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JOURNAL

OF

SOCIAL SCIENCE,

CONTAINING THE

TRANSACTIONS OF THE AMERICAN ASSOCIATION.

NUMBER XXII.

JUNE, 1887.

SARATOGA PAPERS OF 1886,

WITH A SYNOPSIS OF

THE PROCEEDINGS AT THE GENERAL MEETING OF 1886.

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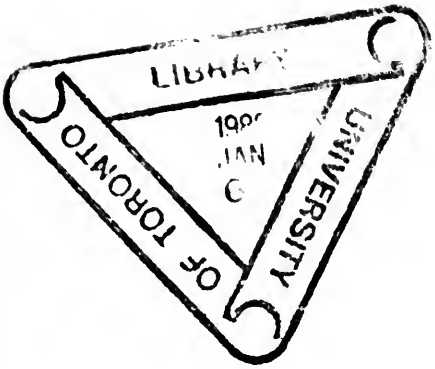

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EDITED BY

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GENERAL SECRETARY OF THE ASSOCIATION,

CONCORD, MASSACHUSETTS.

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PREFACE.

The Papers included in this number of the *Journal of Social Science* are nearly all the Saratoga Papers of 1886. They are here arranged according to their natural classification, and not always as they were read in the several departments. As some misapprehension may exist in regard to the publication of Papers by the Association, it may here be said that all papers, engaged for the General Meeting of the American Social Science Association, are so engaged with the understanding that they may be printed in the *Journal of Social Science*, if the Council so decide; if, therefore, the writers choose to publish their papers elsewhere, (to which the Council offers no objection), it must be with the stipulation that these Papers may also be published in the *Journal*, at the option of the Council as to the time of publication.

A list of all the Addresses and Papers at the Meeting of 1886 will be found on pages vi–vii. Those which are not here printed were mostly omitted at the wish of the writers.

INTRODUCTION.

Our Association was organized in October, 1865, at a public meeting in Boston, at which Governor ANDREW, of Massachusetts, presided. Its Presidents have been Prof. W. B. ROGERS, SAMUEL ELIOT, GEORGE WILLIAM CURTIS, President WOOLSEY, DAVID A. WELLS, President GILMAM, of Baltimore, Prof. WAYLAND, of Yale, General EATON, of the U. S. Bureau of Education, and Hon. CARROLL D. WRIGHT, of the National Labor Bureau, who now fills the office; its Secretaries, SAMUEL ELIOT, HENRY VILLARD, and F. B. SANBORN. It has members in nearly all sections of the United States, numbering about 300. Its object, stated briefly, is to encourage the study of the various relations, social and political, of man in modern life; to facilitate personal intercouse and the interchange of ideas between individuals interested in promoting educational, financial, sanitary, charitable, and other social reforms and progress; and promptly to make known to the public theoretical or practical results which may flow from such studies or investigations. The Association has no funded property; its *regular* income is composed mainly of annual payments from members, which now amount to less than $1,200 *per annum*. It is is thought that the time has come when we may confidently appeal to the general interest felt in Social Science throughout the country, for the purpose of enlarging its list of members to 500 or 1,000. Supported in this way, and relying on a wide-spread popular feeling, it will not only stand firmer, but will accomplish its educational object far better than if supported by a few subscribers. Membership is obtained by the annual payment of five dollars. This confers the right to take part in business meetings of the Association, and to vote in election of officers, and entitles one to receive its publications free of expense. The publications consist chiefly of the "Journal of Social Science," which includes the results of the work of the Association, more especially the proceedings and papers of the General Meetings.

Publications can be obtained and information had by addressing the Secretary, F. B. SANBORN, Concord, Mass., or the Publishers for the Association, DAMRELL & UPHAM, Boston, and G. P. PUTNAM'S SONS, New York.

GENERAL MEETING OF 1886.

The General Meeting of this Association for 1886 was held at the Bethesda Parish House, at Saratoga, N. Y., from the 6th to the 10th of September, inclusive, opening at 8 P. M., September 6th, with an address by the President, CARROLL D. WRIGHT, of Boston. The Department of Education met on Tuesday, September 7th; the Health Department on Wednesday, September 8th; the Department of Jurisprudence on Thursday, September 9th; and the Social Economy Department on Friday, September 10th. The Order of Business was as follows, after the President's Address:

MONDAY, SEPTEMBER 6.

Address on *Popular Instruction in Social Science*, (which will be found on pages 28-36.)

TUESDAY, SEPTEMBER 7.

Department of Education.

At 9.30 A. M., an Address by the Chairman of the Department, Prof. W. T. HARRIS, on *The Definition of Social Science and the Classification of the Topics belonging to its Several Provinces.*

At 10.30 A. M., Report of the Secretary of the Department, Mrs. EMILY TALBOT, of Boston; followed by a Debate on *The Teaching of Social Science in Colleges and Universities.*

WEDNESDAY, SEPTEMBER 8.

Department of Health.

At 9.30 A. M., a Paper on *Nervousness of Americans*, by the Secretary of the Department, Dr. GRACE PECKHAM, of New York.

At 10.30 A. M., a Paper *Concerning Noses*, by Dr. H. HOLBROOK CURTIS, Chairman of the Department, of New York.

At 11.30 A. M., a Paper on *Rabies, and How to Prevent it*, by Dr. VALENTINE MOTT, of New York.

At 12.30 P. M., a Paper on *The Science of Dietetics*, by Dr. WALLACE WOOD, of New York.

At 8 P. M., an Address on *Mineral Waters at Home and Abroad*, by Dr. T. MUNSON COAN, of New York.

THURSDAY, SEPTEMBER 9.

Department of Jurisprudence.

At 9.30 A. M., a Paper on *The State and the Savings of the People*, by Rev. H. L. Wayland, D. D., of Philadelphia.

At 11 A. M., a Paper, *How to Deal with Habitual Criminals*, by Prof. S. E. Baldwin, of Yale College.

At 11.45 A. M., a Paper, *Boycotters and the Law*, by Rev. T. R. Bacon, of New Haven.

At 8 P. M., a Paper, *Shall Foreign Immigration be Further Restricted by Legislation?* by Rev. T. T. Munger, D. D., of New Haven.

FRIDAY, SEPTEMBER 10.

Department of Social Economy.

At 9 A. M., Address of the Chairman, F. B. Sanborn, of Concord, Mass., on *Social Questions of the Time.*

At 10 A. M., a Debate on *The Right of Property and the Ownership of Land.* Opened by Prof. W. T. Harris, of Concord. Short speeches, papers and letters followed from Thomas Davidson, Rev. Dr. Lyman Abbott, of New York, Rev. Dr. H. L. Wayland, of Philadelphia, Mr. F. J. Kingsbury, of Waterbury, Conn., Mr. Pool, of New York, and others.

The election of officers for the year took place on Tuesday, September 7, at 8 P. M.

The debates of the meeting were not reported in full.

During the session a special Conference, at which several members of the Association and of the Council took part, was held at the rooms of the Association. Its proceedings are deemed of sufficient interest to publish here, as they have been condensed from the minutes of the secretary, Dr. Channing.

The long paper of Dr. Harris, who opened the debate on Property and Land, contains much that he did not say in that debate, having been recently revised and extended.

CONFERENCE OF ALIENISTS.

HELD IN CONNECTION WITH THE GENERAL MEETING OF THE AMERICAN SOCIAL SCIENCE ASSOCIATION.

SARATOGA, September 8, 1886.
Morning Session, 10 A. M.

Mr. Clark Bell, International Delegate, read the call, which had been sent to each member of the several committees selected by the various scientific bodies, who had responded to the invitation sent by him upon the suggestion of the Belgian Society of Mental Medicine, to co-operate with an International Committee, and said that this invitation had been sent to a large number of eminent alienists and publicists of the United States and the Canadas, known to be interested in the subject. The International Committee on Statistics of the Insane and Classification of Mental Diseases is as follows:

Dr. D. Hack Tuke, of London, for England; Dr. Guttstadt, of Berlin, for Germany; Prof. Dr. Benedikt, of Vienna, for Austria; Dr. Magnan, of Paris, for France; Dr. Valdemar Steenberg, of Copenhagen, for Scandinavian countries; Dr. Mierzejewski, for Russia; Dr. Ramaer, of the Hague, for Holland; Dr. Sola, of Buenos Ayres, for South America; Mr. Clark Bell, for North America; Prof. L. Wille, of Basle, for Switzerland; Prof. Andrea Verga, Senator of Milan, for Italy.

Mr. Bell further said that the following gentlemen have been appointed by the learned societies as their representatives.

The Medico-Legal Society of New York:— Dr. Pliny Earle, of Northampton, Mass; Dr. Alice Bennett, of Norristown, Pa.; Dr. Charles H. Hughes, editor of the *Alienist and Neurologist*, St. Louis, Mo.

The National Association for the Protection of the Insane and the Prevention of Insanity:— Dr. Charles K. Mills, of Philadelphia; Dr. John C. Shaw, of New York.

The American Association for the Cure of Inebriety:— Joseph Parrish, M. D., Burlington, N. J.; T. D. Crothers, M. D. Hartford, Conn.; Dr. Albert Day, Boston, Mass.

The Society for Promoting the Welfare of the Insane:— Dr. Henry R. Stiles, New York City; Edward P. Wiley, Esq., New York City.

The Association of Medical Superintendents of American Institutions for the Insane:— Dr. Charles H. Nichols, of Bloomingdale

Asylum, New York; Dr. Henry P. Stearns, Hartford Retreat for the Insane, Hartford, Conn.

The Massachusetts Medico-Legal Society:— F. Winsor, M. D., President, Winchester, Mass.; Ira Russell, M. D., Winchendon, Mass.

American Academy of Medicine:— Dr. E. W. Cushing, of Boston; Dr. A. D. Rockwell, of New York; Dr. P. N. Conner, Cincinnati, Ohio.

Medico-Chirurgical Association of Canada:— Dr. Henry Howard, Montreal; Dr. James Stewart, McGill University, Montreal.

New England Psychological Association:— Dr. J. P. Bancroft, Concord, N. H.; Dr. William B. Goldsmith, Providence, R. I.; Dr. Walter Channing, Brookline, Mass.

American Social Science Association:— F. B. Sanborn, Concord, Mass.; Prof. Francis Wayland, New Haven, Conn.; Hon. Carroll D. Wright, Boston, Mass.

Ontario Medical Association (Toronto, Canada):— Dr. Bucke, superintendent of the Insane Asylum at London, Canada, and Dr. C. K. Clark, Superintendent of the Insane Asylum at Kingston, Canada.

Mr. Bell moved that Dr. Pliny Earle, many years Superintendent of the Massachusetts State Lunatic Hospital at Northampton, Ex-President of the Association of Medical Superintendents of American Institutions for the Insane, and chairman of the committee designated by the Medico-Legal Society of New York, to co-operate with the International Committee, be chosen Chairman of this Conference, which was seconded by Dr. J. P. Bancroft, of Concord, N. H., and unanimously adopted.

Dr. Earle took the chair, and after thanks for the high honor, spoke of the great importance of the subject, the difficulties and embarassments surrounding it, and the great interest he felt in it, in common with all alienists and publicists in this country.

It was moved that Dr. Henry P. Stearns, of the Hartford Retreat for the Insane, delegate representing the Association of Medical Superintendents of American Institutions for the Insane, be chosen Vice-Chairman of the Conference, which was seconded by Dr. Ira Russell, of Winchendon, Mass., and unanimously adopted.

On like motion, Dr. Walter Channing, of Brookline, Mass., one of the delegates designated by the New England Psychological Society, was chosen secretary by unanimous vote.

At the request of the chair, Mr. Bell stated the history, nature and purposes of the Conference, read the list of eminent alienists

and publicists who had been invited, and a large number of letters from such as were unable to attend, expressing their interest in the subject, and many of them containing suggestions as to the labor before the Conference. Among these were letters from Dr. Alice Bennett, of Norristown Asylum, Pa.; Dr. F. Winsor, of the Massachusetts Medico-Legal Society: Dr. E. W. Cushing, of Boston, representing the American Academy of Medicine; Prof. William A. Hammond, of New York; Dr. A. E. MacDonald, General Superintendent of New York City Asylum for the Insane, and many others.

Mr. Bell submitted to the Conference the various plans or bases of classification, that had been submitted by the different members of the International Committee, as reported by Dr. B. C. Ingels, to the Belgian Society, as also that submitted by Dr. Meynert, for Austria, and Dr. Mierzejewski, for Russia.

These various plans were carefully considered, discussed and compared with each other.

Mr. Bell also submitted a letter from Dr. C. K. Mills, President of the American Neurological Association, urging simplicity and brevity in the basis to be adopted, and expressing his great interest in the subject, enclosing a plan that he favored.

A general discussion followed, participated in by the Chairman, Dr. Pliny Earle, Dr. J. P. Bancroft, Dr. J. M. Carnochan, Dr. Walter Channing, Dr. Henry P. Stearns, Mr. Clark Bell, Dr. W. B. Fletcher, of the Indiana State Hospital, F. B. Sanborn, of Concord, and Dr. Ira Russell. In the course of the discussion, Drs. Stearns and Channing each presented a plan devised by himself.

The following points were considered as settled by the Conference:

1. That the proposed classification should be framed, with special reference to its practical use, for the purpose of securing a uniform basis for international statistics of the insane.

2. That it was not deemed desirable to make a complete, detailed scientific classification of insanity, which should embrace all known forms or subdivisions of the insane, but as simple a classification as could well be framed, for the purpose had in view, viz: that of securing a basis for uniform international statistics, that should be representative of American thought under our present knowledge of the science.

After a full discussion, a basis was agreed upon, and Dr. Henry P. Stearns was selected to submit it to the Conference at the adjourned session, at 3.30 P. M., for further action.

AFTERNOON SESSION.

DR. PLINY EARLE in the Chair.

The Chair introduced Mr. Clark Bell, the International Delegate, who addressed the meeting at length, giving the action of the Belgian Society initiating the movement; the transactions of the Antwerp Conference; the composition of the International Committee; the labors and plans of such countries as had submitted their plans already; and the course he had taken to secure the co-operation of the most distinguished American and Canadian Alienists.

Dr. Henry P. Stearns, of Hartford, made extended remarks, explaining the previous labors of the members, in agreeing upon a basis which he carefully explained and submitted, and concluded by moving its adoption, and that it be recommended by the Conference.

A Plan of Classification of Mental Diseases.

Adopted at a Conference of Committees, Alienists and Publicists, held on invitation of Mr. Clark Bell, Member of the International Committee for North America, appointed by the Antwerp Congress, on Classification of Mental diseases, as a basis for International Statistics of Insanity, at Saratoga, New York, September 8, 1886.

Proposed Classification.

1.— Mania.
- Acute.
- Chronic.
- Recurrent.
- Puerperal.

2.— Melancholia.
- Acute.
- Chronic.
- Recurrent.
- Puerperal.

3.— Primary delusional insanity (monomania).

4.— Dementia.
- Primary.
- Secondary.
- Senile.
- Organic (tumors, hemorrhages, etc.).

5.— General Paralysis of the insane.

6.— Epilepsy.

7.— Toxic Insanity (alcoholism, morphine habit, etc.).

8.— Congenital mental deficiency. } Idiocy. Imbecility. Cretinism.

General discussion followed by the Chairman, Dr. Earle, Dr. J. P. Bancroft, of New Hampshire, Dr. W. B. Fletcher, of Indiana, Dr. Ira Russell, of Massachusetts, Dr. John M. Carnochan, of New York, Dr. Walter Channing, of Brookline, Mass., Mr. F. B. Sanborn, Dr. E. M. Mosher, of Brooklyn, Dr. Hall, of Brooklyn, and others. On being put to vote, the motion of Dr. Stearns was adopted unanimously.

The Conference then adjourned *sine die*.

BUSINESS AND DEBATES OF 1886.

The discussion of the best method of promoting Social Science Instructions in American Colleges was opened on the 7th of September, by Mr. George W. Cable, of Northampton, Mass., who spoke earnestly of the opportunity for such instruction, particularly in the Southern States, with whose educational systems he was most familiar. Letters were read from several college professors, while other professors and lecturers in colleges and theological schools gave their experience in such instruction. Among these were Prof. A. L. Perry, of Williams College, Rev. S. W. Dike of Auburndale, Mass., a lecturer at the Andover Theological Seminary and Mr. F. B. Sanborn, lecturer on Social Science at Cornell University. It was agreed that the time had come for extending the field of Social Science instruction, and the Association was urged to circulate information on this subject among the universities and colleges of the United States.

The Papers of the Health Department excited a lively debate, particularly those of Dr. Peckham, Dr. Curtis, and Dr. Wood; and much satisfaction was expressed that the Committee of this Department had introduced topics of such immediate and general interest.

The Papers of the Jurisprudence Department included a long address on Immigration by Rev. Dr. Munger of New Haven. This was debated at some length and with much dissent from the views advanced in the address, which was afterwards withdrawn from publication.

The debate on the Land Question had been arranged in the hope that Mr. Henry George himself would take an active part in it. This he declined to do, but referred the Association to his published opinions, and to certain views expressed in former years by Mr. Herbert Spencer. The remarks of Prof. Davidson did not fully sustain these views, which were generally contested by the members who spoke. Their opinions have been summed up by Prof. Harris in the Remarks now printed, and in a briefer article in the *Forum*, a monthly magazine, for July 1887, to which readers of this *Journal* are referred.

NOTICE OF DECEASED MEMBERS.

During the years 1886–7 the death of several eminent members in America and Europe was communicated to the Association. Among these were Mrs. Maria Weston Chapman, one of the early supporters of Mr. Garrison in his efforts for the abolition of slavery; Dr. George Varrentrap of Frankfort, Germany, illustrious for his sanitary and philanthropic labors during half a century; Dr. Fredrik Theodor Berg, the veteran promoter of statistical science in Sweden, whose death at the age of 80, occurred May 7, 1887; M. Engel Dollfus of Mulhouse in Alsace, who had been for many years the chief promoter of aesthetic, philanthropic, and economic improvements among the artisons and operators of his country; Joseph Perkins of Cleveland, Ohio, whose large wealth and public spirit made him one of the leading philanthropists of his State; Senator Anthony of Rhode Island, long active and conspicuous in the national legislature; and others of less note. Brief mention only can be made of these deaths here, but the Association cherishes their memory, and rejoices that it so long enjoyed the benefit of their coöperation. Copious Memoirs of several of these members have been published; and attention is particularly directed to one of these, as containing much that will interest the promoters of Social Science everywhere — the volume entitled *Un Industriel Alsacien. Vie de F. Engel Dollfus, par X, Mossman*, printed at Mulhouse in 1886.

PUBLICATIONS OF THE ASSOCIATION.

Journal of Social Science. Containing the Transactions of the American Association. Nos. I.—V. 8vo, paper, each $1.50. Nos. VI.—XXI., each $1.00.

CONTENTS OF NUMBER TWO.—Current Record of the Association. I. Immigration—Frederick Kapp. II. The American Census—James A. Garfield. III. The Mode of Procedure in Cases of Contested Elections—Henry L. Dawes. IV. The Public Charities of the State of New York—Theodore W. Dwight. V. The Public Libraries of the United States—Ainsworth R. Spofford. VI. The Science of Transportation—Joseph D. Potts. VII. Vaccination—A Report presented by Francis Bacon, William A. Hammond, and David F. Lincoln. VIII. The Election of Presidents—Charles Francis Adams, Jr. IX. Life Insurance—Sheppard Homans. X. The Administration of Criminal Justice—George C. Barrett. XI. Health Laws and their Administration—Elisha Harris. XII. An International Code—D. D. Field. XIII. General Intelligence. XIV. Constitution. XV. List of New Members. XVI. List of Works relating to Social Science published in 1869.

CONTENTS OF NUMBER THREE.—I. Public Parks and the Enlargement of Towns—F. L. Olmsted. II. Art Education in America—C. C. Perkins. III. Civilization and Health—Francis Bacon. IV. American System of Patents—S. A. Duncan. V. Nature and Sphere of Police Power—T. D. Woolsey. VI. Legislation and Social Science—E. L. Godkin. VII. Representation of Minorities—D. D. Field. VIII. Relations of Business Men to National Legislation—H. A. Hill. IX. Houses in the Country for Working Men—G. B. Emerson. X. Minority Representation in Europe—Thomas Hare. XI. Application of Mr. Hare's system of Voting to the Nomination of Overseers of Harvard College—W. R. Ware. XII. General Intelligence. 1. Home. 2. Foreign.

NUMBER FOUR is out of print, as well as NUMBER ONE.

CONTENTS OF NUMBER FIVE.—I. Municipal Government—Dorman B. Eaton. II. Higher Education of Women—T. W. Higginson. III. Restoration of the Currency—Joseph S. Ropes. IV. Some Results of the Census—Francis A. Walker. V. Public Vaccination—F. P. Foster. VI. The International—David A. Wasson. VII. Legislation in Relation to Pharmacy—G. F. H. Markoe. VIII. General Intelligence.

CONTENTS OF NUMBER SIX.—General Meeting at New York. I. Opening Address—George William Curtis. II. The Work of Social Science in the United States—F. B. Sanborn. III. Financial Administration—G. Bradford. IV. Conference of the Boards of Public Charities. V. Pauperism in the City of New York. VI. The Farmers' Movement in the Western States—Willard C. Flagg. VII. Ocean Lanes for Steamship Navigation—Prof. B. Peirce. VIII. Rational Principles of Taxation—David A. Wells. IX. American Railroads—Gardiner G. Hubbard. X. Reformation of Prisoners—Z. R. Brockway. XI. The Deaf-Mute College at Washington—Edward M. Gallaudet. XII. The Protection of Animals—George T. Angell. XIII. American Finance—Prof. W. G. Sumner.

CONTENTS OF NUMBER SEVEN.—I. Private Property upon the Sea—Rev. Dr. Woolsey. II. Conference of Boards of Health. III. (School Hygiene)—Drs. D. F. Lincoln and A. L. Carroll. IV. Tent Hospitals—Dr. J. F. Jenkins. V. National, State, and Sectarian Universities—A. D. White and Dr. McCosh. VI. Free Lending Libraries—W. W. Greenough. VII. The Young Men's Christian Association—Cephas Brainard. VIII. Ocean Lanes. IX. Prison Reform in Europe and America—Dr. Wines and F. B. Sanborn. X. Social Science Record. XI. Conference of Boards of Charities.

CONTENTS OF NUMBER EIGHT.—I. The Production and Distribution of Wealth—David A. Wells. II. The Work of Social Science—F. B. Sanborn. III. Progress in International Law—J. B. Angell. IV. The Experiment of Civil Service Reform—Dorman B. Eaton. V. The Treatment of the Guilty—W. G. Elliot. VI. Health in Schools—Drs. D. F. Lincoln, J. J. Putnam, etc. VII. Financial Policy of England and the United States—G. Bradford. VIII. Limitations of Judicial Power—Emory Washburn. IX. Life Insurance for the Poor—Elizur Wright and Sheppard Homans. X. Legal Education—W. G. Hammond. XI. The Detroit Meeting.

CONTENTS OF NUMBER NINE.—I. Social Science in Theory and in Practice—F. B. Sanborn. II. The Silver Question—W. Stanley Jevons. III. The Silver Question—B. F. Nourse. IV. Savings Banks—John P. Townsend. V. Local Taxation—William Minot, Jr. VI. Industrial and Social Aspects of the Southern Question—W. L. Trenholm. VII. Education in the Southern States—T. M. Logan. VIII. The Navigation Laws of Great Britain and of the United States—Hamilton A. Hill. IX. The Tariff Question—Horace White. X. Custom House Forms—Henry D. Hyde. XI. State and Municipal Government—Samuel Bowles. XII. Municipal Economy—Daniel L. Harris.

CONTENTS OF NUMBER TEN.—Transactions of the Association, 1879. I. American Education, 1869-1879. Annual Address by President Gilman. II. The Method of Study in Social Science—William T. Harris. III. Report of the Department of Education—Mrs. I. T. Talbot. IV. The Voting of Women in School Elections—A. P. Peabody. V. Relations of Christianity to the Common Law—M. B. Anderson. VI. The Place of the Practical Man in American Public Affairs—Hamilton Andrews Hill. VII. Chinese Immigration—S. Wells Williams. VIII. The United States and the Declaration of Paris—Theodore S. Woolsey. IX. Recent Changes in our State Constitutions—Simeon E. Baldwin. X. The Policy of Patent Laws—Frederic H. Betts. XI. The Sewerage of the Smaller Towns—George E. Waring, Jr. XII. Industrial Arbitration and Conciliation—Joseph D. Weeks.

CONTENTS OF NUMBER ELEVEN.—Report of the Annual Meeting, 1880. List of Members. I. Southern Questions. 1. The Negro Exodus from the Gulf States—Frederick Douglass. 2. The Emigration of Colored Citizens from the Southern States—R. T. Greener. 3. Colored Schools in Virginia—Mrs. Orra Langhorne. II. Recent Changes in the West—Robert P. Porter. III. A Report on Protection from Casualties in the use of Machinery—Prof. William Watson. IV. International Coinage—Robert Noxon Toppan. V. Social Economy Papers. 1. Report of the Department of Social Economy—F. B. Sanborn. 2. The Care of Poor and Vicious Children—Charles L. Brace. 3. Social Economy in Illinois—Mrs. Harbert. 4. Co-operative Distribution—Wm. A. Hovey. 5. Co-operation in England—James Samuelson Saratoga Papers of 1877. I. Extradition—Sheldon Amos. 2. Graduate Courses at Law Schools—Prof. S. E. Baldwin

CONTENTS OF NUMBER TWELVE.—Professor Peirce's Cincinnati Address: The National Importance of Social Science in the United States. President Gilman's Opening Address. Report of the General Secretary, by F. B. Sanborn. Report of the Treasurer and Publication Committee: Prof. Wayland and F. B. Sanborn. Papers of the Education Department. I. Report on Kindergarten Schools—Prof. Harris, Mrs. Talbot. II. The Relation of the Public Library to the Public Schools—Samuel S. Green. III. Educational Progress in England—Miss Edith Simcox. IV. Home Life in Some of its Relations to Schools—Miss Mary W. Hinman. V. The American Newspaper and American Education—Dr. J. M. Gregory. Libel and its Legal Remedy—E. L. Godkin. Papers of the Social Economy Department: I. Associated Charities. A. The Principle and Advantage of Association in Charities—Rev. D. O. Kellogg. B. General and Special Methods of Operation—Rev. O. C. McCulloch. C. The Need and Work of Volunteer Visitors—R. T. Paine, Jr. D. The Care and Saving of Neglected Children—Miss Anna Hallowell. II. The Principle of Volunteer Service—Mrs. Florence Bayard Lockwood. III. The Recreations of the People—George B. Bartlett. IV. The Justifying Value of a Public Park—F. L. Olmsted. Constitution, Officers and Members of the Association.

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CONTENTS OF NUMBER FIFTEEN.—I. Papers on Infant Development—Prof. Harris, Mr. Darwin, Mr. Alcott, Dr. Preyer, M. Taine, etc. II. Report of Mrs. Talbot. III. Religious and Moral Education of Children—Prof. G. S. Hall. IV. Treatment of Incipient Insanity—Mary Putnam-Jacobi, M.D. V. Debate on Insanity—Prof. W. T. Harris, Dr. Channing, F. B. Sanborn, etc. VI. Papers on Building Associations—R. T. Paine, Jr., and Addison B. Burk. VII. Homes for the People in Washington—John Hitz. VIII. Art in its Relation to the People—Martin Brimmer.

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CONTENTS OF NUMBER SEVENTEEN.—I. Introduction. II. Address—Rev. A. D. Mayo, on National Aid to Education. III. Address—President Angell, on Diplomatic Relations between China and the United States. IV. Papers of the Jurisprudence Department, viz.: 1. Professional Ethics—Theodore Bacon. 2. Local Self-Government—Edward W. Bemis. 3. Disfranchisement for Crime—James F. Colby. 4. A plan for Extinguishing Crime—Edwin Hill. 5. Punishment for Certain Crimes—H. A. Hill. V. Address—Prof. W. T. Harris. VI. The Darwin Commemoration. VII. A Paper on the Progressive Spelling—Rev. H. L. Wayland. VIII. Miscellaneous Matters.

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H. L. Wayland. 7. Socialism and State Action—Edward W. Bemis. 8. Labor Unions under Democratic Government—D. M. Means. 9. Influence of City Life on Health and Development—Dr. G. Peckham. 10. The Health of American Cities—C. F. Wingate. 11. The Physical Training of Women—Dr. L. M. Hall. 12. The Constitution and National Development—E. V. Reynolds. 13. Land and Law as Agents in Educating Indians—President Gates. 14. Arbitration of Labor Disputes—Rev. W. Gladden. 15. The Place of Art in Education—Thomas Davidson. 16. The Relation of the Drama to Education—W. O. Partridge. 17. Child-Life in City and Country—C. D. Kellogg. 18. City and Country Schools—W. M. Beckner.

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CONCORD, MASS.

GENERAL MEETING OF 1887.

The General Meeting of this Association for 1887 will be held at Saratoga, N. Y., from the 6th to the 10th of September, inclusive, opening at 8 P. M., September 6th, with an address by the President, CARROLL D. WRIGHT, of Boston. The Department of Education will meet on Wednesday, September 7th; the Health Department on Wednesday, September 7th or Friday, September 9th; the Department of Jurisprudence on Thursday, September 8th; and the Social Economy Department on Friday, September 9th. The Order of Business will be as follows:

TUESDAY, SEPTEMBER 6.

At 8 P. M. An Address by the President of the Association, CARROLL D. WRIGHT, ESQ., *Social Problems of the Census*, followed by a discussion.

WEDNESDAY, SEPTEMBER 7.

Department of Education.

At 9 A. M. Address by the Chairman, THOMAS WENTWORTH HIGGINSON, ESQ, of Cambridge, Mass.

At 9.30 A. M. Report of the Secretary, Miss KATHARINE COMAN, of Wellesley College, on *Social Science Instruction in Colleges.*

At 10 A. M. A Paper on *Instruction in the Art and Science of Education in our Colleges*, by PROF. E. J. JAMES, of the University of Pennsylvania.

At 11 A. M. A Paper on *The Contributions of Literature to Social Science*, by MR. HAMILTON W. MABIE, of New York.

At 12 o'clock. A Paper on *Progress in Physical Education in Schools and Colleges*, by MR. WILLIAM BLAIKIE, of New York.

At 1 P. M.

Department of Health.

At 10 A. M. Report of the Secretary, GRACE PECKHAM, M. D., of New York, on *The Relation of the Physician to the Community and of the Community to the Physician.*

At 11 A. M. A Paper on *The Lungs and How to Keep Them in Health*, by D. EMORY HOLMAN, M. D., of New York.

At 1 P. M. A Paper on *The Criminal Type*, by WILLIAM NOYES, M. D., Assistant Physician at the Bloomingdale Asylum, New York.

At 8 P. M. A Paper on *Sanitary Conditions in Country Houses*, by Dr. LUCY M. HALL, of Brooklyn, N. Y.

At 9 P. M. A Paper *Concerning Certain Injurious Influences of City Life and their Removal*, by WALTER B. PLATT, M.D., F.R.S., of Baltimore, Md.

THURSDAY, SEPTEMBER 8.

Department of Jurisprudence.

At 10 A. M. A Paper on *The Law's Uncertainty*, by THOMAS THACHER, ESQ., of New York.

At 11 A. M. A Paper on *The Law's Delay*, by W. M. F. ROUND, ESQ., of New York.

At 12 o'clock. A Paper on *Socialistic Tendency of Modern Legislation*, by H. A. JAMES, ESQ., of New York.

At 8.15 P. M. An Address on *The American System of Trial by Jury*, by HON. D. H. CHAMBERLAIN, of New York.

FRIDAY, SEPTEMBER 9,

Department of Social Economy.

At 9 A. M. Address of the Chairman, F. B. SANBORN, of Concord, Mass.

At 9.30 A. M. A Debate on *Profit Sharing*, opened by F. J. KINGSBURY, ESQ., of Waterbury, Ct., and continued by N. O. NELSON, ESQ., of St. Louis, GEORGE MAY POWELL, ESQ., of Philadelphia, and others.

At 11 A. M. An Address on *Woman and the Temperance Question*, by Mrs. FRANCES A. WILLARD, of Chicago.

At 12 o'clock. A Paper on *Social Science in the Hebrew Commonwealth*, by H. LINCOLN WAYLAND, D. D., of Philadelphia.

PAPERS

OF THE

DEPARTMENT OF EDUCATION,

September, 1886.

SOCIAL SCIENCE INSTRUCTION IN AMERICAN COLLEGES AND UNIVERSITIES,

WITH

ESSAYS ON DEFINITION AND CLASSIFICATION,

AND ON

Popular Education in Social Science.

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1886-1887.

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THE DEFINITION OF SOCIAL SCIENCE AND THE CLASSIFICATION OF THE TOPICS BELONGING TO ITS SEVERAL PROVINCES.

AN ADDRESS BY W. T. HARRIS, CHAIRMAN OF THE DEPARTMENT OF EDUCATION.

(Read September 7, 1886.)

Society makes possible the collection from each individual of the products of his special labor, and the transfer to him in exchange of a share in the aggregate products of all mankind.

This function of collection and distribution is accomplished by means of the four cardinal human institutions—(1) family, (2) civil community, (3) state, (4) church.

The end and aim of all institutions is to endow the individual with the net results of the activity of his race. It may be said to be the elevation of the individual into the species.

For this each individual must be active and productive: he must produce what is good for his fellow men; secondly, the products must be collected; and thirdly, redistributed. Hence there must be productive industry, channels of intercommunication, and commerce.

The goods which come as individual products to the world market and are again redistributed are of two kinds, material and spiritual. Food, clothing and shelter, are material and exclusive in their nature; they have to be shared or divided when distributed. But spiritual products do not have to be divided. Each individual may receive the whole. The wisdom of the race is for each individual in its entirety if he will but enter into it by his own labor.

Millions of men live lives full of adventure and experiment, full even of error — full of collision with the laws of the universe. But their life-experience is as much for their fellow men as for themselves. All life is vicarious. The experience of one man goes to all the rest and is summed up in the aggregate of ethical wisdom.

By science each man can vicariously enjoy the sum total of all sense-perception and all reflection of mankind. The inventory of the world of matter and of the world of human history is taken by the joint co-operation of scientific observatiou. The principles

that unite facts and events are discovered, and human observation, thus condensed in these principles, is served up to each individual.

The peculiarities of time and place, the habitat, the climate, soil and productions—each limited and peculiar—by commerce are so neutralized that each place gets its share of the fruits of all places, and is thus emancipated from its local defects.

Productive industry and commerce have as their first object the collection and distribution of material products; but their spiritual purpose is far more profound. In exchanging food and clothing, the nations exchange ideas, and in this exchange each gets richer without parting with anything except ignorance.

Society makes possible this miracle. It is a whole which is greater than the sum of its parts. The reinforcement that each gives to the whole is offset by the reinforcement of the whole given to each. Thus by society the individual is infinitely strengthened.

The object of social science is the study of the nature of human combination into institutions. Obviously it may be divided into four departments to correspond to the four cardinal institutions—family, civil society, state, church.

It first may devote itself to the question of nurture—or parental care—and this covers all phases of charitable activity. For although the family is the primary institution for nurture, or for the support of the weak by the strong, yet the family principle has in some degree to be assumed by all the higher institutions.

The principle of the family is nurture; but the principle of our second institution, the civil community, is self-help. By means of the instruments of property and contract it procures for itself through labor a participation in the fruits of nature. Thus the civil community by organization conquers nature and turns it against itself—making nature toil directly for man—making the powers of nature work to protect our bodies from the destruction produced by those powers. Property and contract we call the instruments of this civil combination.

In the State, the third institution of civilization, man attains freedom. For as citizen he gives his life for the existence of the political personality of the nation and by it is reëndowed with that personality—his own little self reënforced by the aggregate of all the selves in the nation and thus rendered infinitely strong and firm.

By the fourth spiritual institution whose function it is to furnish art, religion and science, each man is illuminated by the light of the whole. He learns and adopts for his own the theory of the world created by the combined vision of all the highest seers of the race and by the combined experience and observation of all scientific laborers.

Now, social science has for its legitimate field all these provinces —the entire civilization of man. But as a practical working society our Association has chosen to leave civil history to historical associations, and scientific labor to associations for science. The religious phase it relegates to the church. But it does not altogether renounce these phases; it sums them up under "education," and assigns it to our department. The Social Science Association selects for its central theme the subject of civil society, and studies its details as they appear in the practical world.

There are the matters of property—production, distribution, capital, wages, money, and such items which it studies under the guidance of political economy. It studies government and lawmaking, too, and especially the methods of dealing with the vicious and criminal classes. It looks after the public health and after education.

It strives to discover how the institutions of society are organically related to one another as productive of human welfare.

As an attempt to classify these departments of Social Science, which the American Social Science Association directs itself to investigating, I submit the following:

1. Theory of property, real and personal.
2. Production and distribution of wealth.
3. Theory of government—National, State and Municipal.
4. Public and private corporations.
5. Punishment and reform of criminals.
6. Prevention of vice (intemperance, prostitution, vagrancy, etc).
7. Public and private charities (care of the poor, insane, blind, idiotic, deaf-mute, foundlings, orphans, etc).
8. Sanitation of cities and of private dwellings (water-supply, ventilation, drainage, epidemics, etc.)
9. Theory of public elementary education.
10. Higher education (as furnishing the directive power of society).

Under the last two—9 and 10, which include education, Social Science looks at the spiritual outcome of society—the results of religion, art and science, as embodying the theoretical view of the world.

Under the 8th it looks after the direct care of the human body—food, clothing, shelter, cleanliness, ventilation, and all matters pertaining to its environment.

Under the 7th it looks after family nurture and the methods of supplementing it by organized charity.

Under the 5th and 6th it looks after the source of the evils that attack society and their remedy—pondering means for the reform and punishment of criminals and searching for the sources of crime in vice and ignorance.

Under 3 and 4 it looks after the organization of the State and its delegation of powers and functions to corporations; under the 1st and 2d it investigates civil society by itself—the realm of individual endeavor, and the participation of each in the fruition of all through wealth.

These considerations will assist us to see how the several departments of this Association divide their labors, and in how far the work of the whole body exhausts the entire scope of the science.

In the scheme of classification of topics falling under Social Science as drawn up by the General Secretary, Mr. Sanborn, the chief topics correspond to the five departments of this Association. That scheme will be found very valuable for the purpose of a syllabus of topics on which instruction should be given in institutions of higher education. For the purposes of education it is of first importance to arrive at a clear definition of social science and to see how it articulates into different topics. This insight is only a recognition of the inter-relation of each branch of Social Science with every other. All science is engaged in the business of connecting each fact to all facts through principles, so that each fact throws light upon every other.

SOCIAL SCIENCE INSTRUCTION IN COLLEGES.

REPORT OF THE SECRETARY OF THE DEPARTMENT OF EDUCATION (MRS. EMILY TALBOT OF BOSTON).

(Read September 7, 1886.)

The report of the Secretary of the Department is herewith submitted, showing the statistics of upwards of one hundred American colleges and universities in the matters of instruction in the several departments of Social Science for the year 1886.

The form of circular used in obtaining returns from these institutions, together with quotations selected from the communications received, is given in the following exhibit which has been printed separately and distributed here for the purpose of facilitating the discussion of the subject. This report was suggested to the committee by the very interesting and instructive address of the General Secretary, Mr. Sanborn, at our session last September, on the Growth and Future of Social Science. He gave us an account of movements in several colleges tending to direct the thought of students upon the problems of society.

It occurred to our committee that there is no subject more germane to the province especially assigned to their department than this one of education in the principles of Social Science.

In our higher institutions of learning, if anywhere, can be taught the underlying principles of the institutions which in the aggregate form society, and inasmuch as the educated man who sees a principle clearly will in the long run prevail upon and convince the individuals around him who possess only a traditionary knowledge or a mere opinion in regard to the subject, it follows that the education which gives insight into principles furnishes the men and women who are to direct and govern the community. If correct views in regard to social science are to prevail among the people, the colleges and universities must give instruction in that science.

Self-knowledge is well known to be the most difficult of all knowledge to attain. The mind is aroused to activity by objects different from itself. It perceives at first only the broadest con-

trasts. It comes, last of all, to perceive its own forms of knowledge and acting. The child is satisfied with social customs as they are, and it never occurs to him to inquire how they came to exist or why they are necessary. As he advances towards a mature view of the world he gradually perceives the complex of customs and usages in which he lives and moves and has his being, as a whole—as an institution, a social whole. Finally he comes—or may come—to see the *necessity* for the existence of social institutions and for their forms and ceremonies. If he attains a knowledge of this necessity, he becomes educated in principles and becomes a directive power.

The first education is in use and wont; the second education gives insight into principles.

Use and wont is learned in the family, the vocation, the state. Knowledge of principles is given by the school and the church. Religion ever furnishes to a people the highest ideal of their civilization—the ultimate norm by which they measure all theoretical and practical matters of life. The school endeavors to teach facts and events and to connect them into a system by means of principles—thus bringing down into the world, or incarnating as it were, the highest principle.

When we speak thus of the school we have in mind its outcome, its highest realization as found in the college or university. For in the higher education is found fully revealed the object and aim, or the goal towards which the elementary school is directed.

The highest institutions of learning furnish the teachers of the lower institutions. If the teachers see the principles clearly they will guide the earliest steps of the pupil so that he may move towards insight even if he does not fully attain it.

These considerations have suggested themselves to our committee as they have turned their attention upon the question of instruction in social science in colleges and universities.

It will be found upon inspection of the statistical tables given below, that all these institutions, with scarcely an exception, give instruction in the first two topics of our schedule—those relating to the theory of property, real and personal, and the production and distribution of wealth. These are taught under the head of political economy. In this branch come up the very practical questions of capital and labor, the currency used for money, pro-

tection and free trade, rent, population, labor-saving machinery and the readjustment of vocations.

In our own Association these topics fall in part to the department of Finance, and in part to that of Jurisprudence and Legislation.

The third and fourth topics belong to our department of Jurisprudence exclusively—the theory of government, national, state, and municipal, is usually taught in American schools in connection with the subject of the constitution of the United States. Even the pupils in the highest class in our district schools usually spend a half year (or nearly that amount) on this study. The great lesson learned from this study of the constitution is, of course, the articulation of government into three departments—(1) the law making, or legislative, (2) the law-applying, or the judiciary, (3) the law enforcing, or the executive. Even the grammar schools have succeeded in lodging in the minds of their pupils the idea of the necessity of the complete separation of these departments in a government that secures perfect justice, and have thus taught well the ideal form of all free government. The fourth item, that of corporations, does not seem to receive so much attention as the three topics just named. It, too, belongs to our department of Jurisprudence. While the study of fundamental law receives general attention in the schools, because its outlines have become general principles, the subject of corporations gets little attention because it belongs, not so much to the realm of principles, as to the realm of prescription, and requires for its understanding a knowledge of statutes and legal usages.

On account of the growing importance of the subject in local and national politics, we think that there should be some general theory of it prepared and taught in all general courses of study.

The fifth topic of Social Science relates to the punishment and reform of criminals. It is important that the community at large should feel a sense of justice towards the criminal. This involves not only the technical attitude which apprehends him and administers the penalty of the law, but the humane one which looks into the social causes which generate criminals. This humane sense of justice takes upon itself accordingly a portion of the responsibility for crime, and, by way of expiation, looks to the improvement and reform of the criminal. This question of the genesis of crime and the cure of the criminal is one that goes very deep and touches the

fundamental principle upon which all the labors and investigations of this Association are based.

The sixth topic—the prevention of vice—is akin to it, dealing as it does directly with the influences which ripen into crime, as well as sap the foundations of society immediately. The practical institutions of public and private charity, which in one way or another provide for the results of vice and crime as well as for the victims of misfortune, form the seventh subject of Social Science. The great problem of all our practical endeavor is how to interpose in behalf of the class of abnormal individuals of society in such a manner as to restore to them their normal self-activity and independence, and not by our efforts crush out their spontaneity and individuality. All our help must go to aiding them to help themselves.

But these three topics, the 5th, 6th, and 7th—crime, vice, and charity—receive far less attention in our colleges and universities than the other topics of our schedule. The fact is due, doubtless, to the unformulated character of this department of Social Science. It is still in a state of empiricism, and no fundamental principles have been as yet reached or, at least, generally recognized and adopted as such.

We should remark that all our higher institutions give instruction in ethics or moral philosophy, and that this branch of study includes the general ground-work or principles which are to guide us in dealing with vice, crime, and charity. And it appears that many of our colleges extend the oral discussion of ethics to these questions. This suggests to us the feasibility on the part of all institutions of higher education of reaching these topics by a short course of lectures, which shall present, in a thoughtful manner to their students, the great social problems of our age. Perhaps the syllabus of lectures given at the school of medicine of the Boston University—included in the appended exhibit—is the best outline for such a course.

It is not so important that a cut and dried formula as to diagnosis and treatment be given to pupils, as that they shall be made thoughtful and observant in these matters.

The eighth topic is assigned to our department of Health. We feel a degree of satisfaction in regard to the progress that is made in teaching the laws of sanitation. It is also becoming more and more a matter of legislation, national, state and municipal.

It is taught chiefly in connection with the subject of physiology in the elementary schools as well as in higher schools. Under the heads of engineering and architecture also, it receives increasing attention.

The ninth and tenth topics, assigned to this Department, relate to Education. Incidentally or otherwise, most of our higher institutions treat of the theory of popular education. The necessity of free public elementary education for all the people, whatever is to be their career, is very generally conceded. Our higher education is supported in part by public expense, in part by private endowment and in part by direct charge on the pupil.

It is not so much the method of establishment and support of higher education, as its importance that should receive attention. Those who resort to colleges and universities may be supposed to see the value of higher education. But few of them can state this clearly to themselves or to others, and there is a special inability to defend the curriculum adopted for higher education. Hence the influence of graduates in behalf of higher education is not what it should be in the community.

Our civilization—the world civilization in fact—is progressing towards democracy and individual enlightenment. It does not progress towards wisdom so rapidly, for individual enlightenment does not generally signify the attainment of wisdom so much as the conviction that individual private judgment is the measure of all things. Our chief conservative influence is to be found in the higher education which indoctrinates the youth in principles that have been tested through the ages and gives him a check upon his raw conceit and a bridle upon his immediate impulses. He acquires a power to hold back the rash verdict of the moment and test it by the verdict of the ages.

It is evident enough to us that there has never been in the world before so great a necessity for the thorough education of youth in colleges and universities as now, and all youth enjoying such instruction should be made conscious of the importance of their privileges and of their duty to extend them to greater numbers of their fellows.

As above indicated, and as mentioned on pages 22 and 23 of the *Journal of Social Science*, No. XXI., we have undertaken to collect statistics regarding the actual instruction given in the several departments of Social Science by American Colleges and Universities. For this purpose we sent out in the summer of 1886 the circulars there printed and obtained returns from upwards of one hundred institutions affording higher education. The ten Topics covering which questions were asked were the following, and they have been explained and illustrated in the address of Professor Harris, page 3:

1. Theory of property, real and personal.
2. Production and distribution of wealth.
3. Theory of Government—National, State and Municipal.
4. Public and private corporations.
5. Punishment and reform of criminals.
6. Prevention of vice (intemperance, prostitution, vagrancy, etc.)
7. Public and private charities (care of the poor, insane, blind, idiotic, deaf-mute, foundlings, orphans, etc.)
8. Sanitation of cities and of private dwellings (water supply, ventilation, drainage, epidemics, etc.)
9. Theory of public elementary education.
10. Higher education (as furnishing the directive power of society).

In the following table the returns are given alphabetically by States. The answers are symbolized as follows:

a.—Taught in preparatory department.
i.—Taught incidentally.
p.—School of political sciences.
*.—Subject taught, but year not stated.
1.—Subject taught in Freshman year.
2.— " " Sophomore "
3.— " " Junior "
4.— " " Senior "
5.— " " Post graduate course.
6.— " " Law School.
7.— " " Medical School.
8.— " " Normal department.
9.— " " Scientific School.
¼.—1st and 4th years; ¾—3d and 4th years; ⅓—4th or 3d years; 1-4—1st, 2d, 3d and 4th; 2-4—2d, 3d and 4th.
Un.—University. Col.—College.

