the New Department."

The program was then suspended and opportunity given Lolabel Hall, M.D., Minneapolis, Minn., to present a questionnaire, asking the co-operation of teachers in the collection of facts regarding the physical conditions and environment of children in every portion of the United States.

Margaret A. Haley, business representative, Chicago Teachers Federation, and member of the National Education Association Committee on Teachers' Salaries, Tenure, and Pensions, Chicago, Ill., spoke on "Teacher's Salaries, Tenure, and Pensions."

The meeting was then open for general discussion, after which, on motion, a committee of five was appointed to compile suggestions developed in the discussion for the assistance of teachers interested in securing pension legislation, with instructions to report at the Friday session of the department.

It was moved and seconded that the chair appoint a nominating committee to report at the Friday session of the department. Carried.

Meeting then adjourned.

SECOND SESSION—FRIDAY AFTERNOON, JULY 10, 1914

The meeting was called to order at 2:30 P.M.

A. W. Rankin, College of Education, University of Minnesota, Minneapolis, Minn., addressed the meeting on "Who Shall Administer Our Schools?" Following the address, the subject was open for discussion. There was a call from the floor for a discussion of advisory councils of teachers. Upon request, the Chicago, Ill., plan was explained by Margaret A. Haley; the New York City plan by Isabel Ennis; the Denver, Colo., plan by Mary Adkisson; and the St. Paul, Minn., plan by Florence Rood. Councils of teachers were reported as existing in Dallas, Tex., New Britain, Conn., and Boston, Mass., but no member was present from these cities to explain the plans in operation. A committee was appointed, on motion, to draft a resolution indorsing the principles of teachers' councils, with instructions to report before the close of the meeting.

The Committee on Pension Suggestions appointed at the Wednesday session reported as follows:

The Department of Classroom Teachers of the National Education Association recommends that wherever a teachers' pension or retirement law is enacted, such law should contain the following fundamental provisions:

Board.—A majority of the membership of the board of control should be selected by and from the contributing teachers.

Contributions.—For the purpose of contributions or assessments teachers should be divided into groups according to years of service. Contributions should be a fixed amount based upon such group classification and not upon salaries or positions.

Annuities.—Annuities should be fixed amounts and uniform for all teachers without regard to salaries or positions.

Membership.—Membership to be compulsory and optional. It should be compulsory to teachers entering service after the adoption of the pension law. Teachers in the service at the time the law is passed should be given option, for a limited time, to come under the provisions of the law with the obligation to remain after once entering. Such applicant so entering should be required to pay such back dues as will entitle him to be placed in the group to which he belongs by years of service.

Full annuity.—The term of service for full annuity should be not less than twenty-five years.

Disability annuities.—Disability annuities should be allowed after stated periods of years and should be such a proportionate share of the full annuity as the years of service bear to the years required for full annuity.

No person should become an annuitant until he has contributed a specified amount to the fund, nor receive disability pension until he shall have contributed the required proportionate amount.

Service counted.—Service as teachers in the public schools outside of the city or state should be counted, the amount of such service not to exceed a certain number of years or a certain percentage of the total number of years required.

Time for leave of absence for study, sickness, rest, or travel, not to exceed a certain fixed length of time, should be counted.

Tenure of office.—Teachers shall have a right to trial before dismissal.

All teachers shall be entitled to hearing on written charges before removal or discharge.

Retirement.—Retirement from public-school service should be a requirement for eligibility to a pension.

Appropriations.—The law should provide for the appropriation of public funds and it should be the duty of the proper public officials to make provision for the amount required.

No annuity should be subject to sale, assignment, transfer, garnishment, or attachment.

Committee
- Evarena Mayne, Los Angeles, Cal.
- Frances E. Harden, Chicago, Ill.
- Mary A. Cunningham, St. Paul, Minn.
- Molly R. Hobbs, Baltimore, Md.
- Nellie Minehan, Milwaukee, Wis.

The report was unanimously adopted.

The Committee on Nominations reported as follows:

For *President*—Nellie Minehan, vice-principal, Jefferson Street School, Milwaukee, Wis.

For *Vice-President*—Jane A. McCarty, elementary teacher, public schools, Brooklyn, N.Y.

For *Secretary*—Lydia L. Hazelton, teacher, public schools, Minneapolis, Minn.

The report was unanimously adopted.

The Committee on Resolution Indorsing Teachers' Advisory Councils reported as follows:

Resolved, That the Department of Classroom Teachers, recognizing the benefit to the public schools of utilizing the expert knowledge and the experience of the classroom teachers, recommends the establishment, in every public-school system, of official advisory councils of teachers, elected by the teachers to convey to the superintendent and board of education this expert knowledge and experience on courses of study and all other interests vital to the children.