NAME OF COLLEGE.	TOWN.	1	2	3	4	5	6	7	8	9	1 10
ARKANSAS.											
Little Rock Un.	Little Rock,	4	4	4	4	4			2	4	
CALIFORNIA.											
Un. of the Pacific	San Jose,	*	*	*	*	*				*	*
Un. of South'n California	Los Angeles,	4	4	4	4		2		3		
CONNECTICUT.											
Yale Col.	New Haven,	4	4	4	4					4	
DIST. OF COLUM'A.											
Columbia Un.	Washington,	4	4	4	4					4	4
Howard Un.	Washington,	4	4	4	6	*				8	
GEORGIA.											
Atlanta Un.	Atlanta,	4	4	4			a				
Clark Un.	Atlanta,	4	4	4	4					a	
ILLINOIS.											
Chaddock Col.	Quincy,	2	2	1	2	4		4		1	1
Ewing Col.	Ewing,		4						2		
German English Col.	Galena,	i	i	i	i	i	i	i	i	i	i
Illinois Col.	Jacksonville,	4	4	4	4	4	4	4		4	4
Illinois Wesleyan Un.	Bloomington,	3	3	1	3			3			
Lake Forest Un.	Lake Forest,		4								
Northwestern Col.	Naperville,	4	4	4	4						
Northwestern Un.	Evanston,	4	4	4							
McKendree Col.	Lebanon,	4	4	3							
Shurtleff Col.	Upper Alton,		4	3¼							
Un. of Chicago	Chicago,	4	4	4							
Un. of Illinois.	Champaign,	4	4	4					¾		
Westfield Col.	Westfield,	¾	¾	½						2	
Wheaton Col.	Wheaton,	4	4	4	4		4			4	4
INDIANA.											
Butler Un.	Irvington,	4	4	4		4					
Earlham Col.	Richmond,	3	3	3							
Franklin Col.	Franklin,		4	4							
Hanover Col.	Hanover,	3	3	3	3	i	i	i	i	i	i
Hartsville Col.	Hartsville,	3	3	2							
Indiana Un.	Bloomington,	¾	¾	4-3	*	¾	*	*	*	4	4
IOWA.											
Amity Col.	Coll. Springs,			1						1	
Cornell Col.	Mt. Vernon,	3	3	a		4	4		3		
Drake Un.	Des Moines,	2	2	1			a				
Parsons Col.	Fairyfield,	½	4	1	1					½	½
Tabor Col.	Tabor,		4	1							
Un. of Iowa.	Iowa City,	6	2-4	2-4	6				7	4	4
Upper Iowa Un.	Fayette,	a	3	3							
KANSAS.											
Washburn Col.	Topeka,	4	4								
KENTUCKY.											
Berea Col.	Berea,	4	4			4	4		2	*	*
Central Un.	Richmond,		4								
Centre Col.	Danville,	i	i	i	i	i	i	i	i	i	i
Georgetown Col.	Georgetown,	4	4	4	4						
Kentucky Mil. Institute.	Farmdale,	¾	2	¾	2	2	2				2-4
Ogden Col.	Bowling Green	4	4	4							
LOUISIANA.											
Centenary Col.	Jackson,		4	4			i				¾
Tulane Un.	New Orleans,	4	4								
MAINE.											
Bowdoin Col.	Brunswick,		4	4					7		
Colby Un.	Waterville,	3	3	4	3	i	i	i	i	i	i
MARYLAND.											
Johns Hopkins Un.	Baltimore,		¾	¾	¾	5		5		5	5
Rock Hill Col.	Ellicott City,	¾	¾	1	*			1-4			
MASSACHUSETTS.											
Amherst Col.	Amherst,	4	4	4		4	4			4	4
Boston Un.	Boston,	4	4	4	6	7	7	7	7	i	i
Harvard Col.	Cambridge,	1-4	1-4	*	6	*	*	*	9		
Tufts Col.	College Hill,	4	4	4				1			
Williams Col.	Williamstown,	3	3	3	3	i	i	i	i	i	1

NAME OF COLLEGE.	TOWN.	1	2	3	4	5	6	7	8	9	10
MICHIGAN.											
Battle Creek Col.....	Battle Creek,			1					1		1
Hillsdale Col.....	Hillsdale,	4	4	1	1	1	3	4	3	1	
Un. of Michigan.....	Ann Arbor,	*	*	*	*			*	*	*	*
MINNESOTA.											
Carlton Col.....	Northfield,		4	4				4			
Un. of Minnesota.....	Minneapolis,	4	4	4	4			4	4	4	
MISSOURI.											
Central Col.....	Fayette,	3	3	4		4		4		4	4
Drury Col.....	Springfield,	4	4	4	4	4				4	4
Pritchett Institute.....	Glasgow,	2	4	3	4					4	4
Stewartsville Col.....	Stewartsville,			3							
Un. State of Missouri.....	Columbia,	6	3	4	6	6	4	4	3	4	4
Washington Un.....	St. Louis,	4	4	½	i	i	i	i	i	i	1
William Jewell Col.....	Liberty,	4	4	4	4	i	i	i	i	4	
NEBRASKA.											
Creighton Col.....	Omaha,	*									
NEW HAMPSHIRE.											
Dartmouth Col.....	Hanover,	4	4	4							
NEW JERSEY.											
Rutger Col.....	New Brunsw'k	3	3	¾	4	i	i	i			
NEW YORK.											
The Col. City of N. York..	N. Y. City,	3	3	3	i	i	i	i	i	¾	¾
Columbia Col.....	New York,	p	p	p	6	p	p	p	9	0	
Cornell Un.....	Ithaca,	¾	¾	¾	¾	¾	¾		5		
Syracuse Un.....	Syracuse,	4	4	4	4	4		4			
Union Col.....	Schenectady,	4	4	4	4				4		
Un. of Rochester.....	Rochester,	4	4	4	4	4	4	4	4		
Vassar Col.....	Poughkeepsie,	3	3	3	3	¾	*	*	¾	4	4
OHIO.											
Buchtel Col.....	Akron,	*	*	*	*						
Hiram Col.....	Hiram,		4	4	i		i	i	i		i
Kenyon Col.....	Gambier,	4-3	4-3	4-3	4-3				3		¾
Ohio Un.....	Athens,		3	¾		3	3		0		
Ohio Wesleyan Un.....	Delaware,	i	i	i	i	i	i	i	i	i	i
Un. of Cincinnati.....	Cincinnati,	4	4								
Un. of Wooster.....	Wooster,	4	4	3	4	i	i				
Urbana Un.....	Urbana,		4	4		4				4	
Wilberforce Un.....	Wilberforce,	3	3	1	3	4				1	1
OREGON.											
Pacific Un.....	Forest Grove,	4	4	4	4	4	2		½	2	
PENNSYLVANIA.											
Franklin & Marshall Col.	Lancaster,	4	4	4	4	4	4	4	4		
Un. of Pennsylvania.....	Philadelphia,		¾	¾		3		¾		4	4
Washington & Jefferson..	Washington,		3	3							
Western Un. of Penn.....	Allegheny City	4	4	4							
RHODE ISLAND.											
Brown Un.....	Providence,	¾	¾	4	¾	4	4	i	i	i	i
SO. CAROLINA.											
Un. of South Carolina....	Columbia,	6	6	6	6	6				*	*
TENNESSEE.											
Central Tennessee Col....	Nashville,	3	3	3	3	i	i	i	i	i	i
Christian Brothers.....	Memphis,	¾	¾	¾	4				2-4		
Cumberland Un.....	Lebanon,	6	6	6	6	6					
Grant Memorial Un.....		3	2	3	¾	3					
Un. of the South.....	Sewanee,	2	2	2		1	i	3			i
Un. of Tennessee.....	Knoxville,	4	4	4	4	i	i	i	i	i	i
VERMONT.											
Middlebury Col.....	Middlebury,	4	4	4							
Un. of Vermont.....	Burlington,	4	4	4				4	3	4	4
VIRGINIA.											
Hampden Sidney Col.....	Hampden,	4	4	4	4	i	i	i	i	i	i
Roanoke Col.....	Salem,		4	2-4			4	4	2		
Washington & Lee Un....	Lexington,	6		6	6	6			9		
WISCONSIN.											
Ripon Col.....	Ripon,	4	4	4	4						
Un. of Wisconsin.....	Madison,	3	4	3	3					4	

ADDITIONAL INFORMATION.

Owing to the fact that many of the institutions for higher education have elective courses or are divided (like the University of Virginia) into separate "schools" or departments, it has been found difficult to answer the schedule by naming definite years.

The following remarks are copied from letters received from the presidents or from professors of political economy in the several institutions named:

Atlanta University (Ga.): "None of these subjects are taught except incidentally, . . . but some of them would be very valuable even in an elementary course—especially Nos. 5, 6, 7, and 8."

Clark University (Ga.): "Topics 1, 2 and 4 are studied under the head of political economy; topic 3 in a special text-book; topic 9 in our Normal Course; discussions have been held in topic 5. We endeavor to impress on our students their relations to society and the duties arising. Considerable attention is paid to hygiene and kindred topics. I think that more attention should be given in all grades of schools to topics 3 and 8 especially."

German English College (Ill.): "We touch on these topics quite extensively in class instruction on political economy, civil government, physiology and hygiene, moral philosophy, commercial law, etc."

Illinois College (Ill.): "Topics 1 and 2, 14 weeks; 3 and 4, 11 weeks; the others by lectures."

Earlham College (Ind.): "One term of twelve weeks, five hours each week, devoted to political economy."

Indiana University (Ind.): "My course in political science can be taken either in the senior or junior year, and is, I. Theory of Government; II. Comparative Constitutional Law; III. International Law and Political History. I have also a course in Economics and Sociology covering the two years (3d and 4th), and the topics 4 to 8 inclusive are taken up in a summary manner, and also as topics of special investigation. The coming year I hope to investigate the town and county poor-houses in our vicinity. As the work gets more thoroughly in shape I shall hope to extend this kind of original investigation on the part of the students."

Parsons College (Iowa): "Topics 1, 2, 3, 4, 9 and 10 are presented to classes in civil government, political economy, and international law."

University of Iowa (Iowa): "There is need of instruction in all the topics placed upon the schedule in collegiate work (besides the instruction given the Law and Medical departments)."

Berea College (Ky.): "We teach Perry's Political Economy with discussions; Young's Science of Government; Anatomy and Physiology and Hygiene; give much instruction on the subjects of intemperance, ventilation, etc.; Fairchild's Moral Philosophy, with lectures on chastity and on every vice, as well as on punishments and reforms; twelve lectures a year on Public Education, with discussions; the Bible, two days in a week; a weekly religious lecture; many prayer meetings, well attended; Young Men's and Young Women's Christian Associations; much social intercourse with constant moral improvement."

Centre College (Ky.): "Instruction given on all these topics in connection with the study of Moral Philosophy, Political Economy, International Law, Constitution, Physiology, etc., etc. Each of the ten topics are discussed to a greater or less degree. In text books many of these subjects are treated directly, others come up incidentally or are treated in lectures during the four years of the college course."

Johns Hopkins University (Md.): "Instruction is given in topics 5, 7, 9 and 10 in advanced (university) work. One lecture and one meeting of the Philosophical Seminary each week—to post-graduates only. Topics 2, 3 and 4 are treated in the courses in Political Science extending through two years."

Boston University (Mass.): "I enclose the following syllabus of Mr. F. B. Sanborn's course before the School of Medicine:

FIRST LECTURE, Wednesday, Jan. 27, at 8 P. M.

I. *Who, and How Many, the Dependent and Delinquent Classes are.*

1. The physically defective; including the blind, the deaf mute, the idiotic, the congenitally disfigured, the crippled, etc.

2. The mentally or morally abnormal; including the insane, the inebriate, the unbalanced or "cranky class," etc.

3. The unfortunate and therefore dependent; including widows and orphan children, the old and infirm, strangers in the country, persons thrown out of work, or suddenly deprived of means, by fire, flood or other calamity.

4. The sick, with those dependent on them.

5. The vicious; including persons habitually intemperate, prostitutes, vagrants, petty thieves, young offenders, etc.,—with the families of such, or persons who depend on them more or less.

6. The criminal class; including those who suddenly or habitually commit crime, and are either in prison, or are living in the community and may at any time be arrested for crime,—with those dependent on them, and often involved in their crimes.

7. The actual inmates of such public establishments as prisons, almshouses, hospitals for the sick, the insane, etc., schools for the blind, deaf and idiotic, asylums for special classes, such as old men and women, soldiers, sailors, orphans, etc.

8. Estimated number of these classes.

II. *General and Special Duties towards the Classes named.*

1. Duty of the State, as representing the whole community.
2. Duty of the Public, in its individual capacity.
3. Duty of the Professions, and especially the Medical.

III. *The Health of the Community, and of Individuals, as an Agent in producing the Dependent Classes.*

1. Sanitary conditions and ordinary sickness.
2. Contagious diseases and epidemics.
3. Insanity and its causes.
4. Maternity and diseases of vice.

IV. *Anomalous Position of the Medical Profession in regard to Disease and Vice.*

SECOND LECTURE, Wednesday, Feb. 3.

V. *The True Character of a Public Establishment for a Dependent Class.*

1. Its relation to the State and the public treasury.
2. The admission and detention of its inmates.
3. Their sanitary condition and treatment.
4. Their visitation and inspection by individuals or committees.
5. Professional and general criticism upon the management of an establishment.
6. Its direct educational value to the medical profession.

VI. *Hospitals for the Sick and the Insane.*

1. These two classes unreasonably separated in medical education.

2. Insanity a specialty, but also involving the most general considerations.

3. Insanity in general practice.
4. Clinical instruction as necessary in regard to insanity as to surgery, or ordinary disease.
5. The Westborough Hospital, as related to the Massachusetts Homœopathic Hospital and Boston University School of Medicine.

VII. *Almshouses of the State or the Municipalities.*

1. In-door and out-door relief.
2. An almshouse necessarily a hospital in some degree.
3. Out-door medical relief and dispensary practice.
4. The Massachusetts system of out-door relief.
5. The regulation and visitation of almshouses.
6. The almshouse at Tewksbury and its history.
7. The city almshouses of Boston.

THIRD LECTURE, Wednesday, Feb. 10.

VIII. *Maternity Hospitals and the Care of Young Children.*

1. The need of maternity hospitals in cities, and the evils to be guarded against.
2. Infanticide and the desertion of children.
3. The Massachusetts system of care for motherless infants.
4. What may be done by physicians in this matter.
5. The disposal of "children of the State."

IX. *Truant Children and Juvenile Offenders.*

1. Vagrancy among children and grown persons.
2. Truant schools and local or private reformatories.
3. State reformatories.
4. The family system for reforming young offenders.

FOURTH LECTURE, Wednesday, Feb. 17.

X. *Prisons and their Inmates.*

1. The convicts themselves.
2. Their families and dependents.
3. Discharged prisoners.

XI. *General Remarks on the whole Subject."*

Harvard College (Mass.) : "As the course here is entirely elective, the topics are taken by men of all classes. Of course the higher studies (as indicated by the higher numbers) are generally taken by older men. The following in history answer your questions 3 and 4 :—

2. Constitutional Government in England and the United States (Introductory to Courses 11, 12, 13, 14, and 18). *Tu., Th., Sat., at* 11 (*first half year*), *counting as a half-course.*

[4. Political and Legal Institutions of the Roman Empire.—Development of the Frankish Constitution to the death of Charlemagne. *Wed., Fri., and* (*at the pleasure of the Instructor*) *Mon., at* 12 (*second half-year*), *counting as a half course.*

[8. History of Government and Administration in France from the Frankish period to modern times. *Wed., Fri., and* (*at the pleasure of the Instructor*) *Mon., at* 10.

[9. Constitutional and Legal History of England to the Sixteenth Century. *Mon., Wed., Fri., at* 2.

13. Constitutional and Political History of the United States (1783–1861) *Tu., Th., Sat., at* 12.

18. American Colonial History (to 1783). *Tu., Th., Sat., at* 11.

The following syllabus shows the scope of the studies in Political Economy for 1886-87, thus answering questions 1 and 2 of your circular: —

General Plan.

"The courses are so arranged as to attain two objects. (1) Familiarity with the leading principles of the science is not only desirable for purposes of discipline, but indispensable as a preparation for the study of practical questions. Course 1 (with Division *B* for the second half-year) aims to give that general knowledge which every educated man ought to have. For those, however, who wish to attain a thorough mastery of the principles of economics, one course is not deemed sufficient, and such students are strongly urged to continue this disciplinary training through a second year. To enable them to do so, an advanced course (Course 2) has been provided, devoted to a study of the principles and systems of various writers selected from different schools. (2) It is desired to turn the attention of students to the historical and practical side of the subject, affording training in the use of books and sources, the collection of statistics, and the investigation of such public questions as constantly arise from year to year. This second object is provided for in Courses 3, 4, 5, 6, 7, 8, and 10.

The purpose of the plan being clear, it can be used either by those who have only a limited time to give to Political Economy, by taking Course 1 and afterwards an applied course, or by those who expect to make a more thorough study of the subject, by taking 1 and 2, and as many other applied courses as may seem desirable; and, those who take Course 2, can at the same time carry

on work in any of the practical subjects. With this explanation of the scope of the general plan, students will find it useful to know the particular bearing of each course.

Detailed Statement.

1. *First half-year*: Mill's Principles of Political Economy. — Dunbar's Chapters on Banking.

Second half-year: Division *A* (Theoretical): Mill's Principles of Political Economy. —Cairnes's Leading Principles of Political Economy. *Division B* (Descriptive): Lectures on Money, Finance, Labor and Capital, Coöperation, Socialism and Taxation. *Mon., Wed., Fri., at* 9.

Course 1 is intended not only as a means by which a student may obtain the necessary preparation for advanced courses, but also as a means of acquiring that general knowledge of the subject desired by those who have little time to give to the study. During the first half-year attention will be given to the main principles of Political Economy and to the elements of Banking, and all who elect the course will have substantially the same work. J. S. Mill's *Principles of Political Economy* (the revised and abridged edition), and C. F. Dunbar's *Chapters on Banking*, will be used as the basis of the teaching, with illustrations, explanations, and questions in the class-room.

For the second half-year the members of the course will be separated into two groups, on the basis of their preferences and plans for the future. If a student expects to give further study to Political Economy he is advised to join Division *A*. About the middle of the year each student will be given an opportunity to choose between Division *A* and Division *B*. For admission to Courses 2 and 3 a student is required to have passed satisfactorily in Division *A*. It is understood, however that instructors may consider individual cases on their merits, and make possible exceptions to the rule for good reasons.

Inasmuch as Division *A* will contain those who expect to make a more serious study of Political Economy, the work of the second half-year will be largely given up to a study of the principles, in order that greater familiarity with economic reasoning may be gained. It is intended to use portions of Mill, and of J. E. Cairnes's *Leading Principles of Political Economy* as the groundwork. It is hoped to carry on this part of the course through the means of problems accompanied by references to the authors.

Division *B* is intended primarily for those who mean to take but one course in Political Economy. Its object will be to illustrate the application in practice of the principles dealt with in the first half-year. Brief consideration will be given to the labor question, coöperation, industrial partnership, trade-unions, socialism, free-trade and protection, money, bimetallism. The work will be large-

ly descriptive and historical. The instruction will be partly by lectures, and partly by the discussion of Upton's *Money in Politics*, Jevons's *The State in relation to Labor*, and other brief books.

*2. History of Economic Theory. — Examination of selections from Leading writers. — Lectures. *Mon.*, *Wed.* (*at the pleasure of the Instructor*), *and Fri.*, *at* 2.

Course 2 is intended for those who mean to make a more exhaustive study of the literature and the leading principles of the subject than is given in Course 1. An examination will be made of the historical development of Political Economy and of the views of contemporary writers on important questions of principle. The first half of the year will be occupied chiefly with the history of economic doctrines. The instruction will be partly by lectures, and partly by the discussion of passages from the works of great economists, such as Adam Smith and Ricardo. In the second half of the year certain selected topics will be taken up, and their treatment at the hands of writers of the present time (such as Cairnes, Sidgwick, Walker, George, Leroy-Beaulieu, Wagner) will be examined. The topics for 1886–87 will be taken from the following list: the wage question; interest; rent; manager's profits; the theory of money; international trade; the method and scope of political economy; socialism and the relation of the state to economics. For admission to Course 2 it is required to have passed satisfactorily in Course 1, Division *A*.

*3. Investigation and Discussion of Practical Economic Questions. — Short Theses. *Tu.*, *Th.*, *at* 3, *and a third hour to be appointed by the Instructor.*

Provision is made for the discussion and study of such practical questions of the day as may come up from time to time. Only those who have passed satisfactorily in Course 1 will be admitted to this course. Special and detailed investigations are confined to Course 10. In Course 3 it is expected that a number of topics will be taken up, thus requiring no exhaustive treatment of single subjects. Without losing more time than in an ordinary course, it is intended that each student shall have practice in collecting the facts and in making a simple statement of opposing arguments on some part of a question of the day, in the form of a short thesis. The topics thus presented will be the basis of discussion by other students, or by the instructor. It is the plan, however, to keep this essentially an elementary course in investigation, open to those who do not intend to carry on an elaborate investigation in Course 10. So far as can now be stated, the topics for 1886–87 will be taken from the following list: —

The navigation laws and American shipping; bimetallism; appreciation of gold; reciprocity with Canada and Mexico; advan-

tages of government issues of notes compared with those of the national banks; railway transportation; American competition; the surplus revenue; coöperation.

4. Economic History of Europe and America since the Seven Years' War. — Lectures and written work. *Mon.*, *Wed.*, *Fri.*, *at* 11.

It is intended in Course 4 to trace the economic effects of the great events in the history of the last one hundred and twenty-five years. This course does not require any previous study of Political Economy; but it is greatly for the advantage of the student electing it to take or to have taken either Political Economy 1 or History 12 or 13. The following topics will be treated:—

The economic results of the invention of textile machinery and of the use of steam; of the American and French Revolutions; of the introduction of railways; of steam navigation; of the new discoveries of gold; of the refined uses of credit; of the civil war of 1861–65; and of the Franco-German war of 1870 and the political reorganization of Germany.

In addition to the lectures in which these topics are treated, text-book work will be prescribed for 1886–87; and, besides the regular mid-year and final examinations, hour examinations will also be held; in place of which, however, proficient students may substitute written work, upon special subjects assigned by the instructor.

*5. Economic effects of Land Tenures in England, Ireland, France, and Germany. — Lectures and Theses. *Once a week, counting as a half-course.*

This course is open only to those who have passed satisfactorily in Course 1. Special topics are assigned to members, and the written thesis when prepared is made the subject of criticism and discussion by the instructor. In these studies students are expected to reach conclusions through their own investigations, and by the aid of the collection of facts and statistics in the College Library. This course covers the questions now of political importance in England, Ireland, France, and Germany in their economic aspects, and embraces the following subjects:—

In England: the land laws; relative position of landlord, tenant, and laborer in the last one hundred years; tenant-right; leases; prices and importation of grain; repeal of the corn-laws; American competition; peasant proprietorship. — In Ireland: the ancient tribal customs; English conquests; relations of landlord and tenant; security of tenure; Ulster tenant-right; absenteeism; parliamentary legislation; acts of 1869, 1870, 1881, 1882; population; prices of food and labor.—In France: feudal burdens on

land; relation of classes, and condition of peasantry and agriculture before the Revolution; small holdings and the law of equal division; present condition of peasantry and agriculture; growth of population; statistics of production, wages, prices; peasant proprietorship.—In Germany: reforms of Stein and Hardenberg; condition of agriculture; peasant proprietors; statistics of wages and prices.

*6. History of Tariff Legislation in the United States. *Tu.*, *Th.*, (*at 2 second half-year*), *counting as a half-course.*

Course 6 is partly economic and partly historical. The economic principles which should govern tariff legislation, and the fiscal and administrative questions arising in connection with it, will be discussed. In the historical part of the course attention will be given mainly to the history of legislation on the tariff in the United States from 1789 to the present time. Brief consideration will also be given to the experience of the Colonies in foreign trade before the Revolution; and, in the latter part of the year, to the tariff history of England, France and Germany. It is recommended that this course be taken in connection with Course 8 and with History 13. The nature of the course is indicated by the following summary of the topics taken up in the tariff history of the United States:—

I. 1789–1816: Tariff system adopted after the formation of the Constitution; Hamilton's report; the state of the protective controversy before 1816; the beginnings of manufacturing industry.—II. 1816–1840: The American System; Henry Clay; the tariffs of 1824, 1828, 1832; the Compromise Tariff of 1833; the growth of manufactures; the economic effects of protection.—III. 1840–1860: The political tariffs of 1842 and 1846; the industrial progress of the country from 1846 to 1860.—IV. 1860–1883: the Civil War; the development of the existing tariff system; the act of 1864; the tax reducing acts of later years; the tariff revision of 1883; the economic effects of the protective system.

For admission to Course 6 a student must have passed satisfactorily in Course 1.

*7. Public Finance and Banking.—Leroy-Beaulieu's Science des Finances. *Mon.*, *Wed.*, *Fri.*, *at* 3.

In this course it is proposed to review the financial system of two or three of the leading modern countries, their methods of taxation and of borrowing, and the characteristics of their banking-systems, especially as connected with the public finances. Illustration by comparison with the practice of less important countries and by historical examples will be an essential part of the work.

Written reports by the students upon assigned topics and dis-

cussions thereon in the class-room will be chiefly relied on in conducting this course, and for admission to it a satisfactory record in Course 1 is required.

*8. History of Financial Legislation in the United States. *Tu.*, *Th.*, *at* 2 (*first half-year*), *counting as a half-course.*

In this course, for admission to which it is necessary to have passed satisfactorily in Course 1, a comprehensive review will be made of the financial history of the United States, with special consideration of Hamilton's financial system, the struggle over the second Bank of the United States, and the finances of the civil war and of the period of suspended payments. This course is advantageously taken with Course 6, making a full course for the year, and is also a useful accompaniment to History 13. It will be carried on with a limited number of lectures, with frequent reports by students upon assigned topics, and with a prescribed course of reading.

*10. Special Advanced Study and Research.—In 1886–87, competent students may pursue special investigations of selected topics under the guidance of any one of the instructors.

Course 10 is open only to Graduates, to Candidates for Honors in Political Science, and to Seniors of high rank who are likely to obtain Honorable Mention in Political Economy. The subject to be pursued is selected upon consultation and agreement with the instructor under whose direction the student is to work, and the course can then be taken, either as a full course or as a half-course, as the nature and extent of the investigation may in the judgment of the instructor require."

Williams College (Mass.) "Topic (1) all the Junior year, one hour daily; (2) sixteen weeks of Junior year, one hour daily; (3) all Junior year, three hours weekly. Topics 4-10 are touched on incidentally in connection with the Constitution of the United States, which is learned and recited; and in connection with lectures on the Common and Roman Law. Two terms of history, English and American, six hours a week, give additional opportunity to treat social science topics."

Michigan University (Mich.) "Impossible, with our system of electives, to say in what year of a student's course these studies will be taken; but it is safe to answer that most of this work comes in the third and fourth years of collegiate residence. Some of the more elementary studies may be begun in the second half of the second year."

University of Minnesota (Minn.) "In my judgment, subjects 1, 2, 3, 4, 7, 9 and 10 should be taught to all undergraduates — of course only elements can be given to undergraduates. No. 5 will receive some incidental notice in the department of Ethics—as also will No. 6; No. 8 should be so generally taught in lower schools as to give all necessary instruction not technical. The secretary of the State Board of Health gives an admirable course of lectures to our Seniors. We plan to instruct post-graduates in any of these specialties, according to their choice. Last year the specialties chosen were Money, Property, Taxation and Land Systems. The course for undergraduates is this:

Fall Term.—Political Economy (topics 1 and 2.)

Second Term.—Civil Government (topic 3.)

Spring Term.—American National Economy (topics 4-10 except 5-8.)"

University of Missouri (Mo.): "Topics 1, 2, 4, 5, taught in the Law School; 3 and 4 in the English School; 6 and 7 in the course on Ethics; 8 by the professors of the Medical School; 9 and 10 by the Normal School [Missouri having a Normal department in the State University.]"

Washington University (Mo.): "Topics 4-10 discussed in connection with work in political economy and ethics."

College of the City of New York (N. Y.) "All the topics in question are treated or touched upon either in the Junior year course in political and social science, or the Senior year philosophy; some of them from more than one point of view."

[A printed paper on "the method of meeting the new social issues by education," was received from Prof. G. B. Newcomb.]

Columbia College (N. Y.): "All the matters embraced in the schedule, except pedagogics, are taught in this college, but not in the same School. Those falling under political economy are taught in the School of Arts and in the School of Political Science. The other topics are taught in the Schools of Law and of Mines."

Rutgers College (N. J.): "Lectures on 'Duties of Civilization' in Senior year. The President in brief discussions before the college 'Bible Class' treats these topics as applications of Christianity to social problems of our time. Also, in Lieber's Political Ethics in Senior year."

Hiram College, (O.) "All the subjects mentioned in the schedule sent me are worthy of the careful and critical attention of the

educator, especially the topics numbered 4, 6, 7, 8 and 10. One of the most pressing questions of the day in America is, "What is Education?" It is a question in the minds of some so-called "educators" whether a knowledge of the things mentioned in your schedule should enter as a factor into education. I believe we see the dawn of that day in which "Civics" and "Social Science" will occupy a prominent place in the curriculum of American colleges."

Kenyon College, (O.) "As to what topics in the list may be profitably studied by college students, I would say that I regard those numbered 1, 2, 3, 4 and 10 on the schedule, as coming before the others. But in my judgment the theory of fluctuations in market values ought to be made a special topic, and precede items 1 and 2."

Ohio Wesleyan University, (O.) "We teach under No. 1 that property is a trust held first for God, second, for the State, third, for the family, fourth, for self. Under No. 2 that Republican institutions necessitate higher prices for labor, and greater distribution of comforts than despotisms, monarchical governments, or privileged classes. Under No. 3, that the organic unit of all mankind is the state that is best for all, and at the same time for each. Under No. 4, that corporations have no souls to save, nor faces to slap—every big fish feels it a religious duty to swallow the little ones. Under No. 5 we teach, contrary to Dr. Woolsey, that the first motive in punishment is to reform and save the criminal. Under No. 6 we teach that it is best to watch children as an officer watches a convict, till they reach majority, and insist on instant obedience, and "mix it a' wi' prayer." Under No. 7 we teach that the State should be father and mother to the helpless, but should not interfere with Providence in warding off from the able and intelligent the consequences of crime. Under No. 8, that lack of light, murderous cellars, imperfect sewage-pipes, are the crying sins of builders, mechanics, and city authorities. Under No. 9, absolute perfection in reading, writing, spelling, grammar, arithmetic, geography, and physiology should be attained. Under No. 10 the perfect and symmetrical development of all the powers of the mind. Technical, professional, elective education in the development of the mind as an end (which is liberal culture), is an abomination of abominations."

University of Wooster, (O.) "A new professorship, now more

than half endowed, has just been established here; it is named the chair of Morals and Sociology."

Pacific University, (Oregon.) "I look for the next great advance of man in the line of the social sciences, rather than in the natural sciences."

Franklin and Marshall College, (Pa.) "We continue to use the old College Curriculum. In the senior year we teach political economy, and devote a whole year to ethics, in which I lecture on the family and the State, covering a full course of instruction in Social Science viewed from the standpoint of ethics—*i. e.*, the ethics of social economy."

University of Vermont, (Vt.) "Sanitary Science is taught in detail; all except sanitation is taught under the general subject of political economy and social philosophy."

Tulane University, (La.) "Our organization has not been sufficiently perfected as yet to deal with the questions suggested except in a very general way. It is hoped, however, that the day is not far distant when we may set an example to older and richer institutions in this matter of social science which is the central point in the circle of studies."

(With this report is received a valuable paper on Education in Louisiana and the sociological bearings of higher education by the President, Col. William Preston Johnston.)

EMILY TALBOT, *Secretary.*

WM. T. HARRIS, *Chairman.*

CONCORD, September 6, 1886.

The Department Committee for 1886–7 is as follows:

Education Department—T. W. Higginson, Cambridge, Mass.; Prof. W. T. Harris, Concord, Mass.; Justin Winsor, Cambridge, Mass.; E. R. L. Gould, Washington, D. C.: Prof. Alpheus Hyatt, Boston, Mass.; Pres. F. A. P. Barnard, New York; Louis F. Soldan, St. Louis, Mo.; Miss Alice E. Freeman, Wellesley College, Mass.; Prof. W. H. Payne, Ann Arbor, Mich.; Mrs. Emily Talbot, Boston; Miss Katharine Coman, Wellesley, Mass.

POPULAR INSTRUCTION IN SOCIAL SCIENCE.

OPENING ADDRESS BEFORE THE AMERICAN SOCIAL SCIENCE ASSOCIATION AT SARATOGA, SEPT. 6, 1886, BY CARROLL D. WRIGHT, THE PRESIDENT OF THE ASSOCIATION.

The grand object of the American Social Science Association is "to encourage the study of the various relations, social and political, of man in modern life; to facilitate personal intercourse and the interchange of ideas between individuals interested in promoting educational, financial, sanitary, charitable, and other social reforms and progress; and promptly to make known to the public all theoretical or practical results which may flow from such studies or investigations." The methods by which the association has endeavored to attain the results sought consist of annual conventions, at which papers and topics are discussed; the publication of an annual journal, giving to the public the transactions of the conventions, and here and there, as auxiliary work, but yet on quite an independent basis, the discussions of local associations. As means within itself there have been established five departments: Education, Health, Trade and Finance, Social Economy, and Jurisprudence. Since the organization of the association in 1865, now 21 years ago, these, in brief, have constituted the chief methods adopted by it for the dissemination of knowledge relative to the features already named. The association is now of age; it steps out of its minority into its majority; it has passed the educational and formative period of its existence; it has won its way to public attention and public respect; it has accomplished much good, and it has the right, as it steps into the broad dignity of manhood, to strengthen and broaden its old methods and to take on new instrumentalities, that its work may be carried into a wider field than can be reached through conventions or discussions, or annual publications. The work of the organization has reached the few, those interested in the development of humanity,—the literary men, the scientists, and philanthrophists of society. The new instrumentalities it now seeks consist of the higher institutions of learning in the land, only a few of which have chairs of social science, or who support even occasional lectures in the grand field to which our efforts are extended. To reach these higher institutions and to show them how social science may be taught therein, practically and effectively, a com-

mittee was raised in December last, consisting of Prof. E. J. James, of the University of Pennsylvania; Prof. Francis Wayland, of Yale Law School; and Mr. F. B. Sanborn, Lecturer on Social Science in Cornell University, and also our own Secretary, to prepare for the consideration of our association at this meeting a list of topics for lectures and conferences on social science. The topics proposed by this committee are before you, arranged according to the five great departments of the association. While the committee would not claim that the list is complete or entirely exhaustive, the work has been performed in a most admirable manner, and the topics proposed cover a field so wide that the contemplation of it, as constituting the realm of social science, is sufficient to stagger the lecturer and bewilder the instructor who undertakes to be faithful to his classes in teaching the elements at least of the science; yet, on careful examination, the list is relieved of all discouraging influences, because it will be seen that it is as logically arranged as the varied phases of the science permit, and that it has been made extensive that no doubt should exist relative to the work proposed. All this is to indicate the proper course of work, or to give an extended curriculum in social science for universities, colleges, and higher institutions of learning. This work will constitute one of the chief features for consideration at this convention. It demands your most careful and most faithful consideration, for, should the association take any active measures to carry out the propositions in the direction indicated, its influence as an educational force in society must be increased tenfold, for, in addition to reaching the few of the public, — those enthusiastically devoted to the cause of humanity in its broadest phases,— the association will reach those who are to be the popular educators of the future. Taking it for granted that the association will heartily support the propositions of the committee,—modified, it may be, yet indorsing them fully in spirit,—and granting that the institutions for whose benefit the propositions are made, incorporate them in their curricula, the Social Science Association will still reach but a limited body of men. Beyond this body there is the great population of our country,—the masses, who know little or nothing of social science; who confound it with socialism and all sorts of isms; who, perhaps, care but little for humanity at large, but who are ever striving for the narrowest individual liberty. "What Social Classes Owe to Each Other" is no concern of theirs;

but it is the concern of this association, for if social classes owe nothing to each other, this association has no right to its existence. It is founded on the principle that social classes do owe something to each other, and its business is to find out the nature of the debt. The masses must be taught before social science can reap its best practical results, before it can be one of the vital forces in the educational progress of the country. I would, therefore, at this time, as a feature of the discussion of the general question of extending the methods of our body, not only call your attention to the necessity of popular instruction in social science, but indicate to some extent the methods that might be adopted for extending such instruction.

In the first place, we have at hand the medium of the common schools. I shall be met at once with the statement that the common schools are already over-burdened with superfluous studies, and that to crowd into them the study of social science would be unwise, and that the effort would meet the opposition of the public. Possibly this is true; it may be that we have superfluous studies in our schools. From long experience, as a member of a school board in one of our New England towns, I should say that, so far as having too many branches of study is concerned, the statement is true. I quite agree with President Eliot when he takes the ground that, so far as our high schools are concerned, popular education may have been carried too far; that we have gone beyond the real vital principle of the common-school system, which is to accord to all the children of the State a common-school education, meaning by that such an education as shall be of advantage in their work in life. On this basis, there are some forms of the studies pursued which might be left out of the common-school curriculum, and there might be substituted in the place of such forms the study of social science. Much progress has been made in building up the work of the common schools by insisting that the children should study drawing, and now there comes the almost urgent public necessity of their studying some of the principles relating to the different trades. There has been introduced also the study of government, so that the children of the present day, in those States where the common school flourishes, know more of the constituent elements of government, of the functions of its various departments, than was known by many adults half a century ago. The high school of to-day has reached the grade of the college of fifty years ago, and

it is because the line of work has been constantly extended. It would be easy, therefore, to introduce into our common schools the study of social science. This study might be made attractive in all its features. It would require a text-book, written in an easy and attractive manner, which should take up in its various chapters some of the topics proposed under each of the great departments of our association. Its first chapter, under "Education," should deal with Schools as an essential part of State policy, and The Relation of Government to Education. Under The Course and Object of Education, it should discuss the questions of Physical, Mental, and Moral Training; The Family, the Church, and the State; and consider briefly moral education as a social result. Under the second general division, "Public Health," it should treat of Earth, Air, and Water as Sanitary Agents, and the Preventives and Remedies for Unsanitary Conditions; the Ventilation of Structures, and Aeration of Soils and Waters, as well as Drainage and Water Supply, and the effects of Sunlight, Rain, and Wind. Under the third division, "Finance and Political Economy," the work I suggest should treat of the Right of Taxation, and the Corresponding Duty of Government, and briefly the Questions of Currency and Coinage. Under this division, however, it would find its grandest field in treating of the Foundation and Uses of Individual Property; Communism, Historically considered; Land Tenure and Privilege, and the Ownership of Land and Home as a Social Anchor. The Co-operation of Capital and Labor, and the question of Production and Distribution, would be found attractive and valuable, while a brief discussion of Money as a Medium of Exchange, and the Value of Money, would attract children old enough to be members of the grammar schools. Under this division of political economy there should be no attempt at metaphysical discussion, but simple, straightforward illustrations of every-day life should be given to the pupil. Under the fourth department, "Social and Domestic Economy," there might be given lessons on the Ethics of the Modern Industrial Corporation; the Golden Rule as an Economic Maxim, and the Self-destructiveness of Sordid Wealth; also on the Housing and Clothing of the People, and their Savings, and, as important as any topic, on Woman's Place in Social Economy. Labor and Leisure, Life and Accident Insurance, and the Labor of Women and Children; the necessity for Recreation, Art as a

Bread-Winner, the House as a Workshop, the Education and Apprenticeship of Children,—these are all attractive topics, and would be studied with enthusiasm. Under the Fifth Department, that of "Jurisprudence," less effective work, perhaps, could be done, but a few lessons, brief and easy, might be devoted with great usefulness to the questions of What Constitutes a Contract, the Liability of Parties Under a Contract, the Privileges of the Citizen, the Nature of the Constitution of a State, the Difference between Written and Unwritten Law, the Rights and Privileges of Indorsers, and a few of the Legal Aspects of the Family, such as relate to marriage, inheritance, etc., would constitute a chapter which, if well studied, would save the children in after life much difficulty and great expense. All these things which I have named briefly, without attempt at elaboration, might be treated in a compact text-book, for the use of schools of the upper grammar and high-school grades. An hour a week through one year, with such a text-book and with a teacher who could throw some enthusiasm, as well as knowledge, into his work, would bring great results, and of far more practical value than those derived from some of the studies now taught in such schools.

A teacher with fertile mind, who should know more of political economy than ought to enter into the text-book I have indicated, would be able to give simple and attractive illustrations which should emphatically impress the particular truth he wished to convey, so as to hold the mind of the pupil. For instance, such an illustration as the following might be used: Mr. A is a mechanic and lives in a comfortable house with his family. Through the carelessness of some boys at play the sash of one of his windows is broken, and the passer-by says, "I am sorry for you, Mr. A, but it makes the glaziers' trade good." Mr. A is obliged to expend $2.50 to repair his window, and the glaziers' trade is benefited and political economy wins. What is the other side? Mr. A is a poor man, he has been obliged to expend $2.50 to repair his window. On Saturday night of that week he had intended to purchase a much needed pair of boots for one of his children. His $2.50, however, had been expended in repairing his window, and the child must either go bare-footed or wear the boots, whose usefulness had been fairly exhausted. Had the window not been broken, the child would have had new boots, and the shoemakers' trade would have been benefited instead of the gla-

ziers' to the extent of the transaction involved. Now, in the first instance, only the glazier was benefited. Mr. A received no benefit nor did any member of his family; he was obliged simply to replace what he had before, and the $2.50 was to him a dead loss. In the second instance, there was a gain to two parties instead of one; the shoemaker instead of the glazier gained the trade, while the family of Mr. A received a benefit which was needed; so that society, as a whole, in the first instance was damaged by the breaking of the window, while in the second instance it would have been benefited. Such illustrations, I know, are rather contrary to some politico-economic principles, but the boy of our schools better learn the truer, and the higher, and the more ethical principle than be content with the narrowest side of the question.

The second popular instrumentality I would adopt for the dissemination of the principles of social science would be the Sunday school. It might not be the same man who objects to introducing social science into the public school who would object to its introduction into the Sunday school. The man who would object to the introduction of this study into the Sunday school would be the one who is so closely tied to theological tenets that he cannot see the welfare of humanity. His theology must not be lost sight of; he must keep it in full view, even at the expense of humanity. The development of theological views, is to him, of far more importance than the development of good citizens. This man would object to the introduction of our work into the Sunday school. I, too, would object if the social science text-book was to be used to displace all religious works in the Sunday school; but the two go so admirably side by side, belong so completely together as a means of religious education, that I most heartily advocate the use of the Sunday school as one of the most important instrumentalties in popular education in social science. How can this be done? I would not use the same text-book that I have described for the use of the public schools, but I would use either one comprehensive text-book, compact and attractively made, or a series of smaller books or short studies. I have recently seen a series of such books, entitled "Lessons in Ethics; or the Laws of Right Conduct."* One of these little works takes up the question of

*Publications of the Unitarian Sunday School Society; Boston, Massachusetts.

"Rights and Duties;" another, "Virtues and Vices;" another, "Conscience;" another, "Social and Public Duties," and another, "The Will and the Emotions;" and I find in the table of contents of the little book relating to "Rights and Duties," these topics: Rights, Claims, Mutual Health, Ought, Rights of Parent and Child, Rights of Brothers and Sisters, Rights of Children and Servants, Rights of Teacher and Scholar, Rights of Friend and Companion, Right to Work and Pleasure, Right to Self Improvement, the Need of Self Sacrifice, and the Right to Choose the Best. All these topics are brought out clearly and in an attractive way, in a little work of twelve lessons; while another of the pamphlets belonging to the series is one entitled "Character Lessons," in which, under fifteen lessons, the writer treats of Truthfulness and Honesty, Self Control, Cleanliness, Health, Self Culture, Occupation, Order, our Treatment of Dumb Animals, Obedience, Justice, Benevolence, Service, Gratitude, and Reverence. Each one of these lessons has for its leading thought some appropriate text from the Scriptures, and the lessons are arranged in attractive questions and answers. The table of contents covers many of the branches of social science. Another of the pamphlets, which has attracted me, is one entitled "The Citizen and the Neighbor; or Men's Rights and Duties as They Live Together in the State and in Society." The table of contents is too extensive to be quoted at length; but it involves the Purpose of Government, the Abuses of Government, the Good Citizen, What Wealth Is, to Whom Wealth Belongs and How it is Divided, the Institution of Property, the Grievances of the Poor and Their Causes, the Golden Rule Set to Work, the Rights and Duties of Neighbors, the Treatment of Crime, How to Help the Poor, Temperance and Purity, International Law and How it Grew, the Golden Rule Among Nations, and War and Arbitration. These topics, well taught, fully illustrated by Scripture lessons, and carried to the minds of the young by devoted teachers, would constitute one of the most valuable features of Sunday school work.

I have seen another series for the Sunday school, called "The Unity Sunday School Lessons." These lessons treat of home life, of school life, and of character. They are for smaller or for younger pupils, and they take up such little questions as Blessed is the Pleasant Face. What do We Mean by Teasing? What is Exaggeration? The Invalid's Room. How Can Children be Help-

ful? Conduct, Conversation, Table Manners, Courtesy, Self Control, Treatment of Old Age; and all those little features of home life and of school life which, if attended to and concerning which proper instruction is given, mould the child into the most valuable citizen, and without which the valuable child often becomes the most disreputable member of society.

Other series might be quoted as illustrations of the kind of text-books I would be glad to see used in the Sunday-schools all over the land. They would supplement all theology; they are allied to the best religous teaching.

The importance of making citizens cannot be over-estimated. The good citizen is the bulwark of society, and the man becomes the good or the bad citizen in accordance with his surroundings and his education. His education properly directed, he becomes a vital force in the upbuilding of society. Can the Sunday-school find a better field, or one that can be more profitably and effectively worked, than that which shall raise up a body of citizens who shall be an honor to the land in which they live? It is not wealth that constitutes the State, but men who know the rights and duties of men, the obligations and the privileges. "Not stones, nor wood, nor the art of artisans make a State; but where men are who know how to take care of themselves, these are cities and walls." (Aristides). The Sunday-school work which fails to make such men fails in its highest religious elements, and its efforts must be classed with simple denominational labors. The pulpit can do much to augment the influence of the teaching of social science in the Sunday-school, but the popular educational influence must come through the development of the children. Dedicated to such work, still adhering to its religious side, the Sunday-school would attain a power that it has not yet realized.

Another instrumentality for the dissemination of the principles of social science in a popular way is a periodical literature, but such a literature, however, cannot be utilized until the work through the higher institutions of learning, through the public and the Sunday-schools, has stimulated the popular mind to the necessity of a better understanding of all the relations of life,—until, in fact, society understands itself in a degree larger than its present knowledge has attained. So the periodical literature devoted to the inculcation of the principles of social science must wait for the harvest which will surely come when the other instru-

mentalities I have considered shall have become recognized as part of the educational work of the community.

I would not like to be accused of advocating ideals, to be grasped at but which cannot be reached, as means of practical work, nor does it seem to my own mind that I have been working in the realms of the ideal instead of the real in presenting to you the importance of popular instruction in the science which necessitated our organization. Certainly the adoption into the curriculum of the day and Sunday-schools of text-books of a primary character is perfectly practicable in every aspect of the matter, and I trust that in the discussions which shall follow the propositions of your committee, which has so ably performed its work, you will not entirely lose sight of that side of an education in social science which interests the public as contradistinguished from that feature of it which interests the students in our higher institutions of learning.

I have been led to make the suggestions embodied in this address, because for many years it has been my duty to investigate the conditions of all classes of our population, and especially of those engaged in industrial pursuits. To ascertain the remedies for bad social and industrial conditions is not an easy task, but I have been convinced for a long time that the surest way of eliminating such conditions is to be found in the ethical education of the young; in their instruction in all those matters which pertain to their relations in life, so that they may understand not only their true relations in life but all those obligations without which no true civilization can exist. When these matters are taught in the public and in the Sunday school, on the lecture platform, and the already valuable work of the religious and secular press shall be more generally extended in the direction of social science, legislators will more clearly comprehend the delicate questions which now puzzle them. With the enlightenment of the workers of society, the reforms so much sought for will come as a natural consequence. So it is from an endeavor to aid the producers of society, and from a deep sympathy with them in their struggle to reach a higher plane, which is the real labor question, that I urge you to consider broadly and seriously the suggestions of your committee, and these additional suggestions which I have taken the liberty to submit to you.

PAPERS OF THE HEALTH DEPARTMENT.

I. THE NERVOUSNESS OF AMERICANS.

BY GRACE PECKHAM, M. D., OF NEW YORK.

(Read Wednesday, September 8.)

Nervousness is more and more regarded as an undesirable characteristic of our nation. The idea that we are a peculiarly nervous people is becoming widespread. This has been fostered by articles written on the subject, so that in the last ten years "nervous" has become almost a household word. It is well, therefore, for us to consider what is meant by nervousness; the general causes which would produce it; whether Americans are more nervous than other nations of the same grade of civilization; and, if so, what are the means of overcoming such a condition.

One would scarcely believe how difficult it is to find a definition of a word so universally used. Webster defines *nervousness* as a "state or quality of being nervous, vigor, strength, forcibleness." Referring to *nervous*, we find that it means:

1. "Possessing nerve, sinewy, strong."
2. "Vigor of mind."
3. "Pertaining to the nerves, seated in the nerves, as, nervous excitement."
4. "Having the nerves weak or diseased; subject to or suffering from undue excitement of nerves; easily agitated; weakly."

Worcester's definitions are much the same. The earlier medical dictionaries ignore the word, and its definition is not to be found in works on diseases of the nervous system, ancient or modern. In Dunglison's Medical Dictionary *nervousness* is said to mean "unusual impressibility of the nervous system. (formerly it signified strength and vigor). In Quain's Medical Dictionary we read that "*nervousness* (or *nervous*,) is a term used mainly in reference to persons, to temperaments, or to morbid conditions. A person is said to be *nervous*, or of a *nervous temperament*, who seems to present a special susceptibility to pain, or who exhibits an undue

mobility, as it is termed, of the nervous system,— that is to say, when the person starts or shakes on the occasion of abrupt or intense sensorial impressions, or when he exhibits a proneness to convulsions, or manifests an exalted emotional susceptibility." None of these definitions are exactly satisfactory, or meet the popular notion of the term *nervousness*, nor is that of Dr. George M. Beard, who was the pioneer in this study, much better. After explaining at length that it was not an unbalanced mental organization, a predominance of the emotional with a relative inferiority of intellectual nature; not passionateness as an exhibition of temper, he says: "*Nervousness* is nervelessness — a lack of nerve force." Now, in nervousness, while there may be a lack of nerve force in one direction, there is an excessive display of it in another. "Nerve-sensitiveness," or "nerve-excitability," may, perhaps, define *nervousness* as well as few words can cover such a complication of conditions.

Who has not seen the display of nervousness! Who does not know the more common symptoms! How many feel and have felt them! A consciousness of unusual irritability; when trifles vex one, the temper becomes an uncertain quantity, eyes and ears are extremely sensitive to sights and sounds, and consecutive thought is difficult. An unusual forgetfulness of people and things, of times and places; inability to read; restlessness; sleeplessness; strange impulses to do unusual things; impossibility of shaking off morbid and haunting ideas; these and many more are conditions of nervousness.

Dr. Althaus distinctly says the common assertion that nervous diseases have considerably increased during the last decennium, is incorrect. He has proved this by the annual reports of the Registrar-General on disease and death in England and Wales. Nevertheless, an increased prevalence of nervousness can hardly be doubted. In 1808 Dr. Thomas Trotter wrote a quaint work whose title gives an idea of the notions held with reference to nervousness in those days,— "A View of the Nervous Temperament, being a Practical Inquiry into the Increasing Prevalence, Prevention and Treatment of Those Diseases commonly called Nervous, Bilious, Stomach and Liver Complaints, Indigestion, Low Spirits, Gout." He announces as gravely and as positively as the writer of today, that "Nervousness has greatly increased in the last fifty years." Dr. G. M. Beard asserts that Americans

are more nervous than other nations. As a proof of this statement he brings forth the following signs: Americans have a nervous temperament, an increased susceptibility to stimulants and narcotics, thirstlessness, indigestion, nearsightedness, weak eyes, early and rapid decay of the teeth. The type of American beauty, with its fine-cut features and delicacy, is another proof that Americans are distinctly nervous. Contrast this last statement with that of another writer, who says: "The descendants of the Dissenters, who emigrated 250 years ago, are changed bodily and mentally. Besides lean, lank bodies and rough, dry hair, they display nervous irritability, feverish activity and haste." "Americans are tending more to the Indian type."

It is difficult, indeed, to prove the assertion that Americans are more nervous than the Europeans, but the belief is becoming, as I have already said, more and more universal that such is the case.

Savages are not nervous; the lower classes of all nations are not nervous; they do not know the meaning of the term. The exception should perhaps be made in the case of the Jews, who, through every nationality, exhibit the same nervous tendency. Even the Polish Jews, who are as little civilized as any peasantry, are excessively nervous. Nervousness is produced by civilization. The complexity of man's nervous system places him at the head of animal creation. In all mechanisms, the more complicated and delicate, the greater susceptibility to derangement, and when once thrown out of order, the more difficult of adjustment. The difference between a stolid peasant, whose nervous system seems given him only for purposes of motion, and the highly organized man, alive to every sensation, physical and mental, is the same as that seen between a cart horse and a race horse. The driver of the one lashes his beast with a thick leather thong and the animal pays no more attention to it than as if the blow were the tickling of a fly. Touch a race horse but with the tip of a whip, and he quivers and jumps as if stung by a cutting lash. A high civilization elaborates, then, the nervous organism and renders it capable of responding quickly to a thousand and one *stimuli*, which, in the savage state, would be received unheeded.

If nervousness is a national characteristic, it must be the result of national peculiarities which environ the individual. What are those conditions surrrounding all nations which react differently upon Americans to bring about exceptionally susceptible nervous

systems? All nations are under the influence of their inheritance from their ancestors, or *heredity*; the atmospheric conditions in which they continually live, or *climate*; the food they eat, or *diet*; their governmental and their social relations. Aside from these general conditions are those which pertain more directly to the individual, his education and occupation. These, then, should be examined in turn, and their influence weighed with reference to the subject under discussion.

The influence of heredity can be set aside as bearing very little upon our question. It is difficult to say who, other than the red man of the forest, can lay claim to the title of American. For the purpose of this paper we will call an American that individual who has been long enough in this country to come under the influence of its customs and manners, so that they supplant those of the land from which he came. The time this takes varies greatly with families and individuals, from five, ten or fifteen, to twenty years. The Canadian, who resisted the influence of the conquering British through many years, quickly becomes American when he settles in the New England factory village. The stolid German, transplanted to New York, learns its vocabulary of haste-incentive words, and can say "Hurry up," "Step lively," "Don't be all day about it," long before he is entitled to his naturalization papers. Heredity, therefore, does not come into consideration in the discussion of the peculiar nervous conditions of Americans, however great its role in graver forms of nervous diseases which occur in the individual.

As universal as the belief is that Americans are afflicted with nervousness, so universal is the belief that this is attributable to *climate*. "You are a nervous people," says the foreigner. "It is due to your climate." "Yes," assents the American. "It is due to our climate." Neither of them reflects that he has dealt in a most glittering generality. Under the sky which covers the United States, there is experienced by its inhabitants almost every variety of climate that is known to man, save the extremes of the poles and the equator. It is strange that the result should be so uniform. Dr. Edward Reich, in his "*Studien über die Volksseele*," speaks of the great difference existing between English and American, and ascribes it to the contrast of climates. He says: "The air of America is much too dry for the Anglo-Saxon race; in point of heat too excessive." In reply to the

article in which this statement was quoted, "Americans and their Civilization, a Product of Climate," (*The Sanitarian*, 1880, p. 200), Mr. Edward C. Towne, (*American Climate and Character*, *Pop. Sc. Monthly*, 1881, p. 109), says that "the climate of America is as much better than that of England as American Civilization is more advanced on the broad level of the common people. Electrical demonstrations are the rule in Great Britain, and the horrid dryness, rawness and aggravation are due to the east wind. This wind, from which England and the Continent suffer, is much worse than any known to the chief part of America."

The two conditions which are thought to influence nervousness, aside from the extremes of heat and cold which are so greatly felt in some parts of the United States, are the dryness of the atmosphere and the electrical conditions. Pettenkoffer has endeavored to prove that a dry atmosphere stimulates the circulation, that the vital processes are therefore carried on more quickly, and in this way react upon the nervous system. That this should be deleterious is a matter of gratuitous supposition. It has never been determined (that I am aware of), just what the relative dryness and humidity of the atmosphere should be to bring about the happiest effect upon the nervous system. How electrical conditions act upon it is equally a matter of guess-work. On the other hand, it is stated in the Report of the National Board of Health, (p. 445, July 17, 1880,) that the dry air of our driest regions is universally extolled for its health-giving properties; and Dr. S. E. Solley, in a paper on "The Influence of Climate on the Nervous System," (Trans. Col. Med. Soc., 1877,) says that cases of nervous exhaustion are benefited by the dry air of Colorado.

The most conclusive proof that it is not climate which influences the national temperament in its healthy or diseased state, is shown, it seems to me, by the condition of those places which are found upon either side of those lines, prominent upon the map though invisible to the eye, which separate the United States from Canada, on the north and Mexico, on the south. Places within an arrow shot of each other exhibit the contrasting national peculiarities. A stirring Texan town, with all the enterprise and "go" of America, can be seen on one side of the dividing river, while on the other is the Mexican Spanish town and its sleepy inhabitants, with their undisturbed customs of 200 years ago.

Wherein do the dietetic customs of Americans differ from those of other nations, so as to give rise to a belief that they exercise a peculiar national influence? America is more bountifully supplied with food and in greater variety than any other country. What in Europe would be considered luxuries, in the way of fruit and vegetables, are here obtainable by the poor.

Yet, we have the reputation of being a nation of dyspeptics. Dr. Beard says that in Germany dyspepsia was styled "the American disease." In Dr. Fothergill's "Manual of Dietetics," he says that the inhabitants of the United States are reputed a dyspeptic race, and certainly a number of representatives of the Great Republic have found their way into my consulting room suffering from indigestion." He goes on to say "that in the absence of personal acquaintance with the New World, I am driven to rely upon what I hear and upon American cookery books."

European cookery is not always so perfect as we are led to believe from the statements made when ours is disadvantageously contrasted with it. One can recall the heavy, sour bread of Switzerland, where the short summers are insufficient to ripen the wheat; the oil-soaked viands of Italy and parts of Germany would vie with our American frys; and pies in Germany are a half a yard in diameter. Depend upon it, our dyspepsia is not so much due to our food and manner of cooking it as to the inconsiderate haste with which it is eaten, while the mind is occupied with anxiety and worry over business to which the eating has come as a troublesome interruption. In this way it affects the national nervousness. It is said that Americans are more susceptible to tea, coffee and tobacco as well as alchoholic stimulants. Dr. Beard has cited this among the signs of American nervousness. The decline in this respect is not so much due to physical changes as to the change in public sentiment which has raised a political party large enough to influence the result of elections.

We differ from other nations in an elaborate system of self-government. This awakens thought, discussion and excitement. The nervous strain to the country of a presidential election is very great. It arouses an activity which is characteristic; its effects upon business and life are peculiar and different from those of European elections. Our form of government, with the social

conditions, together with education and occupation, are the great factors in the group of general causes which contribute to the formation of distinctive traits of character, and distinctive exhibitions of nervous energy, normal or abnormal.

The state of social life is in marked contrast to that of the Old World. Class distinctions are wiped out. Wealth and education advance an individual to the foremost ranks of society at home and abroad. The lucky miner who makes his millions, sends his daughter to shine in foreign courts and to marry an ancient, old-world title. It is needless to dwell upon so trite a subject. One would only suggest, in this connection, the effects which the striving to be rich produces. Americans are not more fond of money than other nations. A Yankee station agent would spurn a few cents offered him in remuneration for so small a favor as showing a traveller the way. An Italian ticket agent, in classical Florence, shrugged his shoulders, turned out his hands in gestures of contempt, and exhibited a fine rage when one of New England's daughters had not given him two or three cents for such a service, not thinking it possible that he would take a fee. Experiment, however, proved that this was what was needed to pacify him. Americans want money, money on a grand scale, because it represents rank, honor, education; if not for the money-winner, then for his children. It will bring to them what has been denied their parents. To win large fortunes is possible in this country as in no other. Therefore, great risks are taken, great burdens borne, great anxieties are endured. It is in this race and struggle that American nerves are tried. The phlegmatic German, contentedly smoking his pipe by the storied Rhine, feels a feeble ambition stirring within him to emigrate. He comes to New York. His pulses become quickened with ambition; his placidity and stolidity melt in the hurry and pursuit for gain. He abandons his inherited acquiescence to class distinctions. He, too, can rise with the best of them. He enters into the strife and activity from sheer force of example, just as in the middle ages there were epidemics of St. Vitus' dance occasioned by imitation. He is drawn in and whirled about like a straw in a whirlpool. He becomes that for which he has no word in his language, *nervous*; and he will invariably attribute it to the effect which the climate has upon him. There is ever in America an eager striving for appearances. Dress and outward show are

often taken for a guarantee of social rank, just as a title vouches for it in the old country.

In the matter of education, the American children, so far as their school life is concerned, have, perhaps, rather the advantage of the Europeans than otherwise, though they lead a less simple life when at home. Dr. C. F. Folsom, in a lecture before the Massachusetts Emergency and Hygiene Association, on the "Relations of Our Public Schools to the Disorders of the Nervous System," (published in "School Hygiene," by Ginn & Co.,) says that more injury is done at home than in the school. He thinks undue emulation, bad air and lack of physical exercise are the causes of most of the nervous troubles among our children. The pressure of information to be acquired is very great in these times, when so much research is going on in every department of art and science; when the press teems with printed pages; when writing and publishing, thinking and expressing thought, are so universal. Knowledge is like a snow-ball which every year rolls over, thereby increasing it monstrously in size. Every department of information beckons invitingly. The newspaper, with its daily and Sunday editions, places before the people an immense amount of information. The Americans are inordinate newpaper readers. No other nation has such wonderful newspapers to read. They are a great educating influence. There the latest scientific discovery, the newest mechanism, the most recent research, the goings and comings of all races and conditions of men are recorded. Unfortunately the awful side of life has the dark lantern thrown upon it, and the dreadful crimes, the terrible disasters, the sensational gossip which would otherwise sink out of sight, are dragged forth by our enterprising journalism. Such details pander to a depraved taste and are to adults what dime novels are to youths, exciting the imagination in the most unhealthy directions and acting more than one realizes upon the nerves of the American people.

There are, besides these general causes, several national peculiarities of a minor character which must be considered. We are a drug-taking nation. The sale and consumption of patent medicines is enormous. Aside from this there is an indiscriminate use made of physician's prescriptions, which patients pass to their friends, thinking that what was good in their case will help others. Dr. Trotter, already alluded to, remarks that "all nervous persons are unusually fond of drugs and are the chief consumers of

advertised medicines." Americans are constantly thinking and speaking about their health and analysing their feelings. Children are edueated to believe that they are nervous. "You must not play too hard," says the anxious mother to her child, "it makes you nervous."

"Sallie has studied too much," confides the fond parent to her friend in the presence of the child, "and it makes her nervous." "The children resemble me," says another mother. "They are very nervous." Thus the children hear the same thing again and again, and it is not surprising that they take up the strain.

A little nine-year-old maiden said to me:

"I feel so nervous today, I hardly know what to do."

A little fellow excused himself for some failure in the performance of what was required of him, thus:

"I am very nervous, you know."

To be nervous comes to be a matter of course. Very much of our American nervousness is due to thinking that a display of nervousness is unavoidable by an American.

The wonderful influence of the mind upon bodily conditions is receiving renewed attention in these days. An effect upon the imagination can even prove fatal. The London *Lancet* records the story of a young woman who died after taking insect powder which she thought was poisonous, but which the chemist proved was innocuous. A college porter was entrapped by students who held a mock trial and decreed punishment by decapitation, on account of his lack of consideration for the students. "It is small wonder," says the chronicler, "that, under the influence of fear and a belief in the earnestness of his tormentors, the sight of the axe and block with subsequent blindfolding and necessary genuflection, and a smart rap with a wet towel on the back of his neck should have been followed with the picking up of a corpse."

These illustrations of the extreme effects of the imagination, showing that it is powerful enough to suspend life itself, set forth what preconceived notions in regard to external influences may effect upon the physical economy.

This idea that the Americans are nervous and must perforce be nervous because of the climate, I regard as extremely mischievous, and tending to bring about such a condition. More widespread than the notion of the nervousness of American people is the belief in the great nervousness of American women, and, as

the former is well nigh universally attributed to climate, so the latter is credited to over-education. Dr. Emmet puts it in this way:

"The young girl commences life with an inheritance of a certain amount of nerve force, which, if squandered in mental culture, will leave the physical growth defective at some point." Dr. Withers Moore has excited much remark by his recent address before the British Medical Association, in which he deprecates the higher education of women. From a wide and careful observation, which I have attempted to keep strictly impartial, I am convinced that it is more often *lack* of mental culture which reacts upon the physical condition of women, and many times my hope of relief for those who are suffering from extreme nervousness is based upon the amount of interest which can be aroused for some intellectual pursuit.

There is reason why women of this country should be more nervous than European or English women. The former enter far more into business pursuits and it is customary for them to be partners with their husbands. The English women indulge much more generally in physical exercise. Women in America have far less to divert them than men. Few have grand, absorbing pursuits to raise them above a never-ending routine of petty duties. They have not the pleasurable excitement that a man has in pursuing a successful career, in which he comes in contact with the world on every side. If her estate is humble, she dish-washes, mends, dressmakes and ekes out a limited income, from year to year, to make it do its uttermost; if her estate is grand, she has the monotony of an elegant leisure, the worry of obtaining her wardrobe, the visiting, dinner-giving, park-driving, novel-reading existence. The one asks "Must I always go on saving and economizing?" The other says, "To what good is my life?" Dissatisfied with the small outcome of results, the nervous harmony becomes discordant more and more, until the jangle of shattered nerves shows itself in the terrible and complex disease of hysteria.

Nervousness, as has already been intimated, is weakness of the higher nerve centres which have lost their control over the nerve force which goes astray in by and forbidden channels. When one compares an ordinary woman with a female circus gymnast, it becomes apparent what an immense amount of muscular power the former has allowed to go to waste. Many women are physically

cripples from lack of use of their muscles, and the same is true of mental forces. Dr. Folsom justly remarks, in the lecture already referred to:

"The functional nervous diseases, and diseases which make life wretched without killing, are at least four times as common among women as among men, and the (to me), foolish conclusion is drawn from this fact that women are unfit for hard work and responsible duties and severe mental training. On the contrary, they are driven by their few resources to those branches of industry involving the most worry, the worst air, the least pay and the greatest anxiety, and they are denied the opportunity of that vigorous physical exercise and sound mental discipline without which men know perfectly well that they would be neuralgic, dyspeptic and suffering from all that is implied in the expressive word "nerves." Physical defects and imperfections are more trying to women than to men, and more is demanded of them in the way of maintaining a respectable appearance and living. What they need most is more rather than less training of the kind such as the public schools give; more colleges for women, more physical exercise, more knowledge how to take care of themselves, more opportunities in every direction. If women had all these we should soon hear and see much less of the so-called nervous prostration and of the evil effects of over-pressure. Wear and tear in their work is greater than in men's work, and they need that higher education which is fast teaching the few to whom it is accessible, how to live and keep their health. The colleges for women already established, as I read the evidence, have shown conclusively that the finer mental balance which women get thereby is already telling in improved physical health."

According to this showing, then, Americans, as is the tendency of all people of civilized countries, are much more nervous than is right or reasonable that they should be. This is probably not so much attributable as is popularly supposed, to climate, heredity or food, but to governmental and social surroundings; to occupations which are followed inordinately and against great competition; to an education, and a pursuit of knowledge, which from necessity, becomes yearly more and more complex with art, music, science and newspapers, factors of a rapidly advancing civilization, and to certain minor influences, which, nevertheless, should be taken into consideration, such as the American habit of taking

drugs and worrying concerning their health, the effect of preconceived notions, imagination, and imitations. If we grant that all of these have weakened our nerves and rendered us a prey to functional nervous diseases, then what must we do to avoid this?

Notwithstanding we are a drug-taking, self-doctoring, physician-employing nation, there are very few American individuals who live up to their light in regard to the rules and regulations, even the simplest, which ensure health. We "strain at a gnat and swallow a camel." The man of business will hurry just the same to catch train and boat; he will continue just the same to eat his meals at railroad speed; he will go on trying to do the work of four men, until some day the tension of his nerves, long put on a stretch, will give way and the tried nerve centres respond erratically, the harmony having been destroyed. He cannot sleep, he cannot keep still, he cannot think; noises sound loud in his ears, slippered footfalls become the tread of elephants; and so on through the series of minor symptoms of an extremely irritable nervous system. It is useless to preach against excitement. It is the champagne of life to many, and they thirst for its froth and foam and sweetness, and the alcoholic stimulation. One American will take it in Wall street, another in political pursuits, another in society triumphs, another in undue mental effort, but have it each must and will, till the nervous apparatus, through over-stimulation, again gives way, and again there is chaos and lack of coördination. It is useless to preach physical exercise and out-door life, to set forth the necessity of balancing a good muscular development against the excitable nervous system. Time is money and who can spend it in dumb-bell exercise, rowing, yachting, fishing, etc. In one short vacation in summer a man, anaconda-like, must gorge himself with his recreation, with his physical exercise. Short vacations, variation of routine, letting up on the tension, is what helps. Physiology teaches that a muscle may be absolutely exhausted so that the application of the strongest electrical *stimuli* will produce no contraction. Recovery takes place upon rest, but there are reasons for thinking that for each muscle it may be possible to choose such an interval between successive *stimuli* of suitable strength as shall not only not hasten but shall retard a gradual normal exhaustion. This illustrates the course which should be taken in the care of the nervous system. Pushed with constant stimulation to utter

exhaustion, it may recover when rest is given, but if the stimulation is applied with judgment at proper intervals the result is not an exhaustion but a strengthening. It is useless to preach that children should be kept in absolute ignorance that they have nerves. To suggest an evil is to bring it about, oftentimes. Children are forced in America as in no other country. They are indulged, brought forward into notice, and made to feel the pressure of life. They imitate their elders, and too often the bloom and freshness of youth is brushed away. So much can be done for children in the way of educating them to healthy ways and habits of self-control, to bring about in them a perfect physical development, so that their nerves will not be all on the surface. There is no control over nervousness like a perfectly educated will. The nervous system has been likened to a kingdom over which presides the higher psychical centres like a monarch. An increase of reflex action unchecked by the will is characteristic of the nervous.

It is this loss of governing power which has come to give to the word its modern definition of weakness, while the proper display of controlling, impelling, inhibiting impulses according to their nature, gives the old time signification of strength and force. I see no reason in the externals which surround Americans, if they properly understand themselves and regulate their desires, their methods of living, their education, why the nervousness which has been attributed to them should not be a glory rather than a stigma.

II. MINERAL WATERS AT HOME AND ABROAD.

BY TITUS MUNSON COAN, M. D., OF NEW YORK.

(Read Wednesday, September 8, 1886.)

The allied subjects of climate and of mineral waters, in spite of their close therapeutic association, have received very unequal attention at the hands of the medical profession in this country. The curative value of climate has been fully and ably discussed. The names of Clark, Metcalfe, Barker, Loomis, Camman, are among those that are inseparably associated with the best that is known and practised in that important branch of medical science that deals with the choice of climates for invalids. The study of this branch of the subject was a study which could not well be avoided; it was, indeed, in a measure forced upon us by the defects of our American climate, which have made it necessary for us to understand other climates than our own. And aside from the strictly therapeutic questions involved, our increasing habit of European travel gives new importance to the question, Whither to direct both the healthy and the invalid? Those who seek their health abroad are outnumbered by those who seek to preserve it.

The importance of climatic studies, in a word, is well understood among us. It will hardly be denied that the United States, in which so many other institutions have reached alleged perfection, has somewhat failed us in the matter of climates for invalids; for large classes of invalids it cannot be denied that the United States furnish, indeed, a very inferior article of climate. Whether as tourists or health-seekers, the demand of the public has long been constant for better climates than our own; and it is not necessary at present to make any plea for the study of climato-therapeutics.

But, has a like attention been given to the allied subject, one that is of equal importance to the invalid and to the profession — the subject of curative mineral waters? No, a like degree of attention has not been given; though the profession and the public are indebted to more than one among the names that I have mentioned for valuable studies and valuable advice upon this matter. But, if we examine our balneological literature as a whole, we shall find it conspicuous, if I may say so, only by its minitude.

The foreign literature of the subject is extensive and systematic; but, against the learned treatises of Trousseau, Braun, Durand-Fardel, Rotureau, Hellft-Thilenius, Leichenstein, we shall find but little to put in evidence, in the way of practical manuals, at least, except the useful monograph of Dr. George E. Walton on the Mineral Waters of the United States and Canada, the best domestic account of the subject that I know. And, to say nothing of systematic treatises, the French and German physicians have produced a multitude of monographs upon special waters,—monographs that are often works of great original research and value. The accessible data of the subject are so abundant that the "embarrassment of riches," as the French say, is their chief inconvenience. It will require no long survey of the literature of balneotherapy to show that our French, German and Italian colleagues have accorded to this important subject a prominence which neither in theory nor in practice has it yet received among us.

But the amount of attention that a subject may receive is not, after all, even in expert or professional hands, always the strict measure of its real importance. Is the vogue of mineral waters abroad merely a vogue, a fashion, and nothing more? Which view is the more nearly correct; the foreign view, that mineral springs afford a real and important resource in the treatment of chronic disease, — the view that is, I may say, universally held by the profession abroad; or the view which we often hear expressed at home, though less frequently by physicians than by laymen, that mineral springs are greatly overrated as a means of cure?

The claim of mineral waters to a real or serious value in our therapeutic armamentarium, is an occasionally contested claim; it is still met by some members of the profession with a skepticism that is more or less enlightened. A healthy skepticism is, indeed, the legitimate mental attitude of the physician; to him, in therapeutics, the injunction to "prove all things" must come with especial meaning and seriousness. Of all men the physician should be the last to believe readily. And I confess, myself, to be, by temperament, one of the most skeptical of physicians as regards the matter of fashionable remedies. For this reason, my own belief in mineral waters, after long doubting, may perhaps have some interest as a case of genuine conversion. Observation and study of these remedies, at home and abroad, have convinced

me of their value in properly chosen cases; so fully, indeed, that I sometimes incline to think that St. Paul might have had certain thermal springs in view, when, after saying "Prove all things," he added "Hold fast that which is good."

The common argument against mineral waters is familiar; namely, that the curative effects observed are due to the change of climate and to regimen, and not to the use of the waters themselves. But, even if this were a sufficient explanation, which it is not, it would not countervail the observed value of spring treatment; since no fact of observation is more familiar than that thousands of people who go sick to the springs come away cured. "One thing I know, — that whereas I was blind, now I see." The change of environment is certainly an important part of the cure. But it is by no means all. A large proportion of the waters are as actively medicinal as the doses with which the child of Hahnemann reproaches us. The arsenical waters of La Bourboule can only be taken with safety in small doses. Nearly all the calcic, and many of the saline waters, indeed, are most imperatively purgative. It is idle to ascribe catharsis to a changed social environment, or a liver-cure to landscapes. A changed dietary may, indeed, have its effect. German cookery has been known to overthrow the digestion, but it is not the sound of cowbells or the contemplation of glaciers that will produce catharsis. No, it is the waters themselves that produce these wonted psychological effects. *Coelum, non coecum, mutant, qui trans mare currunt.* These effects, tonic, alterative, reconstituent, depressing, are effects which the patient himself does not think of questioning. And the various waters which cause them constitute the therapeutic gamut upon which the physician seeks to combine the harmony of health. The gamut of the springs is happily an extended one. Numerous as are the complaints that we are called upon to treat, more than one spring can be found for each complaint; and thus we are enabled to choose in each case, not only the particular mineral water that is needed, but also the suitable environment of climate, country, dietary, that is best adapted to the particular case. In many cases the environment is the main therapeutic influence. At some of the so-called "indifferent" springs, like those of Nèris, Plombières, Gastein, Teplitz, the Warm Springs of Virginia, incontestable cures are constantly made, though the mineralization is in many cases less than that of drinking-water from the household well.

But, even the argument from experience, it will be said, is not, after all, a final one. The vogue of a remedy cannot safely be taken as a proof of its value. Nothing can be truer, if we take account only of a brief experience. But, in the case of mineral waters, it is no question of a brief experience. It is a history of centuries of use and frequentation. Many of the French, German, Italian and Spanish springs that are the most highly prized today, were known and highly prized by the Romans, and some of them by the native tribes that preceded the Roman occupation. During many centuries that followed that great calamity to civilization, the downfall of the Roman empire, the mineral springs of Europe were, for the most part, forgotten and disused, and their establishments, in many cases magnificent ones, fell into ruin. Their remains may be found through southern and western Europe today; in places they will even show you, as at Plombières, what they claim to be the plumbing of the fifth century,—plumbing constructed, it would seem likely, upon principles in some respects different from the plumbing of the contemporaneous period. This record of many centuries, the history of the development of mineral waters, is in itself an argument in their favor, not only with the public but with the profession. No other class of remedies has better held the confidence of the physician, from the time of Hippocrates to our own, than mineral waters. Fashion has undoubtedly played her part in determining the vogue of different springs; and more than a few springs, once frequented by thousands, are now abandoned or nearly so, as it has happened to several once famous springs of England. But this fate has very seldom befallen springs of really positive medicinal quality. The great springs of the Roman time, of the mediæval time, are great springs today; while to their number a multitude of new springs, both in the New World and in the Old, have been added to the long list of healing stations, or "cures," as the Germans, with cheerful and not ill-founded confidence, are in the habit of calling mineral springs.

Coming now to the record of contemporaneous times, we shall find that mineral waters are steadily and rapidly gaining favor, both with the profession and with the public. At all the principal resorts, both at home and abroad, the number of patients steadily increases, while scores of new springs are coming into use. I will not detain you with figures on this point. It will be

enough, I think, to say that the number of separate springs in France alone, that have establishments, is nearly 200, France possessing more establishments than any other country, though, unfortunately, they are less known outside of France than they should be. In Germany the number of springs and of establishments is not very far behind. In America they are yearly and rapidly increasing.

And now let us ask: [1] to what classes of disease is treatment by mineral waters adapted? Whether at home, or, preferably, at the spring itself, with the adjuvant influences of changed climate, regimen, scenery, and surroundings generally, who are the sufferers that may expect relief or cure from mineral waters? And, [2] the converse question, and a very distinct one: To what particular spring, in the particular case, shall the physician send his patient?

Experience gives full answer to each of these questions. To the first, the answer will be anticipated. Treatment by mineral water is adapted to chronic diseases only, but to all, or to nearly all, such diseases as have any quality or curability about them. Ailments that have proved reluctant to other forms of treatment, however long their standing, often finds relief or cure at the rightly chosen spring.

And what are the chronic diseases that are not incurable? The list is, of course, a very long one — too long to be recited here. We must exclude, of course, malignant diseases, and in their advanced stages, phthisis, Bright's disease and diabetes. By far the larger part of the diseases that remain are curable. In a word, the treatment by mineral waters is applicable to nearly all chronic invalids who belong to the curable class,— a class which our surgical associates have sometimes claimed as forming the distinctive and appointed province of surgical, as distinguished from medical, art.

Let me recall here a reminiscence of James Syme, the famous Scotch surgeon, at whose clinic at the Royal Infirmary, in Edinburgh, I found myself, fresh from hospital and naval service, one morning now a good many years ago. After the last patient had been dismissed, and after I had been duly introduced to Mr. Syme, he said: "You have very learned medical men in New York, and skilful surgeons. Pray tell me how you discriminate medical cases from surgical cases over there?"

To this question I gave the best answer I could, the staff assistants listening with curious interest to the stranger. "Very good," cried Mr. Syme, when I had done; "very good indeed; but now I will tell you how we distinguish medical and surgical cases here in Edinburgh. Any case that admits of either relief or cure we call a surgical case. All cases that admit neither of relief or cure, we call medical cases."

If we should adopt Syme's distinction, we should send nothing but surgical cases to Carlsbad, Vichy, Royat, Ems. In point of fact, however, I send more medical than surgical cases, by at least five to one, to mineral springs; and though often intractable to home treatment, very many of them are still not incurable. It is well worth our time to classify them, if not to enumerate them at length.

They are very numerous. In the table of contents that is prefixed to his learned treatise on Balneotherapy, Hellft gives four closely printed pages of the names of ailments that he describes as suitable to treatment by mineral waters. The simpler their classification the better. My own classification is made entirely for working convenience. It is as follows. I divide the diseases that are amenable to treatment at mineral springs into

1. Diseases of the Digestive Organs.
2. " " " Nervous System.
3. " " " Respiratory Tract.
4. " " " Uterine System.
5. " " " Urinary System.
6. Skin diseases.
7. General diseases or diatheses.

Under each of these heads I will indicate [1] the main ailments which are amenable to the mineral water treatment; and [2] some of the particular springs at which the ailments in question should be treated.

1. Diseases of the digestive organs. These form much the more numerous class of all the diseases that we find at the springs. Indeed, it is probably quite as numerous as all the rest put together. At Saratoga, at Carlsbad, at Vichy, at all the more fashionable spas of both hemispheres, the majority of the patients are sufferers from some form or other of digestive derangement, and these derangements are usually, in the case of the European

patient, the result of over-eating and over-drinking, and often, if not usually, hasty eating in the case of the American. The specific diseases chiefly treated are dyspepsia, catarrh of the stomach and of the intestinal canal, enlarged liver, fatty liver, gall stones, ulcer of the stomach, and enlargement of the spleen. For the treatment of this wide range of complaints a great number of mineral springs present themselves; and among them choice must be made [1] according to the type of the disease; [2] according to the need of the individual case. For acid dyspepsia the typical waters are Vichy, Carlsbad, Ems; and at home, besides those of Saratoga, the Capon and the Buffalo Lithia springs. For atonic dyspepsias, the patient must preferably employ one of the saline waters as Salins or Salies-Moutiers in France, Kissingen in Germany, the Hathorn spring at home. Stubborn dyspepsias, of whatever type, that have gone on into gastric catarrh, properly so-called, with inveterate gastric lesions, require the glauber-salt waters of Carlsbad and its congeners, Marienbad and Tarasp in the Grisons.

2. Diseases of the nervous system: as chorea, epilepsy, hypochondria, hysteria, chronic myeltitis, paralysis, in many cases, and many cases of so-called general nervousness and neuralgias. Hypochondriac and hysteric patients often receive the greatest benefit at a well chosen spring, the entire change of environment, spiritual and physical, seldom failing to produce prompt and often radical benefit. The number of the springs that are adapted to the treatment of nervous diseases is even more numerous than that of the varieties of these diseases. Royat, Néris, Bagnères de Bigorre in France, Teplitz in Bohemia, Wildbad and Schlangbad in Germany, — these are waters that will minister, at least, to a mind diseased, if they do not absolutely heal it in every case. Shakespere, with all his knowledge, knew nothing, so we must presume, of mineral waters; for he makes no reference to them in the whole range of his writings, — the writings that reflect so much of the knowledge of his time: But Shakespere, happily for us, was the healthiest of men and of poets. Had he known gastric catarrh, for instance, he would surely have gone to some neighboring mineral spring—not to Leamington, the nearest spring, for Leamington was not known until the end of the eighteenth century. But Buxton and Bath, to which latter place Queen Elizabeth resorted, were already popular; and it is to be feared

that if Shakespere had found it necessary to go to either spring he might never have written the Sonnets, or the Lover's Complaint, but the Dyspeptic's Complaint instead.

3. Diseases of the respiratory tract, especially chronic laryngitis, bronchial asthma, the earlier stages of phthisis, and that ill-omened distemper, post-nasal catarrh, the national disease, and one which has brought reproach upon our national manners, come next in order. Let me say, in passing, that while the world has reproached us with expectoration, the blame as against the national manners is quite unjust. The blame lies with our climate and our dirty city streets. These produce catarrh, in greater or less degree, in probably forty per cent. of individuals who are over forty-five years old. It is in no mere unscrupulousness of expectoration, as foreigners assume, that the real cause of this evil exists. For post-nasal catarrh the patient should go to Aix or Mont-Dore; but energetic local treatment in addition is often needed. The treatment of laryngeal and of pharyngeal troubles has been much attended to of late years at the Continental spas. Aix, Ems, Royat, and the leading springs of Auvergne and of the Pyrenees are the chief places of resort. In Auvergne and also in the Vosges, I found, in the summer of 1885, extremely complete and elaborate appliances in use for the local exhibition of mineral waters by spraying or pulverization in the treatment of various diseases of the respiratory passages, — a form of treatment that has been introduced of late at some of our home springs, though in but a few as yet. There is no doubt of the efficacy of this mode of treatment in many cases.

For laryngitis or clergyman's sore throat, Eaux Bonnes, Ems, Neuenahr, Selters, Sharon Springs, are excellent and typical centres.

For phthisis in nervous and sanguine temperaments, the waters of Mont-Dore, of Ems, of Salzbrunnen, and of our Red Sulphur Springs in Virginia, are among those to be preferred. In the phthisis of scrofulous temperament, those of La Bourboule are especially useful.

For torpid scrofula, Salins, Kreuznach, Bourbonne-les-Bains, Rockbridge Alum, Greenbrier Springs.

For irritable scrofula, La Bourboule, Saint-Nectaire, and other springs of Auvergne.

4. Diseases of the uterine system. Among these may be

named uterine catarrh, amenhorrhœa, dysmennorrhœa, and metritis; these are all suitable for treatment at mineral springs, and they are all relieved or cured, and sometimes with them the resulting sterility, at a properly chosen station. In Austria, the springs of Franzensbad are famous for the cure of this class of ailments; in France, Bourbon-Lancy, Plombières; in Germany, Pyrmont Elster, Schlangenbad, and the Bubenquelle at Ems; in our own country, Capon Springs and the Buffalo Lithia No. 2 among other tonic waters, are excellent. For cases of obstinate morning-sickness I have known the waters of the Irondale Springs to be prescribed with good results.

5. Diseases of the urinary system form an important branch of the treatment by mineral waters. Chronic catarrh and rheumatic affections of the bladder, urinary calculus, and sometimes Bright's disease in its early stages, are amenable to this treatment. The Giesshübel water, from Bohemia, is one of the most delicious of all table-waters, and is especially useful where there is any tendency toward bronchial or vesical catarrh. It is imported. The Underwood spring water, from Falmouth Foreside, Maine, is used successfully for kidney troubles. It is carbonated, almost absolutely pure, and is a pleasant table-water. In uric acid or red gravel, the most frequent form, and in oxalic gravel, as Trousseau has pointed out, the alkaline waters should be chosen; Vichy, Carlsbad, Ems, Neuenahr, Buffalo, Lithia, the Capon Springs or Gettysburg "Catalysine." For alkaline gravel, the calcic waters; Blysmic is one of the best, and it is also a very pleasant table-water.

6. For skin diseases the sulphur and arsenical springs offer a vast field of choice according to the case. But here we come upon debatable grounds; some authorities, like Braun and Hebra, among others, contending that skin diseases do not yield to the treatment by mineral waters. But therapeutic art is nothing if not practical; and practice shows us that a great number of patients come every season to the springs with chronic dartrous diseases who go away from the springs relieved or cured. If they are not cured *by* the springs, they are certainly cured *at* the springs; and the exact nature of the distinction is one which the patient, at least, will not take much interest in. He will remember, as I intimated before, the saying of the blind man after the miracle; "One thing I know; that whereas I was blind, now I see."

7. General diseases or diatheses, as chronic gout or rheumatism, scrofula, anaemia, obesity, are often treated with success at a well-chosen spring. The anaemia, of the scrofulous diatheses is to be treated at a saline water, as at Salins, or Salins-Moutier in the east of France, or here at the saline springs of Saratoga. The anaemia of exhaustion requires, on the contrary, the effect of an iron water; it will best be treated at such a place as Bussang in the Vosges,—a spot so beautiful and quiet as almost to make one desire a sufficient degree of anaemia for himself and his friends as to justify him or them in taking up his abode for a time among those enchanting hills.

Such, briefly, are the main classes of disease which we may rationally hope to relieve or cure at the rightly-chosen mineral spring. It has not been possible, in the brief time at my disposal, to indicate more than the general classes of ailments, the general classes of springs, at which a cure may be sought. Still less can I enlarge in this place upon another order of conditions which, as I have said already, and wish to say once more, are scarcely less important to the cure than the right choice of mineral waters themselves. I mean the conditions of the environment,—the extra-medicinal or non-iatric conditions of the size and character of the place, as hamlet, village, town, or city; the nationality and the social condition of the people whom the visitor will meet; the advantage of scenery and attractive environs, the *personnel* of guests and of the physicians, and, not least of all, the kind of hotels, boarding-houses, and furnished rooms which we shall find. Most of these conditions, though I have called them extra-medicinal, are very directly related to the cure of the invalid, and most of them can only be well understood by personal acquaintance with the places in question. I do not underrate the purely medicinal side of the question; it is all important; and yet no part of my own studies in mineral waters has been better repaid than the visits that I have made to many of the localities of the leading springs. In a word, it is not enough to say to the patient, "This is a good mineral water." It is not enough even, to say, "This water that is suited to your case." The physician must be able to say, also, Not only the waters but also the climate, the country, the people, the place, the local treatment, the hotels and boarding-houses, the ways of living, the environment as an entirety, are suited to your particular case. When the physicians can know these things

the cure of his patient is not far away. And he can know all of these things only by personal inspection. All these collateral points should be, as far as possible, familiar to the consulting physician, on whom the grave responsibility devolves of sending the patient far away from home, and who clearly recognizes that the waters are by no means all in themselves,—that these complicated and delicate remedies depend for their success, in no small degree, upon the intelligent selection of the accompanying conditions under which they are used.

To recapitulate: I ask myself three different things in respect to each patient, before sending him to a mineral spring. What are these things? They are, *first*, What is the patient's disease? *second*, What mineral water is adapted to the treatment of that disease? and, *third*, What are the hygienic, social, personal and hotel or boarding-house conditions of the place to which I send my patient?

I have one remark to add in closing. I think that treatment by mineral waters, both at home and abroad, is destined to have a great extension within a few years from now; and I believe that treatment is to take on a sort of reciprocity or international character as our own excellent native waters become better known abroad. They will become better known as our establishments are more fully developed and made more attractive, as we come to have more such admirable establishments as the Sanatorium in Dansville, N. Y., for instance. When that is done I look for European invalids to frequent our waters as we have learned to frequent those on the other side of the Atlantic. Nor in a place like Saratoga is it necessary to say how attractive an American watering-place may be made. Some other domestic springs, especially in the Eastern States and in Virginia, have been made charming places of resort. But for the greater part of our springs much remains to be done. Much remains to be done not only in the way of outward perfection in the construction of hotels and establishments, but in equipping them as true places of healing, and in making them regarded as a serious means of cure. They are so regarded abroad, and with reason, as I have tried to show. They are less so regarded with us, and more regarded as places of recreation; and this is an unfortunate, because an insufficient view of their values. Mineral springs afford most potent, if delicate remedies; and the danger is their real therapeutic value

may be overlooked by the public, if it is not sufficiently insisted upon by the profession, and that they may lose the vogue that they deserve; a thing that has already happened to at least one very deserving spring in this part of the state.

The fitting development of our excellent but still undeveloped springs presents, in my opinion, a field both to professional and to business enterprise that is second to none. Virginia, for instance, is but one among several States in which there are excellent springs that have, in past times, been popular and may be made popular again, but which through mismanagement of one kind or another, have now lost their vogue; and this decline, I would say in passing, has generally been due to a very easily-avoidable cause. It has not been due to any demerit, real or fancied, in the waters themselves, though, as I have said, we do not as a community give such high rank to mineral water as medicines as they undoubtedly deserve. No; it is a more trivial cause than either of these, and yet one that is quite sufficient to disperse the stoutest-hearted colony of settlers, especially if those sojourners be dyspeptics; and that cause is bad cooking. A poor cuisine will put to flight the most courageous invalid. Good cooking must go with a good spring, or success will not attend the management. One great secret of the popularity of the French springs is the attention given to this important point. Even at the newest establishments, as at Martigny and Bassang, an exquisitely appointed cuisine has appeared from the first and dining saloons have risen from the ground like the dinner tables of Beckford or of the late King Ludwig of Bavaria. All this in connection with a competent medical direction and a serious medical and hygienic treatment has not preached that satisfactory development throughout our springs that it has found in the older countries of Europe. But this development will come in time; and foreigners will then seek American mineral springs for the same reason that we must long continue to seek the springs of Europe, — for the conjoined and manifold benefits of a completely changed environment and of an adequate medical treatment.

The home use of mineral water is a theme which I have discussed elsewhere, and I will not now enter upon it at length. It is enough to say that home use is often very helpful to the invalid, while the home use of mineral waters will not often entirely replace the trip to mineral springs. The reasons for this I have already

pointed out, in the different circumstances of life at a spa, in the relief from home anxieties, and in the almost invariably stricter medical supervision abroad than at home. All these postulates to spring life must make it the preferable means of treatment. Yet for many the home use of a rightly-prescribed water is a valuable cure, not only are the natural mineral waters valuable when taken at home, but some of the artificial waters also, as the excellent Hygeia waters, which are of the very best. All these offer an undoubted resource.

One caution, finally, is to be borne in mind, at least by the patient. Mineral waters, though delicate, are powerful remedies; and they are not to be taken at the patient's choice or whim any more than the stronger remedies. That they are often self-prescribed is a main cause of their slow recognition by the public. The American tourist likes to prescribe for himself; he likes to choose his own spring, when he will and where he will; he insists on eating, drinking, exercising, amusing himself, or abstaining from all of these things as he alone may elect. I need hardly say that the latter state of the man is seven-fold worse than the first. It is the physician's duty to check this undue liberty.

Rightly chosen, rightly prescribed, and taken under the right conditions, the mineral springs of our own country and of Europe are among our most valuable means of cure in chronic cases. After other remedies have failed they will often bring relief or healing. Let us claim for them and restore to them their true value.

III. RABIES AND HOW TO PREVENT IT.

BY VALENTINE MOTT, M. D., OF NEW YORK.

(Read September 8, 1886.)

Essentially an old disease, despite of what many say, since we find mention of it in old Latin and Greek authors, — it is probable that the name of none of the ills inflicted on suffering humanity strikes with such dire effect upon the ordinary mind as does this one word,— rabies or hydrophobia. For many years this last term has been applied more especially to the disease as it manifests itself in the human being, but even in this case it is a misnomer, and the sooner it is done away with and banished from both scientific and ordinary dictionaries the better. Derived from the two Greek words *hudor*, water, *phobos*, fear, it indicates a symptom found in certain cases in man, but by no means invariably, and only rarely met with in dogs and other animals. The apparent dread of all liquids in man is more especially intensified by the fact that all attempts to swallow are extremely painful, even in the case of solid food, and spasm of the larynx, pharynx and œsophagus being brought about by the attempted ingestion of liquids. There is no fear of the liquid itself; it is the paroxysm that is almost certain to follow its being swallowed or even an attempt at swallowing it, that is much feared and dreaded by the human being. Because a dog drinks water let not the mistake be made of saying that he is not suffering from rabies. During the first stages of the disease, the dog drinks water ravenously, and even after the constriction has taken place in the throat, which renders its deglutition difficult, the mad dog will push his head deep into the water and try to force it down. Dogs have been known to swim rivers during the ferocious stage, and in many cases described by the most competent authorities water has not only been drank, but taken in such exceptionally large quantities as to cause remark. Let not, then, the fact that the suspected dog drinks water lead any one to pronounce the bitten person free from danger, and not in need of precautionary and preventive treatment, as has been done before this and serious results followed.

To this end let us do away with the word hydrophobia, and substitute the more generic term rabies. Let this term be used by all

to denote the disease caused by the specific poison generated in the dog, cat, fox, jackal, hyena and wolf, manifested by certain symptoms referable to the nervous and secretory systems, and capable of being transmitted by inoculation (more especially by the bites of these animals) to man and almost all warm-blooded animals. This disease, when once manifested, is almost invariably fatal; in fact, those cases reported as cured are to a great measure doubtful, being probably what is known as pseudo-hydrophobia — the result of an over-wrought imagination. This state undoubtedly exists, and in certain cases death results from it, so great is the power of the mind over the body. Nor is the state always recognized, and it is only by subsequent experiment, namely, the inoculation of dogs and rabbits from the brain and cord of the subject, and their becoming or not becoming affected with rabies, that a correct diagnosis of what the disease was can be arrived at.