Respectfully submitted,

Committee
- Mary O'Connor, Buffalo, N.Y., *Chairman*
- Margaret Haley, Chicago, Ill.
- Monta J. Boyer, Denver, Colo.

The report was unanimously adopted.

It was moved by Margaret Haley that this department petition the United States Bureau of Education to co-operate with this department in securing information on the

question of advisory councils of teachers and to aid in disseminating the same under the direction of this department. Motion carried.

Moved by Margaret Haley that if this plan be not feasible, this department instruct its officers to take steps to have some member of Congress make a speech on this subject, with leave to print and distribute it by means of the franking privilege. Motion carried.

Moved by Isabel Ennis, Brooklyn, N.Y., that a vote of thanks be given the officers of this department for the capable services rendered and that a copy of the resolution be placed on the records of the minutes of the meeting. Motion carried.

Meeting then adjourned.

MARY ADKISSON, *Secretary*

PAPERS AND DISCUSSIONS

WORDS OF WELCOME TO THE NEW DEPARTMENT

JOSEPH SWAIN, PRESIDENT, SWARTHMORE COLLEGE, SWARTHMORE, PA., AND PRESIDENT OF THE NATIONAL EDUCATION ASSOCIATION

It is a real pleasure to extend words of greeting to the new department of the National Education Association. I desire first of all to congratulate the members of this department that you are teachers rather than executives. The executive office exists to make the teachers' work effective. The object of the school is to provide opportunity for the child to grow in body, in mind, and in character. The teacher has the rare opportunity to see this growth and to guide and nourish it. The executive must be content to be a helper of the teachers to this end, but the teacher directly helps the children and has the happy consciousness of being a part of the divine plan of their growth. I have always believed that no one should seek an executive position. If it comes to you without seeking, as the logic of events, then perform the service the best you can, but the live teacher will only leave the teaching work as a matter of duty. You that are here today have a special opportunity in this section. You are on the ground floor. Your usefulness in the National Education Association and your ability to fill places of importance depend on your coming every year, getting a wide acquaintance, and accumulating a knowledge of the needs of the school. The persons in general who fill positions of responsibility in the National Education Association do so after years of devotion to its purposes. Nearly all the presidents have been active many years before they were made presidents. As a majority of this section are women, permit me to say I am interested in the women filling their due share of positions. I hope the time is not far distant when the question will be, not one of sex, but of fitness for a given service. You can do the best service for yourself by getting the best women in the educational work to come regularly to the National Education Association and take part in its deliberations from year to year, and the problem of woman will take care of itself. I have the honor of being president of a college where one-half the members of the board, part of the faculty, and one-half of the students are women. In

the faculty we always try to get the best person for the place, regardless of sex. These things have been true from the foundation of the college in 1869. The practice works well and there is no woman question with us. This happy condition is due to the fact that Swarthmore was established by the Friends.

I would suggest that you discuss here problems of special interest to the classroom teachers, that your intent be, first, to clarify your own views, and, secondly, to invite principals and superintendents to hear your discussions that they may fully understand your difficulties and your point of view. I am one who believes that officers and teachers alike wish to do the best thing possible for the schools. When difficulties arise between officers and teachers, it is usually due to their not understanding each other. If teachers look sympathetically on the difficulties of the officers, and the former acquaint the latter with their difficulties, you will find that you can educate them to your point of view. Teachers, superintendents, and boards of control need to study sympathetically the needs of each other and then get good co-operation between all these forces. "In the interests of the children" should be the slogan of the new section. Again expressing my gratification at being present at your opening session, and wishing you the success which your cause justifies, I bid you Godspeed.

WHO SHALL ADMINISTER OUR SCHOOLS?

A. W. RANKIN, COLLEGE OF EDUCATION, UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MINN.

The administration of our schools is perhaps the most insistent problem relating to modern education. We are in the midst of a peaceful political revolution, which has for its object the placing of power in the hands of the people. As political intelligence grows, we are of the opinion that we have never experienced democracy in government, and we strive toward its realization in this field. In industry the same problems maintain. The accumulation of wealth in the hands of a few, the enormously increased importance of transportation, the concentration of industries, the individual control of public utilities, all have vastly increased the necessity for the common man's taking part in the government of industry that he may not be crushed in the struggle for a decent existence. What is happening in politics and industry illustrates the related problem in the educational world.