Rabies was feared by the ancient Greeks and we find it mentioned by Aristotle and undoubtedly referred to in Homer, Euripides and Hippocrates. Celsus, the celebrated physician, who lived during the century before the Christian era, described it well in his "De Medicina," and recommends those measures which have been deemed so efficacious in modern times,—namely, caustics, burning, cupping, and the sucking of the wounds of those bitten by rabid dogs. Paulus Ægineta, in his work entitled "De Re Medicina," gives a good account of rabies in the human being, enumerating the symptoms as described by previous authors, of which there were many, and dividing it into two essential varieties, namely: That produced from the specific poison of the bite of a rabid animal and always fatal, and the purely nervous or pseudo-hydrophobia produced by other causes. Authors in various languages have followed the lead of these forefathers of medicine, and in every tongue we find descriptions of rabies, together with infallible nostrums for its cure. Not only were external remedies recommended, but also internal treatment of the most nauseous kind, and even religion itself was called to the aid of those afflicted or likely to be afflicted after bites, and the good St. Hubert was invoked, and certain ceremonies performed at his shrine in order to obtain immunity therefrom.

Many epizootics of rabies have occurred, and it may almost be said that no place is absolutely free from its ravages, though it

seems to be most frequently found in France, Germany, upper Italy and Holland. Great Britain is by no means free from it, and in Russia it is frequent, especially among the wolves that infest that country. In this country, to my mind, it undoubtedly exists at times — during the last year to a greater extent than for some time before, far more cases having been brought to the attention of the public at large through the press.

As regards the question of the spontaneous origin of rabies in the dog, no point in connection with this disease has been more thoroughly discussed, and in no case have the authorities come to so little conclusion. To me it seems still a doubtful point, with the weight of the evidence in favor of spontaneity. Undoubtedly the great majority of cases are of a traumatic origin, but the disease must at one time or another have had an origin, and we hear of a number of cases in which it is utterly impossible to trace any bite from a dog already mad. For a long time it was supposed that the season of the year had an influence in determining the existence of madness, and the term "dog-days" has become universally used in the English language to designate that hot weather during which the dog was most likely to be taken. Statistics, however, seem to point out that April and May are the months during which, perhaps, the outbreak of the disease is the most prevalent; though there is only a slight difference, and it would seem as though it were as prevalent in the winter months as in the summer, a fact startling though true. It does not seem as though warm climates tended to increase the disease; in fact, the contrary may almost be said to be true, as we find it more frequently in the temperate zone. Many have maintained that the disease only existed in the male, or, at all events, that the female was comparatively free from it. The first statement is absolutely false, in one case a whole pack of female hounds being attacked by it; and the second being well accounted for by the fact that the dogs outnumber the bitches to a great excess, there being, I believe, in the state of New York alone, seven dogs to every bitch.

We will now take up some of the more characteristic symptoms of rabies as manifested by the dog,— symptoms it would be well for every one to know and guard against, by having the suspected animal confined and carefully watched, so that any outbreak might be warded off. In case any one has been bitten it is far better

that the dog should be allowed to live, so that it might be watched and the people put out of their suspense, should the dog not be mad. Death will certainly follow inside of ten days, should the dog be suffering from rabies; in the majority of cases on the fourth, fifth or sixth day after the appearance of the first symptoms of the disease.

The dog attacked with rabies in the beginning does not show any violent symptoms of madness or fury, he does not bite, but rather becomes more affectionate, licking the hands and face of those whom he has been attached to. Even at this period the saliva is poisonous, and inoculation may take place. It soon after begins to be more morose and sullen, tries to hide itself away, but not content with any one place or position, is restless and changeable, and wears a far-off look in the eyes, snaps and barks at imaginary objects. It still, however, continues obedient to its master, (and this continues to a great extent through the whole disease,) acknowledging his power and seeking to comply with his commands. The desire to bite is soon developed and manifests itself in the first place against inanimate bodies — pieces of wood, stones, matting, rugs, in fact, anything that may be near it, all of which goes to form a mass in the stomach, which is regarded as one of the post-mortem characteristics of rabies. It now, if possible, escapes from home and rushes around the country, its anger being more especially developed by the sight of other dogs, whom as a rule it immediately attacks and bites. In fact, though a rabid dog may be in the quiescent state, upon the approach of another dog access of fury will be developed and a violent onslaught will be made. The well dog, recognizing by some unknown process the presence of danger, will slink away, even though more powerful, and try to escape. Early in the disease a peculiar bark is developed, which is known as the cock-crow, resembling this in a certain way; the first note of each three successive howls remaining constant, the second notes being in an ascending scale one tone apart, the last being the octave of the first note. There is no fear of water, and although there may be foaming at the mouth it is by no means a constant symptom. A peculiar characteristic in the mad dog is the absence of the sense of pain; a red-hot poker will be grasped and held on to. Dogs will bite themselves and still utter no cry. Periods of calm succeed these accesses, the danger from inoculation still existing. Exhausted by the par-

oxysms and the fighting it has done, the dog will still continue on, in its unsteady gait, with the tail between its legs, eyes wandering, and head rolling from side to side, and the mouth open and tongue protruding, until at last, entirely gone, it will lie down to die of asphyxia and paralysis. What is known as dumb madness rarely affects dogs, though when rabies is communicated to rabbits by inoculation and introduction of rabid material under the dura mater, this variety obtains in 99 cases out of 100. Its distinctive characteristic is paralysis. In it the lower jaw hangs down, the saliva pours from the mouth, motion becomes less and less, and the animal dies a comparatively painless death, the functions of the various organs of the body gradually being suspended.

In the human being, the first symptoms of the fatal attack seem to be a peculiar itching of the old wound and the spread of neuralgic pains from it toward the nerve centres; a general feeling of malaise and an impending dread of something frightful about to happen; there is a tightness about the throat and difficulty in swallowing; breathing becomes affected and there is oppression over the whole chest. Violent paroxysms follow, showing evidently that the whole nervous system is in a most frightfully excited state — a ray of light, a breath of wind on an exposed part of the body, the sight of water sometimes, the constriction following an attempt to swallow it, greatly craved though it may be, are sufficient to determine a spasm. Ropy, viscid mucus is secreted by the salivary glands and vehemently expelled from the mouth. Violent convulsions of the larynx and pharynx take place, in many cases closing the windpipe and preventing the access of air. Hallucinations come on and sometimes wild delirium. During the interval of the attacks, the sufferer is often calm and rational, and in many cases, feeling the approaching access, begs to be restrained so that he may do no harm. Paralysis finally supervenes, and, totally exhausted, death mercifully relieves the sufferer. True rabies is necessarily fatal in the present state of our scientific knowledge. Drugs and treatment of every kind, sort and description have been tried without avail; all that can be done is to attempt to relieve the frightful symptoms as best we can; and it is certainly justifiable to try any remedy that holds out the slightest chance of affording even a minimum of relief, to say nothing of anything that might effect a cure.

The period of incubation of rabies is very variable, different

authorities giving the shortest period in the dog at from 5 to 10 days (Renault), and the longest 14 months (Haubner), the majority of cases occurring in from three to seven weeks after the bite. In the human being the ordinary period of incubation is six weeks, though cases have been noted in which the period was only two days, and others which extended over four and five years (Thamhaym). As regards the likelihood of having rabies after having been bitten by a rabid dog, the authorities are also at variance, though at the present time it is about fair to say that about 16 per cent. of those bitten are affected. (Holmes and Leblanc, a veterinary of Paris.) Others make the percentage of escape 60. Again, out of 320 cases 129 perished, making 40.31 per cent. (Bouley); in another lot 33 per cent. died (Renault); and again, in 24 cases only one died (John Hunter). Van Buren says that two out of three bitten have rabies.

As regards prevention — undoubtedly in the first place the wound should be cauterized, no matter what subsequent course is to be pursued. Let water be dashed over the wound so as to cleanse it, and apply immediately nitric acid. This, to my mind, is infinitely better than nitrate of silver, carbolic acid, or the actual cautery, any of which may be used in the absence of the first-named. To make assurance doubly sure, the part bitten may then be excised, and the wound again cauterized. I am opposed to the method of sucking the wound, as it exposes another person to danger.

For over five years experiments have been going on in the laboratory of the Ecole Normale in the Rue d'Ulm, Paris, seeking to attain this great end — the prevention of rabies — and this end has been attained. The master mind in prophylactic treatment and destruction of disease was at work, and he who discovered the principles of acetic fermentation, the cause and means of prevention of the silk-worm sickness, inoculation as a prevention of anthrax, etc., has given the world one more great gift, and put all nations in his debt. This method is no child of the moment. Pasteur has given it years of thought and rigid research, and now shines forth triumphant in its success, a blessing to humanity.

On the 30th of May, 1881, Pasteur, in conjunction with his assistants, Chamberland, Roux and Thuillier, made a report to the Academy of Sciences, that, despite of previous experiments to the

contrary, the spinal chord, and more especially the medulla oblongata, contained the specific rabic poison, and that in order to render the inoculation more certain, the poison should be injected under the dura mater, by means of trepanation and not subcutaneously. At the same time, by this method the period of incubation became more fixed, not exceeding three weeks. More than a year afterward, December 11, 1882, Pasteur and his collaborateurs made a further announcement, in which they promulgated the following facts :—

I. Dumb madness and furious rabies, in fact all kinds of rabies, proceed from the same virus.

II. The symptoms of rabies are infinite in variety. Each case has its own, and their character depends on the nature of the points of the nervous system,— brain, spinal cord — at which the virus localizes itself and is cultivated.

III. As in the rabic saliva the virus is found associated with different microbes, its inoculation may give rise to death in three ways :—

1. Death by rabies.

2. Death by (pyæmia) excessive development of pus.

3. Death by reason of the microbes which he had made known as the saliva microbes. In December, 1880, he had inoculated two rabbits from the saliva of a child who had died mad in the hospital Saint Eugénie. These rabbits died in 36 hours ; others inoculated from these died, and so on through several series. A microbe was discovered in the blood. Subcutaneous injections of this blood failed to produce madness in dogs. He first supposed this to be the microbe of rabies, but soon determined that this was not the case, as it was found in the saliva of a healthy man, and rabbits inoculated by M. Vulpian with it died.

IV. The medulla oblongata of people and animals who have died of rabies is always virulent.

V. Rabic virus is found not only in the medulla, but also in the whole or part of the encephalon. It is found localized in the cord and often in all parts of the cord. The virulence in the cord equals that of the medulla or portion of the encephalon. Virulence remains as long as putrefaction does not set in. The virulence of a rabic brain was kept for three weeks at a temperature of 12 degrees c.

VI. To develop rabies certainly and rapidly, inoculation must

be made on the surface of the brain under the dura mater by means of trepanation. These results are also obtained by in. travenous injection. Madness often declared in six or seven days.

VII. Rabies brought on by intravenous injection differs from that produced by bites or trepanning. It is possible that many cases of this silent madness have been passed over. In these cases of medullary rabies, prompt paralysis is frequent, fury often absent, rabic howling rare, while on the other hand, frightful itching and tearing take place. Our experiments have led us to the conclusion that in intravenous inoculation, as far as we can determine, the spinal marrow is first attacked; that is to say, the rabic virus first fixes itself there and is propagated.

VIII. Inoculation of rabic saliva or blood not followed by death, in intravenous injection in the dog, does not protect against subsequent madness and death, upon a fresh inoculation of pure rabic material introduced by trepanation or intravenous inoculation.

IX. Cases of spontaneous cure are met with after the appearance of the first symptoms, never after the severe symptoms have appeared. In certain cases the severe symptoms appeared much later and were followed by death.

X. In one case, out of three dogs inoculated in 1881, two died shortly of rabies, and the third, after having shown the first symptoms, got well. This dog, although reinoculated by trepanation twice in 1882, did not become mad.

XI. Three other dogs could not be made rabid even with the strongest virus. Did these become refractory by reason of a mild rabies cured? or is it that some are naturally so?

These propositions are the result of over 200 experiments on dogs, rabbits and sheep. In this report Pasteur first propounds the idea: It is possible to render man refractory to rabies.

In his communication to the Academy of Sciences, dated February 25, 1884, Pasteur reaffirms his statements made December 11, 1882, and amplifies them, giving the results of various experiments verifying them. He announced that he had succeeded in rendering dogs refractory to rabies. The virus was found located also in the nerves of the periphery, as well as in the central nervous system and salivary glands. He said that different quantities of virus inoculated gave rise to different symptoms; a small quantity to furious rabies, a larger quantity to dumb rabies. Attention is then called to the fact that the discovery of the attenua-

tion of a virus and the application made of this fact to prophylaxis in certain diseases, had brought to light this fact of the possible experimental production of the different grades of virulence of a virus. Rabies is essentially a disease produced by a virus. Can different degrees of a rabic virus be obtained? The answer is yes. In different animals the virulence varies, and passing it from one animal to another of the same species it finally becomes of fixed strength.

On May 19, 1884, the following fact was announced: In passing the rabic virus from monkey to monkey it gradually becomes lessened in strength, so that finally it is incapable of giving rabies to a dog by hypodermic injection. With rabbits, on the contrary, the virus increases in strength in passing from one to another, and finally it reaches a fixed period of incubation of seven days. Pasteur now declared that he had arrived at a principle of rendering dogs refractory to madness, and asked the minister of public instruction to appoint a commission to examine and report. The commission was appointed as follows: Messrs. Beclard, P. Bert, Bouley, Tissorand, Villemin, Vulpian. They reported, August 6, as follows: Of the 19 dogs experimented on, three out of six bitten by rabic dogs died; six out of eight subjected to intravenous inoculation of rabic material died; five out of five inoculated by trepanation died. Of the 25 vaccinated dogs (rendered refractory by Pasteur) none were attacked by rabies. One died of diarrhœa on the seventh day; however, to be certain that it had not died of rabies, three rabbits and a guinea-pig were inoculated from its cord and did not become mad.

On the 25th of October, 1885, Pasteur made the report to the Academy in which he announced his treatment as applied to human beings and its application to the case of Joseph Meister some time previous. In addition to the principles mentioned above the following are intimately connected with this process:—

The inoculation under the dura mater of a rabbit by means of trepanation of the rabic cord of a dog dead of ordinary rabies, produced rabies in about 15 days. If the virus of this rabbit is passed to a second and from this to a third and so on, there soon is a decided tendency for the period of incubation to shorten. After 25 passages the period of incubation becomes eight days, and finally, after 25 more passages seven days; here it remains fixed. (After 110 passages some showed signs in six days.) These cords are virulent in their whole extent.

If short pieces of cord are taken and suspended in sterilized jars in which the air has been rendered dry by means of small pieces of caustic potash placed in the bottom, the virulence will disappear little by little until it is entirely extinct, depending upon the length of time kept, the temperature and the thickness of the cord. These results constitute the scientific point of of the method. The cord is dissected each day from a rabbit dead that day and carefully put away in jars. Each day fresh rabbits are inoculated with the virus taken from rabbits dead that day so as to keep up the series. In order to induce the refractory state in man or animals, successive inoculations are made, beginning with a virus sufficiently old to have lost all its strength, and day by day increased till that which is finally given if it had been first given would have produced rabies. In order to introduce the poison into the system a very small piece is rubbed up with sterilized broth and introduced under the skin by means of a hypodermic syringe in the hypochondriac region.

Originally Pasteur began with virus 15 days old,—that is having been kept in the desiccating jar that length of time,—and finished with virus one day old, given 13 inoculations in 10 days; now he begins with 14-day-old virus and ends with five-day-old, one inoculation being given each day.

The claim on which the treatment of those bitten is maintained is as follows: The ordinary period of incubation after the bite of a rabid dog being about six weeks, if we can before that time institute a refractory state in man the poison will not act. Inoculations with the strong virus taken from the rabbit do this in a shorter time, so the rabies produced by the dog-bite is warded off. The system has become accustomed to the poison by the gradually increasing strength of the dose thereof. This foundation principle is sound, and the application is possible so long as we are able to get a diminulation in the strength of the virus. These problems have been worked out by Pasteur and practically applied with success.

Let us look for a moment at some statistics given by Dr. Grancher, who has performed Pasteur's inoculations on human beings for him. The report was made in June, but the period of incubation in rabies derived from the dog-bite being long, only the cases up to April 22 were taken. The cases were divided into three classes. First-class—Those bitten by dogs proved to be mad

by inoculation of rabbits or subsequent development of rabies in animals bitten by them—96 cases, one death.

Second-class—Patients bitten by dogs certified to be rabid by the veterinary practioners of the locality,— 644 cases, three deaths.

Third-class — Those bitten by dogs who had run off and not been seen again — 232 cases, no deaths.

In the first two classes 740 cases with three deaths, not quite one-half per cent. of those bitten; while the ordinary statistics of like cases given by M. Leblanc, veterinary surgeon of the city of Paris, give 16 per cent. as the number of deaths. Dr. Brouardel has calculated that no less than 80 per cent. of those bitten by rabid dogs on exposed parts of the body die. Of the 84 cases of wolf-bite, not included in the above, seven died. Ordinarily, 66 per cent of those bitten by rabid wolves died, and here the percentage is 6. Looking at these, shall we not say the principles and methods are a success? During the month of April last I visited Pasteur's laboratory, as the representative of the American Pasteur Institute. I was kindly received by him and his assistants, and everything in the process of his method of inoculation shown me, from the primary trepanation and introduction of the virus under the dura mater of a well rabbit, to the inoculation of a human being with the spinal cord of a rabbit which had died with rabies. All the steps were shown me; nothing was concealed. Upon leaving Paris, a rabbit inoculated that day was given me. This rabbit was my constant care for the next nine days, when it died, having developed signs of paralysis two days before. I immediately placed the body on ice, and on the next day, having arrived here, the spinal cord was dissected out, and the work of propagating the virus begun. Rabbits were inoculated every day for several days, the cord being kept in carbonic acid gas at a low temperature. Those rabbits developed rabies in due course, and after a time a series was established and the work was begun on the human being. In the first case, unfortunately, the patient's health was such that his parents discontinued the inoculations, after the fourth. The trouble did not arise from the inoculations, but from a series of accidents which happened to the lad (who was only seven years old) immediately before the beginning or during the time of the inoculations — he having been hit with a stone and badly cut; having fallen down the Elevated railroad stairs, which was followed by severe epistaxis; having cut his

wrist, and a good-sized branch of the ulnar artery, so that there was a great deal of hemorrhage; as well as having suffered severely from the bite. In the second case, the inoculations were taken through the whole series, the patient is doing well, not having suffered any inconvenience from the treatment. The same may be said concerning the third and fourth cases. In two out of the last three cases the dogs were undoubtedly mad, all the symptoms pointing that way. In the other case there were sufficient indications to warrant the treatment, especially as the parents were anxious to have it done.

I have also inoculated myself as a means of prevention. A number of people have come to me at various times, having been bitten, wishing to know if inoculation was necessary — in many cases much frightened and in an excessively nervous state. I have been able to allay their fears, assuring them from the detailed circumstances of the absolute absence of danger, and after some slight treatment for their nerves and dressing of the wounds, they have gone home happy and contented. Many more points in the study of rabies might be brought forward, for it is a subject replete with interest and worthy of research. If, however, I have succeeded in implanting in your minds a few of the points concerning it, and a belief in the efficacy of the method of inoculation as a means of prevention, I shall be satisfied with my success.

A PAPER ENTITLED NOSES.

BY H. HOLBROOK CURTIS, M. D., OF NEW YORK.

(Read Wednesday, September 8, 1886.)

The nose has four important functions:

1. Olfaction (or sense of smell).
2. It is the true channel of respiration.
3. It is the resonance box which modulates the voice.
4. It presents the combined functions of secretion and excretion.

The sense of smell is located in the upper passages. Respiration is intended to be carried on through the lower. By the diagram* we see that there are three horizontal passages in either nostril, placed one above the other, and divided by the so-called *turbinated bodies*. The delicate filaments of the olfactory nerve are distributed throughout the membranes, commencing at the upper third of the middle "turbinated body," and are abundantly distributed throughout the dome of the nasal cavities. Odoriferous particles coming in contact with these membranes, through the agency of the respiratory act, are held and dissolved in the serous fluid secreted by the glands, and in this way come in direct contact with the delicate olfactory nerve filaments, and occasion the impression which we call the sense of smell.

The respiratory function is quite as important for us to understand as the olfactory. The lower and middle passages, or *meati*, as they are called, are the true air channels, and their structural arrangement is such that the air is somewhat modified before it reaches the throat and thence passes to the lungs. First, we observe many fine hairs at the orifice of the nostrils. These, more or less dampened by the secretions, serve to arrest the coarser dust and prevent the entrance of insects. Such particles as escape this filtration process adhere to the mucous membrane lining the cavities, and, when sufficient foreign matter is lodged on the membrane, an impression that we wish to blow the nose obtains, caused by nerve-reflex from the irritation of these arrested particles. Hence, if persons imagine that, because they do not use the

*Exhibited by Dr. Curtis while speaking.

handkerchief they are in good physiological condition, they are mistaken. Besides this filtration process there are two other very important things to be accomplished before the inspired air enters the throat. First, it is warmed, and, secondly, it is charged with more or less aqueous vapor. I have pointed out on the anatomical chart how the blood sinuses of the erectile tissue press into the nasal passages to present more surface for the air to pass over. By the same means new supplies of heated blood, at about 99° Fahrenheit, are ever flooding beneath the delicate mucous membranes, and raising the temperature of the inspired air to a degree nearer that of the body heat. The nose, then, is also the furnace of the respiratory tract, causing the air to be elevated in temperature before passing to the lungs, in the same manner that the air of our houses is heated before being distributed to the rooms. We are accustomed to put water in our furnace chambers to render the air we breathe moist,—so also does nature effect this same change in our nostrils,—for, by the generation of heat and the supply of serous exudation from the delicate and vascular mucous membrane, in the respiratory tract of the nose, we find by actual experiment that the inspired air is charged with more aqueous vapor than when it enters the nostrils. Were it not for this beautiful process of nature the inhabitants of high latitudes could not exist. Try, for example, on a very cold day, to take in a deep breath through the mouth, and we can feel the cold impression deep down in the lungs; but taken in through the nose it is only felt as far as the larynx. I would especially ask you to remember this part of the nasal physiology, as the latter part of my paper will deal more particularly with this portion of the nasal function.

The third function of the nose, that of resonance, deserves a passing notice. Americans are said to speak through their noses; this is a great mistake. It is because we do not use the nose properly that the nasal sound is produced. Try, for instance, the enunciation of the letter M; this is spoken truly through the nose. The soft palate springs forward, leaving a space between the post-pharynx and the uvula, producing a clearly nasal consonant. Take, on the contrary, the letter L, and we can pronounce it without the assistance of the nose. Consequently we find that nations who use in language more labial and lingual sounds, at the expense of nasal, employ a diminished expiratory nasal air-current in speech. The pharyngeal vault is a sounding board,

and the horizontal air passages throw the tones forward; let these passages become stopped up, or in any way diminished in calibre, and the voice will lose at once its carrying power and quality. The pure, sympathetic voice becomes dull, and does not vibrate, thereby losing its *timbre*. I might cite over one thousand cases in which I have performed the simple operation of destroying the superabundant tissues so frequently found in the nasal respiratory passages by means of the electric cautery or chromic acid, in every case with greatest benefit to the vocal resonance. I have repeatedly had the pleasure of adding by this simple means one or two notes to the singing voice,—so great is the benefit which the larynx derives from an increase of respiration through the nasal passages. Any cause operating to stop up the nose, or even to slightly diminish the calibre of the nasal respiratory channels, reacts at once on the delicate membrane covering the vocal cords. They seem to cry for more air, and air properly modified by warmth, moisture and filtration.

In regard to the fourth function,—that of excretion and secretion,—I will say but little. The nose is the excretory duct of the lachrymal gland which pours out its secretion to lubricate the eye. I will simply call your attention here to the fact, which you have doubtless all observed, that upon stoppage of the nose by a cold, or by that condition which ushers in catarrh, we perceive how the tears overflow when the eye is exposed to the least irritation, such as walking in the wind, etc. The transparent secretions of the normal nasal mucous membrane are conducted by gravity, and the backward and downward tilting of the turbinated bones into the throat, and serve to lubricate the pharynx and œsophagus; and it is only by a reflex process caused by the presence of a foreign substance, or source of irritation, that we ever reverse this process and blow the nose. The secretions of the nose keep the pharynx and œsophagus moistened during the intervals when the saliva is not poured out by the excitation of the salivary glands, and may be said to be the constant lubricating fluid of the pharynx and œsophagus. Various cells and sinuses pour their secretions into the nasal cavity, but do not deserve further consideration in his paper. I shall attempt to show later how any alteration of this secretory function may lead to pernicious results.

I have briefly outlined the anatomy and physiology of the nose, and shall now allude to the pathology of my subject, and under-

take to illustrate how very important a member is this nose of ours, and how apt it is to be abused through neglect and ignorance.

Man has been given a tube of definite calibre, through which, by muscular effort, a certain amount of oxygen must enter the lungs at each inspiration, in exchange for a definite amount of carbonic acid gas, given off in the expiratory current. This process incomplete,— in other words, if the supply of oxygen taken in is incapable of satisfying the interchange of carbonic acid — we have the arterial blood returning to nourish the system, still laden with more or less of the poisonous gas it came to the lungs to throw off, and with an insufficient supply of oxygen to keep up the body combustion at its maximum.

Consequently, we perceive that any diminution in the calibre of the nasal ducts, begins at once to destroy the chemical affinities on which the body-equilibrium, viz., perfect health, depends. How is this manifest? Generally by some reflex nervous symptom, the result of nerve starvation. You may think you are dyspeptic; that your lungs are getting weak; your brain is over-worked; your kidneys are diseased; you are losing your eyesight; you may have headaches, drowsiness, neuralgia, etc., and treat all these in turn. Alas! how few men there are who intelligently look to see whether the stream of oxygen is diminished or not. Perfect respiration is as essential an attribute to perfect health as is a perfect circulation. Yet how few persons give the breath of life the same consideration that they do the circulatory current, viz., the pulse! I know members of my own profession who take pride in making the most delicate differential diagnoses concerning an arterial stenosis, or the slightest change in the valvular anatomy of the heart,—who pour down tonics innumerable for anaemia, laying rails of iron through the intestinal track, with spikes of strychnia and arsenic, in order to improve the condition of the blood,— but who almost never, by means of the nasal speculum, examine to see whether the highway to the lungs is blockaded, and the commerce in oxygen has been given over to that dangerous and rocky channel, the mouth. Nature has another conduit through which she may obtain the necessary amount of air, viz., the mouth, — and now I come to what I consider the most important point in my paper, a consideration of mouth breathing. Here we have no danger of a decreased calibre in the air tube; then why may we not use it? As I sit writing this, on my journey by boat to

Saratoga, I hear three men whose palates are metaphorically flapping in the evening breeze, in other words, a good old-fashioned snore is produced. Let me use my imagination and illustrate. Mr. Smith had a succession of colds for two seasons, and contracted the habit of snoring. Mr. Jones had a new patent hot-air furnace put in, and has since done the same. Mr. Brown comes from St. Louis, and has snored from the time he went there to live.

While I ask you to recall what I told you about the physiology of respiration, let me ask you to consult with me, and we will examine these three worthies. They will all come in time; permit me to abruptly introduce them:

1. Mr. Smith applies to obtain relief from catarrh. He has headache, loss of memory, malaria; he is slightly deaf; his ears crackle when he blows his nose; he suffers from constant colds; he has been to many doctors and taken a Saratoga trunk full of nostrums and catarrh snuffs, but to no avail. Examination reveals that the lower air passages are almost impervious to air; he is a mouth breather, for he has the characteristic dry pharynx, and all the well-known symptoms, which are pictured upon the posterior wall of his throat or pharynx.

Mr. Jones, snorer No. 2, has had the same general chain of symptoms, combined with a very characteristic catarrhal breath of a sweet mouldy odor. The lines of his face, dividing the cheek from the nose, are drawn and deep; his upper teeth protrude, in fact he has what is known as the "catarrhal expression." He has a dry mouth on awaking, and a severe "coughing-spell," on getting up.

Mr. Jones has the ordinary hot-air furnace in his house — nearly all Americans have, though you do not find a half dozen furnaces in London — does this account for the prevalence of so-called catarrh here and the comparative immunity from the disease in England? I do not say that, but we certainly extract every particle of aqueous vapor possible from our air before we use it, and because our buildings are better constructed we have less ventilation. English women sit in rooms heated only to 62° with perfect comfort, though at an afternoon tea in New York we see our fashionable population sweltering in furs and velvets with the thermometer at 80.

Mr. Brown, from St. Louis — walk in, please. What is the

matter? Catarrh! The same old story. There is in reality no such disease. The word catarrh, in regard to nasal troubles, should be banished, except as referring to a symptom. People suffer from so-called catarrh in ninety-nine cases in every hundred, because their nasal tissues are in excess, causing the secretion to become catarrhal in character from a mechanical pressure exerted on the membranes, and the lack of a proper supply of oxygen to the occluded air passages and adjacent sinuses. Without a stenosis of the nostril from some cause, chronic catarrh does not exist, at least I have never seen it. The exceptional case occurring about one in every hundred cases of dispensary practice, is the so-called dry catarrh, which condition arises from an atrophy or death of the membrane and secreting glands, and consequent enlargement of the passages, making it a very tedious and unsatisfactory disease to treat.

The erectile tissue is placed in the nostrils to modify their calibre, as the iris performs the office for the eye. These tissues expand and contract under certain conditions; and over-exercise in contraction and expansion results in hyper-growth or hypertrophy so-called, as evidenced by the over use of cocaine in the nostrils. The same result follows from continued irritation. Now, in the cases cited, we may say, chronic congestion due to continued colds caused the tissues of Mr. Smith to thicken. Jones' over-heated house, want of moisture in the air, and sudden changes from heat to cold, caused his trouble, and Mr. Brown succumbed, as everybody does, to the alkaline dust of St. Louis.

Three different sources of irritation have produced the same result. Today the athlete, the oarsman, the pugilist and the runner regard nasal breathing as the *sine qui non* of endurance. The chest may be expanded often an inch in a single month, by a system of progressive respiration. The gentle exercise of the lungs by deep inspiration, is a most beneficial thing in the treatment of consumption. Many quacks take advantage of this simple fact, in order to palm off on the public various fluids supposed to contain ozone and compound oxygen, but the explanation of any good that may accrue is simply this: it causes expansion of the collapsed air cells in the lungs, by drawing in deeper inspirations than usual, of air purified and charged with vapor by passing through water in which a little ammonia salt is dissolved. Enormous prices are charged for this so-called oxygenated water; they

are simply causing their patients to perform artificially what nature has by such a delicate process intended the nose to accomplish. The same benefit would take place, and we find it invariably so, if we direct our patient to take six or eight deep inhalations through the nose, and repeat often during the day, having first cleared the passages of any obstruction. Another thing to which I wish to call attention, is the effect of mouth breathing upon the teeth. The shut mouth is bathed in saliva, which circulates through the spaces between the teeth and cleanses the gums. Once acquire the habit of mouth-breathing, and the teeth will begin to decay, the gums to recede, and the breath to lose its freshness and become offensive.

Mothers make the greatest mistake in holding their infants close to their own bodies during the sleeping hours, and never should the face of a young child be covered during sleep. Both lead to the pernicious habit of mouth-breathing. Catlin lays the greatest stress on the extreme care Indian mothers always take after their infants have finished nursing to press their lips together and sit for hours carefully watching, lest the little one should inhale a single breath through the wrong channel. So great is the savage superstition that they regard mouth-breathing the sign of approaching death.

A word about the opposite condition. In the small percentage of cases, about one in one hundred, where we find an atrophy instead of an hypertrophy, where by a wasting disease of the membrane the glands dry up and cease to perform their function, where the process of filtration warming and moistening the air is lost, we have the same dry glistening membrane invading the nasal cavity that we see in the throat of the mouth breather. This is indeed a difficult state of affairs to overcome, for while it is very easy to open the passages and relieve the mouth breather by restoring to him his natural nasal calibre, here we have to attempt a rejuvenation process which makes the subject of dry catarrh a very tedious and unsatisfactory problem.

Hypertrophy of the nasal tissues, presents the following complications. Nature crying for oxygen opens the mouth to get it, but while obtaining but a temporary relief institutes nevertheless the commencement of a general affection of the entire respiratory tract. Oftimes, pulmonary congestion, bronchitis, laryngitis,

pharyngitis and catarrhal secretion, the direct result of nasal stenosis, are but premonitory to graver disorders.

That a thickening of the nasal mucous membrane over the turbinated bones causes many obscure reflex disorders is evidenced every day in the office of a nasal specialist. I was once much surprised to see a little fellow suffering with St. Vitus dance or chorea, become in a short time cured by the simple operation of destroying the deceased nasal tissues with chromic acid. Innumerable cases of true asthma and hay fever are cured instantly by the same means. There is a gentleman here today who had not passed a single night for five years in a reclining position on account of asthma in its worst form, who was as suddenly relieved by the same method.

Hay fever, that dreaded complaint which has until recently baffled the skill of the medical profession, finds an easy explanation in the irritation of the hyper-sensitive peripheral nerve filiments by dust and certain pollens, causing congestion and stoppage. There is no further need of the hay fever congress, for the thermo-cautery and chromic acid have done much to alleviate a condition which has caused innumerable thousands to suffer in a way, no one can imagine, who has not been tortured by the malady.

That mouth breathing is an exciting cause of many chronic diseases, including consumption and many nervous affections and reflex disorders, is conceded. How very great an importance impeded nasal respiration exerts in the multitude of ourills has not been sufficiently laid stress upon.

Catlin, the most enthusiastic student of savage customs among the Indian tribes of both North and South America, having visited 150 tribes containing upwards of 2,000,000 people, and making a very careful study of their habits, sums up his views as to their exemption from diseases in general in a pamphlet entitled "The Breath of Life." He first points out that none of the lower animals or uncivilized tribes of human beings breathe through their mouths. He then instances his own case, that of a consumptive, whom the savages taught to breathe properly at the greatest possible discomfort to himself, but the habit once acquired, his hemorrhages ceased and he was restored to perfect health. He goes on to state that only about one in twenty of savage children die in infancy, while he cites by the death-rate in London a loss of

50 per cent. of children before the fifth year. Catlin goes so far as to account for the infrequency of respiratory troubles, curvature of the spine, deafness, nasal catarrh, lunacy, etc., by the cultivation of a proper system of respiration, especially during sleep. Sleep, he says, is regarded as the great storer and restorer of the vital energies, and perfect repose can only be obtained when the nasal channel is free. As civilization and luxuries increase, we notice a marked retrogression in the manner of breathing and sleeping. It is a well-known fact that a person may breathe mephitic air at the bottom of a well or beer vat, if taken in through the nose, but the instant one opens the mouth and attempts to cry out, he is overcome.

Catlin attempts to prove that cholera, yellow fever and small pox are not communicated to those persons who perform their ministrations in silence. He instances all the mouth breathers to have died on a cholera ship he was aboard, but the persons who accepted his theories to have been saved.

While Catlin is perhaps over-enthusiastic, he has, without explaining the pathological condition, touched the chord of truth. Man so slowly gives himself up to the practice of mouth-breathing that he is usually unaware of the acquirement of the habit, especially if only practiced during sleep. Let the erectile tissue become but slightly thickened and the life-stream of oxygen but little diminished, then the only evidence will be a depression of spirits, a slight malaise, which is usually attributed to everything else but the true cause.

It is clear in my mind that a great proportion of aural troubles have originated in improper respiration. Nature has intended the air to pass directly through the nose and supply the mouths of the eustachian tubes with oxygen. Remove this supply of fresh air and we have at once a eustachian catarrh establish itself, and this we know is the commencement of a majority of cases of deafness. I have frequently found, after the aurist has discharged his patient, unable to assist him, great benefit to be derived from simply weeding out his nose and letting fresh air do the rest.

A dimunition of the air current may be due also to enlarged tonsils, or stoppages from a deviated nasal septum. From whatever cause, see that the source of the trouble is removed. Watch carefully the developing infant, that the habit of mouth-breathing be not acquired, and should you find that the correction of the

habit already acquired is impossible without the simple applications that will give relief, do not hesitate to apply to your physician for that relief which will give you not a little comfort and happiness, and, in my opinion, prolong your lives.

Trusting that you will pardon the rather sketchy nature of my paper, made necessary by a pressure of professional duties, and hoping that my remarks may have been productive of good to some of you, I close, thanking you for your very kind attention.

V. THE SCIENCE OF DIETETICS.

BY WALLACE WOOD, M. D., OF NEW YORK.

(Read Wednesday, September 8.)

Plato, in one of his dialogues, abuses cooks but praises physicians. The cook and the doctor are antagonistic to each other in relation to the body, much as the church and the theatre are opposed to each other in relation to the soul. The motto of the caterer, like that of the manager, is, "We study to please"; while the physician might reasonably take that of the revivalist, "Come to us and we will do you good." After carnival comes Lent; after lobster salad, jellies and ices, calomel, rhubarb and black draught. The aim of dietetics is to reconcile the cook and the physician. Dietetics is the science of eating.

Of course the question might be raised, Is there properly such a science? Can or ought we eat scientifically? Dr. Fothergill, one of our best authorities on this subject, heads his newest work with a striking announcement, "The Day of Dietetics has Arrived!" This is excellent! Doubtless we may shortly expect, instead of cook-books, the appearance of manuals of culinary dietetics. Boston, instead of schools of cookery, will establish dietetic laboratories. It is an age of science, of "mechanism in thought and morals," "the reign of law." Science is invading our most sacred precincts. The time was when it was content to "measure the earth and count the stars"; now it measures our brains and counts our sensations. It says: "Measure and weigh all things," and when it does not spare our most sacred and cherished associations, it will not be likely to spare our stomachs.

Any body of facts which are related together may, according to the logic of Mill, be the subject of a science; thus we have botany, etymology, etc., (this definition applies more especially to concrete science). Sciences are of three kinds—abstract, concrete, and practical. We shall see that dietetics is not an abstract science, like logic or mathematics; nor yet a concrete science, like botany and zoölogy, which group together co-related facts, but that it belongs to the third group, the practical sciences, which are defined not by the facts they group, but by the end in view;

ethics, politics, and medicine are examples. The end of ethics is right living — the end of dietetics is right eating. Practical sciences may be based on facts which are not co-related, or on several co-related groups—that is, on other sciences. Medicine, for example, is based upon chemistry; it is based upon botany; it is based upon anatomy and physiology; and it may be studied now in its chemical, now in its botanical, and now in its physiological aspect. So dietetics may be considered under several different heads, each demanding a special method of investigation.

First, then, we may speak of the *chemical* aspect of dietetics, the science of food chemistry as founded by Liebig. Next comes the *medical* aspect, or the subject of diet proper. We discuss under this head the vegetarian diet, the milk diet, the Albumenoid diet and others. Thirdly comes the *gastronomic* aspect. While chemists study the tissues and forces of the body, and doctors study the liver and stomach, the cook—that very important personage — addresses himself to quite a different portion of the anatomy, viz., the palate or gullet. This is an organ rather ignored by the medical profession, but whosoever studies dietetics without taking it into account reckons without his host.

Finally, it is possible to bring to the study the method of comparison, and this brings me to the fourth, the *biological* aspect. In this we compare the "food of all nations," more especially of those highest civilized. For the growth of this part of the science we are indebted neither to chemists, cooks, nor doctors, but to travellers, observers, and sociologists.

THE CHEMICAL ASPECT.

"By the observation of weight and measure," says Liebig in the introduction to his "Animal Chemistry," "Lavoisier laid the foundation of a new science." From the law thus established most useful applications have been made to the arts and to industry. "After Mineral Chemistry had obtained development the labors of chemists took a new direction; the study of the constituent part of vegetables and animals, from which new views have arisen,—the aim of the present work being to apply these views to physiology and pathology." This is Liebig's claim as a founder. The chemical method of working is to analyze the body and find out its constituents, and to analyze food substances and find out their composition, with a view of supplying scientifically

the wasted elements of the one by the proper elements of the other.

The chief proximate principles of the body are found to be albumen, gelatine, and fat. In ordinary alimentation meat furnishes the simplest form of albumen, gelatine, etc., required for muscle, while all vegetable matter—notably bread—supplies the starch or sugar required to build up fatty tissue. Bread and meat, therefore, form a perfect diet, and may almost be taken as the type or standard. Milk consists of albumen combined with fat and sugar, and is regarded as a perfect food in itself. The time-honored dinner of Old England—roast beef and plum pudding—offers again a felicitous combination, where albumen, fat and gelatine happily wedded to fat and sugar to make a perfect diet of a more heroic order. Fat itself is burned up to maintain the body's heat.

Nearly every food substance has been analyzed and drawn up in tables, and we now know just how much albumen, how much fat, and how much starch or sugar each edible contains. The chemist tells us to eat beans because they are rich in albumen, but that they require fat; and he tells us that potatoes are almost pure starch, and must be taken not only with a grain of salt, but with plenty of butter and meat. Do not imagine, however, that the man of science is satisfied with this; and why speak in such vulgar phrase of "eating beans and pototoes"? Let us rather say, "Nourish the organism by the ingestion of albuminoids and carbohydrates."

Says Fothergill: "The value of predigested carbohydrates is being realized. The digested albuminoids are making their way. Oil emulsions have established themselves on a firm footing."

Such language may require explanation. The main constituents of our food are now understood to be three: 1. The albuminoids or nitrogenous material, such as is furnished by meat, fish, eggs, and cheese, and which goes to build up muscular tissue and supply muscular force. 2. The carbohydrates, or sugars and starches, as supplied by bread and vegetables; these go to build up the fatty tissues—are stored up in the body as fat. We reduce corpulence by interdicting them. 3. The fats, or hydrocarbons, butter, oil, suet, fat meat, etc., all of which are burned up in the body to maintain its heat—used as body fuel. It is upon these three lines that the chemists have been at work. This work was

begun by the great Baron Liebig, whose fame is far more widespread by his "Extract of Beef" and his baby food than by all his contributions to science. And though Liebig's food for infants has slain its thousands, and Liebig's extract of beef has starved its tens of thousands, the theory was quite right. These preparations opened up an altogether new field for manufacturing chemists all over the world. The wrong was righted; an extract of beef can be made in which the precious albumen is preserved instead of being thrown away.

Chemists and manufacturers have set themselves to work with two ends in view. The first was to get the three great nutritive elements—meat, starch and fat—into the most concentrated form possible. The other end and happy thought was to digest the compounds artificially before introducing them into the economy. What a saving of all the trouble of mastication, insalivation, secreting gastric juice, digestion!—in some cases even the trouble of swallowing, as we shall see further on.

By study, infinite pains, and the immense labor which the hope of gain inspires, our manufacturers have found out and applied to the nutritive principles the proper solvent. We are presented with the predigested albumens under the names of "Peptone" and "Beef Peptonoids." The latter, according to Prof. Stutyer, of Bonn, is the most concentrated nutrient ever produced. Containing, as it also does, small quantities of digested wheat and milk, it forms a perfect food, and a delicate eater may have a whole meal, in the shape of two spoonsfuls of grey powder, carried in a paper in his vest pocket. The predigested starches appear in the market under the names of "Soluble Food," "Maltine," etc., and are quite as admirable, but are more especially adapted to infants and children. Fats, finally, are digested outside the body, made soluble or miscible with water by emulsion with pancreatine. The "Pancreatine Emulsion" is made of suet. Others are known as "Cod Liver Oil Emulsion," "Cod Liver Oil and Milk," etc. This last appears as a very rich cream delicately flavored, so delightful, in fact, that the patient may get very fat upon it whether he has any digestion or not, and without ever knowing that he is taking cod liver oil. Great are the advancements of our day! When food-provision is reduced to such a science as this a man need never die for lack of nourishment. His stomach may be ever so much out of order, his liver ever so much deranged, may

secrete no gastric juice—he may have no digestion whatever and still be fed. Supposing the appetite fails entirely, or for any reason the patient cannot or will not eat, then concentrations can be administered by inunction, rectal alimentation, or the hypodermic injection. But the climax is reached in France by DeBore's new system of forced feeding. By this ingenious method a long rubber tube is let down into the stomach, and that organ is carefully washed out with warm water; after which the predigested carbohydrates, beef peptonoids, and hydrocarbons are pumped down into it. This process has been tried at the Bellevue Hospital in New York with triumphant success. It has been suggested that if we march in this direction a few steps further, the time may arrive when man will no longer be under the grovelling necessity of having any stomach at all.

THE MEDICAL ASPECT.

To say that dietetics owes its foundation wholly to Liebig and the chemists, (alimentation before that time having been subjected entirely to the caprices of the palate,) is almost too sweeping an assertion. As remarked at the outset, the physicians have ever opposed the excesses of cooks and epicures; and to correct the evils of riotous living they have proposed systems of diet. The vegetarian diet is older than Pythagoras. Hippocrates and Galen have chapters devoted to diet. One whole school of medicine in antiquity had this as its foundation. In modern times comes the Dry Diet, or the exclusion of all fluid; and the Milk Diet, in which one is fed exclusively on milk. The Vegetarian Diet, revived in the present century by Graham, has had a widespread influence, while, as a reaction against it, we have, as the very latest thing, the Nitrogenous Diet, where the patient is limited in his food to beef and milk, or beef and water. We have, also, from England, the Fat and Fish Diet, and from Germany comes the Dry Cure, the Grape Cure and the Whey Cure. Several of these methods of cure are of American origin.

The Vegetable regimen of the present century dates from a New England clergyman, Sylvester Graham, best known as the inventor of "whole meal bread,"—a very worthy man. Beginning as a temperance lecturer, Graham continued his observations for more than forty years, till he had elaborated an entire scheme of life and morals, and a whole cosmology. He was convinced

that the use of meat was the chief cause of the craving for intoxicating drink. According to the Grahamites, vice, that "monster of so frightful mien," presents three stages; the first being the eating of butchers' meat, beef, pork and mutton; the second, the use of condiments — the pepper, the mustard, the vinegar, spices and sauces. The caster on the table leads down to the bottom of the pit where rum and brandy, whiskey and gin hold their infernal revel. On the other hand, the wholesome natural food of the virtuous man is the grains of the field, the fruits of the orchard, the vegetables of the garden.

Vegetarianism, as a doctrine, may be said to have had its day. The vegetarian diet is now relegated to its proper place. It is useful as a change. It is useful in certain diseases; a cure for one form of dyspepsia. For the gout, the patient is put upon the vegetarian diet; for biliousness, no cure so sure as a few days or weeks of bread and vegetables; as a change in the summer to counteract the evil effects of too much good living, in the winter, it is excellent. Do not, therefore, conclude that good living is to be wholly abjured, or that the rule which applies to one or two cases is of universal application. A man who has had the misfortune to live for nine consecutive months at a first-class hotel, has been known to have his flesh, health and temper completely restored by thirty days in the country on a diet limited to green corn and sweet apples. Let him not, therefore, conclude that corn and apples are properly the natural and universal aliment of the human species. If we reason rightly it might be better to speak, not of the vegetarian diet, but of the vegetarian cure; this term would seem to be in keeping with the latest medical views. It is certain that with city people of the better class there is always a tendency toward too much concentration in diet; the organs are liable to become reduced in calibre, the system clogged, the nerves over-stimulated, and for such a state of things a return to nature is urgent, and the natural grains and fruits will prove a blessing and salvation.

Equally to be regarded as a return to nature and first principles, hence as a cure, is the *regime* known to the sick as the Milk Diet, and to the well as Dairy Fare. Milk for babies: meat for strong men. Milk is good food for children; it is the food *par excellence* for the sick; it is good for the aged. One of my correspondents reports a case of a nonogenarian, the picture of health, who for

the last ten years has nourished himself exclusively on warm bread and milk, nothing else absolutely except an occasional dip into the sugar-bowl. This delightful old boy has returned to his boyhood's spoon and porringer. When patients are brought to Bellevue Hospital sick with fever, they are put upon an exclusive milk diet. Milk is given them as much and as often as they can take it. The organism, much reduced, comes down to first principles and begins life over again. Gradually it is weaned. Beef tea and mutton broth are first added to this primitive food, then small quantities of egg and oyster, and finally, with returning strength, the patient is worked up to broiled chicken, coffee and beefsteak.

When we are sick, then vegetables are not our only hope: blessings on the foster-mother cow!

The third resource for the sick man is what is called the Nitrogenous Diet, or the Albuminous Diet. Here the patient lives almost exclusively on meat, the additions being greens and salads. Breads and vegetables are prohibited or restricted. This is the diet for the reduction of corpulence; it is the diet in the disease known as diabetes. Dr. Draper actually approves of it in gout and lithuria, contrary to the received opinion. Sometimes hot water is taken with it, but of the beef and hot water cure the time has not yet come to speak, it not having yet been sufficiently tested. What wonders can be performed by the Albuminous Diet when coupled with rest and massage, we are told in the small but not unimportant book of Prof. Weir Mitchell, entitled "Fat and Blood, and How to Make Them." Most interesting is this method of "reviving the vitality of feeble people by the combination of entire rest with excessive feeding, made possible by passive exercise obtained through the the use of massage and electricity." Many a patient comes to the physician who, notwithstanding that he eats three times a day, is in a state of semi-starvation. The doctor tells him that he is badly nourished; that he must leave off the thousand and one things that he eats, and limit himself for a time to beef and mutton with milk and a little bread. It is not what a man eats, but only what he assimilates that does him any good.

To the well man the doctor may say in general terms, "In cold weather eat plenty of fat meat, oil and butter, in order to keep warm; if you want to be strong, eat meat; if you want to get fat eat sugars and starches. But now comes one of the most im-

portant questions of our day: What is the best brain food, the best food for nervous people? How shall we supply wasted nervous energy?

This question Dr. Fothergill answers in the new "Manual of Dietetics." The first point is the supreme importance of fat. The most conspicuous component of brain and nerve is a phosphoric fat,—Lecithin. "Experience has taught us," he says, "even before physiological chemistry could tell us why, that fat and fish are the foods especially indicated. Fish is rich in phosphorus. Phosphoric fat has to be furnished to the nervous system. Fish and butter should be the chief factors in the dietary. Creams of all kinds are good; also cod liver oil and cod liver oil emulsions." "When we consider," he says further, "that the pabulum of the nervous system is a phosphoric fat, we may comprehend why the plan of treating cerebral exhaustion by liberal quantities of lean meat, has turned out a failure. Albumenoids do not supply the requisite material for the intended purpose." Fothergill gives several cases and I have in mind at the moment of writing, a case that came under my own observation, where a patient vainly tried to recuperate his failing strength, exhausted by overtasking the brain, on lean meat eaten abundantly three times a day. Being sent into the country, he, by mere accident, drifted into a diet of bread and butter and dried codfish, with milk, cream and vegetables, when he made a rapid recovery.

When we speak of the Vegeterian Diet, then, it is well to remember its limitations, and that there is also the Milk Diet, the Nitrogenous Diet, and the Fat and Fish Diet. Let each choose according to his needs.

THE GASTRONOMIC ASPECT.

We come now to a very different branch of dietetic science. Astronomy means the laws of the stars: gastronomy means the laws of the gullet. Let those who care for the stars revere the names of Galileo, Kepler and Newton, but by all persons of good taste and lovers of good cheer and good company, the name of Brilliat-Savarin, the author of the "Physiology of Taste," will ever be held in delightful memory. Here are some of the axioms upon which this egregious discoverer founds his enduring edifice: "Tell me what you eat and I will tell you what you are." "The dyspeptic has no right to dine among civilized beings." "It is the height of cruelty to drench an oyster with peppersauce." "Never accept the

invitation of a man to take pot luck with him; he insults the sacred name of dinner."

Gastronomy is both a science and an art. It is the science of good taste and the art of dining. A grand dinner, like a grand opera, is a very highly organized and complicated affair. What ages of civilization and culture have passed to bring it up to its present standpoint!

Fully to realize this let us try to go back to primitive simplicity. I knew a family living in the country, who had a housemaid that, in her habits of eating, was totally uncivilized. She could not be made to eat at regular intervals or to eat any two things together. She would eat whenever she felt like it and whatever struck her fancy or came to hand. At one hour in the day this child of nature would be found in the pantry with a plate of honey; at another, swinging her heels from the parlor sofa, while contentedly making way with an enormous lump of salt pork; at another she would be in the barrel of apples. She would eat with gusto large pieces of cheese, *tout seul*, or again, a slice of salt mackerel as large as her hand. Bread she usually ate on rising, always clear. Butter she would eat sometimes; never with the bread; honey whenever she could get it. As for making the combination of bread, butter and honey, that she was never equal to. Her potatoes she ate at one time and her meat at another; never could she be induced to eat them together. Save for her feats in gastronomy, this person was smart, sensible, rather handsome, and a good worker, but in dietetics she was on a par with the rats in the cellar or the savages of the forest. She was, in fact, literally a spoiled child; nothing more. She declared that she had always done so; she had never been trained otherwise.

We teach a child first, that it must eat at regular intervals, say morning, noon and night. Secondly, that it must eat things together; bread with its butter, potatoes with its meat. Thirdly, that it must wait for the pie and pudding till meat and potatoes have been discussed. Now then, these stages of the training of the infant are pretty nearly the stages of the progress of civilization. Primitive men, like the Australians, eat whenever they can get anything to eat, be it fish, flesh or fowl, roots, snakes or melons. In the nomadic stage, when man becomes rich in flocks and herds, and food is thus always at hand, regular meals are established, and the first and oldest gastronomic combination, bread

and meat is discovered. A higher stage is seen among the peasantry of the civilized races. Here the meals are regular and dishes are combined together, to make roughly a "square meal." The Irishman combines potatoes, herring and buttermilk; the New York farmer, salt pork, potatoes, hot biscuit and butter; the acute Yankee composes his meal of pork and beans with brown bread and butter, and again and again rises to the harmony of corned-beef-hash, bread and butter and boiled-cider applesauce. All these are very wonderful gastronomic combinations.

But we must mount still higher in the scale of being. Among all civilized men dishes are combined to form a meal, but with people of culture the meal itself is at least double, if not triple, that is served in courses. Even in that home of refinement, the boarding-house, after meat, the landlady smiling says, "Will you have pie or pudding?" and at tea, when the chief part of the meal is over, there is passed the cake.

This division is classic, going back to Greece, to Sparta, where the double repast was served, the first, or main meal of bread and meat, and the after-meal of cakes and fruit. Such a repast is worthy to be ranked as a dinner, if not a banquet, and civilization rises to the first step of a higher plain. For the modest Hellenes, who lived much closer to nature than ourselves, this was sufficient. Later on, when the world entered upon its Roman phase, a difficulty arose. The wealthy patrician, refined, cultured, pampered, indolent, when meal-time came, was found to have no appetite, and to meet this new want there came into vogue the gusto, the preliminary meal, or what we now call the first course, and generally taken as soup. The object of this was to excite the appetite, not to satisfy it. Behold, then, in old Rome, the grand symposium in its main elements fully constituted. The fore-meal, something to whet the appetite, oysters, little crabs, radishes, the yolks of eggs; then the mid-meal, wild boar and roast peacock, fit food for the lords of the world; then the after-meal, cakes, cheese and apples.

It will be at once seen that the first-class American of to-day divides his dinner into just these three parts, under the names of soup, meat and dessert. Thus the waiter makes three journeys and sets the table before him three times. The American breakfast tends to arrange itself in the same way; the first section of

the meal being fruit or oatmeal; the second, meat; the third, hot cakes.

The modern European dinner is something far more elaborate. Of course I would not wish to imply that Americans are less cultured than Europeans, even gastronomically. We understand grand dinners perfectly. We have tried but do not care for them. "In the first place we have not time," and in the second, "it don't pay." Sir Henry Thompson, the latest authority, in his admirable book, "Food and Feeding," says that the ordinary English family dinner must consist of five courses besides the dessert: soup, fish, entree, roasts and sweets. Of the grand dinner with invited guests, he speaks with enthusiasm, as "a complete symphony;" "an andante in common time," "the bright sparkling minuet to follow," "the grand finale," a "plaintive minor passage," "the force and splendor of the resumption of the major key before the close." He then gives of this gastronomic symphony the archetype, an ideal dinner in seven courses, as follows:

First: An introductory or preliminary dish, say soup or fish.

Second: The substantial dish of meat to satisfy the keen appetite, say roast beef, a joint of mutton, a *filet de boeuf*.

Third: A choice dish or two of delicate flavor for the gratification of the taste, such as entrees.

Fourth: A dish of marked flavor, in other words, game or a roast bird.

The fifth course is a choice vegetable by itself.

The sixth consists of sweets and pastry.

The seventh, a savoury, such as cheese, caviare, dried fish or deviled biscuit.

The symphony thus presented, most interesting and suggestive, is yet not quite as harmonious as we could wish: it seems partly French, partly English, and somewhat arbitrary. Could we improve it?

It is, perhaps, not to much of a paradox to say that bills of fare are not made, but grow. The three divisions of a dinner, the preliminary meal, or course, before the appetite is satisfied, the mid-meal or satisfaction of the appetite, and the third, or after-meal, of course after the appetite is satisfied,— these three divisions are really organic. Why not? Why not as much the order of things as are the vestibule, nave and chancel of a church?

In this way the extra and future courses of a dinner will grad-

ually evolve themselves, subject to the same laws of integration and differentiation that have created the others. For instance, it is plain enough to us that the after-meal has already in practice differentiated itself into two courses, pastry and dessert. The one consists of pie, cakes, custards, creams, to gratify the sweet tooth; the other of cheese, nuts, fruits, coffee, often dried fish, *caviare*, green almonds or brandied peaches, all of which are said to promote digestion. In the same way the mid-meal has its double aspect: the homely and solid beef and mutton on the one hand, to give one all satisfaction, something worthy of the steel, rightly named the *piece de resistance*; on the other hand the *sauce piquante*, the *vol au vent financiere*, game *entriee*, somthing rare and delicate. Just so the preliminary course falls into two parts, the soup and the fish; one appealing to thirst, the other to hunger. A man may thus dine in six courses and do it reasonably, — if he does not do it too often.

As for the grand banquet, the symphony of nine or ten movements, one should be a gastronomic Beethoven, or Rubenstein indeed to go through it credibly; yet such virtuosi do exist.

There is one curious fact which may be observed in relation to the grand or elaborate *menu*, and that is that it embraces in itself every kind of food and every variety of cookery. For instance, take the ordinary courses, *potage*, *poisson*, *releve*, *entree*, *roti*, *entremet*, *dessert*. Here we have after soup, fish and flesh and fowl, as though it were desirable to try every kind of viand; nature offers then the entree, which is practically any or none of them, but a special form of cookery, something soft dressed in sauce; then the pastry, also a special form of cookery; the cheese another special product, and the fruit another. A dinner then like a country fair, is an exhibit of all the good things. To a person uninitiated it might seem little else, nor could it do better than take a small sample of each. He does not know that these courses are arranged with infinite art, each in its special place, coming in at the proper time to fill a want fantastically refined and subtle.

It would take but little research into the history of culture to see just how the grand banquet has grown up and come to be the portentous thing it is. First, how the food articles were combined to form *the dish*, for instance, bread with butter or fish with potatoes. Next how various dishes were skilfully grouped together to compose the simple or *square meal*; say, meat and vegetables

with a relish and with bread and butter. How, as refinement went on, there was added the after-meal or *dessert*, and still later, at the other end, the *gusto* or preliminary meal. How still further advanced and by still more subtle refinement, each of these three was developed into a two-fold or three-fold member, and the Symposium banquet or grand gastronomic symphony was created — nine courses, as follows:

1. Oysters.
2. Soup.
3. Fish.
4. Releve, *Filet de Boeuf.*
5. Entree, *Vol au vent Financiere.*
6. Roti.
7. Entrement, Pudding, Cake, Cream.
8. Savory, Crackers, Cheese.
9. Dessert, Nuts, Fruits.

Nine courses, exclusive of punches and coffee,— nine meals in one. *Apres nous le deluge*: indigestion, gout and biliousness. Exit the cook; enter the doctor.

Next in order would come the Sociological Aspect. This the lack of time at present forbids us to discuss. It is the least known, but I believe the most fruitful field of investigation. The "Food of All Nations," is cerainly an interesting subject. That the national food of England is roast beef; that the French eternally eat stewed veal and *patè de foie gras*; that the natural food of Germany is sausages, and that of Italy maccaroni, goes without saying. Certain it is that these diets are a matter not of necessity, as with the lower races and the poor, but a matter of choice, and that there is a correspondence between the national food and the national temperament, there can be no doubt.

PAPERS OF THE SOCIAL ECONOMY DEPARTMENT.

I. ADDRESS OF THE CHAIRMAN,

F. B. SANBORN, OF CONCORD.

(Read Friday, September 10, 1886.)

Mr. President and Members of the Association:

Like all the topics with which we have to deal, in these meetings that have continued now for more than twenty years, my special subject this morning opens out into almost endless avenues and lanes of thought, guided as with Ariadne's clew, by that enticing word *social*,— which includes every interest of mankind except the petty material or vast spiritual concerns of anchorites. Nay, even that "flight of the Alone to the Alone," which the Neo-Platonists encouraged, has its social side, when viewed from the standpoint of the mystic's mother or sister or deserted wife, and the very anchorite has brethren. But I shall come forth from my cell to touch on a few selected social questions of the time, and not to meddle with all the affairs of all mankind.

The burning social question is now, however, (what it always has been) the relation of employer and employed, of so-called Labor and so-called Capital; and this does now, always did, and ever must, affect the concerns of all mankind.

> *Quis jam locus (inquit) Achate,*
> *Quæ regio in terris nostri non plena laboris?*

Is there any region on earth that is not surfeited with our labor question? If so, it is not where the Eskimo are starving in Labrador, nor where the fabulous Hydaspes looks upon the famishing toil of India, nor even where the natives of Congo are waiting to exchange their products for ours. Wherever the electric current of modern commerce now circulates — and where does it not? — the laborer is a competitor with us, and the capitalist is either a confederate or a competitor with our capitalists. Let us first, then, consider those relations of Ownership and Exertion — that is, of Capital and Labor, which now keep the whole world

talking through the newspapers and magazines,— in shops and houses and churches, in caucuses and stump-speeches, and everywhere else.

Capital, viewed in regard to the capitalist, is simply *ownership;* and Labor, viewed in regard to the laborer, is simply *exertion*; and when these formidable and juggling words are thus reduced to their lowest terms, who can see any conflict between them? In every person—even in the traditiona ry Mikado of Japan—ownership and exertion co-exist—and therefore every human being is both capitalist and laborer, unless he is so unfortunate as not to own himself. Yet the very chattels of the Roman patrician had their *peculium*, their private hoard of capital; and there is tradition of a southern slave, who, in a sudden shower, clapped his new beaver hat under his coat and went bareheaded exclaiming, "*hat* belong to me, *head* belong to Massa." I wish to say that Labor itself is dependent at every stroke on Capital—that exertion must always be preceded by ownership of some kind, that the laborer is a capitalist, and is every century more and more such; while the capitalist is more and more a laborer; that is, the property of the world was never more actively entering into the work of the world than now.

The discovery and first use of the precious metals as money, though gold and silver have proved of such untold value to the world in facilitating commerce and thus promoting industry,— their first use, I say, was to withdraw from employment a part of the active capital of mankind. Before that, corn and cattle, or merchantable goods of any kind passed as coin, and of necessity kept moving by way of barter from place to place, because they perished or grew useless if stored up. Fancy an egg or even a spring chicken put on deposit or hoarded for ten years! where, then, would its exchangeable value be? But "fond shekels of the tested gold," and those costlier products of the mine which Marlowe's Jew of Malta described so happily as

Infinite riches in a little room,

not only could be, but actually and continually were hoarded up and withdrawn from the service of men in great sums; nor was it for many centuries that even the Jew, much less the rude Gentile, learned the art of banking, by which the gold and silver did their work while lying idle in the chest or the vault. So late as 1764,

at the end of the seven years' war in which Pitt and Frederick the Great had been victorious allies, the Prussian monarch found that a bank in his dominions was a novelty. The passage in his "Memoirs After the Peace of 1763," in which Frederick stated his difficulties, is so curious and so little known, that I will transcribe it from Holcroft's translation of 1789:

"War" (says Frederick) "had rendered the course of exchange disadvantageous to Prussian trade, although our adulterated coin had been at once melted down after the peace, and restored to its former value. To erect a bank was the only means that could be taken to obviate this inconvenience. Persons enslaved by prejudice, because they had not sufficiently considered the matter, *affirmed that no bank could be supported except under republican governments;* for moneyed men (they said) would never place any confidence in a bank that should be established in a monarchy. The assertion was false; there is a bank at Copenhagen, another at Rome, and a third at Vienna. Men were therefore permitted to reason as they thought proper; but my project was put in execution. The court of Prussia disbursed 800,000 crowns for the bank's establishment, and this sum served as a fund on which to base its operations. At the beginning our bank suffered some losses, either through ignorance or from the knavery of those who managed it; but since it has been under the direction of M. Von Hagen exactness and order have been established. No bills have been allowed to issue till funds were first realized for their payment. Besides the advantage which this bank procured for Prussia in facilitating trade, another appeared. In former times it had been the custom for the money of wards in chancery to be deposited with the court, and these wards, *instead of deriving any advantage from their capital*, while any lawsuits continued, *were obliged to pay 1 per cent. per annum.* Such moneys were now deposited at the bank, and the minor received 3 per cent.; so that, in effect, including what had formerly been paid into court, his real gain was 4 per cent. The bank soon had offices in all the great towns of the kingdom, and agents in every commercial city of Europe."

Now consider that this was but 120 years ago, in the country which now dominates continental Europe, and we shall not wonder that Sydney Smith, who was born about the period of Frederick's death, used to speak of "the time before the invention of common sense," as a very recent epoch. Contrast this inactivity of capital in the Prussia of 1764 with the prodigious activity of capital in the United States of 1864, under precisely similar circumstances,—that is, the close of a destructive war,—and you

will see what banking and the credit system have done to mobilize the forces of labor; and how true it is, as I said, "that the property of the world was never more actively entering into the work of the world than now." The "nimble penny," which has always been proverbially better than the "slow shilling," has now quite supplanted the shilling, and become the crown, the pound and the whole coin of the realm. Labor may now say of its thrifty lover, Capital,—

> To make that crown a pund my Jamie went to sea,
> And the crown and the pund they were baith for me.

But no, says Labor's proxy, the glib-tongued orator, journalist, or preacher, "No—Jamie is laying up the pounds for himself—Capital is filching the whole profit, and all the surplus earnings of Labor into the bargain. Capital is a thief and Labor is his poor victim." I admit that some capitalists are thieves, as well as some laborers,—and all such are false thieves, for it is their true business to enrich, not to defraud, one another. But Capital, as a whole, is just as much and just as little a thief, as the earth's atmosphere is, which only sucks up moisture from the soil in one place to pour it down on all; or as the ocean is, which drains all the rivers of their water only to return it in the form of rain and snow. Are the rich growing richer because the ocean is higher when the tide is full, or the poor growing poorer because the sands and flats are bare when the tide is out? Such observations, made along the margin of the great ocean of civilization, are as sagacious as the calculations of a child who for the first time visits the sea-shore with his spade and bucket. Upon the whole, and in the view of all recent history, the poor are growing richer and the rich are growing more in number,—the very reverse of that plausible fallacy which one pessimist echoes after another. This was true even in the dominions of Frederick the Great between his accession in 1740 and the year 1779, in which he took the census of his provinces; for he shows that there were then 3,290,000 inhabitants where there were but 2,170,000 in 1740; and that they were collectively more prosperous at the latter date. I have found in another writer of the 18th century, whom few of us now read—Madison, the friend and successor of Jefferson—some singular and judicious computations on the good which colonies do to the mother country, and these bear directly on this social question of

increasing or diminishing poverty. Madison was a Malthusian, but a sensible one, and he wrote thus in the year 1791:

"Emigrations may even augment the population of the country permitting them. The commercial nations of Europe, parting with emigrants to America, are examples. The articles of consumption demanded by us from Europe have created employment for an additional number of manufacturers. The produce remitted by us, in the form of raw materials, has had the same effect; while the imports and exports of every kind have multiplied European merchants and mariners. It was the opinion of the famous Sir Josiah Child that every man in the British colonies found employment, and, of course, subsistence, for four persons at home. Now of the people of the United States, nearly 3,000,000 are of British descent; according to this estimate, as more than half a million of the adult males in the United States equally contribute employment at this time to British subjects, there must now be more than 2,000,000 British subjects subsisting on the fruits of British emigration. . . . The space left by every ten or twenty thousand emigrants is speedily filled by a surplus of life that would otherwise be lost. The 20,000 in their new country, calling for the manufactures and productions required by their habits, will employ and sustain 10,000 persons in their former country, as a clear addition to its population. The course of emigration being always from places where living is more difficult to places where it is less difficult, the happiness of the emigrant is promoted by the change; and as a more numerous progeny is another effect of the same cause, *human life is at once made a greater blessing, and more individuals are created to partake of it.*"

Here is the truth respecting the progress of civilization put in a nut-shell, — "Human life is at once made a greater blessing, and more individuals are created to partake of it." The postulate of emigration and colonial supply shows the curse and force of the argument, but it is equally good from whatever cause the general wealth of a country or of the world is promoted. If it be true that "power is always stealing from the many to the few" — which I doubt — it is at least equally true that wealth is always stealing from few to the many. No man can be so wise as all men; nor can any man or set of men be so wealthy as all men. The constant effect of modern civilization, whether the governing classes so intend or not, is to increase the wealth and the comfort of the multitude. We can see this on a great scale, in our southern states, where the 4,000,000 of slaves, who did not own even themselves, have developed into 6½ millions of freedmen, owning a vast amount of property in the aggregate, and constantly adding to it. Nobody

can with any reason maintain that in the former slave states, for 20 years past, "the rich have grown richer and the poor poorer,"— for there the rich have surely grown poorer and the poor richer. Mr. Atkinson has shown, too, in that interesting essay read here two years ago, which he has since expanded into a volume, that in the manufacturing communities of the North, the same accumulation of wealth in the hands of middling and poorer classes has been going on, at the expense of those large profits upon capital which were gained in New England 40 or 50 years since. Notwithstanding the enormous total of many private fortunes in the United States, it will be found, if we look at the still more enormous increase in the aggregate possessions of the multitude, that the balance of gain is on the side of the many rather than of the few. And there are communities where a great private fortune, moderately taxed, has gradually improved the condition of every person in that community.

But now we are confronted with a new set of philosophers who tell us that ownership itself is an evil; or, at any rate, that we may own some things, but must not own others — must not own land, for example. Land, they declare, is like the atmosphere and the ocean, not to be appropriated by individual men, but held in common by all; all the land must be owned by all the people, just as the air is. But are the air and water in fact owned by the community any more than by individuals? Each person uses as much air as he wants; it is brought to him and he takes it from nature. If it is not exactly so with water, it is virtually so; there is, and can be no monopoly of it. The river glides away from the miser who would make it his own; the rain falls alike on the just and the unjust, and, although the public in cities undertake to distribute the water supply, for reasons of convenience, yet the individual, when he has paid for his aqueduct water, owns it as completely as the public ever did. Now this gliding instability of air and water, and this common boon of light are essentially different, so far as appropriation is concerned, from the land beneath our feet. Ownership of land, at least for a period, is entirely indispensable to civilization. Who would build a house if the land it is to stand upon were to change hands every year, not to say every moment, as light and air and water do? I must control absolutely the spot where I am to eat and sleep, and where my children are to be born; if I do not control it by conquest, or purchase or inheritance, then I must by pay-

ing rent for it, — which is only a temporary and limited purchase. The great evil of all disturbed and oppressed countries is not possession of land but dispossession. The poor shepherd in Virgil sings that song:—

Impius hæc tam culta novalia miles habebat,
Barbarus has segetes?
"Did we for these barbarians plant and sow?
On these, on these our happy fields bestow?
Good heaven! what dire effects from civil discord flow!"

And what is it that vexes Ireland so much as the lack of firm possession in the soil that the peasant cultivates? This is what England is now seeking to give him, — not by destroying all private ownership, but confirming that ownership by the strong hand of the State to those individuals who have hitherto been too feeble to maintain it.

I leave to others in the debate which is soon to begin the firm establishment by cogent reasons of the right of property, particularly in land, and will only say here that I have no fears that mankind will ever give up individual ownership. Sydney Smith used to rely for the security of English affairs, as he said, on the good sense "of those who had something to lose, and not the least intention of losing it." Now in this country the number of those who have something to lose is greater than in England, and although our people are perhaps more unselfish than the English, I do not perceive that they are generally willing to philanthropize the ground out from under their feet, nor, as Lady Herbert said to her husband when he proposed a settlement of her estate in favor of her children, "to draw the cradle on their own head." The ingenious proposal of the New York pauper many years ago, — "Equal divisions of all property every Saturday night,"— is not likely to be accepted in this country; nor can any economical or political platform looking to the control of individual freedom in the acquisition and management of property, whether landed or funded, by the state or national government, ever become very popular in a community where almost everybody is a property holder.

It is otherwise with corporate property, in the extension and privileges of which form of ownership real danger lies, both here and abroad. State ownership of land, as proposed by Mr. George is but a gigantic form of that ownership by impersonal corpora-

tions such as railroads, manufacturing companies, colleges and churches, against which, in some of its forms, Mr. George also protests vehemently. Where landed estates are entailed in a feudal order (as was long the fact in England, and where the potency of the fact still survives its technical disappearance), you have an impersonal corporation, to most intents and purposes; and therefore individual freedom of purchase and occupancy is much restricted. In so far as American capital takes this form of corporate wealth, strongly banded together by class interest, it may easily become, at times, hostile to the classes not concerned in such special property. Even a large pecuniary interest, not strictly in the corporate form, like that of the Southern slaveholders from 1820 to 1860, or that of the manufacturers and dealers in liquor at present, has often proved very hostile to the rights of the people, and to the morals of society. If the trade-unions and Knights of Labor, that now delight to show their power, in this democratic government, by terrorizing poor men and subjugating rich and ambitious men, would spend their strength for six months in resisting the domination of the poor and industrious by drink; if they would pursue the saloon keepers with the same vehemence they manifest against railroad managers and the upright employers of labor, they would do much good and scarcely any harm; whereas, for the past six months they have been doing little good and much harm.

Concerning that scum of European revolutions and conspiracies that has floated to this country on the wave of emigration, and here coagulates into the small corps of anarchists, who make so much more noise than their real importance justifies,—there is but one thing to be said. Government is so necessary, even in the most Arcadian communities,—and all the more in Boston, Chicago and New York,—that men who openly avow themselves against all government must be treated as outlaws, whenever they put their principles in action by force. There can be but one paramount authority, and that must be maintained, if needful, by soldiers and by executions. These are not the best methods of government, but they are sometimes the only available ones; and the good sense of mankind always supports the reasonable exercise of force for the preservation of society. The most popular American president that any of us remember was Andrew Jackson, who never bore the sword in vain; and next to him was Abraham Lin-

coln, under whose direction, but against whose kindly heart, the most destructive and constructive civil war of modern times was fought. That petty section of Bohemia which hurls adjectives and dynamite bombs in our great cities must not expect to receive more tenderness of treatment than we gave to our own kinsmen and sworn brethren of the South, when they drew the sword against the nation.

Our Association has never been remiss in taking up for discussion the social questions of the time, as the record of our meetings for twenty years past will show. While avoiding those questions that involve the temporary and exasperated enmities of partisan politics, we have dealt seasonably and plainly with all topics that concern the poor and the rich, the laborer and the capitalist, the governors and the governed. In America we pride ourselves that the governors *are* the governed,—that so much self-restraint has gradually been infused into our people and inherited by them from sensible ancestors, as to become a structural part of our government,—a silent but not a sleeping partner in the business of administration. I have so much confidence in hereditary and educational forces that I do not look to see this self-restraint lost nor materially diminished, notwithstanding the threatening aspect which our affairs sometimes assume. The present ferment on the subject of labor does not seem to me materially different from many that we have seen before, and I am not tragically anxious about its results. Politically they are bad just at present; firmness and even common sense seem to abandon many of our nominal political leaders. But the average politician was never remarkable for sense nor for firmness. Beneath the yeasty surface of the billows is the strong tidal wave of national life; and beneath that the deep ocean of our common humanity, whose fountain and whose limits are Divine. "The gods approve the depth and not the tumult of the soul," and we may possess *our* souls in patience, relying on that Power which always and everywhere makes for righteousness.

II. PROPERTY.

BY THOMAS DAVIDSON, OF ORANGE, N. J.

Property is exclusive or unshared right to use. It is, in the strictest sense, a privilege, something accorded by a community to its members, as such, not as individuals. An individual, as such, may have possession, just as a robber or a Robinson Crusoe may; but he can have no property. Possession becomes property solely by being recognized as such by a community. By such recognition the community does two things: (1) It grants a privilege; (2) It undertakes to protect the recipient of that privilege in the exclusive use thereof. Property, then, as distinct from possession, implies and pre-supposes obligations and possible sacrifices on the part of a community. Upon what grounds may a community assume such obligations, and render itself liable for such sacrifices? This is the real meaning of the ordinary question: What justification is there for private property? (*Private* property is a pleonasm: all property is private.)

It is evident that a community will not grant privileges involving grave consequences to itself and its members, without some reason or purpose. (A practical reason, in the last analysis, is always a purpose.) This purpose will, in all cases, be the real or supposed good of the community. The sole justification for property, therefore, is, that its existence is beneficial to the community which permits it. A community may grant the privilege of property for any reason it pleases; but a community desiring to be just will grant it only for the reason assigned. The consent of a community is sufficient to create *legal* property; *just* property requires that this consent be given only with a view to the highest good of the community. Justice is nothing but the principle of all actions tending to this good.

In a community which professes to be regulated for the benefit of all its members, the good of the community is identical with the good of all the members of it. Where the contrary assumption is made, as it is in all communities permitting the existence of privileged and, consequently, of disprivileged classes, the question regarding the justice of property, as distinct from its legality, cannot arise. In a community which does not grant equal privi-

leges, on equal terms, to all its members, there is no justice, but only legality. In England, which permits privileged classes on principle, jurists merge justice in legality. In Germany, where such classes are merely tolerated, jurists acknowledge the existence of justice, or, as they term it, natural right, as distinct from legality, or conventional right. The latter acknowledge the existence of a right higher than, and independent of, the will of a community, of a law to which every community, in granting privileges, is bound to conform. It is this acknowledgment that forms the basis of Humanitarianism and Scientific Socialism. Our own country follows Germany and the ancient world in holding to the existence of justice or natural and inalienable right, as distinct from legality.

In regard to the justice of property three questions naturally arise:

(1) Is property just,—that is, does its existence bring good to the entire community and all its members?

(2) Granting that it does, what amount and distribution of property are most beneficial, and, therefore, most just?

(3) On what grounds ought the privilege of property to be granted?

As regards the first question: Is property just? we must look for the answer, in the main, to experience, and this experience has been so one-sided that it hardly serves our purpose. The communities not allowing the privilege of property have been few, hardly sufficient to offer a fair test of the effect of community of possession. But, if experience does not warrant us in accepting communism, and, with Proudhon, declaring property to be theft, as little does it warrant us in condemning communism. The effects of private property have not been so uniformly beneficial as to warrant us in refusing to give communism a fair trial. Our present economic condition and its results certainly do not warrant us in drawing a strong conclusion in favor of property. But, for the sake of argument, let us grant what, after all, is probably true,—that the institution of property is beneficial.

As to the second question: What amount and distribution of property are most beneficial? we must answer: That depends entirely upon what we mean by *beneficial*, what we mean by the *good of a community and its members*. This shows us that economic questions lead directly to ethical ones, and cannot be solved with-

out them. I will assume that the highest good of a community and of its members is a life of virtue and noble happiness. I will assume that human perfection, in intelligence, humanity and fortitude, is the end of human action and human life, and that to this end all other things are subordinate, as means. If any one holds another view, I have no quarrel with him, nor is he bound to accept my conclusions. On this assumption, it follows that that amount and that distribution of property are best which enable all the members of a community to reach the loftiest heights of intelligence, humanity and fortitude,—the conditions of human happiness. A just state, maintaining that "life, liberty and the pursuit of happiness" are among man's inalienable rights, must aim at securing this amount and this distribution. Evidently, property in excess is as bad as property in defect. Both tend to occupy men's whole attention, and to leave them no time for self-cultivation and truly human happiness. It follows that that amount of property is most beneficial which takes only so much of a man's time, thought, devotion and energy to acquire and manage as shall leave him with plenty of time, thought, devotion, energy and *means* to enable him to cultivate himself to the highest degree. More than this can but lead to evil, as, indeed, we know from experience that it does. The distribution of property is determined by the same law, and by this further one, that,—as it can never be for the good of a community that its members should have conflicting interests, which must always be, if one portion of them are allowed to use for their own benefit another portion,—property must never be so distributed as to place one portion of a community in a position of dependence upon another. Property is power of the most effective kind; and, when so distributed as to divide the members of a community into classes, leads necessarily to class government and practical injustice. History shows us that all unjust governments have had their origin in an evil distribution of property. If it be asked: What right has a community to limit the property of its members? the answer is, The same right as it has to limit any privilege whose extension would be prejudicial to the highest interests of itself and its members.

And this brings us to the third question: On what grounds ought the privilege of property to be granted? Plainly on such terms as shall secure that distribution of property which we have shown to be the most beneficial. Before conferring upon any one the privi-

lege of property in any possession, the community has a right and a duty to ask him these questions: (1) On what ground do you claim the privilege of property in this possession, and ask the community to protect you in its exclusive use? (2) Have you, in acquiring this possession, unfairly curtailed, for other members of the community, the opportunities for making similar acquisitions?

As to the former of these questions, the only valid reasons that can be assigned why the privilege of property in any thing should be granted to any one are these: (1) That the thing in question represents energy, physical, intellectual or moral, expended by the claimant, or by some one who has made him a gift of that thing; (2) That it is essential to the well-being of a community that each member of it should be secured in the exclusive use of those things which represent his own energy. It is hard to see how any one man can urge a claim to property in what represents the energy of another, unless with that other's free consent. It is equally hard to see how any one can fairly claim property in that which represents the energy of no one, for which no one has labored.

For this reason it is difficult to understand how any one can claim property in land, and on what ground a community can fairly allow such a claim. That for which no one has labored more than another ought not to become the property of one rather than another. This would be true, even were land infinite in quantity, as light and air practically are, although, in that case, property in land would be less harmful than it is with land finite in quantity. Since access to land is, in the last analysis, the essential condition of the productivity of labor, it is plain that if any community allows its land to become the property of a portion of its members, these will have it in their power to sterilize the labor of all the rest, and so reduce them either to beggary or slavery. If the privileged refuse to allow the disprivileged to use the soil altogether, the latter must become beggars; if they allow them to use it only on such terms as they themselves dictate, the latter must become slaves. Allowing property in land means erecting tyrannies within a community, and this the history of all nations that have allowed it has shown. Such a condition of things can never be for the benefit of a community.

It does not follow from this that a man may not fairly be allowed to hold land as long as he pleases, on any conditions the commu-

nity may see fit to impose, provided he render to the community an equivalent for that privilege,—that is, the whole produce, *minus* so much as represents his own labor, including, of course, his capital in so far as that represents his labor.

While the institution of property exists, it is plainly for the highest good of a community that each of its members should be allowed the privilege of property in what represents his own energy or labor. No other ground of claim seems just or likely to call forth man's highest energies. Communism is plainly unjust, unless where it is practised as charity, from a religious motive, as it was and is in the religious orders of the Christian church. Socialism, on the contrary, is not unjust, since it desires to give to every member of a community the privilege of property in the entire result of his own labor, as well as his rightful share in all that is possessed by the community as such. Its drawbacks are of another kind.

The second question which a community ought to put to claimants for property: Have you, in acquiring this possession, unfairly curtailed for other members of the community the opportunities for making similar acquisitions?—suggest a limitation to the rule that every member of a community ought to have the privilege of property in the results of his own labor. If, in obtaining these results, one man has diminished the results of the labor of another, or prevented him from having opportunities to labor, it can never be for the good of a community to grant the former a privilege of property in these results. They are, from the point of view of justice, if not from that of laggard legality, stolen results. Of course, instead of allowing a man to acquire possessions, and then refusing to grant him the right of property in them, it would be better for a community to forbid and prevent the acquisition of such possessions altogether.

This brings us face to face with a most vital question: How far ought a community to limit the employment by individuals of capital in production? Since communities exist for no other purpose but to put a stop to the action of the sub-human, Darwinian law of the survival of the strongest and the tyranny of the most cunning, it is quite plain that a community has just as much right to prevent a man from using all his capital for his own benefit, as to prevent him from using all his strength for the same purpose. The one is just as fatal to the community as the other, and may

be more so. The only question is: How far ought this prevention to be carried? Evidently to such a point as shall prevent any one man from absorbing so much of the productive work of the community as to make it impossible for other members independently to acquire the most beneficial amount of possessions. Work is wealth, and may be stolen or filched like any other wealth. Nature has wisely given to each man a limited power of work, an amount usually sufficient to secure the most beneficial amount of possession. When a community allows a man to appropriate, by means of machinery or land, an undue amount of this work, so as in the end to reduce other men to beggary or slavery, it utterly forgets the demands of justice. It is, therefore, incumbent upon every community to regulate carefully, by stringent laws, the amount of capital which any man may employ in production, whether in the form of landed possession, machinery or wages. It ought to be considered as great a crime to rob men of work as to rob them of wealth. The first privilege of every member of a community ought to be the privilege of making an independent living. Without this he is a slave.

That the unlimited privilege of using capital results in the production, on the one hand, of an industrial and tyrannical aristocracy or oligarchy,—on the other, of a large class of discontented wage-slaves,—is a fact which our own present menacing economic and social condition but too plainly demonstrates. To speak of freedom under such circumstances is to palter with speech.

To resume: Property is a privilege which a community grants to individuals, not arbitrarily, but for just reasons. These reasons are summed up in the highest good of the community and its members, which good is of a spiritual kind. Nobility, and not wealth, is the chief end of life, social as well as individual. With respect to the privilege of property, modern communities, our own included, make two grave errors: (1) They permit private property and extensive possession in land; (2) They permit the unlimited employment of capital in production by individuals. These errors are the chief causes of our present social and economical difficulties. How to correct them is the chief problem of our time, the religious task of the immediate future.

III. PROPERTY IN LAND. — Letters.

Letter from Dr. Lyman Abbott.

New York, August 31, 1886.

My Dear Mr. Sanborn:

I am sorry to say that it will be impossible for me to be at Saratoga next week, much as I should like to be there; nor do I think I can throw much light on the question, the right of property in land. It seems to me very clear that labor is the foundation of all property, and that the ultimate right of ownership of land is in the community. But it is equally clear, from history, that the communal ownership and management never has promoted public welfare. The community have a right of control over land which they have not over personal property, which is itself the product of industry; but they have a perfect right to exercise that control by allowing private ownership within such limitations as they see fit to attach. And such private ownership, on the whole, serves the public welfare much better than public ownership, if that be coupled with public administration. Not only is this true, but much of our legislation assumes this to be true. The Irish land legislation of Gladstone can be defended on no other basis. Practically, the question for us in America to determine, is, What limitations should the public put upon private ownership in land in order to secure the largest public welfare? I have never been satisfied that Henry George is right in thinking it wise to put the entire burden of taxation on land. However, I have no doubt of the abstract right of the community to do this if this is proved to be for the common welfare. On the other hand, it seems clear that some system should be devised and put into operation which would prevent the holding of great tracts of land, unimproved, for speculative purposes, and perhaps, also, to prevent the concentration of land in the hands of a small party of landed proprietors.

At all events, my five minutes' speech would have in it only two points, and perhaps two points are twice too many for a five minutes' speech. First, that the ownership of land belongs to the public; and, secondly, that in the administration of that ownership for the public welfare, it is desirable not to take possession of and administrate the land, but only to put limitations upon the administration of it by the individual.

Yours, Very Truly,

LYMAN ABBOTT.

Mr. F. B. Sanborn, Concord, Mass.

LETTER FROM DR. H. L. WAYLAND.

PHILADELPHIA, September 3, 1886.

DEAR MR. SANBORN:

I am touched by the delicate compliment which you pay me. You ask me to write for you something about "the right of property and the ownership of land." You are aware that the possession of property is almost sure to create a bias in the premises; and you come to me for an unbiased, a judicial opinion. Such discriminating courtesy should not lose its reward.

For some years I have been unlearning the lessons of youth. I have been coming to discredit what I once supposed to be axioms. I am somewhat in the condition of Mr. Pecksniff; "I remember thinking in the days of my childhood that pickled onions grew on trees, and that every elephant was born with an impregnable castle on his back. I have not found the fact to be so; far from it." I used to believe in the sacred right of property, in the right of every man to get all he could, and, having got it, to hold it absolutely, to use it as he would, and to direct its disposition after he should be dead. But I have come to believe that all the rights which might seem axiomatic, if a man were alone on the world, are very largely modified, or perhaps cease to exist, when man becomes a member of society. Robinson Crusoe (with whom, perhaps, you were not *personally* acquainted,) might with truth say:

I am monarch of all I survey;
My right there is none to dispute;
From the centre all round to the sea,
I am lord of the fowl and the brute.

But suppose that another vessel were cast away on the other side of the island, and suppose a sailor to come ashore alive, from that moment Robinson Crusoe ceased to be "monarch of all he surveyed." His *sole* ownership determined, and his control over what might remain to him became limited. The newcomer had a right to standing room and living room. He had a right to land, to a chance to shoot goats, to a share in all the *natural* advantages of the island. No doubt, Robinson would be entitled to compensation for the improvements which he had made.

There is clearly a limit to the right of a man to get all he can and to keep all he has got. I am not prepared this morning to define the limit; probably it would require two or three minutes

thought to do so satisfactorily; but that there is a line is beyond question. The right reserved by the State to take property for public uses involves the fact that all property is held subject to the public welfare. Is there any reason why property in rum should be held any more sacred than property in diseased meats and decaying vegetables? Was not the law of Moses wise in holding all sales and transfers of land subservient to the general welfare, and to the right of society to guard against the existence of a landless class, always a dangerous class? Is there such a thing as an absolute right in property? Does not the scripture express, not alone a divine truth, but a human truth as well, when it represents us as trustees for the good of our fellow-men? "As every man has received a gift, even so minister the same, one to another, as good stewards, as faithful trustees, of the manifold gift of God." I think, then, that the general good dominates the right to acquire property to an unlimited extent, the right to hold it *in perpetuo*, the right to use it as one will, the right to transmit it and to control it after one is dead.

Another very interesting question comes in here; how shall society regard the possession of property which was acquired by fraud, or rapine, or clear injustice and illegality, either one year ago or 50 years ago, or five generations ago? Thus, it has been publicly stated and not denied, that the railroad corporations have become possessed of 150,000,000 acres of the public domain by fraud, not having fulfilled the conditions; or by perjury, or force, or intimidation. It is stated that the roads controlled by one man were put in possession of 40,000,000 acres of public land, with absolutely no right. In many instances in England, the local magnate has inclosed the common in absolute injustice. When does the right and the duty of society to repossess itself of such land cease? It would remove one of the great motives to such iniquitous acts of public pillage if it were known that the State could and would reassert its rights, no matter what interval had elapsed, just as now the owner of a horse may claim it anywhere, no matter how many hands it has passed through.

Pardon me for taking up your time with these very obvious and commonplace remarks. I feel the presumption of making any suggestions to *you*, who know just how all social and economic arrangements were adjusted ages before the world was created.

IV. RIGHT OF PROPERTY AND THE OWNERSHIP OF LAND.

Remarks by W. T. Harris, of Concord, Mass.

Social science seeks to understand the laws of the structure of human society with a view to use its knowledge for the increase of human welfare.

Man's nature is so complex that social science has difficulty in grasping all its phases. It has again and again found itself in error, because it has omitted some essential phase of society, in computing the elements of a social problem.

In this session of our Congress, we have already discussed the importance of a complete inventory of the topics that lie within the province of Social Science. We must comprehend the scope of the whole, and be able to make clear to ourselves by a definition the essential items in our general survey. We must discover one by one, all the elements that condition the problem of society, and learn to keep them in view when we seek an answer to any given question.

We are all aware of the dismal failure of political economy to explain the phenomena of wealth and poverty as an isolated province of human welfare. Man is a property-using animal, indeed, but this definition does not exhaust the nature of man. For man has three other provinces of activity equally essential. He reproduces his race by the institution of the family and sets up a process of compensation for the inequalities of sex, age, and other limitations of individuality, such as disease and personal peculiarities.

Property and its production, exchange, distribution and consumption demand a social combination which we call the *community* or *civil society*, an institution quite distinct from the family. Nevertheless there can be no science of the community if the family is ignored. For the entire structure of the community or civil society must be conformed to the essential requirements of the family. The preservation of the species and the preservation of that portion of the spiritual heritage of culture that takes the

form of manners and customs and language constitute the two-fold function of the family, and without these there would be no human race conscious of objects and purposes for whose attainment it could use wealth. Indeed, without the family there would not be any human race at all to need wealth.

A political economy, therefore, that ignored the laws of family life, would be a fatal mistake — just as a doctrine of the family that ignored the institution of civil society and made no preparation for it in family nurture, would fail to provide for the object of human life.

But the family and the community do not make up a complete inventory of the institutions of human life. They must not only have consideration for each other, but they must both have consideration for another province — for two other provinces or institutions — the State and the church.

Without the State there can be no perfect development of the family or of civil society. The State protects and defends, orders and arranges the family and the industrial process by which wealth is created and used.

The institution by which man gains truth and wisdom — spiritual wealth — and by it feeds the immortal soul, is still another institution, and we shall agree to call it the most sacred of all, for it is that alone which makes life entirely worth living. I like to call this spiritual institution the Invisible Church. It includes especially all forms of the Visible Church, and besides these, all labors in science and philosophy, all poetic and literary art, all the fine arts, in short, all free insight into the true, the beautiful and the good, and all practical endeavor that realizes and actualizes them among men. For art, religion and philosophy enable man to participate in the divine, and thus they furnish a sufficient reason for human existence. Without this participation in the divine, the preservation of the species through the family is not a matter of infinite importance; nor is the production and consumption of wealth; nor, finally, the organization of a political whole in the form of a nation.

Political economy, therefore, must not only look backwards to the family, it must look forward to the State and build its science with a view to the higher functions of men as citizens of a free State. It must keep in view still more the absolute goal of human life — which is participation in what is divine forever and ever.

It will happen that any one of these provinces will demand a different treatment when viewed in its relation to the total of human life, from that treatment which it could naturally receive when viewed by itself alone.

If productive industry be regarded as the supreme object and the creation of wealth be alone considered, we shall have the same spectacle that was beheld in the first era of the application of invention to the art of weaving, in the shape of the power loom and the spinning-jenny. We shall see men and women toiling fourteen hours a day in close, ill-ventilated rooms, and dwarfing their bodies and their souls. We shall see children hardly out of infancy working the same hours and under the same terrible conditions as the men and women. The community thus organized is at war with all the other institutions of society.

The State, on the other hand, may neglect the needs of civil society and the family, and devote itself exclusively to the military training of its young men, keeping them in the army through the prime of their lives: preventing seasonable marriages and neglecting the occupations of productive industry.

Even the church, in the too exclusive pursuit of holiness — highest end of life though it be — may encourage the abnegation or the family, civil society and the State — all the secular institutions — by setting up as its ideal of the noblest life of all individuals, celibacy (attacking the family), poverty (condemning the production of wealth), and obedience (to the church authorities instead of the State). The defect of this isolation of man from the secular world is seen in the history of monasticism and hermit life, as illustrated in the Christianity of the Greek Church, as it appeared in the first five centuries.

These reflections on the necessity of studying every phase of society in full view of the whole may seem unnecessary to the novice, but they will justify themselves in the sequel.

The Dismal Science.

The question which we have before us for discussion this morning — that of property — is one that is very complicated; it is hard to seize the idea of property, on account of the one-sided treatment it has received from various schools of political economy.

We need only name the great writers on this science to suggest dismal doctrines which have cast shadows over an entire literature

of economic discussion. Even Adam Smith, venerable name in political economy, isolated the function of wealth-getting from national welfare, and in a reactionary spirit set up principles for absolute ones which serve only for a nation of mere shopkeepers.

Malthus set up a principle of population which has been the Gorgon of social science. Population, he said, increases in geometrical ratio, while the production of food increases only in an arithmetical ratio. Unless immoral or criminal means are taken to check population, it continually presses on the means of subsistence, and squalid poverty is the result.

In spite of the fact that no age of the world can be pointed out in which the limit of production has really been an obstacle to the increase of the population,* this law has been accepted as *a priori* truth.

Still more amazing is the fact in view of the history of production in the past one hundred years. Population has increased unprecedentedly since the epoch of labor-saving machines; but means of subsistence have increased in a far greater ratio than population. And yet this dreadful Jeremiad is chanted in chorus by political economists, and the Gorgon face of inevitable starvation or destruction of the family stares out upon the highway of philanthropy.