The nineteenth century handed over to the twentieth many questions arising out of the establishment of free schools, unsolved by the fact of their establishment. To decide what was to be done with this mighty engine of democracy was the task given our century. It is easily possible for the school system to become a menace to our civilization. How shall our schools be governed, and by whom? Like politics and industry, education must achieve democracy in administration.

Education has not turned out, so far, to be the salvation of a democracy, as the people who established free schools in the nineteenth century thought it would be. In the beginning, the common people had a blind and childish faith in it. They saw that their rulers were educated, and they thought to escape political and other servitude by eating of the fruit of the tree of knowledge. But now when we have the school universal, there probably never has been a time when the laborer complained so bitterly of his lot. There is everywhere dissatisfaction and disappointment. Education has not banished poverty; it has not prevented growing class distinctions; it has not made our rulers honest; it has not made our people happy.

Men who toil are beginning to ask questions as to school management. They believe on the one hand that the orthodox, cultural type of education, handed down from the trivium and quadrivium of the Middle Ages, does not get anywhere with 90 per cent of the children in the schools. That is not what education should be, they think, in order to make them efficient and happy. On the other hand, they are beginning to realize that it is possible for selfish interests not only to hamper education in its attempts to meet the needs of the people, but also to manipulate it for ulterior purposes. The industrial training, from which so much has been hoped, seems but a scheme for insuring the *status quo* in the social scale by teaching the children the uncreative occupations of their fathers. Men who toil say: "The schools are not such that we can wisely keep our children in them. Are they to be instruments to educate our oppressors? Are they designed to make us more profitable to those who despoil us of the fruits of our labors?"

Today the individual teacher as a factor in the management of the schools is lost. Administrative power belongs primarily to the legislatures of the several states. Among many provisions, these authorize the organization of local boards of control. These boards, in their power over local conditions, have control of the matter and methods of an educational system to an almost unlimited extent. For the most part, however, having little or no personal experience in educational administration, they delegate a portion of their authority to superintendents, principals, and supervisors. This delegated authority is largely by sentiment, has no uniform action or custom, and, moreover, may be revoked at any time, as is often seen when an officer is unfortunate enough to get into a disagreement with the board.

The differing conditions of today bring into the management of the schools many factors which were absent in other days. The clergy took an active interest in the schools in times past. Today we have a new régime —that of the business man and of the captain of industry. And we have our industrial education, our technical elementary schools, and our continuation plans. These have not been established in harmony and unity. Warring factions in communities and school boards have fought out the problem on many an educational battlefield. These tend to agree in one point only—the tendency utterly to disregard the opinions of professional educators.

The profession of school superintendent is of very recent origin, and its members are very largely untrained for their special work. It is made up of men who have worked up to the positions of school control by devious routes. They are not experts. They have attained their supremacy by superior executive ability, by adroit manipulation of boards of education, by catering to important business interests, by subserviency to powerful school-book houses, by fortunate church affiliations, by inoffensiveness, by political chicanery, by pretense of securing results which appeal to the hard-headed business man, and, fortunately for the schools, by real merit. Many men who are able and efficient continue to fill places as school superintendents. Their genius and love for children train them to become benefactors of the race. Monuments should be built to the educator who persists in the service of the public school notwithstanding its perils and disadvantages.

It is an indisputable fact, however, that the administrative group is the most unfortunate, the most inadequately trained for special work in education, and generally the most unsatisfactory group, in the entire system. In an age of specialists, the school superintendent is left out entirely. Columbia University, Leland Stanford Junior University, and the University of Chicago offer certain special courses designed for those entering administrative school work. These are not required and are taken mainly by persons preparing to be teachers rather than by those who could benefit most by them. The state universities have such courses also, but here again results are lacking on account of the absence of any definite organization or requirement. There is little wonder at the contemptuous attitude of school-board members, men who have made good in some special field and have received the requisite training, toward the man untrained in the theory of education, a transient in the community, who is ordinarily without any real administrative or intellectual ability. If the existence of the superintendent as a factor in our schools is to be permanent, there is a basic need for specialized training in his field.

The question of the term of office is one that has been considered in many places. Frequently the superintendent is elected for a term of three years. In Buffalo, the superintendent is elected by the people generally, and this has been found to work out in the direction of conservatism as to length of tenure of office. In some few cases, experiments are tried in the direction of doing away with the school board entirely and substituting a business manager, commissioner of education, or other individual. These plans have not yet worked without many flaws. And any change usually means a new superintendent for the schools.