Ricardo arrived at an *a priori* theory of rent. Mankind uses the best land first. Woe to the after generations; they till an impoverished soil. In the golden age when land was plentiful, there was no such thing as rent. When poorer soils have to be occupied because all the best land is taken up, then rent is required on the choice lands in proportion to their desirability over the yet unoccupied lands.

Inevitable poverty and misery appear again through this *a priori* vista of Ricardo. It matters not though the facts of history show that the most fertile lands are the last to be occupied, nay, are not occupied yet, even to-day, because human combination and the application of machinery is not able to cope with them. Witness the entire Amazon River basin, two-thirds as large as all Europe,

* It seems to be the law that education and social refinement gradually diminish reproductive power—the virile forces taking another direction than in increase of the species. If this is so, the over-population of the earth becomes impossible—a lower stage of civilization keeps down its rate of increase by war and its attendant evils, while a higher stage of civilization becomes less productive by the law of nature.

and as yet scarcely any of it subdued for agricultural uses. Its vegetable growth is so luxuriant that all higher animal life is utterly dwarfed by its overpowering presence. Only reptiles and insects or still lower forms of animal life can hold their own against such vegetable life. Mechanical invention will some day tame the Amazon valley, and produce from it ten times as much food for man as is to-day produced on the entire earth.

Thorold Rogers shows us that in England the soil has increased in fertility so that four bushels of wheat are now produced where only one was raised two hundred years ago. Beef cattle now weigh twelve hundred pounds, instead of four hundred pounds as then. A sheep yields seven to nine pounds of wool where it yielded only one pound of very inferior quality ("half hair, half wool".)

Henry George's "Progress and Poverty."

An eloquent and earnest American writer — Henry George — while he repudiates and confutes the Malthusian doctrine of population and subsistence, yet yields assent to the doctrine of Ricardo, and, in fact, produces a new *a priori* theory as a sort of corollary to that famous rent theory, but equally dismal. His discovery is that private property in land is wrong, and that the true and only remedy for poverty and its attendant miseries is the confiscation of private ownership in land and the assumption of all land by the government.

Mr. George writes so clear and convincing a style and is withal so transparently a well-wisher of his race and so endowed with a sense of justice, that his book has had nearly as wide an influence as the books of Malthus and Ricardo — and that influence is still rapidly spreading.

We have indeed been told that many of the leaders in the labor agitations in this country are disciples of this new doctrine. Many scientific thinkers have been led to similar views, moreover, through the influence of Herbert Spencer, who likewise holds that there can be no private ownership of land without essential injustice to mankind.

As this doctrine of Henry George and Herbert Spencer strikes against the right of property in an essential particular, it is evident that our present discussion of the radical grounds of the right of Property and the ownership of Land must deal with it in its details.

Let me give in briefest outline the contents of the book on "Progress and Poverty."

(*a*) The rich are growing richer and the poor are growing poorer. This fact is assumed as a matter which does not require economical statistics for its proof. Everybody knows of some rich men who are increasing in wealth, and likewise of poor men who are growing poorer.

But, I ask, does not everyone know also of rich men who are losing their wealth and of poor men who are gaining in wealth?

(*b*) Without stopping to prove so obvious a proposition as the one first enunciated, Mr. George next unfolds his doctrine that capital and labor are conditioned by private ownership of land in such a manner that all the advance that is made by labor and capital in the way of increased productive power is swallowed up in the form of rent — the income of mere land as such increases at the expense of all that is produced by labor and capital over and above an amount sufficient for the bare subsistence of labor, and for the lowest rate of interest on capital that will induce its employment in producing new wealth. This doctrine is established not by an analysis of the statistics of rent, interest and wages, (the products of land, capital and labor,) but by an *a priori* analysis of the nature of rent, interest and wages. Land has the under hold in the contest and can extort compliance by its ultimatum: "Give me my rent or go away off of all land, if you prefer," — an ultimatum of a highway robber species — "Your money or your life."

(*c*) The problem thus stated, he proposes its solution. "The persistence of poverty amid advancing wealth," is to be remedied by abolishing private property in land, either by taxing it until its owner cannot afford to keep it, or by some other more direct mode of getting it into the possession of the State. The State should lease it to the individual or the family, after the manner of the ancient communism in land, which prevailed in the primitive germ of civilization, the village community, as in India, Russia, the tribes of Africa, of the ancient Germans.

(*d*) Finally, the effects of this remedy are painted in glowing colors.

"The whole enormous weight of taxation in the form of rent would be lifted from productive industry." "The rise of wages," he says, "(p. 409), the opening of opportunities for all to make

an easy and comfortable living, would at once lessen and would soon eliminate from society the thieves, swindlers and other classes of criminals who spring from the unequal distribution of wealth."

"With the surplus revenue arising from the common property, applied for public benefit," says he, (p. 410), "we could establish public baths, museums, libraries, lecture rooms, music and dancing halls, theatres, universities, technical schools, shooting galleries, play grounds, gymnasiums, etc. Heat, light, and motive power, as well as water, might be conducted through our streets at public expense; our roads be lined with fruit trees; discoverers and inventors rewarded; scientific investigations supported; and in a thousand ways the public revenues made to foster efforts for public benefit."

There is no wonder that a vision of the future like this has powerfully affected the imaginations of such people as could grasp the thought of Mr. George's book. All misery and crime removed and universal comfort prevailing in the home and in the community! No wonder, too, that the kind heart of Mr. George himself swells with the conviction and that his "thought still mounts," in the concluding chapter of the book, to final problems of civilization, and in view of the future an inextinguishable hope is lighted up in his bosom.

But, alas! the question remains: Will the abolition of private property in land lead to all this? Will it not lead rather towards the degeneration of all higher spiritual interests and to the utter ruin of all that has been achieved, even in the realm of productive industry?

Before looking at this question let us ask another one as to the adequacy of the remedy proposed. Is the amount of rent all told sufficient to accomplish a sensible amelioration of the condition of the poor if it were all distributed? The conclusion of Mr. George is reached *a priori*. An examination of the census tables will give us information as to actual quantities and amounts.

How much per day does the laborer produce on an average, and how much does land get of his earnings?

The Income and Rental Value of the United States.

In the United States, according to the census of 1880, the total

amount of all property,* including land and all other property such as permanent improvements in the shape of buildings, machinery, etc., or such as floating capital in the shape of raw material, manufactured products and money amounted to over forty-three billions (thousand millions) of dollars, all told, in the following items:

	Millions of dollars.
Farms,	10,197
Residence and business property,	9,881
Railroads,	5,536
Live stock and farming implements,	2,406
Stock of productions on hand, agricultural and manufacturing,	6,160
Churches, schools, asylums and public buildings,	2,000
Household furniture, etc.,	5,000
Telegraphs, shipping and canals,	419
Mines, quarries, oil wells, and ½ of average product,	781
Bullion,	612
Miscellaneous,	650
Total,	$43,642,000,000

In the above table it is seen that the actual value of the farms is placed at a little above ten billions, while the residence and business property is placed at a little less. There is no clue given in any of the census volumes, as to the relative values of land and of buildings. It would be certain, however, that the land could not exceed in value twenty billions, however small the value set on buildings, as that is the total value of all real estate.

Comparing this table with another giving the assessment for local taxation as, in the aggregate, $16,902,993,543, of which $13,036,766,925, stands for real estate and the rest for personal property, we see that the true value stands to the assessed valuation as 20 to 13. It is stated by Mr. Gannett that in response to inquiries made as to the ratio of assessed value to true value in various parts of the United States, 25,000 replies were received, showing that this ratio varied from 40 to 100 per cent.; the average, however, proved to be 65 per cent.

Fortunately for our inquiry, the State of Massachusetts pub-

*See Vol. VII. p. 10 of U. S. census for 1880. The estimate is by Henry Gannett. See his account of the careful manner in which he obtained the item household furniture, etc., and verified it by another calculation of the average amount of furniture, etc., manufactured, and its average durability.

lishes a document showing the "Aggregates of Polls, Property, Taxes, etc., Assessed May 1, 1886," in which it appears that—

Personal property of the State amounts to	$507,037,749
Buildings, exclusive of land of the State amounts to . .	752,669,001
Land, exclusive of buildings " " " " " . .	587,824,672
Total, ...	$1,847,531,422

The ratio of the value of land to that of buildings in Massachusetts is as 11 to 14 — land being 44 per cent. and buildings 56 per cent. of the total value of real estate.

Strange as it may appear, land seems to be worth less than buildings in all the counties of the State. In Suffolk County (containing Boston), land is 226 millions, and buildings 314 millions. In Barnstable, down on Cape Cod, buildings count 6¼ millions, and land only 3½ millions of dollars. In Berkshire, among the mountains of the west, buildings 15¼ millions, land 12¾ millions. In Hampshire and Franklin, with small towns and the fertile lands of the Connecticut River Valley, buildings count 11 and 7½ millions, while land counts 9 and 6¾ millions respectively.

In the assessments of certain towns, however, the land is valued at a higher rate than the buildings.

Connecticut and Rhode Island, on account of their large manufacturing interests, New York, Pennsylvania and New Jersey, for the same reason, may be safely counted as having an equal or even larger proportion of property in buildings. In fact the ratio may be assumed to hold good for the entire Eastern and Middle sections of the country; and this would give for assessed valuation, 3766 millions of dollars for buildings, and 2948 millions for land alone.

In the southern and western sections of the country, it may be assumed as a reasonable estimate that land and buildings are reversed in the ratio, or making larger allowance, say as 60 to 40, and that the ratio of lands to buildings in the whole country stands substantially as follows:

	Ratio of buildings to land.	Buildings. Millions.	Land. Millions.
Eastern and Middle, . . .	56–44	$3766	$2948
Southern Section. . . .	40–60	671	1000
Western States and Territories,	40–60	1857	2787
Total, ...		6294	6735

Estimating the assessed valuation at 65 per cent. of true valuation, the total land value of the United States, counting building lots and farms, amounted in 1880 to about ten billions of dollars, perhaps three per cent. more or three per cent. less. Mulhall, in his Dictionary of Statistics (p. 469), estimates land and forest in the United States at $10,750,000,000, which is a little more than my estimate. (He gives the land of France at 14,650 million dollars; of Germany at 12,100 millions; Russia at 9,700 millions; of the United Kingdom at 9,400 million dollars.)

Counting rent at four per cent. on the actual valuation, (which would be 6.1 per cent. on assessed value), we have the sum of $400,000,000 as the total rental of land in the United States. Four per cent. is probably a larger average rent than land brings in, because land-owners raise prices on land when it produces more than three per cent. after paying taxes.

For a population of fifty millions the ground rent amounts to eight dollars apiece per year, or $2\frac{1}{5}$ cents per day. This result must be surprising to all who have been interested in Mr. George's explanation of Progress and Poverty.

To be sure, this amount would be a considerable item were the income very small — say eight or ten or even fifteen cents. For, in that case, one-fourth or one-seventh of the income would go for ground rent. But the total average income of the population of the United States is forty cents per day apiece, or $146 per year. Mr. Edward Atkinson, in his "Distribution of Products," (New York, G. P. Putnam's Sons, 1885,) a valuable contribution to the intelligent discussion of economic problems, estimates the average annual income at 55 cents per day. Mr. Atkinson's method is a correct one. He estimates (see p. 129) the wheat crop not exported as converted into bread, three-fourths of the corn crop as converted into meat, and applies average retail prices — (this counts in the aggregate labor of farmer, butcher, carrier, and domestic help of the consumer.) Next, he estimates the textile product not exported as manufactured and made into clothing, and calculates its value at average retail prices, as before. Thirdly, he reckons the products of mines and forests in the same way in their final form, distributed for consumption; finally, he estimates the value of imports made ready and distributed for consumption. The total labor of the entire fifty millions, whether in the shop, the field or in the house, is thus obtained.

Mr. Atkinson does not give us the items thus carried out, but prints a letter from Mr. Joseph Nimmo, Chief of the Bureau of Statistics, who estimates as follows:

The total value of the annual products of the United States:

Agriculture,	$3,600,000,000
Manufactures,	5,369,579,191
Illuminating Gas, (partly estimated,)	30,000,000
Mining,	236,275,408
Forestry, (partly estimated,)	455,000,000
Fisheries,	43,046,053
Meat production and wool clip on ranches, (estimated,)	40,000,000
Petroleum, manufactured product,	44,000,000
Total, (materials out,)	$9,817,900,652

The estimate here given is evidently intended as the gross annual product without deducting materials used in manufactures, or other duplications of products, notwithstanding, the parenthesis after "Total" says "materials out." In the census volume giving the statistics of manufactures, for example, the materials used are given at $3,396,823,549 and deducted from the $5,369,579,191, leaving $1,972,755,542 as the total net product of manufactures (see p. x. of that volume). The "materials used" include products counted already in the agricultural items and also a duplication of items counted as products of manufacture (cotton and wool, for example, appearing as such, and also as cloth, and again as clothing.)

Again, as the meat product is counted, the hay crop ($409,505,783), and three-fourths of the corn crop (equal to $521,000,000), should also be deducted — these three deductions reducing the total value of the annual product to $5,490,571,320. Add to this (deducting materials) the household manufactures, home-made clothing, etc., ($250,000,000), the buildings of all kinds erected within the year, ($100,000,000), the miles of railroad added ($200,000,000); amount consumed on the farm, products of forests, farm and kitchen gardens, etc., and not reckoned in the census ($750,000,000); freight transportation on railroads, shipping and canals—as adding to the final value of products—($516,000,000), and a total of $7,300,000,000* is found without reckoning the

*Mr. Mulhall, in his "History of Prices," estimates the annual product of the United States at $7,100,000,000.

household work of final preparation of food, etc., for consumption. This gives exactly 40 cents per day to each inhabitant. Mr. Atkinson estimates the consumption on farms at one billion dollars, or $40 a year for each member of the farmers' families — an estimate seemingly too large. His estimate of the value of the final processes of preparation for consumption would be 2,500 millions, perhaps not too much for the 20 million domestic workers.

The average ground rent, then, amounts to only one-eighteenth of the average annual production (or one twenty-fifth according to Mr. Atkinson's estimate). If this sum should be regarded as making any great difference in the wages of the poor, it is certain that a grain of thrift or economy will much more than compensate for it. This sum is only a trifle more than the amount of the local taxation (State, County, town and district), while if the national taxation were likewise placed upon land values instead of collected by tariffs and excises it would swell the ground rent to the sum of 7½ per cent. per annum on the true valuation. This result would make it impossible for farmers in the eastern part of the United States to get a living by raising staple crops, as we shall see later on when we discuss Mr. George's plan for collecting all revenues from land directly.

For a country where the rents may fairly be supposed to be exorbitant most persons would select the United Kingdom of Great Britain and Ireland. In that country there prevail enormous inequalities of land ownership. They have arisen partly by military conquest and partly by a survival of the old system of tenure which prevailed in the village community, an institution which underlies all present civilization.

Primogeniture implies the theory that there is not absolute ownership in land, but a sort of life-estate only. Its effects are seen in the massing of large possessions in few hands.

But even in the United Kingdom land does not exact a very large average amount of rent per inhabitant — only 2½ cents per day — only a slightly larger sum than in the United States. Meanwhile the production in Great Britain has become so large that land values are dwarfed in comparison. The relative increase of land in price has been twenty-three per cent. in thirty years.

1850	1860	1870	1880
100	104	116	123

Houses, on the other hand, have, in the meantime, gained 138 per cent. in aggregate value.

1850	1860	1870	1880
100	130	164	238

The aggregate incomes from manufactures, mercantile employments and professions have more than doubled.

1850	1860	1870	1880
100	125	174	228

In fact, land in 1801 was assessed at 990 millions sterling and in 1882 at only 1880 millions sterling, having scarcely doubled in eighty years; while the value of houses had increased from 306 millions to 2280 millions sterling, or to more than seven times the amount. The miscellaneous items of wealth in Great Britain had increased in the same eighty years from 734 millions to 4560 millions.* Land, it would seem, in Great Britain, grows relatively a less important item in national wealth, and this proves again that Mr. George has been mistaken in his solution of the problem. And this would be true were rent twice as large a sum in the aggregate,— were it, for instance, four cents a day instead of two cents, it would be no insupportable burden with our income of forty cents. †

*Mulhall, Hist. Prices, p. 111. This work of Mr. Mulhall and the work of Mr. Atkinson, above referred to, are commended to the general reader as the most useful books on this subject.

† Mr. George in "Progress and Poverty" (p. 260) refers to Professor Fawcett's estimate of the "Capitalized rental value of the Land in England" as £4,500,000,000, over twenty thousand million dollars. This estimate must include both land and buildings and is very large even for the entire United Kingdom. Every critical student of this subject knows how difficult it is to reconcile the conflicting statements regarding the items of English wealth. Even Mulhall, who is an industrious compiler and who has become quite sagacious in his estimates, through much study of the comparative statistics of the twenty first nations of modern times, is occasionally confusing in his technical terms. In his "History of Prices since 1850," (p. 84), he gives the total "agricultural capital in land" at 1737 millions sterling for the United Kingdom, evidently meaning *farms, farm buildings, and fences* by the term "land;" on page 111 he gives the total "wealth in lands" at 1880 millions sterling for the United Kingdom, meaning *land used for farms and for building lots* by the term "land" in this place, for he gives *houses* at 2280 millions sterling and *sundries* at 4560 millions sterling in the same table. The one authority that commands universal respect, Robert Giffen, head of the Statistical Department of the London Board of Trade, estimates the total land value of the United Kingdom at 2007 millions sterling and the buildings at 1420 millions sterling, for 1875. This would give a total of about $17,000,000,000 for all real estate except the canals, railroads, mines, iron works, and gas works, which amount in the aggregate to 817 millions sterling additional, swelling the total real estate to 4244 millions sterling, or a little less than

The Cause of Mr. George's Error.

If one goes carefully over the arguments of Mr. George in the first half of his "Progress and Poverty," he discovers that there is no account made of the difference between land used for agriculture and land used for building sites. Land for building purposes is prevented from demanding high prices by competition with suburban agricultural lands. The rapid transit of the railroad produces this competition, offering to the laborer in the city a cheap building lot carved out of a country farm, in a healthful locality. On the other hand, capital in the form of cheap transportation keeps down the price of farming land on the Atlantic coast by bringing into competition with it the border lands of the west. Mr. Atkinson has shown us that one day's work of the eastern laborer will pay for the transportation from the far west of all the meat and bread he consumes in one year. Under this competition, we find a general decline in the value of farms in the older sections of the United States, in those localities removed at a distance of three miles or more from a railroad station. Capital has its hand on the throat of land property, contrary to the theory of Mr. George, who supposes that land has the advantage over capital and labor.‡

Professor Fawcett's estimate for the land alone. The land alone according to Mr. Giffen's estimate, (adding 13 millions sterling for the land in the items excepted) would amount to 2020 millions sterling or about 10 billions of dollars. (The total cost of land and buildings used for railroads in the United States is only 103 millions, about one-fiftieth of a total expense of over 5000 millions of dollars.) In 1876 a parliamentary commission published a "blue book" in 2 vols. entitled "Land owners in England and Wales: Return of the owners of Land of one acre and upwards in England and Wales exclusive of the Metropolis, with their names, addresses, extent of lands and estimated gross rental." The items collected were for the year 1873 and gave as the "estimated rental" of England and Wales, (with London omitted) the sum of £99,352,301. Adding to this the rental for Scotland and Ireland a total of £131,468,758 is found. Call this sum 3 per cent. on the "capitalized rental value of the land" and that value is found to be £4,382,291,933 for the United Kingdom. This is very nearly what Professor Fawcett gives for England alone. It is clear enough then that the "gross estimated rental" included the rental for buildings and all manner of improvements as well as land. Schedule A. of the Income Tax in 1875 showed that the total income from lands and houses to their owners was £132,720,684, almost exactly the same item as the "gross estimated rental," given by the commission. (see Encyc. Brit. article England, pp. 223, 257 and 258). One must conclude that no statistics are given which do not include some buildings with the land. Mulhall's estimate at £1,880,000,000 is taken above and at 3 per cent. the rent would ave age about 2 cents per day—or at 4 per cent. it would average about 3 cents per day per inhabitant. At Mr. Giffen's estimate which is doubtless too liberal, the amount per day must be increased by one-fifth of a cent.

‡Capital frees labor from the tyranny of land, and the present ratio of land to the total wealth of the United States is about 1 in 4½. In Great Britain and Ireland it

Whatever may be the solution of the phenomenon of poverty persisting amid growing wealth, it is clear that private property in land is not the cause of it. But we may well inquire at this point for the more exact statistics of wealth and poverty. How many are rich? what amount of wealth have they? How much do the poor receive of the productions of their labor?

Do the Rich Grow Richer, the Poor Poorer?

It was Karl Marx who announced the pessimistic view regarding modern industrial society: "The rich are growing richer and fewer; and the poor are growing poorer and more numerous; the middle class are growing poorer and fewer." Mr. George seems to think that private property in land necessarily produces this state of affairs. But in Great Britain, where Marx spent the last thirty-three years of his life, statistics prove that the generalization is an error.

In Great Britain, the Income Tax, under Schedule D, furnishes statistics regarding the number of persons, companies and corporations in mercantile, manufacturing or professional employments, whose annual incomes exceed £150 (or say $750). Schedule A gives like statistics regarding incomes from ownership of lands, tenements and tithes; Schedule B regarding incomes from occupation of lands and tenements. In Schedule D, in 1851, incomes from public companies, besides individuals, engaged in manufactures and trading, etc., were included; and in 1867 these companies were increased by transferring to them from Schedule A the companies managing mines, quarries, iron works, gas works, railroads, water works, canals, etc., but in 1879-80 these latter companies were excluded, leaving only companies of tradesmen, textile manufacturers, and similar, besides individuals. But the vast mass of incomes reported are those of private individuals, and hence the numbers may be taken as directly proportional to the increase or decrease of individual incomes.§

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forms one-fifth of the total wealth; it is 1880 millions sterling, with an annual rental of £65,442,000 (or 3½ per cent. on actual value). The total wealth of the United Kingdom is £8,720 millions. See Mulhall's Dictionary of Statistics, pp. 266, 268 and 469. See also the cautious estimates of Robert Giffen, head of the Statistical Department of the Board of Trade, in an address read before the London Statistical Society, January 15, 1878—published in the journal of the Statistical Society, 1878.

§See Leoni Levi's "Wages and Earnings of the Working Classes," London: John Murray, 1885, pp. 48 and 58. Compare with this Robert Giffen's "The Progress of the Working Classes," *Economic Tracts*, No. XVI., New York.

Great Britain.	1850-51. Number.	1879-80. Number.
£150 to 300	68,864	241,568
300 to 500	21,367	61,615
500 to 1,000	12,258	29,839
1,000 to 2,000	4,708	11,495
2,000 to 3,000	1,342	3,474
3,000 to 10,000	1,551	4,065
10,000 to 50,000	312	910
50,000 and over.	26	77
Totals,	144,322	398,835
Average income,	470	424

In the above table we see by the increase of incomes in 1879-80 that there are now 3½ times as many in the lowest rank of the middle class as in 1850 (incomes $750 to $1,500); 3 times as many in the next rank (incomes $1,500 to $2,500); 2½ times as many with incomes from $2,500 to $5,000; 2½ times as many with incomes from $5,000 to $10,000; 2¾ times as many from $10,000 to $15,000, meanwhile the population has increased only 33 per cent.

The middle class (incomes $750 to $5,000) has trebled — 102,489 (in 1850) to 333,022 (in 1880). The moderately wealthy class (incomes $5,000 to $15,000) has more than doubled (6,050 to 14,969).

The laboring class, whose annual incomes are less than $750, averaged in 1850-51, £53 ($265); in 1881 the average had risen to £83 ($415).* Very many, 180,000 or more, had ascended from the poor class into the class paying an income tax. Mulhall† gives the number in each million of inhabitants.

	£200—5000.	Over £5000.
1812	3280	34
1850	3059	56
1860	2896	53
1870	4139	67
1880	6225	88

In America we have no complete returns, but we can prove the same results by the increase in wages.

In cotton manufacturing, the wages of operatives in Massachusetts in 1840 were $175 a year, with 13 hours of labor; in 1883,

*Leoni Levi, ibid, p. 53.

†Mulhall: Dict. Statist., p. 28. These figures show not only the incomes of Schedule D, but also of Schedules A and B.

wages $287, hours of labor, 11. In iron manufacturing, wages in Pennsylvania, 1860-64, $353 per year; in 1875–79, $486.* On this topic the investigations of Hon. Carroll D. Wright, Chief of the Bureau of Statistics of Labor for Massachusetts, and recently called to the office of United States Commissioner of Labor, are of the highest value, and suffice to prove that the wages of laborers in Massachusetts are at present 42 per cent. higher than in Great Britain†, as regards power of purchasing comforts, and that they have increased in amount over what they were, to such an extent that the laborer is constantly moving away from that "minimum which will give but a bare living."

It is understood that all statistics regarding wages must be compared with tables of "price levels," showing the cost of necessary articles of food and clothing, etc.‡

According to the statistics of price-levels§ grain counts for 25 per cent. of the aggregate consumption; meat for 16; iron and steel wares for 7; dairy products for 6½; cotton goods for 6; lumber for 5; woollen goods for 4 (and other items for less than these). That is to say: the chief articles that affect the cost of living rank according to these numbers in their power to raise or lower said cost of living. In comparing the actual average cost of living in one epoch with that in another, reference must be had to these ratios. It will not do to count, for example, meat, which is 16 per cent., against woollen goods, which amount to only 4 per cent. of the value of products of human industry. Taking the twenty items that comprise 90 per cent. of all human industries, the result is found that prices of the period from 1841-50 are over 5 per cent. higher than those of 1881-84.

Meat has risen but grain has fallen. Agricultural products average somewhat higher prices. Manufactures are much lower.

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*"The Distribution of Products," see Mr. Atkinson's instructive exhibits, on pp. 355 and 360.

†See Mass. Report on the Statistics of Labor, for 1884, pp. 432, 469. See also First Report of U. S. Commissioner of Labor, 1886, pp. 411, 466, on cost of living.

‡Thorold Rogers' "Six Centuries of Work and Wages," is a storehouse of information regarding wages and their purchasing prices. Though it shows vast original research, and contains valuable general reflections, perhaps it fails to connect properly the history of economical changes with their causes as found in political revolutions and continental wars.

§See pages 8, 9, 179, 117, 122 and 177 and 178 of Mulhall's Hist. of Prices for the important method of ascertaining the price-level by the total volume of trade instead of by index numbers.

The increase of steam power all over the world and especially in the United States continually works to make prices lower and wages higher.

Steam engines* in Great Britain	amount to	9,740,000,000	horse power.		
" " " Continent of Europe	" "	14,820,000,000	"	"	
" " " United States,	" "	10,540,000,000	"	"	

It is evident that the conquest of nature by labor-saving machinery continually increases the amount of production per inhabitant, provided the distribution is properly effected.†

The average daily production of each inhabitant of the United States was found to be 40 cents on the basis of 7300 million dollars total annual product. The average daily production of an inhabitant of the British United Kingdom is 38 cents on a basis of one thousand million sterling total annual product. But, at 1247 millions sterling,‡ the figures usually given for that product, it is 49 cents a day, making by far the largest average income, per inhabitant, in the world.

The total income of Russia is 4240 million dollars, and to each individual this gives 14 cents per day. For the agricultural population north of the black soil belt the earning is barely 4 cents per day on an average through the year, for each inhabitant.

The production of the United States has risen to 40 cents per day for each inhabitant from an average of 25 cents in 1850.§

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*Mulhall's Estimate for 1885—p. 53 *Hist. Prices.*

†"It is easy to prove that the great movement of modern days, the employment of mechanical in the place of human forces, operates ultimately in cheapening produce and in bettering the wages of labor." Thorold Rogers' "Six Centuries of Wages," p. 496.

‡Leone Levi (loc. cit. p. 7) speaks of £1,274 millions as the *gross* income, and intimates that there is duplication of items in that estimate. "The net income of the nation is probably less than £1,000,000,000 per annum." Mulhall, however, gives £1,247,000,000, as the net income.

§The estimate here made for 1850 compared with that for 1880, given in cents per day, is as follows:

	1880.	1850.
Agriculture (including live stock),	18 cents	12 cents
Manufactures as reported,	10.8 "	5.8 "
From transportation in enhanced value of products,	3.7 "	1.2 "
Agricultural product consumed in household and not reported,	4.1 "	3.2 "
Household manufactures,	1.4 "	1.8 "
Building of railroads and houses, mining, fisheries and miscellaneous,	2. "	1. "
Total,	40 cents	25 cents.

Since the rental of the land of the country in 1850 (estimating the land at the low estimate of 3 billion dollars), at four per cent. amounted to $1\frac{1}{2}$ cents (1.43 cents) per day to each inhabitant, it is seen that while the income has increased 15 cents per day the average rental per inhabitant has increased in thirty years only $\frac{3}{4}$ cents per day.

DOES THE WAGE-EARNER GET HIS SHARE?

At 40 cents per day and $146 per year for each inhabitant it follows that each person following a gainful occupation (since according to the census each person enrolled in such occupation supports $2\frac{9}{10}$ persons on an average), should earn $1.35 per day or $34.80 per month, provided that all production was distributed pro rata to the wage-earners and that nothing whatever went to capital as interest, and nothing to land for rent, nor anything for supervision or superior skill. This would be the basis of distribution according to Proudhon, the Socialist. Mr. George is not a Socialist, but he believes that labor is robbed of a portion of its full worth. As this view has been again and again asserted it has come to be believed by large numbers among the skilled laborers in the mechanical and manufacturing industries. It will surprise this class of wage-earners to see that all persons receiving over $34.80 per month are receiving more than they could possibly receive were the total annual product divided equally among those occupied in lucrative occupations, without allowing anything to capital, or land, or supervision. Inasmuch as skilled labor receives as wages from two to four dollars per day in most of the States,* while common laborers in manufacturing establishments receive $1.25 to $1.50, the wages of labor in the mechanical and manufacturing industries is already above the average received by all, rich and poor, to the extent of from 15 cents to $2.65 per day. Whereas, $417.60 per annum should be the average pro rata if capital, and labor and supervision were to go unpaid, teamsters in Illinois get $459.59; tailors, $542.94; stone masons, $467.21; printers, $654, etc., according to investigations of the Illinois Bureau of Labor Statistics.†

*See third biennial report of the Bureau of Labor Statistics for Illinois (1884) by Mr. John S. Lord, Secretary; where $2.12½ is the average given for all skilled mechanics. 756 establishments in Illinois pay $2.50 and over; 1400 establishments out of 1650 from which returns were obtained, pay $2.00 and over.

†See pp. 165-254 Report for 1884. See also Appendix A, pp. 295-410 of the Report of the U. S. Commissioner of Labor for 1886.

If some persons get more than the average sum of $34.80 per month it is clear that others must get less. What laborers get less than the average annual product? It is easy to reply: It is the farm laborer, who gets only $22.29, without board, as the average found by averaging the rates paid in the several States* and much less than that sum, averaging by number of laborers.

The fact seems forced upon us by these statistics that the workingmen engaged in manufacturing mechanical products as well as in trade and transportation, have, by their organization and persistent agitation for higher wages succeeded in obtaining a larger share of the annual production, leaving the farming population with smaller wages averaging about $\frac{2}{3}$ of the wages paid to those engaged in manufacturing, mining and transportation.†

The Results of Thrift and Economy.

Having been for sometime contemplating the spectacle of progress in population, in facilities for locomotion and communication, many people have come to believe that the average annual product must have increased so much that each inhabitant can live not merely in comfort but in actual luxury, if he receives his full share. But while we see multitudes of individuals around us rise from poverty to affluence by energy and economy practised for twenty years, yet the great mass of the population does not practice economy although it exerts much energy. The progress of the entire nation in productive power is accordingly much slower. Thrift and economy means: Deny yourself superfluous articles of food, drink and clothing and invest their cost in durable articles, and especially in capital which itself aids in producing.

At first thought it would seem that economy is a virtue which accomplishes most when it is scarcest — that, in short, if all were economical each would save less than a thrifty person in a community of spendthrifts. But it may be seen that if a whole community consumed less intoxicating liquor but used the labor

*See statistical table of Mr. J. R. Dodge, of the National Agricultural Bureau, printed by Mr. Atkinson (p. 111). If it is true, as Mr. A. supposes, that farm laborers consume $40 per annum, $3.33 per month, or 11 cents per day of produce not counted their wages will be equivalent to $25.62 per month.

†This increase of wages on the part of the trades and manufacturing industries, of course, is not at the expense of the farmer, for his wages, too, have increased by reason of a home market and cheap manufactures. But his income has not increased so fast as that of the manufacturing laborer.

required to pay for it in making better buildings, or in bringing land under a high state of cultivation, or in perfecting means of transportation, that wealth would be saved permanently instead of being consumed. So, too, it follows that the consumption of expensive (and often deleterious) food or the wearing of expensive and showy clothing is a loss in permanent wealth entirely unnecessary because its cost might be put into permanent improvements which would aid in production. Labor, too, by this process, would be diverted more and more from the production of articles of mere show or the gratification of sensuous appetite and devoted to the production of permanent wealth. The more production of articles of enduring usefulness, the greater the skill and productive capacity in those lines, and hence the easier it becomes for each inhabitant to accumulate such articles of permanent wealth. Hence, one economical person benefits another, and the average accumulating power of each individual in a thrifty community is greater than that of a single thrifty person in a community of spendthrifts.

Not Productive Power Enough for Luxury.

But as yet we produce as a nation only 40 cents daily per inhabitant, and so much is certainly not enough to supply all the desirable elements of necessary food, clothing, comfort and culture, not to speak of articles of luxury. Certainly, the only remedy for this is increased production by labor-saving machinery. Double the number of steam-engines and set them to work producing profitably by the aid of inventions in machinery, and the force will be an addition of 11,000,000 horses or of 110,000,000 able-bodied men, to our industries. This would so increase the product of articles of wealth and cheapen their price that the day's earnings of each inhabitant would purchase more than one dollar can at present. The 40 cents daily production now purchases more than 42 cents did in 1850.*

The conclusion is, therefore, that each person ought to practice economy, not only as a duty to himself and family, but as a duty that he owes to the community. It is clear enough, too, that it is

*See Mulhall's Hist. Prices. p. 117—showing price level of the twenty items that comprise ninety per cent. of all human industries. See also p. 177 where it appears that one dollar will buy the same amount of agricultural production that $1.51 could buy in the decade 1811-1820, and the same amount of manufactured products now that $2.41 did then.

the accumulated wealth that renders possible a large public revenue and renders possible the support of unfortunate or profligate people who become paupers.

Great Britain and Ireland supported, in whole or in part, 1,308,000 paupers in 1850 (one in twenty-one of the population!); in 1860, only 973,000; but in 1870, 1,279,000 (the American war having raised prices of food and other items 52 per cent. during the years 1863–65 and caused the incomes of half a million to prove insufficient for support); in 1880 the total number of paupers had fallen to 1,016,000 (803,000 in England and Wales). In the terrible period of the final struggle with Napoleon, the national wealth enabled Great Britain to support its immense number of paupers, but at a yearly cost of $3\frac{1}{4}$ per cent. of the entire annual product of the nation. (The poor-rates amounted to nearly one per cent. in 1870 and to 0.84 per cent. in 1880.)

To see in what way national wealth acts to support those who are so unfortunate as to require aid, consider the case of Russia, where the total annual product is only 14 cents per inhabitant and less than half as much in the agricultural districts where there is annually much suffering.* This suffering is not alleviated as with us by the distribution of help at public cost. If there were wealthy people living among the rural population their accumulations would be drawn upon to support the starving

But, with the doctrine that accumulation is robbery (a doctrine proclaimed by Proudhon and many other Socialists), it is evident that each person is taught the lesson of improvidence. Each should squander his earnings as fast as received. Squalor and misery must come to a people who adopt this pernicious doctrine.

The leaders of labor-unions have to see to it that there is enlightenment in regard to the total amount of wealth and to its

*"The crops in Russia are, however, very unequally distributed. In an average year there are 8 governments which are some 6,930,000 quarters (say 3,500,000 bushels) short of their requirements, 35 of which have an excess of 33,770,000 quarters (17 million bushels), and 17 of which have neither excess nor deficiency. The export of corn (grain) from Russia is steadily increasing, having risen from 6,560,000 (3,280,000 bushels), in 1856–1860 to an average of 23,700,000 quarters (11,850,000 bushels) in 1876–83 and of 26,623,700 quarters in 1884. This increase does not prove, however an excess of corn (grain), for even when one-third of Russia was famine-stricken during the last years of scarcity, the export trade did not decline; even Samara exported during the last famine there, the peasants being compelled to sell their corn in autumn to pay their taxes. Scarcity is quite usual, the food supply of some ten provinces being exhausted every year by the end of the Spring. Orach and even bark are then mixed with flour for making bread."—Encyclopædia Britannica, article on "*Russia*." See also D. Mackenzie Wallace on *Russia*, chapter VII.

manner of distribution. This would prevent a large part of the population from supposing that their shares would be increased if there was a more equable distribution of products. We have seen that all persons getting over $34.80 per month are getting more than the total amount of annual production would give if divided among the 17 millions of wage-earners, equally — the farmers getting less than the average product, while the workers in the mechanic arts and trades get more, as already shown.

Readjustment of Vocations.

Invention makes obsolete the skill of the previous generations and the people of the feeblest intellect, not being able to readjust their vocations and to learn new trades, are not able to work at sufficiently remunerative employments. They must become paupers. They must receive help from the others, from relatives, from friends, or from the State. Doubtless there is room for indefinite improvement in regard to humane methods of treating this class of our population. But to suggest that we change our whole form of civilization, and all become paupers, in order to remove the difference between the highest and lowest of our population,—that is no solution of the difficulty.

Our form of civilization is calculated to develope as much as possible the individual self-activity, and this is the goal of all civilization. To return to the old village community is to retrograde to the level of society just one remove from barbarism. The Russian "Mir" shows us what that would be; to earn from four to six cents per day, and to wear one suit of sheepskin clothing for twelve years, night and day; to have little domestic and foreign commerce;* to have no career for the individual — that would never again answer for the race we belong to. On the contrary we aspire to a missionary career, teaching all nations to be self-active and to conquer the earth by industry, aided by labor-saving machinery.

"There are no paupers in Russia," says Lavaleye. But he means only that there are no poor rates and no alms-houses in which to support paupers. For there are, as we have seen, sixty-three millions of peasants of so small productive power, that whole provinces suffer during the last two months of winter for

*Mulhall, *Hist. Prices*: p. 34: The foreign commerce of Great Britain was $95 per inhabitant for the year 1884; that of Russia, $5.75.

the want of even the plainest food. Our sense of humanity would distribute alms to such sufferers, and we allow 22 cents a day even for paupers; the Russian is content with his four cents' worth of food per day, and does not starve until that fails.*

Obviously human destiny points towards the realization of the possibilities of all men in each man. Each must contribute the sum of his experience, his successes and failures, the net result of his life experiment to the race, and in return re-

*I allude to Russia often in this paper because it is in that country that we find a practical type of socialism still existing. In Russia the village community still prevails. Laveleye has shown us (in his "Primitive Property") that this is one of the stages of development in the political history of all peoples who have advanced to civilization. There are several stages below it—the tribal life, subsisting by hunting, the roving nomads, that subsist by grazing, the migrating agricultural tribe, that burns a new forest to prepare its grain field, and after three or four crops moves on to a new section and burns another forest. Russian civilization had advanced to this form of migratory agriculture, when the Czar, in 1601, fixed the peasants to the soil, establishing serfdom and replacing the migratory agriculture by the next higher form, the three-fold rotation of crops and the village community. In our time (1861) we have seen the emancipation of the serfs from the feudal system under which a long process of education had gone on that eradicated the nomad spirit from the Russian mind. But the village community (the "Mir") still remains in the rural districts, although the wise policy of the government has been to introduce urban life and the new status of free labor from western Europe. Accordingly labor-saving machinery and railroads have been introduced, and skilled labor has been imported into towns. Under this influence Russia has advanced to a daily production equal to 14 cents per inhabitant, although the 63 millions of peasants produce much less and have not yet advanced to the degree of wealth and luxury that wears cloth for clothing. A suit of sheepskin that lasts for a dozen years and is worn night and day is used instead of cloth. With the slow development of individuality, and the conservatism of the village community, nine-tenths of human possibility is necessarily wasted.

The enterprising spirit where it developes is repressed and turns into rebellion against the patriarchal authority vested in the starosta, or village elder, by the village assemblies. The consequence is that the strongest individuality is threatened with conscription into the army, or even with exile to the Siberian mines. This waste of enterprising talent produces the backward condition of an immense population. The Russian has good material in him for the highest culture, only the survival of a crude social organization holds him back. But the brightest intellects—the individualized elements among the population—thus become restive under the patriarchal rule of the village community. In the army they are reduced to machines by its discipline and its habits of indolence. See D. Mackenzie Wallace's *Russia*. Wallace gives a "budget," or statement of family expenses for one year (p. 116) of a fisherman's family, consisting of two able-bodied men, one boy and two women.

Revenue.	*Expenses.*	
Game, fish, caviar, timber, wood, $61 00	Rye meal,	$35 00
	Taxes,	11 00
	Clothing and boots,	12 50
	Fishing tackle and ammunition,	2 50
		$61 00

After deducting taxes, each of the five persons has $10.00 per year or three cents per day!

ceive from the race the sum total of its wisdom aggregated into principles. Each thus contributes a finite product, but receives back an infinite. Since this result can be attained only by developing the individual to his highest potency, it follows that education and culture are demanded for each individual as the supreme condition of his highest usefulness, whether as producing material products or as communicating to one's fellow-men the net results of the experience of life, or, on the other hand, for the participation in the life of the whole.* Hence it is that the part of the civilized world that has emerged, or is on the way of emerging, from the village community and the succeeding stages of the manor and the caste system of labor, adopts a system of common schools open to all. After the Crimean war the government of the Czar perceived clearly that Russia could not cope with western Europe without adopting its system of free individuality, and therefore it began a radical change by emancipation of the serfs and a more active importation of industries. After the Franco-Prussian war, western and southern Europe perceived another step indispensable — popular education — and it is now fully inaugurated. With culture in general studies, — language, mathematics, science, — the inventive power of the individual increases and the industries undergo a gradual or even a rapid metamorphosis in the direction of the substitution of machinery for human muscle, and the transformation of the hand laborer into a brain power that directs and guides the machine which does the drudgery.

Hence a constant readjustment of vocations becomes necessary, and all laborers who are mere "hands," work at a continually growing disadvantage, in comparison with those who use machinery, a fact that leads Mr. George to speak of the new forces of material progress as "a wedge that presses down the lowest class, while it raises the higher classes." Stated correctly, it elevates and emancipates all educated people but leaves the uneducated laborer where he was, unless he is capable of doing something that a machine cannot do, i. e. some sort of skilled labor. To be able to do only by hand what a machine can do, is to be a pauper.† To the

*Think, for instance, of the instrumentality for this participation, the morning newspaper, in which each individual gets a glimpse of the life of the world every day.

†One thinks of the typical case of the poor widow with a large family of young children, living in a garret, and trying to gain a living by sewing 16 to 18 hours per

credit, however, of the industrial civilizations they support their paupers comfortably — giving them food, clothing and shelter to the amount of 22 cents or even 40 cents a day.

Too Many Agriculturists.

Universal education enables all to make a good living. But in America there are too many people living directly off the land — more than a due proportion of agriculturists, considering the producing power of our agriculture and the increasing use of machinery. Hence, there is a continual pressure of the agricultural population upon the mechanic and manufacturing trades; the enterprising sons of farmers wish an opportunity to make the higher wages given to mechanics and tradesmen. This tendency to increase the number of artisans constantly works against the efforts of skilled labor in the trades to increase wages, and produces often unlawful efforts on the part of organized unions of laborers to limit the number of apprentices and to exclude the farmers and common laborers applying for admission. It is not, perhaps, a conscious selfishness, but it is really a very hard species of selfishness, after all. Otherwise benevolent and kind-hearted mechanics and manufacturing people, under the influence of abstract theories — such as "the iron law of wages"‡ — are sometimes led to do violence against the plainest rights of the laborer in a free country — the right to contract his labor freely

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day, sickness and starvation being the result. This story is always heart-rending. But it is not caused by the "grinding extortions of the proprietor of the clothing factory," any more than by Elias Howe, the inventor of the sewing machine which cheapens the cost of clothing, or than by common school education which has increased the resources of labor, by adding brains to mere hands. There is no other way than to organize public and private help for such cases. A feeble woman was never better able to provide bread for a large family of young children than just now. But she ought never to be permitted to do this. This is a matter of charity that the State should look to with the aid of all citizens. As productive power increases it will doubtless become easier for a feeble woman to support herself and others, if she possesses education. But the progress in production makes at its present speed only an advance of 60 per cent. in thirty years.

‡ "In all kinds of work," says Turgot, "it must and does come to pass that a workman's wages are limited to what is needful for his subsistence." Laveleye explains that "less than this starves the workman and reduces the number of workmen, and the fewer the workmen the higher the wages. While if he gets more, easier circumstances cause more rapid increase of population and a consequent return of wages to their minimum." This is called by Lasalle "The Iron Law of Wages." This law, like all other varieties of the Malthusian law, is sheer *a priori* and pure fiction. There is no such law of more rapid increase of population among the well-to-do people, but quite the contrary.

and the right to security of life and limb while he peacefully pursues his chosen vocation.

According to Laveleye (Polit. Econ. Eng. tr. p. 64) there are five freedoms that belong to labor. "Guided by self-interest where he has any light, man will devote himself to the most profitable form of labor. It follows that the more labor is free the more it will be productive.

Freedom of labor comprises,

1. Freedom to choose a trade. Monopolies and guilds violate this freedom.

2. Freedom to labor wherever one pleases; no privileges for certain districts; freedom in the choice of a dwelling.

3. Freedom of partnership.

4. Freedom to buy and sell to the best advantage. Freedom of trade.

5. Freedom to lend money; abolition of the laws against usury."

This free individuality of labor cannot be secured in our modern society without the principle of absolute property in land. Any other form of tenure would be a lapse into a lower stage of civilization—the manorial system or the village community—in which the freedom of each person depends on his neighbor's tolerance without the possibility of protection on the part of the general government from meddlesome interference in his private opinions, his business, his amusements and his culture. Free thought and general culture become impossible under such circumstances, and the whole atmosphere of the village community is filled with superstition. Jealousy prevents any from rising above the general level except by brute force or cunning.

Vocations, How Readjusted.

The progress of the world in invention necessitates, as we have seen, perpetual readjustment of vocations — a constant ascent out of mere hand labor into intelligent directive power. The ruder vocations minister directly to the satisfaction of the wants of food and the coarser forms of clothing and shelter. The higher vocations relate to the satisfaction of man's spiritual wants and the supply of means for luxury and amusement. Here is a conspectus showing these vocations:

I. The Lower Order.—Production of Necessities.

1. Procuring of raw materials.
   (*a*) Agriculture and grazing.
   (*b*) Hunting, fishing.
   (*c*) Mining (including petroleum wells, etc).
2. Transportation.
   (*a*) Teaming.
   (*b*) Railroad.
   (*c*) Water transportation.
3. Transformation of Products.
   (*a*) Textile fabrics, cloth and clothing.
   (*b*) Wood and metal work.
   (*c*) Leather.
   (*d*) Miscellaneous.

II. The Higher Order.— Production of Means of Luxury, of Protection and of Culture.

The vocations that provide:

1. Means of Luxury and creature-comfort, including manufactures that require a higher order of educated, technical skill.
2. Means of Protection, including
   (*a*) Those who provide amusement and recreation.
   (*b*) The medical profession.
   (*c*) The legal profession.
   (*d*) Officials managing public works or public charities, also Government officials.
   (*e*) Insurance companies and the directive agents of companies formed for guarding the interests, general or special, of society as a whole or of any particular part of it — charitable associations, trades unions, etc., etc.
3. Instrumentalities of culture.
   (*a*) Moral and religious — churches, etc.
   (*b*) Intellectual and moral education — schools and libraries.
   (*c*) Aesthetic — including all trades that produce ornament on useful goods or that produce works of art in sculpture, painting, music, poetry and literary art, landscape gardening, etc., etc.,— also all influences that cultivate taste,— the formation and care of art museums, etc.

(*d*) The collection and diffusion of information, editing and printing of books and newspapers, telegraph operators, etc., etc.

(*e*) Pursuit of science and the invention of devices useful in the arts.

The number required in these latter spheres, especially in the production of articles of luxury and of ornamented goods, and in the collection and diffusion of information, is increasing rapidly.

Over-Production.

We hear of over-production in manufactures and at the same time in agriculture. Over-production can only happen because too many people are fitted only for the lower order of occupations. The persons fitted for the higher occupations that minister to luxury, protection and culture, can perform the lower order of work whenever it is necessary, without waste of time in readjusting their vocations. Those of the lower orders of work cannot fit for the higher vocations except with much expenditure of time in general and special education and training. With a whole people educated, complete preparation is made for the changes incident to material progress.

As to the general question of over-production, it is evident —

(*a*) That when there are produced more agricultural productions than are necessary for the population of a given country, and likewise more than it can export, a readjustment is required, leaving fewer laborers in agriculture and providing for more laborers in the manufacturing and exchanging departments of industry.

(*b*) When there are produced likewise, too many articles of manufactures to supply what are called the necessities, a readjustment is required that will increase what we call the higher order of production — that is to say, the labor that ministers to luxury or protection or culture.

(*c*) If there is a temporary retrograde movement in society, as there is sure to be in case of war,* or pestilence, a readjustment will be effected by the transfer of laborers from the higher order of vocations to the lower order, a transfer easily and naturally made because the wages in the lower order will increase, while those in the higher will decrease in such epochs.

*See Mulhall's History of Prices, the diagrams (frontispiece and opposite pages 130 and 154) showing the tremendous effects of the Napoleonic war and the American civil war on the price-levels all over the world.

All people consume food, clothing and other necessary articles; all want articles of luxury, means of protection, and the ministry of culture, in proportion to their degree of civilization.

The more application of machinery the less laborers are needed in the departments where a narrow special education will suffice, and the more the laborer is required to have a general and humane culture. This doctrine contains the cheering gospel of final emancipation from drudgery. The only condition attached to it is that all shall be educated, and this condition is indeed the best part of the gospel. It makes it the business of society and of every member of it to see that each and all are educated. It becomes the interest of the selfish man as well as the ideal of enlightened philanthropy to have each member of society so intelligent that he can find his vocation in the higher order of human occupations.

The history of industry goes back to a time when only one in a thousand of the able-bodied population could be spared for the creation of ornament or the ministry of culture. Great progress had been reached when one in a hundred could be spared for such purposes. The United States and Great Britain have reached the point where five in a hundred of the laborers are actually pursuing vocations that have for their object the addition of ornament to what is already useful, or the direct ministration to culture in some form. When the ratio is reversed and only five in a hundred are needed to provide the crude necessary articles of consumption, and the remnant of society may devote itself to the higher order of occupations — then the economic problem will be solved.

Economy Conditioned by a Higher Principle.

The trend of social history now becomes apparent. It is not merely the emancipation of man from thraldom to nature. The plentiful supply of his material wants would be only a curse if there did not remain a high state of activity in the work for the spiritual perfection of man. If it were so that nature provided food gratuitously, and furnished such a climate that clothing and shelter were unnecessary, the condition of man would be hopelessly low in the scale, as witness Central Africa to this day.

The emancipation must be of such a character that it can be achieved and sustained only by tense activity and the most complete development of man's higher powers. Long training in

youth, necessary to master the conventionalities of civilization and the view of the world attained by culture, must develope and fix habits of industry and rational endeavor.

The Function of Property.

The function of industry in the perfection of man becomes clear when we consider the true nature of property.

Property is the means for transfering the products of the will of the individual to the race, and at the same time the means of his participation in the products of the race. Human labor cannot be stored up and transferred, except in the form of property. A thing becomes property when —

(*a*) It is held in possession by one individual or a company of individuals;

(*b*) and that possession is recognized, confirmed and defended by the community.

This interchange between the individual and humanity is essential to spiritual life. The division of labor by which production is increased through mutual inter-dependence, bears greater fruits than food, clothing and shelter. Its chief fruit is the spiritual gain; each man learns the experience of all men and gives in return for it the small lesson of his own experience.

Possession and the recognition of that possession are essential to property. Hence, property implies the unity of a social whole. It implies, too, the interchange of ideas as well as of material things.

The social combination which recognizes individual ownership is of a sort that does not crush out the individuality of its members. Social organization is absolutely essential for the development of man above the animal. For human life, as such, signifies the perpetual assimilation, on the part of the individual, of the aggregate experience of the whole community. All that society, as a whole, experiences, aggregating the experience of all individuals, becomes by intercommunication the possession of each.

Take away private property and each one's individuality, as manifested in his private wants, gets in the way of the individuality of every one else. Universal collision results in the necessity of the subjugation of all wills in the community to one will; hence arises despotic absolutism as the lowest and rudest form of rational society, the relation of master and slave.

The possession of private property makes possible the exercise of many wills in the community, without collision with each other. It is a greater invention than the discovery of the primitive arts of fire and metallurgy. It is the discovery of the possibility of human freedom.

But the possession of private property does not secure freedom except in a community where private property in land is also recognized. With private property in land there is secured a province within which the individual becomes sovereign. With the principle of private property in land once recognized, there goes on a culture in individuality which is impossible without it. Where the land is the property of the community, each one's will in some degree lacks a sphere in which it is sovereign (it lacks a "dominium"). There must be one absolute will which limits all others, and deprives them of perfect freedom to that extent. Such is the fact in the patriarchal family and in the village community. But when the individual obtains the perfect sovereignty over his own land, then the will of the community does not share with him nor subordinate him any longer, but re-enforces his will. It takes the form of recognition rather than that of dictation and obedience.

History looks upon the invention of private property in land as one of the mightiest steps towards human progress. The Romans invented the forms of corporation, the formulæ for contract and the forms of government for municipal and State governments, clearly distinguishing the legislative, judiciary and executive functions. They also invented the forms of acquiring, holding and transferring property, and especially property in land. But the right of private property in land and the forms of free competition on the part of individuals have done more to develope personal individuality than all other devices. These Roman forms have been the nurture of individuality, just as play is the nurture of spontaneity and originality in the child. The child exercises his caprice and arbitrariness until he developes the strength and stuff to form a rational and consistent character. So private property over which the owner may have absolute control nurtures his individuality. That individuality which is mediated through other individuality may be called personality—one man recognized by all others as acting rationally and to be protected in his acts, for this reason becomes a person.

The "Unearned Increment."

Mankind, through the development of private property, makes progress as never before.* Let an owner improve his piece of land and he expresses in full his caprices and inclination, developing a visible expression of his internal tendencies and proclivities. In this he becomes a revelation to himself and to others. What he originates that is useful or valuable may become the property of all his neighbors. What is not useful may be avoided. So that if he builds a house he attempts to realize his ideals and sometimes adds permanently to the beautiful or to the useful models of building. But, abolish free ownership and you abolish the expression of this innermost inclination and proclivity. The owner of a leasehold is careful if he builds, to study how to build so that in case the land passes away from his possession he may get the most for his building. Hence, he adopts a conventional style, and there is no self-revelation in his work and no culture that comes from it. He tries no new experiment and there is no gain that comes to humanity when, by experiment, a new form of the useful or the beautiful is added to the stock already possessed. If one hundred persons build, perhaps 90 and 9 will introduce capricious variations that do not add anything valuable to what is already invented. But the one-hundredth person adds a form of real beauty or a device of utility. All society profits by the work of the one and loses nothing by the experiments of the ninety-nine. If society had to support its inventors at the cost of the public, it would lose so much by the ninety-nine foolish experimenters that it could not afford to reward the one wise discoverer. By the principle of free competition society gains constantly at the least expense.† As it pays nothing to the ninety-nine who

*Competition is the only true method of ascertaining the cost or price; all other methods are purely arbitrary. If the principle of competition is done away with things must be distributed arbitrarily, not by earnings but by allotment, and all standard of value is set aside. Under such an arrangement the primary condition of freedom is abolished. A free man should be able to recognize his own deed. When it is undistinguishable from the deeds of others he soon loses a sense of responsibility. By the law of competition each one constantly sees the measure of his exertion by comparison with others. See W. B. Weeden's valuable work on "The Social Law of Labor," (Boston, 1882), p. 98. "The only means of arriving at a true cost in economics is to put two men at work against each other; by working against each other they work for the whole of society."

†As a matter of fact Socialism can not show any example where a department has been taken charge of by the general government in which any progress has been made in the methods of management except by borrowing directly from methods invented in private business affairs. Were private business affairs to be merged in Socialism there would cease to be any progress.

fail to discover a valuable process, it can afford to reward the one successful man who invents a great benefit to society. Bessemer saves by his invention thirty millions of dollars a year to Great Britain and double that amount to America. How large a per cent. of this added wealth does he receive? The great "Railroad Kings" who invented cheap transportation by combining lines of railroad under one management and adopting a system of regulations which have resulted in making railroad travel the safest known means of travel — safest for man, safest for goods, — and chief among these railway inventors is the Vanderbilt family — have reduced the cost of transportation of freight from $3\frac{1}{4}$ cents per ton per mile, to less than $\frac{7}{8}$ cents per ton per mile, and thereby saved the sum of more than 500 millions of dollars per annum to the country (the actual freight charges being 416 millions, but at old rates would be over 1000 millions). How large a per cent. have these men been able to secure as reward for their talents? Mr. Atkinson points out (in his essay on the "Railway, the Farmer and the Public,") that Ohio in one year (1883) saved the sum of 89 millions of dollars on railroad transportation over the prices of 1869, reduced to a gold standard. $60,000,000 of this was for local traffic.

In the case of the inventors, society invests nothing in the unsuccessful ones but gains much in case of the successful. Arkwright, Hargreaves, Watt, Whitney, Fulton, Morse — society reaps a thousand millions where these individuals reap one million. The 99 who fail do much negatively to close up the by-paths that lead no whither. They explore and map out the realm of non-fruitful discovery. They study science. They inventory nature in its humblest aspects as well as in its sublimest.

Through the complete and exhaustive inventory of nature discoveries become possible in every direction. This inventorying of nature is something that is so uncertain in its immediate fruits that the community as a whole is never justified in undertaking it on an extensive scale.

The community in fact is so conservative that it rarely purchases great discoveries or even uses them until after long and cautious delay. It is apt to heap ridicule and contempt on the men who bring it the most precious gifts. It seems like irony to suggest that the social whole will invest anything in the way of

encouraging invention as a profession. The Greek fire* invented by an Arabian could not be sold to his own countrymen. He brought the secret to the Byzantians who used it successfully in keeping out the Moslem power from eastern Europe for nearly eight centuries.

Communities as a whole do not spend money on investigations leading to inventions, nor do they willingly avail themselves of the inventions after they are made. They mobbed Hargreaves and Arkwright and ridiculed Fulton. They prefer to eat their half crust sitting in the ashes, to eat a whole crust sitting on a chair. What nation fitted out Columbus for the voyage on which he was willing to risk his life for a geographical discovery? No nation but only the religious missionary zeal of a Christian Queen. Who rewarded Columbus? The home government — with chains and a prison.

The State indeed purchases chiefly the solid and fruitful benefits of useful inventions, of adventure and discovery, by conceding to the inventor what he can make by the monopoly of his invention for a limited period of years. The reward is a stimulant which secures the glad service of the one successful and of the ninety-nine unsuccessful explorers.

There is adventure in many phases of life. Not to speak of hunters and fishermen, there is risk in the expectation of a crop on a farm, in the possibilities of profit in the manufacture of goods and in mercantile traffic. Still more risky is the undertaking of the pioneer, the investment in real estate,† the purchase of railroad stocks and above all the business of mining. Perhaps the remuneration in wealth and comfort is smallest on the average to the discoverers and openers of mines.

If society is to waylay the few who are successful either from sagacity and peculiar qualities of character or from pure good luck, and rob them of their gains, as unearned increment, this whole system of the development of individuality will collapse, and with a fearful result on the progress of society.

*It was the invention of gunpowder, except that it used naphtha instead of charcoal as an ingredient.

†Land investments are not so profitable as investments in trade with equal business sagacity. By the year 1912 the $24 paid for Manhattan Island in 1612 at 6 per cent. compound interest for the 300 years intervening would come to over 800 millions of dollars, a sum quite equal to the value of all the land in New York city in 1912, judging from its present price and rate of increase.

One has only to see how many and how great advantages accrue to society from this spirit of adventure, which scales the boundaries hitherto reached and enters a new world of thought and action, to realize the pernicious tendency of the socialism of Karl Marx. To confiscate what is called the "unearned increment"—the reward of good luck and sagacious outlay of labor and capital—is to kill the goose that lays the golden egg.

Society would obtain immediate possession of a given amount of wealth, but it would paralyze all elements of adventure in the souls of its bravest men and well-nigh destroy all self-dependence on the part of the weaker members of society. In the Middle Ages the inventor had to keep the process of his manufacture a secret or sell it as a secret if any gain was to reward him for his investments of time and talents.

If society deals violently with the individual, the latter strives to repeat the lesson upon his fellows. The dealings of the world-spirit towards the individual, furnish him a model on which to form his own character. The selfish greed of the corporate whole that envies the individual his good luck or the fruits of his sagacity, is the most pernicious influence for educating the individual in pure selfishness.

Faust discovers that the Erdgeist spurns him with contempt—for pantheism teaches that the world-process is only a gigantic process of birth and decay that moves in the tides of life and the storm of deeds, a birth and a grave, and engulfs the individual in its universality. Whereupon Faust assumes the same attitude towards his fellow-men, making the world his oyster. By this he adopts the Mephistophelian principle and sells his soul to the Evil One. For Mephistopheles is the human counterpart of a World Spirit that is unscrupulous towards the rights of individuals—the individual counterpart of a social whole that robs its individual members of their good luck and of the fruits of their sagacity.

A State that invests nothing in the encouragement of invention, adventure or discovery, and stands ready to rob its citizens of the fruits of their enterprise, will develope in all its strongest individuals—in all its directive citizens—the same spirit of jealous and unscrupulous selfishness. Each will learn to reap where he has not sowed. Tyrants will multiply, and the only cure will be fierce and bloody warfare—like the collision between English and Scotch on the border in old feudal times. Such a condition can be healed only through a status of absolute monarchy.

What Effect Would Mr. George's Land Tax Have?

In conclusion let us ask: In what way would the new plan of collecting taxes help the poor? At first there would be no diminution in the amount of rent paid for houses. After a little while, however, the rent of the largest and most expensive houses in the centre of cities would fall somewhat, because only the land and not the building is to be taxed. But the rent of all small cottages and cheap tenement-houses would greatly increase as a consequence of the attempt of land owners to recover a portion of the tax that would fall with undue weight on their property. The consequence would be that the poor would be far worse off than now as regards the rent of dwellings. They would pay relatively more than the rich.

Two lots of equal size, side by side, would be taxed equally, according to Mr. George's plan, the buildings being free from taxation. But on one of these lots is the palatial mansion worth half a million, while on the other lot is a tenement house worth a tenth of that sum. The ground tax falls with ten times the weight on the amount of capital invested in the tenement. According to the present system, the rich man would pay a proportional tax for his palace, ten times as much as the tenement-house pays.

It is obvious that, according to Mr. George's plan, the cheap houses, such as the poor build or live in, would pay an undue amount of the burden of the support of the State.

The land of Massachusetts is taxed at present two-thirds of one per cent. on its true valuation for State and local taxes. If all these taxes were collected from land alone it would be taxed two and two-thirds per cent. on its true value; and if the national taxes were also collected from land, there would be 7½ per cent. collected from the true value of the land, a larger sum than its present rental yields. This enormous tax would fall to a much larger extent on the poor than on the rich, for personal property and palatial mansions, stores, warehouses and manufacturing establishments would all pay taxes only according to the amount of land they occupied. The cottages of the poor would be taxed not according to their value as now, but according to the value of the ground on which they were situated.

But we are asked would not this taxation of land bring into market at cheap rates all the unoccupied building lots, and would

it not divide up the large farms into smaller ones, so that the poor in our cities could get possession of land? Alas! no. If the present national and local taxes were all assessed upon land, land could not avoid the taxes by becoming cheap. If the value of land sank to five per cent. of its present value, the Government would simply be obliged on Mr. George's plan to raise the rate of taxation to twenty times the rate before assessed and thus make it pay every year 150 per cent. of its total value, in order to get the requisite amount of revenue that it collects at present. There could be no question of collecting larger revenues than at present — revenues that would supply music and dancing, halls, theatres, shooting galleries, gymnasiums, and such institutions for public benefit as Mr. George (p. 410) proposes, in addition to those furnished now — because the taxation of land sufficient to produce the present revenue would be 7½ per cent. on its present valuation, and this alone would be sufficient to crush farmers completely. The removal of taxation from improvements on land, from all productions, and from all personal property, would, of course, relieve the wealthy from the bulk of their taxes, at least from taxes on the wealth that they use for comfort and luxury.

But the poor people could not resort to agricultural lands, for the reason that these would be taxed up to the point of confiscating all that could be raised upon them.* In New England, on most of the farms at the present day, the farmers do not find themselves able to make what would be called a "decent living" by the manufacturing classes and the mechanics, unless their farms are located so near the cities that they can raise garden crops. Corn, potatoes, stock-raising, dairy products, hay, wheat, rye, and oats, do not return profit enough on land entirely free to pay the wages that the family can earn as skilled mechanics or common laborers in the mechanic arts. Take the State of Maine, for example, with its 82,130 farmers, and its $21,945,489 of "all farm productions sold, consumed or on hand;" adding one-third of its $16,499,376 for live stock, and the amount per farmer is $28.33 per month, or less than $340 per year apiece, without setting aside anything for land or capital, while the total average earnings of the whole nation amount at $34.80 per month to $417.60 per annum, and skilled mechanics get from $500 to $700.

*In Chapter VIII., p. 133, Mr. Wallace gives an amusing account of the resistance of the Russian peasantry in the northern provinces of Russia when an attempt is made to assign them large allotments of land where every allotment brings more taxes than profits.

Contrast farming in Maine at $340 per year with farming in Massachusetts, consuming great quantities of garden products and farm earnings at $438 per year. Connecticut furnishing vegetables for its own cities and for New York, averages $492 for its farmers. But, even in Maine there is much garden farming to be accounted for, and this raises the average farm production.

If the farms were burdened with an enormous tax, as in Russia, there would be suffering, and in many places actual need of help from the Government, as there is quite often in Russia toward the latter end of winter.

Mr. George's kindly meant help to the poor, to save them from migrating west for farms, would result in driving the whole farm population, except the market gardeners, to the extreme border lands to escape a taxation that would rob them of all their earnings.

As it is, the paupers are people of feeble intelligence and feeble will power. But incapacity is no crime and should not be punished as such. But to offer people of such incapacity in matters of thrift the use of land for cultivation at an annual rental of taxes equal to 7½ per cent. — where the most economical and skilful farmers at present do not make more than one dollar a day throughout the year — is cruel irony.

Laveleye, in his "Elements of Political Economy (Eng. tr., p. 59), says that "As a means of forwarding agricultural progress . . . . a scale of the different systems of land tenure may be formed, arranged according to the encouragement which they give to labor. The order will be in descending scale: 1, proprietorship vested in the cultivator; 2, hereditary tenancy; 3, long leaseholds; 4, cultivating on shares; 5, short leaseholds; 6, tenure at will." And again the same author says: "Man will work with so much the more care and zeal the more exactly his reward is in proportion to the quantity and quality of his labor. Pay the industrious and the idle workman the same wages and it will be to the interest of both to do as little as possible." This meets the case of the appropriation of land by the State in order to provide land for all.

But, inasmuch as the grounds for apprehension as to any danger from the private ownership of land have been removed, there remains no necessity for Mr. George's remedy, the nationalizing of land, for any reasons of progress and poverty. Land has not

increased in value during the present century so fast as capital and labor. In thirty years the total rental has increased three-quarters of a cent per day for each inhabitant of the United States, while the total daily income has increased fifteen cents each. For each inhabitant of Great Britain eighty years ago, the total land value was 25 per cent. greater than it is now, while the value of buildings and miscellaneous wealth has increased since then to almost three times as much per inhabitant. Our total annual production is 40 cents a piece per day while land takes only two cents of it. Land does not domineer over capital, but capital continually gets the advantage over land by means of rapid transit, bringing the agricultural lands of the suburb to compete with city building lots and bringing the farms of the distant frontier to compete with the farms of the Atlantic coast in raising staple crops. The consequence is that the farmers are not able to hold their own with the other laboring classes in the progress towards high wages, and if Mr. George's plan were adopted they would be utterly ruined. Moreover, since the great bulk of wealth in the city consists in buildings and personal property, the wealthy would escape taxation to a greater extent than the poor.

PAPERS OF THE JURISPRUDENCE DEPARTMENT.

I. THE STATE AND THE SAVINGS OF THE PEOPLE.

BY H. L. WAYLAND, D. D., OF PHILADELPHIA.

(Read Thursday, September 9, 1886.)

Next to serving God, the first duty of every working man (that is, every man who lives by his work: who supports himself and is not supported by his father or his father-in law) is to get ahead, to have some capital. Capital to the working-man means better tools, better material, if he is working for himself; in any event, it means a home, a roof over his head owned by himself; it means the chance of lying by for a day or two, if he is not able to go to his work: it means something between him and starvation, if work is slack; it means a shelter, a bed, and three meals a day after his time for work has gone by.

But granting all this, how is the working man to get capital? I mean the average working man, not the exception; the plain man, not the genius; not the Tom Edison, or the Elias Howe, Jr. As for nine hundred and ninety-nine out of a thousand, they do not make money. Their experience is rather that of the frugal soul, who, in spite of natural dulness, and hard times, and adverse knocks, managed to acquire something; when asked how he made his money, he replied, "I didn't make it; I s-a-v-e-d it."

I once asked a friend in Massachusetts, a large boot manufacturer, how it is possible for the New England people to go out to Iowa and Illinois and Texas, to buy hides and bring them into Worcester, and make them into boots, and then carry the boots back to where the hides came from, and sell them cheaper than the people there could make them on the spot. He answered: "It is the small savings." This, I believe, is a universal truth. It is the exception when money is made: the rule is that, if there is money, it is saved.

In order to do this the income must be larger than the outgo, or the outgo must be smaller than the income. The last, I have found from my own experience, is more easy to the average man than the former.

Now suppose the money saved, what are we going to do with it? Money must be saved twice if it is to do us any good; saved once *before* we get it, and again *after* we get it. Money that is *made* often comes in great blocks. Money that is *saved* comes in pennies, dimes, quarters, now and then in dollars. Coming in these small sums, it is all the more liable to slip through the fingers. Money in the pocket is a perpetual temptation, a constant menace to the hoped-for accumulation. And when it comes in these small sums, it cannot be used to any advantage, say in paying for a house, a lot, a sewing machine. If it is hid in the store in summer, some cold-blooded person is sure to start a fire on a chilly day in July,—to say nothing of the mice. Then the presence of money in the house is a continuing invitation to robbery and violence, and perhaps murder.

Now and then a manufacturer or store-keeper is willing to take the small savings of his neighbors, and to allow them interest. But there is no security, and from time to time there is a failure that sweeps away the savings, at the very moment when the failure had stopped all work and wages, and when the wages were needed as never before. The rainy day has come, but the umbrella which was laid by, is loaned, as usual.

But there is the *Savings Bank*, an institution of which I would speak with respect and gratitude, in view of what it has done for the wage-earners and working men of England and America. The Savings Banks of the New England and the Middle States have been a great blessing But still, the savings banks of the whole country, as a whole, leave much to be desired.

The two things needed in a system of savings for the great body of the people, are facility and security. As to *facility*, the Comptroller of the currency for the United States, in his report for 1880, gives the number of savings banks in the country as 658, distributed as follows:

New England, 442, being one to 9000 odd of the people, with deposits amounting to $378,000,000.

In the Middle States, 181 banks.

In the Western and Pacific States, 50.

In the Southern States, 4, or about one to 5,000,000 people.

The correctness of these figures for the Southern States has been disputed by a Southern writer, who claims that there are 117 savings banks in the Southern States, with $10,000,000 of deposits.

But, in any event, one savings bank for every 170,000 people with deposits amounting to half a dollar for each inhabitant is not a very large showing.

As to the other requisite, security, the savings banks are yet more unsatisfactory. At a recent hearing on this subject before the House Committee on Post-Offices and Post roads, at Washington, Hon. C. S. Fairchild, Assistant Secretary of the Treasury,* said, that while holding the office of Assistant Attorney-General, and later, that of Attorney-General of New York, he was compelled, in the discharge of his duty, to wind up 22 savings banks, with a loss to the depositors of $4,000,000. He became satisfied that the professed guardianship exercised by the State over these banks amounted to nothing. The depositors were really without protection against the dishonesty of the bank officers. Whenever hard times come, just when the people want their money most sorely, just then some savings bank shuts its doors.

Do not misunderstand me. With all these drawbacks, the savings banks of America have been a great blessing. Only we are warranted in asking: Is there not something which affords all these advantages in a yet higher degree, with no drawback?

Here comes in the Postal Savings Bank. It is proposed that all the, say 6000, money order offices in the United States be made savings banks, authorized to receive deposits amounting to not more than $500 in all from each depositor, on which a small rate of interest shall be paid, not exceeding 2 per cent., or better, perhaps, just such a percentage as the money actually earns when invested in bonds issued or guaranteed by the United States. The depositor will have a pass-book, by means of which he can deposit money, or draw upon his deposit, at any postal savings bank in the country.

The system would afford in the highest degree the two things of which I spoke—facility and security. There would be a savings bank to every 10,000 people in the country. This would be about the proportion that now exists in New England. It would afford to the entire nation, only in a higher degree, the system of savings which is at once the child and the parent of the thrift which has made New England the banker of the continent.

I do not know whether this system would be the greater blessing to the country town or to the city. In the city of Philadelphia,

*Now Secretary of the Treasury.

with nearly a million inhabitants, there are four first-class savings banks. If a working man in the suburbs wants to deposit what remains of his week's earnings, he must spoil at least a half day, with all the peril from 5,000 or 6,000 saloons. Under the proposed system, there would be from 15 to 20 postal savings banks. One to each 10,000 people would give in Philadelphia nearly a hundred.

Of course, the security is absolute. The faith of the United States would be pledged for the safety of the deposits. They would be loaned to the nation. Herein would lie the great advantage; not in a high rate of interest, but in the assurance that, whenever called for, the deposit or loan would always be at hand.

The great argument for the system, apart from what lies on the surface of it, is derived from the experience of other nations, especially the nation that is of kin to our own, the British nation.

In 1861, after an effort lasting 50 years, the friends of the postal savings bank succeeded in getting the system established in Great Britain. From the first, the experiment was a success. In nine years, there were 4,082 banks, with 1,183,000 depositors, and $45,000,000 of deposits. Nine years later, there were 6,000 banks, with 2,000,000 depositors, and $160,000,000 of deposits. The system has been an unmixed blessing to the working men of Great Britain. It has extended to all the British colonies, as well as to Italy, the Netherlands, France, Belgium, Switzerland and Japan.

I urge this system of postal savings banks, because it helps the working man to lay by something for the time of sickness and old age. I urge it because it will increase the wealth of the nation. I urge it because it will give the working man a stake in the welfare and permanence of the government and of society.

It is rumored that white blackbirds are not numerous; but you will find a thousand white blackbirds where you will find one man, who, having something in a postal savings bank, invested in Government funds, is an anarchist. The postal savings bank is the natural antidote to dynamite.

I urge it because it will be the helper of virtue, the ally of morality. Every dollar deposited here is a dollar that will not go into the till of the saloon-keeper. I urge it because it will foster a habit of saving which will not stop when the $500 limit is reached. The disposition towards saving is cumulative. It will put the

working man in the way of providing himself and his family with a home, with comforts. The purchase of these things will give an impulse to business, and will quicken all branches of industry.

Of course there are objections. The most obvious objection proceeds from the theorist who has adopted the *Laissez Faire* doctrine, and who thinks that this is of the nature of paternal government. He is right; it is of the nature of paternalism. But all government, that is government at all, is more or less paternal. It is only a question of degree. It is paternal for the government to carry the mail, to establish free schools and free libraries. The Erie Canal was a flagrant instance of paternalism. *Laissez Faire* is a very fine theory, but I have gradually come to believe that when a theory, apparently sound, leads logically to the conclusion that two and two make five, or seven, or ten, there must be something wrong in the theory. And if *Laissez Faire* leads, as it does, to bankrupt banks, monopolies, railway kings and other public enemies, and to miners working for $10 per month, then I want to go back and re-examine the premises.

Again, it is objected that it would increase the patronage of the government, adding to the army of officers. But just here the objector touches one of the great advantages of the system. If the people should place their savings in the care of their government, they would demand in tones not to be mistaken, a reformed civil service. As things are now, if a clerk in the custom-house is incompetent or dishonest, it does not come home to the working man. But if a clerk should be put in charge of *his* savings, he, the working man, would think it much more important that the clerk be honest and capable than that he be able to carry his ward. Once the civil service is reformed, there is no danger from increased patronage.

It is objected that the money thus saved by the people will be withdrawn from circulation. No more than with any other savings bank. Suppose the government has taken in these banks a million dollars. This money must be earning something. It is used in buying United States bonds. The money paid out for these bonds is put into circulation. The men who sell the bonds to the postal savings bank will use the money in building railroads, erecting manufactories, etc.

Perhaps the most effective, the unspoken opposition comes from the men North and South, who do not want the working peo-

ple to save money; from the saloon party, from the employers who have a "pluck-me store," where they expect the wage-earners to spend all and save nothing; from the employers, who believe that the working man is too independent when he has something laid up, by which he can hold out in case of a lock-out. This opposition I cannot hope to conciliate. But it is, after all, one of the best arguments for the postal savings bank.

It is also urged that the government is gradually paying off its debt, and that in fifty years there will be no government securities to invest in. It is not sure that so very speedily there will be no bonds issued or guaranteed by the United States. Suppose that the United States should take up, say, the Panama Canal, or should guarantee the bonds of a company which should undertake it.

But, in any event, shall we refuse to do a thing today which is just, beneficent, needed, because we do not positively know that we can keep it up a hundred years from now?

I really know no valid argument against the postal savings bank; I certainly know very many strong, nay, overwhelming, reasons in its favor.

II. HOW TO DEAL WITH HABITUAL CRIMINALS.

BY PROF. SIMEON E. BALDWIN, OF YALE UNIVERSITY.

(Read Thursday, September 9, 1886.)

Our country has now arrived at a period where it is brought face to face with most of the questions of social organization which have perplexed the governments of the Old World. Our population has begun in more than one State to press upon the limits of subsistence. It is less easy than it once was for every man to find work at wages which satisfy his wants. It is more easy than it once was to gain a living by roguery and fraud. It is more easy for the successful sharper to find a way to spend his ill-gotten gains without attracting any more attention than he desires to their possession. Such men have a social circle of their own; a pride in their profession; a following of respectful admirers; a Police Gazette literature to proclaim their exploits and perpetuate their kind.

We have been slow to recognize the existence of this class among us, and we have been slower in applying the remedy. But as no considerable city is now without them, and no village bank or store is secure against its forays, it is full time to consider and adopt some general plan of dealing with habitual criminals. They are mainly the offspring of city life; their crimes are directed against property; their line of action is craft rather than violence.

Cities are transforming American society. They crowd the good and the bad of vast districts into a single centre, where, if the good become better, the bad become worse. We are repeating the history of ancient times and of the dark ages, though with a different cause. The great roads with which Rome bound the world together went from one great capital to another; but between they traversed vast stretches of territory inhabited only by slaves. The people clustered for safety within or around the city walls, and ships brought from other lands the grain that Roman hands disdained to sow. So,—not for safety, but for pleasure and for gain,—our people are deserting the country hill-sides for the manufacturing village or the more distant city. Political influence, industrial enterprise, capital accumulated elsewhere, go with them. If you would find the daring, venturesome, restless, ambitious

spirits, such as were first in earlier days in pushing on the frontiers of civilization, you look for them on pavements rather than on farms. They go where there is not honest work enough for all, and so some take to what is dishonest. They take to it with the energy and skill that belong to the American character; with the intensity of purpose that marks the struggle of city life. It is thus that crime becomes a profession; that children are bred to it; that it has its own language,—its own tools.

And with what weapons does society oppose these new criminal classes? With none but those forged in the early days of English history,—in the days of another type of civilization. She has, to oppose the Springfield rifle and the Gatling gun, nothing still but the old pike and shield of the middle ages. She has even less. The humanity of our times has given the man accused of crime rights of defence undreamt of by the common law, and has thrown aside half its punishments.

The laws of England regulating criminal proceedings, which we have inherited, were good for the times and the men whose work they were. In a land of headstrong kings and feudal lords, the common people had scant justice at the best. They needed all the guarantees of personal liberty which they could get. There was often little guilt in acts for which capital punishment was imposed by Act of Parliament. Crime was not without its romantic side. There might be a certain dash of chivalry in the freebooter of the Border, or a Robin Hood of the Great Forest, but we shall find none in the city burglar of the nineteenth century.

The professional criminal is a product of a highly civilized society. He is armed with its arts. He must be met with the best means it has at its command. He hides himself in the crowds of great cities from the neighborhood watch which follows every individual in a thinly settled community, which kept England safe in the days when every Hundred was responsible for its own good order. Society, then, must set a watch over him of some new kind; if there is likely to be none without law, there must be one by law. The habitual criminal is a perpetual well-spring of crime. The stream must be checked at its source, if it is to be checked at all.

It may be necessary to treat him in a manner incompatible with the traditions of our race; to trench upon his personal independence; to make suspicion evidence, and assume guilt where we can-

not prove it. If so, the price is a great one, but the peace of society is worth it.

The subject is one which was not overlooked by our first great American writer on systematic criminal procedure, Edward Livingston. In his "Code of Crimes and Punishments," reported to the Legislature of Louisiana in 1824, we find a provision for an increased punishment in all cases on a second conviction, followed by this article:

"Art. 53. And if any person, having been twice previously convicted of crimes, no matter of what nature, shall a third time be convicted of any crime afterwards committed, he shall be considered as unfit for society, and be imprisoned at hard labor for life."

Mr. Livingston was almost a sentimentalist in his views of crime. He would have abolished capital punishment, and the foundation stone of his whole system is the proposition that "the sole object of punishment is to prevent the commission of crime." In the reports accompanying his Code he argued at length all points that seemed to him worthy of discussion, yet his only allusion to the life-sentence for the habitual criminal is the remark that it "seems so necessary and reasonable that it may pass without observation."

So far as I am aware, Virginia was the first of our States to adopt the plan thus proposed. In her Code, framed shortly before the civil war, she declared that every person sentenced to the penitentiary must be sentenced for life, if he had before been twice sentenced to the penitentiary by any Court held within the United States.*

In Maine a similar punishment may be imposed for a second conviction. The provision is, that any person convicted of a State's prison offence, who has been previously sentenced to the State's prison by any Court of the United States, or any State, may be imprisoned for life or any term of years.†

It will be observed that this statute is permissive—not, like the others, mandatory. The Court may, but is not bound, to inflict the life-sentence. And, on the other hand, Maine requires but two convictions to justify this remedy, while Livingston's code and that of Virginia demand three.

In 1885, Ohio followed the lead of Virginia, but tempered the

* Va. Code of 1869; p. 814, sec. 26.
† Maine Rev. Stat. of 1871; p. 891, sec. 3.

sentence by giving a chance of regaining a qualified liberty. Her statute reads thus:

"Every person who, after having been twice convicted, sentenced, and imprisoned in some penal institution for felony, whether committed heretofore or hereafter, and whether committed in this State or elsewhere within the limits of the United States of America, shall be convicted, sentenced, and imprisoned in the Ohio penitentiary for felony hereafter committed, shall be deemed and taken to be an habitual criminal, and on the expiration of the term for which he shall be so sentenced, he shall not be discharged from imprisonment in the penitentiary, but shall be detained therein, for and during his natural life, unless pardoned by the Governor, and the liability to be so detained shall be and constitute a part of every sentence to imprisonment in the penitentiary; provided, however, that after the expiration of the term for which he was so sentenced, he may, in the discretion of the board of managers, be allowed to go upon parole outside of the buildings and enclosures, but to remain, while on parole, in the legal custody and under the control of said board, and subject at any time to be taken back within the inclosure of said institution; and power is hereby conferred upon said board to establish rules and regulations, under which such habitual criminals who are prisoners may so go out upon parole, and full power to enforce such rules and regulations, and to retake and re-imprison any such convict so going out on parole, is hereby conferred upon said board, whose written order, certified by its secretary, shall be sufficient warrant to authorize any police officer to return to actual custody any such conditionally released or paroled prisoner." *

We observe here as an alternative of the life sentence, or rather as a provisional and temporary substitute for it, something like the English ticket-of-leave system. The board of managers of the penitentiary have the powers which the Act of 16 and 17 Vict. ch. 99, Sections 9–11, gave in 1853 to the State Department.

In 1882, the American Bar Association instructed its committee on jurisprudence and law reform to "report a proper method and criterion, for discriminating between professional and non-professional criminals, and for the protection of society against the former, when so ascertained." Such a report was presented to the association in 1885, and the following resolutions recommended for adoption:

"1. *Resolved*, That provision should be made by law in every State, for keeping a record of the name, age, personal appearance,

*Ohio Session Laws for 1885, p. 237, Sec. 2.

residence, occupation, and general antecedents of every person who may be convicted in its Courts of felony, or who may have been twice sentenced to imprisonment for any crime or misdemeanor; and for printing such records annually, for distribution to its Courts and police authorities, and for exchange for similar publications of other States; and that photographs of convicts deemed specially dangerous should also be taken, to be used in a similar manner."

"2. *Resolved*, That provision should be made by law in every State, for subjecting all persons who have been twice sentenced to imprisonment for any crime or misdemeanor, to police supervision for life, or such shorter term, not less than five years after the expiration of their second term of imprisonment, as the Court may order; and also to perpetual deprivation of the right to vote or hold public office."

After a brief discussion, the further consideration of this report was deferred for a year, and at the meeting of the Association held in this place last month, it was taken up and the resolutions adopted by a very large majority.

There is nothing new in any part of the policy thus recommended; nothing, at least, which is new outside of the United States. It merely applies to habitual criminals rules which the leading nations of the world have long applied not only to them, but to those generally who have committed grave, though single crimes.

It may be said that its spirit is un-American. It is. During most of our history, we were content, when a convict's term of imprisonment ended, and we saw him pass out of the jail door, to say with Dogberry, "Thank God, we are well rid of the knave." But we found, as our prisons improved, and the stocks and the whipping-post disappeared, that he generally came back. Then we tried Prisoners' Aid Societies, which are really a form of supervision by the executive agent of a charitable organization, though with the immediate design of supplying good influences and help to find work, rather than of watching against new crime. The State, in some instances, contributes to the support of these organizations, and their supervision then becomes, in a measure, that of a public officer.

We have tried, too, Lynch law, very vigorously. It is effectual against horse-thieves and stage-robbers in new States. It is a thoroughly American remedy. It aims in a rough way, at the same end that England aimed at by law, when our ancestors left it, the extermination by death of the flagrant criminal, before he has an opportunity to become an habitual one.

But we, I am sure, should be slow to approve either the bloody code of the England of the Stuarts, or the swift vengeance that anticipates the law or goes beyond it. And those of us who have watched the course of Prisoners' Aid Societies, know how little they can do to make honest men of rogues. Their watch over the discharged convict who accepts their good offices, is of value, so far as it goes, but it cannot go as far as if maintained by the police.

Let me refer, as to this matter, very briefly, to the legislation now in force in France and England. The Penal Code of France puts every convict sentenced to imprisonment at hard labor, or for long terms, under police supervision for life. In England,* on a second conviction of one previously sentenced to imprisonment for the former offence, the criminal may be put under police supervision for seven years, after the expiration of his second term. And though not sentenced to such supervision, yet if within seven years after his second term, any proper court finds reasonable grounds for believing that he is getting his living by dishonest means, or "if he is found in any place, whether public or private, under such circumstances as to satisfy the Court that he was about to commit, or aid in the commission, of any offence punishable on indictment or summary conviction, or was waiting for an opportunity to commit, or aid in the commission, of any offence punishable on indictment or summary conviction;" or if he be found in any house, shop, or yard, "without being able to account to the satisfaction of the Court, before whom he is brought, for his being found on said premises," he may be sentenced, without further evidence, to a year's imprisonment.

This system of police supervision obviously cannot be made fully effective here, without exacter methods than we have yet pursued for the registration and description of known criminals. The photograph gives a cheap and easy way of identifying them, and it has come into general use in the police offices of our larger cities, without any authority of law. A "rogues' gallery" of photographic portraits ought to be found in every State prison, and a sufficient number of each likeness should be printed, in case of habitual criminals, to distribute in all the great centres of population, in the United States. England, in 1876 (39 and 40 Vict., ch. 23), formally adopted this policy. The State Department is

*By Act of 1871 (34 and 35 Vict., ch. 112).

to fix from time to time, the classes of convicts to which it shall apply, and each member of every such class shall be photographed in any style of dress the authorities may prescribe. A record is also to be made of his name, age, personal description, offence, occupation, residence, etc., and the information thus gained, is tabulated, and registered in London for English, in Edinburgh for Scotch, and in Dublin for Irish convicts.

If similar records were kept in each of our States, and printed for exchange with other States, as well as for use by its own local authorities, a long step would be taken towards suppressing the habitual criminal, who now finds it easy to flit under an *alias*, beyond the shadow of his local reputation, without going farther than the State line. Massachusetts has made provision for gathering information of this general character, as part of her "Probation officer" system, in regard to all persons arrested for every offence; but it is not gathered for dissemination, and has no relation to the mischief now under consideration.

It is my belief that the best way to deal with the habitual criminal lies in the direction suggested by the American Bar Association. Let there be a full record kept of the description and general history of every convicted felon, and of every man twice sentenced to imprisonment for any offence, and photographs taken of any convict deemed particularly dangerous. These should be made available for the information of the public authorities of every State. Put all persons twice sentenced to imprisonment for any offence, under police supervision for life, or such shorter term as the Court may fix; let them also be forever deprived of the right to vote, or hold office. This last punishment has been so ably advocated in a recent paper, read before this association by Professor Colby, of Dartmouth College, and is already so generally in use, that I dismiss its consideration without further remark.

While few would object to the other requirements of registration, photographing, and police supervision, in the case of the hardened and professional criminal, they may be thought by some to be harsh measures to apply upon a first conviction for felony, or a second sentence to jail for any offence. But we must try to prevent any one from becoming a habitual criminal. The convicted felon has gone a long way towards joining their ranks. He has attacked the good order of society with violence and effect. He

ought not to complain if the State makes a full record of the affair, and gives it to the police of his country. And is it too much to keep under police supervision those who have been twice imprisoned, though only for a misdemeanor? Who is there familiar with jails, who does not know that the cases are rare when two such sentences are not rapidly followed by a third, and a fourth? For their own sake, such men need to feel that the eye of the police is upon them. To know that they are watched is a real terror, and a real deterrent to evil-doers.

The common punishment for petty offences is a fine. If imprisonment is imposed, it is a pretty sure sign of some circumstance of aggravation; if it is imposed twice, though only for drunkenness or assault, it indicates a very bad opinion of the prisoner by the Court.

And the term "police supervision" is an elastic one. It would mean one thing for the professional bank-robber, and another thing for the twice convicted chicken-thief. From the hardened felon who expects to make his living by acts of violence or fraud, it might require monthly reports of his occupation, instant notice of a change of residence, and submission to frequent domiciliary visits of inspection. To the man, who, although twice imprisoned for minor offences, follows some regular business, and has not irrevocably lost his good name, it might take no formal shape, beyond keeping up the record of his life in the police register, from such information as could be obtained from outside sources, without giving him any personal annoyance, or attracting any public attention to his history.

Any such system as that I have thus outlined, must, in a country like ours, be necessarily more complex than in one of the nations of Europe. Criminal justice is administered with us by over forty different sovereignties, yet so bound together that every peaceable citizen of one has an indefeasible right to travel into and do business in every other. Unless, then, convictions in one State or Territory, in considering previous sentences to imprisonment, are given equal weight in every other State, with those had there, it will be easy to evade the force of any laws regarding habitual criminals, by merely crossing the imaginary line which divides one of these jurisdictions from the next. A number of our States have passed statutes to meet this difficulty. Mr. Livingston introduced in his Code of Crimes and Punishments

(Art. 54) the provision that a previous conviction in any of our States should be as effectual for such purposes as a previous conviction in Louisiana. Missouri and Georgia have made this their law, and Maine, Virginia, and Ohio include also convictions before any United States Court.

I have been unconvinced by the authority of Mr. Livingston and the practice of Virginia, that the peremptory rule of confining for life all who have been thrice sentenced to the penitentiary, is right in every case. In some it may destroy a life that might yet be useful. In others, it may accomplish, at great expense, what could be as well accomplished without it.

The objections to confining any old offender within four walls until death, are indeed many. It shuts him out from any chance of beginning a new life as an honest man. It throws him as a perpetual burden on the public treasury. It tends to dissuade juries from conviction by the rigor of the penalty. It makes the criminal reckless how far he goes, since for any crime short of murder, there is the same length of imprisonment. It may sometimes give him the very thing he wants, a free bed and a free table.

Our prisons are already too full. In 1880, the census tells us that 1069 out of every million of our population were imprisoned for crime. Ten years before, this number was only 853 to the million. I do not think that this is simply due to the increase of crime, nor at all to any increased efficiency in criminal prosecutions. It is referable largely to the fact that our prisons are becoming boarding schools for the young, and shelters for the aged. They are really attractive to not a few, and those to whom they are attractive are often these very habitual criminals. They feel at home there. The jail gives them better food, cleaner beds, purer air, an easier life, than they generally find outside.

On the other hand, police supervision for life, or for a term of years, leaves the convict free to build up a new character, and to earn his bread in his own way. He is, no doubt, a constant object of suspicion. He is sensible that he is being continually watched. His neighbors will not be unlikely to know it too. But with all these disadvantages, he is still breathing the open air, living in the home of his own choice, surrounded, if he will, by family ties, free from arrest, unless he deserves it.

Such a system would require for its efficiency the multiplication of our police, but it would be likely to reduce the expenses of our

jails and penitentiaries. Shorter sentences would be given, if release meant freedom from confinement, not from supervision; and a second offence, for which imprisonment might be inflicted, would be less readily committed.

But to circumscribe and reduce the class of habitual criminals, is an end which, if attained, justifies any outlay of money. Every member of that class is a perpetual drain on the community, by day and night. He must be put at a disadvantage, and kept there at whatever cost, and whatever inconvenience to society or himself. He gives no quarter, and he must expect none.

We speak of criminals, in a proverbial phrase, as to be kept "under watch and ward," and we have assumed that when the ward is relaxed, the watch may cease also. It may in many, in most cases; but habitual crime requires, if not both, then at least habitual watch. The worst enemies of the law ought never, for a moment, to be beyond its sight and reach.

The criterion proposed for distinguishing the professional from the ordinary criminal,— that of repeated convictions and sentences to imprisonment, is but a rude one. There are notorious rogues who are never fairly caught but once; there are men who may be found guilty of two or three offences, grave enough to send them to jail, and yet have no thought or power of making a livelihood of crime. But to take any other rule of discrimination would leave too much to *ex parte* human judgment. It must be exercised *ex parte*, unless there is a charge and a hearing, and if these are to be required, it seems proper to leave them to come only in the common course of criminal procedure, and let the record of the Court determine the result. The test is also a familiar one, already provided for analogous purposes in the statutes of every State. If it had even less merits of its own, this general sanction by long use would seem sufficient to justify, if not to require, our reliance on it.

AMERICAN SOCIAL SCIENCE ASSOCIATION.

CONSTITUTION.

I. This Society shall be called the AMERICAN SOCIAL SCIENCE ASSOCIATION.

II. Its objects shall be classified in five departments: the first, of Education; the second, of Health; the third, of Trade and Finance; the fourth, of Social Economy; the fifth, of Jurisprudence.