The superintendent cannot take an active part in the politics of his adopted and temporary home. He must have no prejudices, religious, political, economic, or social. If he has them he must not let anyone know it. This constant repression results too often in the development of a

cringing spirit toward those who can injure him, and in a purely conventional attitude toward all questions which interest humanity. To his subordinates he learns to copy the manner of the factory head toward the operatives. He is an autocrat, an overlord, a taskmaster, to the teachers. He reigns as a monarch. His subordinates are quiet-loving women who do not assert themselves. It is not good for man to have such under his dominion. I need not say that there are exceptions, men who are true to all mankind; but the system is designed to develop such as those whom I have described.

The three vital needs of the superintendent, then, lie in the direction of training, tenure of office, and wide interests. These are all three capable of attainment by the exceptional man, but we may hope for an arrangement such that they will all three be the rule and not the exception.

The needs of the school board, in connection with the problem of school administration, are no less numerous and pressing. The board is wholly non-professional, except in very rare instances. Its members generally serve without pay, and this fact is a selective factor in their choosing. The workingman does not give his meager leisure time to school matters. It nearly always follows that men in the so-called upper walks of life are those who make up the membership of the board of education. Class consciousness is bringing it about that those who toil with their hands demand and receive some arrangement by which their class will be represented. Our curricula, our administration, need the influence of such men as the labor-union leaders of the early nineteenth century, who secured our free, tax-supported schools. In some cities the members of the school board are given pay, either as a salary or in proportion to the amount of time they spend on school affairs. This would be necessary only in large cities. In the towns the business before the school board is not so great or their other interests so pressing as not to leave them plenty of time for both.

Many of our school boards have fallen under the control of exploiters of men. America has become a world power, and a competitor for the trade of the world. The astonishing progress of other nations, notably Germany, has aroused in us the instinct of emulation. Capitalists, merchants, and manufacturers are looking to the schools for help in the world-wide strife for supremacy. Now that the organic and inorganic material resources of our country have been seized and are being exploited, the limitless field of human efficiency is scanned with eagerness to find in it means of swelling fortunes already enormous. The result is the industrial education of today, in many of its aspects. There are two possible points of view. One regards only the producing power of the individual and neglects wholly his social values. The other regards the pupil first as a future citizen in a democracy and then takes into consideration his earning capacity as an adjunct of his own well-being. The one is selfish, the other altruistic. The one is the result of ignorance, the other of enlightenment. The influence of the

common people on the school board would help in the realization of the second point of view, to say nothing of the growing influence of the active woman of affairs on the school board, a tendency which may work out to very good results.

Finally, in the question of school administration, that most vital part of the teaching system, the teacher herself, is left out, because she is not seriously considered as a part of the governing body. It would be well for the entire school system if she were admitted to a large share in the management of schools. Democracy demands it, and, moreover, it would be a great advantage to the superintendents, principals, and supervisors themselves. Why does our President sit so much more securely in his chair, and exercise so much more power, than do the crowned heads of Europe on their thrones? Kings and queens have had to resign nearly all their functions as rulers, because they are not held in positions of leadership by the suffrages of their people. Only by slinking unobtrusive thru time can they escape revolution, unless, as in the present instance, there is a last desperate effort made by autocratic rule to assert its vanishing authority. Ordinarily, in return for loss of primitive power, kings and queens are given tinsel crowns and gorgeousness of apparel. Their best good, like that of the usual superintendent, is negative inoffensiveness, because they do not reflect the will of the people technically under their sway.

In a few of the cities of the United States, systems have been installed by which teachers themselves, or a representative council from their ranks, are permitted to consult directly with the superintendent or the school board. Most of these provisions are not in any way made permanent. In Chicago, several years ago, Dr. Cornelia DeBey, then a member of the school board, formed and proposed a plan for a teachers' council, broad in its scope and interests. This plan was not put thru at the time, but recently Ella Flagg Young, superintendent of the Chicago city schools, has put into operation a somewhat similar plan, providing for a teachers' council by districts, with direct connection with the superintendent herself. In St. Paul, Minn., there is the only council of this sort which has been provided for by the city charter. Its powers are largely advisory, but its possible influence has no maximum limit.

The school is a realm. Were its leaders selected in whole or in part by the votes of the rank and file, they would sit more securely in their seats and not be subjected to the caprices of the powerful. Permit teachers of the classroom to help in deciding problems of school administration, and an influence for wise choice would be gained. When some methods are devised to allow teachers to have a voice in selecting their principals and superior officers, they will begin to look upon them as helpers and real co-workers, and the problem of democracy in school administration will be helped toward solution.

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