III. It shall be administered by a President, as many honorary Vice-Presidents as may be chosen, a Treasurer, a Secretary, and a Council, charged with general supervision; five Department Committees, established by the Council, charged with the supervision of their respective departments; and such Local Committees as may be established by the Council at different points, to serve as branch associations. The Council shall consist of the President, Treasurer, and Secretary, the Chairman and Secretary of each Department, and ten Directors, with power to fill vacancies and to make their own By-Laws. The President, Vice-Presidents, Treasurer, Chairman, and Secretaries of Departments, and Directors, shall be chosen annually by members of the Association, and shall hold office till their successors are chosen. The President, or in his absence, a Director, shall be Chairman of the Council. The Chairman of the Local Committees shall be chosen at the pleasure of their respective committees. Whenever a Branch Association shall be organized and recognized as such by the Council, its President shall be *ex-officio* one of the Vice-Presidents of the American Association, and, together with the Secretary and Treasurer, shall be entitled to all the privileges of membership in that Association. And whenever a Local Department shall be organized and recognized as such by the Council, its chairman shall become *ex-officio* a member of the parent Association. The Chairman and Secretary of each Department, with the consent of the President of the Association, may appoint such special Department Committees as they may think best. The General Secretary shall be elected for three years, unless he resigns, or is removed by a two-thirds vote of the members present and voting in a regular meeting of the Council; and out of his compensation he may pay the salary of an Assistant Secretary, who may also be Secretary of one Department.

IV. Any person may become a member by paying five dollars, and may continue a member by paying annually such further sum as may be fixed at the Annual Meeting, not exceeding ten dollars. On payment of one hundred dollars, any person may become a life-member, exempt from assessments. Honorary and corresponding members may be elected, and exempted from the payment of assessments.

V. The Council shall have sole power to call and conduct General Meetings, and to publish the Transactions and other documents of the Association. The Department Committee shall have power to call and conduct Department Meetings.

VI. No amendment of this Constitution shall be made, except at an annual meeting, with public notice of the proposed amendment.

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1886-1887.

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[All Officers are *ex-officio* members of the Association; but persons serving on Department Committees may or may not be members of the Association. In this present list the annual members are given alphabetically, without reference to States; then the life members follow, classified by States, and finally the honorary and corresponding members. The only distinction between honorary and corresponding members is that the former reside in the United States, the latter in foreign countries. It is a rule of the Association to drop from the list of annual members those who have not paid their assessment for two years; but members so dropped can be restored to the list by paying their arrears. If former members do not find their names on the list as it now stands, it will generally be for the reason just mentioned.

No List of Members of the Association, as printed, can ever be quite complete, so many changes occur by death and withdrawal, the accession of new members, etc. The following list is as complete as the Secretary could make it, up to Feb. 1, 1887, but, no doubt, the addresses of several members are wrong, and there are instances of names misprinted, etc., of which the Secretary will thank any person to notify him when the fact is observed.]

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PROBLEMS OF THE CENSUS.

OPENING ADDRESS OF THE PRESIDENT OF THE ASSOCIATION, DELIVERED SEPTEMBER 5, 1887, BY CARROLL D. WRIGHT.

The adoption of a republican form of government necessitated our Federal Census. It is a curious fact in the development of statistical knowledge that the United States government was the first to provide for a census under the authority of organic law, to be taken at regular stated periods. Under the law, and under the necessity, the first Federal census was taken in 1790. When the Eleventh Census, to be taken in 1890, shall have been completed, the policy of our government in this respect will have covered a century of time, and the sentiment which surrounds any centennial work will bring into greater prominence than ever the regular enumeration of the people and the collection of all the collateral facts comprehended by the census law.

Other nations, and all nations that have made any great progress, have adopted the American plan of taking censuses at regular intervals. Prior to the adoption of this plan, enumerations of the people were ordered by governments whenever any particular necessity, as an enumeration for military purposes, demanded. The European Census, however, is one thing, the American Census another.

The Federal Census primarily was instituted for the purpose of ascertaining simply the number of inhabitants in the country, on which to base representation in the popular legislative branch of our federal government. As time passed on and the necessities of enlarging became apparent, it was seen that this enumeration should comprehend something more than the numerical strength of the country. As legislation came nearer and nearer the people this necessity grew accordingly, and inquiries seeking facts as to the social conditions of the inhabitants began to be added one after the other to the census schedules, until now the five schedules authorized by law cover a wide range of statistical inquiry. The European censuses are simple, in relation to the amount of information to be secured under them, rarely extending questions beyond those involving number, age, birthplace, and occupation,

but the European nations supplement their censuses by, or to speak more correctly, the European censuses are supplemental to a vast deal of work done by municipalities, such work including the registration of births, deaths, and marriages, and various other features which are only adopted in a fragmentary way in this country. In our own country, in addition to the great number of inquiries relative to social conditions, our census comprehends, and has to a certain extent since 1810, certain economic features relating to agriculture and manufactures. The schedules now used, so far as the existing law is concerned, are five in number, embodying inquiries relating, first, to population and social statistics; second, agriculture; third, manufactures; fourth, public indebtedness and other matters; and fifth, mortality.

In addition to the Federal Census several individual states have censuses, more or less comprehensive in their character, and usually coming on the mean year between the federal decennial enumerations. Some of these state censuses are taken with great pains, involving scientific features and covering a wide range of inquiries. Others are taken simply with a view to ascertain the number of the people and a few facts concerning their condition.

The constant but gradual addition of inquiries to the Federal schedules has reached a point at which Congress may well pause, and consider the practical utility of what has been, or what may be done under the schedules as they exist. The magnificent conception of General Walker for the Tenth Census, that of 1880, which has commanded the admiration of the statisticians and economists of the whole world, was the natural and perhaps logical outgrowth of the gradual elaboration of the federal census. The results comprising 22 quarto volumes, or a work equal in magnitude to the Encyclopedia Britannica, have excited great interest, not only on the part of those scientifically conversant with census work but the public at large. It cannot be claimed that the vast work of the Tenth Census is without defects; its skilful projector would make no such claim. It has its defects, but chiefly those which are inherent in census taking, and if the Tenth Census has done no more, it has developed the limit to which such undertakings can be carried. Its cost has been little or no greater per capita than that of previous censuses comprehending but a small proportion of the information contained in the voluminous reports which have appeared.

The value of the Tenth Census cannot be estimated. Congress provided liberally to carry it out on the basis projected. It rose far above the five primary schedules of the census and became encyclopedic in its character. It is doubtful, however, whether it would be expedient for a long term of years, a generation perhaps, to again conduct the decennial census on so comprehensive a basis. In fact, there are many public men who insist that future enumerations shall be confined to the simple enumeration contemplated by the framers of the Constitution, and for the purposes only for which it was originally instituted. Such a course, however, cannot be followed. The necessities of the case will prevent. Congress itself is the freest user of census returns, and if the public, which now takes a greater interest than ever before in census taking, can be led to appreciate the distinctions in the results, the value of the information secured can be greatly enhanced.

It is a timely topic then, for this Association to discuss, and to consider what problems can be solved, or what solutions can be aided through the instrumentality of the next and succeeding censuses, taking it for granted that the people and Congress will at once insist upon increased efficiency and increased accuracy of a census to be taken upon a basis which shall be simple but of sufficient scope to meet the actual wants of the age; for it is recognized that no question involving the welfare of the nation can be discussed without reference to the census. No speech upon national topics can be made in Congress without using the various facts ascertained though the decennial enumeration. No economic study, no analysis of social conditions, can be carried on without extensive use of the various features of a national or a state census; and yet there is no task which the government can set for its officers to perform so thankless as that of census taking, and perhaps none that can show more thorough accomplishment when the great work is completed and the irritation of census taking has passed away.

It should be borne in mind, when census work is being considered, either from a statistical point of view or from the standpoint of administration, that two grades of results are reached. First, results which are in their very nature valuable only because of their being aggregations. Such results should be accurate. Second, those which can only approximate aggregations and accuracy,

or results which are just as valuable through representative information as if accurate aggregates had been ascertained.

This leads me to assert that the principle of *falsus in uno, falsus in omnibus* cannot be applied to the census. I have seen it argued many times, and by men who should know much better, that because one feature or one line of statements in a census report is faulty or even vicious, all statements in the same census must be faulty or vicious. This is not a logical position, and it is well for us to understand this in the beginning of our consideration. For instance, the information relative to the number of inhabitants, their birthplaces, their occupations, their color and race, their conjugal condition, the number constituting a family, and the relation of each to the head of the family, are points on which positive and accurate information concerning nearly all the people is usually and easily obtained. With the exception of occupations, the statements in the Tenth Census in regard to these points are entitled to the fullest confidence. These are features relating to conditions as they exist, the answers to the enumerator regarding them calling for no great degree of intelligence or the exercise of memory beyond facts perfectly familiar. There is another line of inquiry, the answers to which may be, and often are, very faulty, and the conclusions based upon them as faulty as the statements. As, for instance, the questions as to the parent nativity of the people, their illiteracy, physical condition, and others of like character, the answers to which involve memory or the interest of the parties furnishing information. The inquiry as to the age of each person in the community involves some cloudiness in the answer, and yet on the whole the results are satisfactory, the chief difficulty being with imported citizens, who rarely remember their age as to years but usually give it at the nearest even period; so one will always find in all age statistics, wherever they have been collected, whether in this or in other countries, a concentration on quinquennial periods. This concentration, however, is growing less and less in our own country, as the influence of the public schools reaches a larger and larger number of our children. Until this concentration is reduced to a minimum the age statistics secured under the census cannot be used in a strictly scientific sense for the establishment of mortality rates, either for insurance purposes or for the common use of determining the age death rate. In some localities, however,

they are so nearly accurate as to be exceedingly valuable for scientific purposes.

Statistics of illiteracy receive much public attention. While it is evident from inherent conditions that the statistics of illiteracy cannot be correct, it is fully apparent that whatever misleading inferences may be drawn from them, such inferences are on the side of safety, for if, for instance, under the Tenth Census the returns showed that six million people of ten years of age and over were illiterate in the sense that they could neither read nor write, or that they had not acquired one or the other of these accomplishments, it is perfectly safe to conclude that the number was no less than six million, but, as a matter of fact, much greater than that. So, any action taken by states individually or by the federal government, based upon the census returns relative to illiteracy, will be the result of truth, or less than the truth; and no harm, therefore, can result from their use, even though the number of illiterates given may be only a small proportion of the truth.

In 1875 the number of aliens in Massachusetts was ascertained by the state census, and in 1885 this feature was again incorporated and results by place of birth and other particulars secured. In order to show the absorption or non-absorption of immigrants in the ranks of citizenship, and also the extent to which the privileges of our form of government are enjoyed by those who fail to attest their loyalty to our institutions by renouncing all foreign allegiance, it might be expedient to incorporate inquiries in the schedules of the Eleventh Census that will supply full information concerning the ages, place of birth, occupations, illiteracy, etc., of our alien population. The value of such information lies in the fact that they are true to the extent given and no harm can come from incompleteness.

Another class of facts, which can, from the nature of things, rarely be ascertained, relate to physical, mental, and moral conditions. No enumeration of the insane, for instance, would be accepted by our worthy Secretary, an expert in such matters, as correct. In my own state, when I give the number of the insane, as ascertained under the census, I am perfectly well aware that his opinion is worth more than my facts. It is easy to secure the number of insane as collected in institutions for their care, but the most searching census cannot ascertain accurately the number of insane persons in a state. It can secure the most of them; it can secure

all those that are insane to such an extent that their insanity is recognized in the community in which they live, but the finer gradations cannot be comprehended, except in a partial degree. It is safe, therefore, to say that the number of insane reported by any census, in any state, does not equal the fact. There is much danger in this class of statistics. We draw conclusions in regard to the increase of insanity,—conclusions which may be true or false, but more often false, because previous enumerations may have stated and probably did state only half the truth, while subsequent enumerations may give four-fifths of the truth, and conclusions are usually based on the assumption that the whole truth was given in each case.

The prevalence of idiocy can only be ascertained to a partial extent, the results being even more faulty than those relating to insanity, because a family might hesitate about giving the facts relative to an idiot child when they would not hesitate to state that an insane person was a member of the family.

These instances sufficiently illustrate what I mean when I assert that some statements of a census may be absolutely false, and any conclusions based upon them vicious in the extreme, while other statements in the same census may be considered as accurate, and deductions drawn from them acceptable, even in any scientific use to which they may be put.

Of course, there are men and writers who prefer their own views, the results of their personal observation, to the positive statements of census officers. The common error of the empirical statistician is to "test facts by theory, instead of making facts the test." Men use a theory oftentimes as mechanics use calipers; if the fact does not fit the theory it is thrown aside, and not considered a fact. To a certain class of reformers, theorists, and specialists, a fact is a red flag, and when shaken in the face of their opinions has the same effect as when a red flag is shaken before the eyes of a bull in the arena.

There is another class who like to take the census with a slate and pencil. These gentlemen are already at work on the Eleventh Census of the United States. They have figured out the population of the whole country, and of leading cities, and no enumeration under the federal law will convince these gentlemen that the population is different from what they have estimated.

The characteristics of the census are often reversed in their

order by men who prefer observation to fact. They cling to the features of the census which cannot, by the very nature of things, be accurate, and they attack and antagonize those features which are more likely than all others to be precisely as stated in the census reports.

Now, the solution of social problems depends upon the faithfulness, of course, of the parties whose duty it is to collect facts. The faithfulness of these parties in turn depends upon the extent or the comprehensiveness of the census inquiries. The intelligence of the people constitutes an important factor, but in any community where a census is possible this intelligence is fully equal to answering the questions which legitimately belong in the schedules.

The progress of insanity can be ascertained through the census, and the present problem as to whether insanity increases with our advancing civilization, increased facilities for securing education, and all the beneficent influences which we boast come from our advanced position, can be solved. It is a vital question and one which demands the persistent efforts of the government in ascertaining exact facts. It will take several decades of years, however, to bring the enumeration of the insane to such perfection that the margin of error growing out of insufficient data shall no longer be a factor in determining results. In this work the states can perform far more satisfactory labor than can the federal government.

Another line of information sought for by the Federal Census, of necessity, are the statistics of mortality. Several of the states have established registration boards or created registration offices for the registration of births, deaths, and marriages through municipal and county returns. This is in conformity to the European custom and is the only method by which the facts relating to births, deaths, and marriages can be ascertained with the fullest degree of accuracy. But the states of the Union are so few which have taken up this work that the Federal census takers have added to their schedules one relating to mortality, and so in those states not collecting such statistics a series of questions is asked concerning deaths occurring during the year closing with the census day. A moment's consideration of this point convinces any one that such statistics must be far from satisfactory; they are, however, always less than the truth. It would seem at first glance

quite impossible for a family, in giving information to an enumerator, to forget that a death had occurred during the previous year; yet such is often the case, and the consequence is that death rates in localities where medical science would insist they were the highest are often shown to be the lowest. The death rate in states where there is a reasonably accurate registration of deaths under legal requirements is often higher, so far as statistics show, than is ascertained through the census for states where such requirements do not exist. This defect is true as relates to births and marriages, and yet I see no reason why the United States census should not be made to comprehend such statistics in those states where registration reports are not required. Even with their defects they become more and more accurate, and are useful, as time goes on, in determining the increase or decrease in death rates for any specified locality, but they are, and must be, quite useless in comparing rates in communities widely separated and which come under varying sanitary conditions or conditions of disease.

Censuses of mortality can solve the relative death rates of different races in this country, a question which constitutes a vital problem. How exceedingly valuable it would be could the exact facts in this connection be determined in regard to the Indians, the colored people, the adopted citizens of different climes, as in comparison with the death rate of what may be called American stock, nor would there be any less value connected with the birth and marriage rates of the same classes of people. In some of our states where birth, death, and marriage returns are required by law, these facts can be determined, and logical conclusions drawn therefrom, but unfortunately for the scientist these returns are rarely called for in the very communities where they would be most useful in solving the problems involved in them.

The division of labor which marks this age as distinct in all its industrial features from previous periods constitutes a very interesting study. The attempt has been made in the Census of 1885, for the Commonwealth of Massachusetts, the reports of which are now rapidly approaching completion, to ascertain and report to the finest degree the various but distinctly designated divisions of labor, so far as the occupations of the people are involved. Incomprehensible as it may seem, this classification shows over 20,000 distinct designations. This classification, in connection

with nationality as shown by place of birth, age periods, and illiteracy, constitutes a fine contribution to sociological knowledge. This has been done in Massachusetts. It may be done for the United States in the future, now that the basis has been laid.

The statistics of place of birth and parent—nativity are among the most valuable features of the census, a value which is more thoroughly appreciated at the present time through the popular discussion of the question of the restriction of immigration. The census renders one perfectly competent to show the absorption of foreign elements in various branches of industry, and the extent of the absorption. The Tenth Census, should this question come before Congress, contains the only present means of determining, so far as industry is concerned, the influence of such absorption.

There are still sociological conditions which have not been included in the Federal Census and which it may not be advisable to incorporate in the schedules. Some of these have been adopted in our Massachusetts Census with success, the most important of them being questions as to the birth rate among foreign and American mothers, this birth rate being brought into comparison with the number of children reared. It embraces one of the most interesting questions for the social scientist, and, so far as I know, the Massachusetts State Census furnishes the only facts of like nature obtainable in this or any other country. It has been a piece of experimental work on the part of the state. It only indicates what can be done in solving scientific questions, when the people are asked to answer inquiries directed to what on the surface may be considered matters on which the state should make no inquiry. The extension of special inquiries in the direction named, that is, those aimed at the real inside life of the people, is to my mind perfectly justifiable. The law making power of the state, especially in America, is constantly called upon to exercise greater and greater supervision over the affairs of the people. To do this it has to assume autocratic power. Boards of health can order private dwellings to be vacated, and the convenience of the individual in such cases is sacrificed to the welfare of the community. This spirit prevails in all directions. The law-making branch of our governments cannot resist the demands; call it socialism if you choose, the tendency is as strong as it is perceptible, and as inevitable as it is strong. We insist that the

dependent classes shall be cared for at the public expense; we say that individual members of society shall be relieved of special taxation for the support of the dependent, because their support is for the benefit of the whole community. The doctrine is right, and just, and moral. This being the case the legislature meets the demand. Shall it meet the demand intelligently or blindly? The statistician says he should meet it intelligently, and that statistical science is the chief source of intelligence in such matters. Statistics covering the whole community must be taken through the census. It must comprehend all or none. So, as the inquiries of the census have become enlarged, persons afflicted with acute and chronic diseases, the blind, deaf, dumb, maimed, lame, insane, idiotic, paralytic, bedridden, and other afflicted persons, have come under the searching inquiries of the enumerator. The people object to these things when the inquiry comes. They insist upon intelligent legislation regarding them. Popular antagonism to such inquiries must, therefore, be ignored by the legislature, in order to meet the advanced demands of the very people who create the antagonism.

The Tenth Census sought information on these points to a fuller extent than ever before, yet, for some of them, the facts secured were so incomplete that little or no use was made of them. This should not prevent their repetition to a reasonable degree.

So with homeless children and paupers. Our pauperism increases much faster statistically than actually, because we are constantly classifying new features of pauperism. Statistically, we reach out and take in all that are in any way dependent upon the public treasury. As against the old crude and undefined information relative to pauperism, we have intelligent, comprehensive statistics, which in themselves prove a vast increase in pauperism, because we try to match comparative accuracy with crudeness. The result is against us in this period. We must go on with the statistical research, however, until accuracy is the rule, and the comparisons are made on the conditions of accuracy and become as intelligent as the facts themselves. When the legislature appreciates the exact proportions of pauperism, as pauperism includes not only the ordinary conditions known as such but that of all the homeless children which must be cared for by society, it can shape its law making with greater intelligence and with more advantage to the community.

Social statistics should go still further, and comprehend all conditions of work, of education, and of school attendance, surrounding the children of the land. All these ramifications of statistical knowledge have been brought within the scope of the census, because the knowledge was demanded by the people of the government. The government is wise that recognizes the demand and furnishes the information.

Believing, as I do, that advanced sociological knowledge can be and should be secured through the instrumentality of Federal and State censuses, I would still insist that the collection of such knowledge, so far as methods are concerned, be confined to the simplest forms possible and to such proportions as to bring it under actual enumeration.

So far I have treated of social statistics; those relating entirely to people, as people, in their conditions in society, and in the relations of individual to individuals and to the state. These features are common in greater or less degree to all advanced countries, the information concerning them, as I have said, not being always ascertained through the census. A feature of our United States census, which is not common in other nations but which belongs entirely to the American plan, relates to industrial statistics. In 1810 the government undertook, but without success, at the time of the enumeration of that year, to collect information relating to the industries of the country, so far as manufactures were concerned. Eventually, of course, this effort was extended to agriculture, so that now, and in several decennial censuses, the progress of the country and various facts relating to production, have become important features of our enumerations. Much harm has been done, as well as great good accomplished, by this extension of census powers. It is often urged that Congress has no right to collect such information, but the Constitution clearly gives authority to Congress to take such action as shall be necessary for the general information of the people. How far such inquiries may be extended is a legitimate question. The principle involved is generally acknowledged now as being sound and in the interest of the best public polity. I am satisfied, however, that any elaborate attempt on the part of the federal government in the direction of securing information of economic importance will be, as it has been, attended with ill success. The extent to which efforts should be made seems to me to be quite clearly established by ex-

perience in this direction under federal and state censuses. The problems which can be solved are few but important, and these should be clearly understood before inquiries are made to secure general economic information.

I said just now that much harm had been done since 1810 through the industrial features of the Federal Census. There has been no desire to do harm, but the harm has come as results, first, of imperfect inquiries, or inquiries of insufficient scope; and second, from an indisposition on the part of manufacturers to give certain information, while perfectly willing to give facts in general, thus creating great inharmony in the results obtained. I have called public attention so often during the past few years to some of the harm which has been done that I feel that I am simply repeating myself now in again reciting the facts. Yet I believe it the duty of all men engaged in any statistical work, or upon economic studies, to do their utmost to secure accuracy in statistical undertakings, and do not hesitate to again, and on this occasion, call public attention to some of the evils of the industrial censuses.

The industrial schedule of the Federal Census, since it was authorized by law and in nearly every census taken since and including that of 1810, has contained inquiries relating to capital invested, raw material or stock used, total wages paid, aggregate product, and the number of employés, in the leading industries of the country. To these simple inquiries the manufacturers have from time to time made great opposition, although, as a rule, they have supplied information as to all the points involved, except capital invested. The census inquiry on this point has called simply for capital invested. In this form lies the initial defect. In response to this the manufacturer has always been expected to state the capital actually paid in and used in plant of whatever nature and as working capital. That he has given nothing more has not been his fault, for he has not been asked for more. What has been the result? This can be more clearly indicated by a simple illustration, and for figures I will use exact proportions as they have occurred, simply putting them into round numbers but preserving true relations.

Let us suppose an industry in which there are four establishments, each producing $1,000,000 worth of product in a single year, the total value of the product of the four establishments

being, therefore, $4,000,000. The capital invested of establishment No. 1 is $1,000,000, this amount of money having been paid in by the proprietors and being sufficient in all respects to cover plant of all kinds, tools, implements, and working capital, for the production of $1,000,000 worth of goods. Establishment No. 2 produces $1,000,000 worth also, but has only $300,000 actually invested. It borrows annually on the average $700,000, giving the establishment the use of $1,000,000 of capital. Establishment No. 3 actually owns $500,000 of capital, invested in proper ways, and borrows $500,000 more. Establishment No. 4 uses $200,000 of its own capital and borrows $800,000. Each of these eslishments has, as I have said, produced $1,000,000 worth of goods during the census year. The result for the four is $2,000,000 of capital actually paid in and $2,000,000 of borrowed capital. In all census returns the $2,000,000 capital paid in would be the whole amount of capital invested returned. The relation then stands $2,000,000 of capital invested, producing $4,000,000 worth of product; the actual fact being, and a fact which has never yet appeared in any census, that $4,000,000, were necessary in capital for the production of the $4,000,000 worth of goods. It is perfectly apparent on this statement, which, as I have said, is a truthful illustration, that all calculations based upon the returns must be vicious *in toto*, because $4,000,000 worth of product in the given industry cannot be secured by the employment of $2,000,000 of capital, the necessary capital being $4,000,000. One need not study this simple problem very long to enable him to understand that one of the chief factors of disturbances, or of antagonism, or of misunderstanding between labor and capital, has grown from this misused term of capital invested. No attempt has ever been made in this country, until that put forth in the Census of Massachusetts for 1885, to correct the egregious error. Credit capital, it is submitted, if used, is just as essential to secure a certain product as the capital that is owned by an establishment itself. Leaving out the factor of the expensiveness of the use of borrowed capital, of the fictitious or inflated value which is given to the product by such use, and limiting ourselves to the purely economic relations of capital and product, infinite harm has been done by the old method of procedure. To solve the problem of the amount of capital required to secure a given product in each of the leading industries of a coun-

try is within the ability of the census taker. The manufacturers have stood in their own light. The manufacturer tells you at once that $2,000,000 of capital cannot produce $4,000,000 worth of goods. The conclusive answer to his statement is that such is the return he has made. He then tells you that census statistics are vicious, and he is correct in this particular instance. If you attempt to correct this error by asking him to account for his whole capital, that paid in and that borrowed, in fact, all the capital which he uses to secure a given product, he antagonizes the work of the state by saying that you are prying into his private affairs. He does not perceive that he has deceived not only himself and his employees but the public generally, and that every argument, conclusion, or deduction, based upon the statistics reported as giving the capital invested in manufacturing, is false in all its elements and consequently exerts a vicious influence in every direction.

Great difficulty has been experienced in solving this problem in my own state, in the recent census, through just this class of antagonism. I am happy to say, however, that so far as the matter has been explained to manufacturers and they have comprehended the situation, they have cheerfully complied with the State's request, until all or nearly all manufacturers of any consequence, those carrying on any business of a sufficient magnitude to entitle them to the name of manufacturers, have complied with the State's requirements, and we shall be able, for the first time in the history of this country's industrial statistics, to show the true ratio of capital invested to product.

The difficulty which I have stated is not the only complication which exists. For instance, a man goes into the business of manufacturing a line of goods with little or no capital, say $5,000, but he has an excellent credit. He purchases raw material and all his supplies on long time, three, four, or six months, but sells the product of his establishment for cash or its equivalent. In this condition of affairs he may produce say $200,000 worth of goods in a given year, having but $5,000 actually invested. In all census statistics this would be the only sum that would appear, while $200,000 would appear as the value of the product. The truth is he has borrowed of his own customers sufficient capital to produce the $200,000 worth of goods.

These illustrations are sufficient to show the viciousness of all

census statements which have yet appeared in this country, whether in my own reports or elsewhere, relative to capital invested and its product, in the various leading industries. It does not matter where capital used in the production of goods comes from, whether it be paid in by the proprietors of an establishment, whether it be borrowed by them, or whether it be the result of long time purchases of material; so long as all these elements of capital are essential to secure a given product, they constitute capital invested and should be covered by any census inquiry into industrial conditions.

Another error which has been made relates to average earnings, as ascertained by dividing the aggregate wages paid in any industry by the number of employés involved. In all censuses where industrial statistics have been a feature in this country, until the Tenth Census, the question relating to employés has simply been the "number of hands employed." What is the number of hands employed? Can you ascertain the true quotient which shall represent average wages by dividing the total amount of wages paid during a year in any given industry by the total number of hands employed? I assert that you cannot, for the number of hands employed returned under the old form of inquiry simply meant the number of employees borne on the rolls at the close of the census year, while the total wages paid represented the aggregate amount disbursed in the form of wages to all who had been employed at any time during the same year; the number of people returned might represent a much larger number at the close of the year than were employed at any other period, or the reverse, a much smaller number. In any event, and with the utmost care on the part of the manufacturer, it would be impossible in the answer to such a form of inquiry to state anything more than the number employed at the end of the year, or at some stated period.

Under the Tenth Census the form of inquiry was changed so as to bring out a statement of the average number employed during the year, which constituted the divisor to enter into the dividend of total wages; but this is vicious, also, for the average number does not represent the actual number to whom wages were paid nor in any sense represent the mathematical distribution of the same amount of money. A very much larger number of individuals might have been involved, or a very much smaller number, during a large proportion of the year. The only way in which the

actual average earnings of the employees in a large establishment, or in all the establishments in a given industry, can be secured through the census is by the tedious mathematical process of calculating each man's time and the actual amount paid to him. This, I submit, cannot be done without such a great amount of labor as to make it practically impossible; nor can a government reasonably require the manufacturers of a community to give such time as would be necessary for a complete and accurate answer to the inquiry.

These two questions, capital invested and average wages, illustrate the fallacy of attempting to solve a certain line of economic questions through the census as it has existed. In making this criticism let it be understood that I arraign myself as severely as anyone else, for until within a few years I have followed, in all the census work in which I have been engaged, the old form, nor did I fully comprehend the enormity of the error, the infinite harm it has done and is likely to do, until I undertook to ascertain the relation of capital invested to product, with a view to learning the proportion of product which went to capital and labor respectively. It is now also perfectly apparent to me that when census questions relating to industry are so framed as to secure thoroughly worthless results, there is no difficulty whatever in taking a census, but the moment they are framed to secure valuable results, the census taker meets with innumerable obstacles and the greatest antagonism on the part of the very men whose interest it should be to furnish thoroughly accurate statistics. This is a question of educational influence to be exercised by careful statisticians, by securing the confidence of the producers of the country in the statement that no harm shall come from their giving free, full, and accurate answers to all the inquiries instituted by the government.

The only way to secure the best results of an industrial census is to bring the inquiries to simple, easily understood forms, involving individual facts, relieved of all features of compound inquiry, thus avoiding compound answers. These inquiries, it seems to me, may be limited to the following items in general, that is to say, the census should ascertain:

1. The capital invested in each industry, the term capital invested comprehending all that I have stated.
2. The value of the principal stock or raw material used.
3. The gross quantity and value of articles manufactured, as represented by their selling value.

4. The number of partners or stockholders; the largest, smallest, and average number of persons employed, distinguishing as to sex, adults, and children.

5. The total wages paid during the year, distinguishing also as to sex, adults, and children.

6. The proportion that the business of the year bore to the greatest capacity for production of the establishment.

7. The number of weeks in operation during the year, partial time being reduced to full time.

I do not believe there is any need of extending the inquiries beyond these. The forms might be modified or varied, but the principles involved should be retained. Each and every one of the inquiries are of great value, and from them results of the greatest importance to the manufacturers themselves ought to be secured. The inquiry relating to the number of persons employed is the least practical of them all, yet as it is given it is essential to any complete statistics. Such inquiries I would have made at frequent intervals, the first effect of which would be to enlighten the public mind in regard to the supposed loss in the volume of production during years when it is apprehended that an industrial depression prevails. In fact, a statement at short intervals of the volume of production in the leading industries of the country would go far towards removing apprehension as to such depressions.

The next great advantage to be gained from a frequent inquiry upon a simple basis like that designated relates to the proportion that the business of the year in any industry bore to the greatest capacity for production of the establishments existing in the same industry. Such an inquiry, when answered correctly, supplies means for a comparison between the actual business done during the year involved and the greatest business that could have been done if all the establishments had been run to their fullest capacity, that is, if the greatest possible number of employés that could have been advantageously employed, with a certain plant or facilities, had been employed actively on all the working days during the year to the fullest capacity. Such a line of facts would supply material for the proper management of great productive establishments in such a way that the output could be more scientifically considered, and some of the haphazard methods of production now in vogue eliminated.

Practically, I do not believe manufacturers would object to such

a schedule as I have indicated. There is nothing in it to involve great labor, while it supplies all the material information which it is wise to comprehend in the census, and if the approaching Eleventh Census can secure information in accordance with such inquiries, modified, if need be, in form, the influence upon the public mind will be so salutary that I believe the States themselves will eventually inaugurate movements to secure at short intervals the same class of facts.

Manufacturing statistics, as contemplated by the ordinary census schedule used in the Federal Censuses, cannot give such information as to enable one to classify wages to any great extent or to ascertain earnings. Rates of wages, and all facts relating to rates of wages, possible earnings, actual earnings, labor conditions, and various other features, must be left to special investigations. The gross quantity of goods manufactured should be brought out in the fullest way, in such an account as I have indicated, because quantity is the true measure of production rather than value. This and other questions, the value of the answers to which depends upon complete aggregates, can be secured through the Federal census, but the Federal census should be relieved of a great deal of the minutiæ of statistical work by State bureaus and offices. In fact, with the twenty-two bureaus of statistics of labor, the boards of agriculture, and offices of industrial statistics, which exist in this country, we ought to eliminate the minute details of inquiry in many directions which have heretofore formed a part of the Federal census.

Perhaps the greatest difficulty which confronts the Federal census taker, and which offers the least possibility of solving problems, is to be found in the agricultural department of the work. The products of various localities differ so widely in their character and kind, that any single schedule framed to comprehend them all becomes in itself inpracticable. Yet certain facts, like total value and quantity of the great staple products, ought to be easily ascertained. The question of renting or ownership, of the acreage of the farms, of alien ownership, are entirely within the possibilities of census taking without enlarging the field of operations. Such problems ought to be readily solved. They have been solved for the time being in past censuses. As the conditions vary the problems vary, and the intelligence of the government should see to it that the facts sought should be those necessary to

indicate the true relations of things in the agricultural field of knowledge.

From what has been said it is readily seen that there is quite a range of problems, the elements for the solution of which can only be supplied through comprehensive censuses. As yet, however, no co-ordinate effort has been made between the State and Federal governments for systematic work. This question is difficult and yet important. Its importance lies in this reflection, that no member of a state or national government can intelligently discuss the land question, the solution of the immigration problem, the question of how far educational efforts shall be extended, the tariff problem, the questions of currency, of railroad transportation, in fact, any questions of any great state or national importance, without full and constant reference to the tables of the census reports.

This being the case, and census work becoming more and more complicated, as all these great questions come nearer and nearer to the people, how important it is that the whole range of census taking should be reduced to systematic forms and methods. The United States cannot do it all, and do it well. The country is too large to admit of extended inquiries through the methods of enumeration. The States should enlist in the work, and they could do it generally without much expense through their established machinery. They should be called upon by the Federal government, but aided to the extent of the results furnished, to do certain things at short intervals relative to the enumeration of the people, the ascertaining of products, the ownership of land, and maybe half a score of leading features, the Federal census itself being confined to those things which reach over the whole country and which may be called purely national topics. Such a system, involving the co-operation of the States, would not only simplify labor, but would reduce the burden in many respects and would certainly remove much of the irritation which exists whenever the census is taken; and further simplification should be reached, as I have indicated, through special investigations. All census work, both state and national, should leave out of sight every question which can be brought under the methods of special investigation, in which aggregates are not essential but in which representative facts are just as important as the total facts.

Expensive as have been the censuses of the United States, the

money appropriated by Congress for them has been one of the most valuable investments it has ever made. The intelligence of the people has been raised and social problems have been partially, if not fully, solved. The highest form of educational work comes through statistical efforts and labors, and the United States government has certainly placed itself in the very front rank in regard to this great field of knowledge. The public estimation of the census increases also. Critical as the press may be, skeptical as the public may become, the census supplies the chief source of information as to conditions, so far as the people in their various relations are concerned. It is unnecessary to make any argument in favor of the census. It is wise to call attention to its defects and to suggest methods by which they can be avoided, by which it can become more efficient, by which increased accuracy shall be gained, and by which the census appropriations of Congress, and of various states, shall be justified.

This Association, since its organization, has inculcated most advanced ideas on such matters, and its usefulness in the future should far exceed its usefulness in the past. Its influence has been salutary; by its frequent appeals to the public intelligence to supply sources of public information, it does its best and most valuable work and justifies not only its existence, but its prosperous continuance.

I. PAPERS OF THE SOCIAL ECONOMY DEPARTMENT.

1. ADDRESS OF THE CHAIRMAN OF THE DEPARTMENT, F. B. SANBORN.

(Read September 9, 1887.)

Members of the Association: Indefinite as the term "Social Science" is, perhaps that which we chose as the name of our then new department in 1874, is no less indefinite and a litte more ambiguous. For not only is the common adjective "social" used in many meanings, but that familiar noun "economy" has a very unsettled signification, which has kept writers explaining it from the days of Xenophon and Aristotle to those of our latest essayists. Economy, they say, is frugality; it is housekeeping; it is saving; it is wealth production; it is the combination and distribution of functions; it is the management of income and outlay, and so on. Thus the slippery term glides from one significance to another without notice and without ceremony; while the limiting word "social" does not seem to fasten it down anywhere. As we employ the phrase, however, Social Economy is the counterpart of Political Economy, if any of my hearers can tell me what that is. Let us call our Department, then, (which was formed to relieve the Department of Trade and Finance a little, and take off some of those innumerable topics that civilization evokes to classify its results with)—let us call it the feminine gender of Political Economy, and so, very receptive of particulars, but little capable of general and aggregate matters. When we pull its bellrope, we do not sound the tocsin of national competition, and the clashing interests of the world's commerce; but we hear the responsive tinkle that announces small trade and domestic affairs — the coöperation of men and women with each other in the individual relations of society rather than in large masses.

Social welfare, therefore, and not wealth in its wide and compound sense, is what we consider, and so our Papers today relate to the sharing and not to the accumulation of profits; to the mint,

anise and cummin of the Mosaic dispensation, and not the weightiest matters of the law; to the eating and drinking of men, and women's relation thereto; and to the personal outcome of those imposing organizations of labor which have lately been piling Ossa upon Pelion, and attempting everything *except* to keep labor employed.

Infinite are the permutations and combinations of man with man, of interest and sentiment with sentiment and interest, in the snowstorm and kaleidoscope of human atoms, crossing or escorting each other — clashing or furthering, aggrandizing or supplanting one another. Yet there is a law of the atoms, as there is of the planets, and the attractions or repulsions of these homnuculi come into play according to methods which the human reason can first divine, then perceive and finally act upon. Those of us who divine them and act upon that intuitive knowledge are called practical — or if the intuition be very swift and acute, it is called genius; those who perceive and reflect upon these methods become philosophers and thinkers; but the vast majority of men and women get no farther than a limited practical acquaintance with the springs of human activity. To train and amplify this is the function of economic science, whether we term it political or social; on the other hand it is the work of conscious or unconscious selfishness to utilize and pervert this common stock of our practical notions. Between the culture and the selfish perversion of them, a place is found for the crude thinker, the man of overstrained sentiment, the rhetorician of display, the journalistic sophist, and the multitude of wrong-headed persons who fasten upon a single aspect of the shifting web that human life is, and build their whole theory of civilization upon that one idea.

In no part of human affairs is it easier to be mistaken, so soon as we begin to theorize, than in the relation between labor and capital, between wages and profit, between the poor man and the rich man. The contrasts on this side of life are so great, the causes of obvious results are themselves so latent and far-reaching, and have been for so many ages in operation, that we are all apt to lose our way among them. It is for this reason that we shall have peculiar pleasure in listening, today, while men of practical experience, who yet have cultivated theoretical knowledge, explain to us the principles and the operation of that new response to the petition of inarticulate labor, which has been styled "Profit sharing."

Without anticipating what these may say, I will quote what one of them, Alfred Dolge, a special manufacturer in rural New York, said to his workmen last winter, on certain matters that have been much agitated of late:—

The Knights of Labor and the trades-unions had published a pronunciamento to the effect that after May 1, 1886, eight hours should constitute a working day. They were serious in their attempt because of their ignorance; they almost threw the whole country into confusion; caused unwillingly, bloodshed in St. Louis, Chicago and Milwaukee, aroused the passions of the ignorant, gave the outlaws and cranks an opportunitity for a general commotion, ordered strike after strike, deprived thousands upon thousands of their only opportunity to earn the daily bread for their families, only to find that such an important change cannot be brought about simply by a decree of the so-called Master Workman of the Knights of Labor, or the executive committee of the trade-unions. I am in favor of eight hours, and I am satisfied the time will come when six hours will be considered sufficient for a day's work in the mill or workshop; and the free people of this country will be the first to inaugurate this new era, just as we had our 10 hours here when the mills were run 12 hours in old Europe; but the time has not come yet. More and better labor-saving machinery must be invented — our statesmen must find ways and means by which our industries can compete after reducing working hours, and still pay the laborer better wages than at present, before this can be brought about. Nothing can be accomplished by long-winded proclamations of Mr. Powderly; positively injurious can it only be if the workingman forgets himself and follows the cry of the crazy anarchist and destroys property; such far-reaching changes as shortening of working hours, certainly desired by all who have the welfare of the people at heart, will come about when the proper time has arrived. It will come when at least the majority of the workingmen have had the benefit of the same schooling as the son of the wealthy man; when, because of his schooling and learning, even the commonest workingman will work fully as much with his brains as with his hands; when, because of his learning every workingman will prefer the library, the museum, the lecture hall, his family circle, to the bar-room, the rum-hole and gin-mill. We will have eight hours' work then, and, believe me, every workingman will then turn out more work in eight hours than he now does in ten.

The earnest presentation by Mrs. Willard of her views, and the views of the hundreds of the thousands of devoted women who stand behind her and work with her is in the same line of thought with these utterances of Mr. Dolge. They bid us look to

the future, while we act in the present; and they remind us that of all monopolies and oligarchies that now oppress mankind, the most hurtful is that which derives its gains from the vices of mankind, and seeks to control our government, local, state and national, in the interest of their single and pernicious traffic.

We shall listen with a religious as well as a social and antiquarian interest, while Dr. Wayland interprets for us the practical features of the Law of Moses; and we shall close with that application of the newer dispensation which Dr. Brooks, who has studied the organizations of labor, not only in the schools of Europe, but as the pastor of a Christian church in one of our most active manufacturing towns of New England, the shoe-making city of Brockton, will make in our hearing.

2. DISCUSSION ON PROFIT SHARING.

OPENED BY F. J. KINGSBURY, ESQ., OF WATERBURY, CT.

(September 9, 1887.)

PROFIT SHARING AS A METHOD OF REMUNERATING LABOR.—SOME LIMITATIONS TO BE CONSIDERED.

Coöperation and profit sharing are the two expedients by which it is now most often proposed to avoid undesirable antagonism between the employer and the employed, or, as it is commonly phrased, between capital and labor.

Coöperation, although by no means the panacea which its more ardent advocates would have us believe, has this much in its favor, that when it is properly organized it is a legitimate and logical method of conducting business enterprises. It is then simply the contribution of the small savings of persons of moderate means to a fund which forms the capital for a business undertaking, in the prosecution of which the contributors may or may not be themselves employed. If the business is one of production, as manufacturing, the contributors to the capital are expected to be the employees of their own establishment. If the business is one of distribution, as in the case of coöperative stores, they are not employees, but are expected to be purchasers. In the one case, in addition to such ordinary wages as their skill entitles them to receive, they also receive a share of such profits as may result, proportioned to the amount of their contribution to capital. In the other case they expect to reap their advantage partly in the form of profits on their investment, and partly in the way of purchases of what they need, at prices something lower than the prevailing market rates.

The only question then of importance to be considered in regard to coöperation is, can the contributors afford to take the risks of the business? And the success of the undertaking depends on the ability of the management, and the chances which attach to all business enterprises, and is subject in all respects to ordinary business laws. I know of no better example of a legal provision for true coöperation than the joint stock law of Connecticut, which was framed with special reference to men of moderate

means, the shares being allowed (and by the law as originally framed, required) to be but $25 each. Under this law coöperative enterprises have been conducted in Connecticut for fifty years, and with as much success as they can expect to attain under any circumstances.

In England, where the idea a few years since was a novel one, some experiments having met with rather marked success, the people were led to believe that they had at length discovered the philosopher's stone, and a glamour was thrown over the whole subject which has been reflected on this side of the Atlantic, and has bewildered the vision of many good but inexperienced people, who did not appreciate that they had long had at their own doors, and in active operation, a legalized system combining all the advantages of this new-found English scheme.

Profit Sharing proposes to pay the laborer by giving him, 1st, a stipulated fixed sum as wages, and 2d, a proportion of the profits of the business in which his employer is engaged in addition to his fixed wages.

The advantages of this system are supposed to be,—1st. That the laborer will be better paid. 2d. That being interested in and partly dependent on the pecuniary success of the business about which he is employed, he will therefore be a better and more faithful workman. 3d. That on this account his employer can afford to pay him more. 4th. That, as anything which he gets beyond his fixed wages is paid out of profits and in proportion to profits, therefore his employer can well afford this extra compensation. 5th. That it cultivates friendly relations between the employer and the employed. 6th. That it increases industry and stimulates self-respect in the workingmen.

The first thing we note is that the scheme is based on the assumption that the workingman is now underpaid. We will not therefore discuss this question, but, admitting the assumption, the inquiry then is whether this is the best way, or at any rate a fairly good way, to raise the standard of wages.

The second point is, that being interested in the pecuniary success of the business the employee will be a better and more faithful workman. This is one of the strong points with the advocates of the system, and *à priori* seems sensible and reasonable. It is a matter not susceptible of demonstration, and in regard to which we cannot resort to statistics. I can only say that from my expe-

rience and from my knowledge of the experience of others, I have not much confidence in the theory that because the workman has this small pecuniary interest in the result he will therefore be a better workman. The connection in his mind seems to be too indirect, if not too slight, to produce any such result. A workman of any energy and ambition is far more likely to be influenced by a desire for success and a sense of success in the immediate result of his work; a good tool — a well-finished product, a successful manipulation of any kind, which shows at once for itself — and a word of praise, a feeling of loyalty, or the *esprit du corps* of his class, will go much farther in stimulating and in compensating effort than any feeling that his daily work will at the year's end slightly enhance his wages. Even small stockholders in a corporation have not been found to be, on that account, any more desirable as workmen, or to have the success of the business any more at heart. A right to grumble and find fault, or an endeavor to use their position in some indirect way for their advantage, is far more likely to be the result. Workmen as a rule, when well treated — especially American workmen — I have found to be a faithful and loyal set of people, and I have no fault to find with them, but I wish to put the thing precisely as it is, neither exaggerate nor set down aught in malice; and the result of my observation is that I would not give one penny more for a man as a workman simply because he had a slight pecuniary interest in the profit accruing to me as the result of his labors.

There is an enthusiasm and an interest which may be aroused among any organized body of men, by a leader or manager who has a genius for it, that is of the greatest possible value in any enterprise the success of which depends upon the combined efforts of numbers, whether it be storming a fortress or running a factory. The basis of this is very largely that power of sympathy which we call magnetism, combined with a certain will power, which makes a man a leader. And the man of enthusiastic temperament and ready sympathy who would try profit sharing as an experiment would also be likely to be a man who would have this sort of power, and would be led to attribute results to his profit sharing scheme, which were really wholly due to other causes. To my mind this accounts largely for those rose-colored reports which we occasionally get of the success of experiments of this kind.

As to the pecuniary advantage to be derived by the workman

himself. The reasoning in favor of the value of the plan in this respect seems usually to proceed on the assumption that all business undertakings are profitable. We know, when brought face to face with this statement, that it is not so. But the extent to which it is not so, and the importance of it to this subject, is, I fancy, very much lost sight of, or greatly disregarded, as an element to be considered in judging the value of this method of remuneration. A few statistics bearing on the subject may not be amiss. There are in the State of Connecticut 23 or 24 railroads. Now if we except a few that for reasons of policy have been leased by stronger roads, there are not more than four or five that are paying dividends to holders of the original stock. Now profit sharing on the other 19, or say four-fifths of the whole, as a method of getting workman's wages would have been a very poor investment for the workman.

Again: when, in 1880, the joint stock law of Connecticut was revised, twelve hundred corporations were wiped out of existence at one time; because they had utterly failed to answer the hopes of their projectors, and had ceased to do business. How many non-corporate experiments showing failures of a similar sort this may represent we have no means to determine; but the corporate ones must be only a small portion of the whole. If I remember rightly, the Commercial Reports give us an average of about two hundred failures for each week in the year. And these are bankruptcies, where the business has come to end, and are probably only a tithe of those that struggle on in a precarious existence without profit, waiting for something to turn up to save them from bankruptcy. Now, can the laborer wisely afford to take these risks?

If anybody says, we do not mean that the laborer shall get any less regular wages, but shall receive an addition thereto by sharing in the profits, that reasoning seems to me fallacious. For while I do not put full faith in *laissez faire*, and think it worth while to make an effort that every man should get his just due, yet the fact remains that, on the whole, supply and demand and competition will regulate the price of all things, labor included, no matter how you may try to measure it. And again, I regard the moral influence of a system whose tendency is to make the remuneration irregular and uncertain, as it must be under this system, as very bad. If the workman succeeds in getting for a time extra pay he

will be very sure to gauge his expenses by his hopes, and will form habits of expenditure that can only be shaken off by pain and self-denial, and will be much more likely not to be shaken off at all. It seems to me that what the workman needs above all things for his moral and financial good is a definite price and a certainty of getting it. Suppose you are hiring a workman. He says, what wages do you offer? You say $50 a month, and such a proportion of net profits. He very naturally asks, what will that be? Well, last year it was 3 per cent. on wages; year before 10 per cent.; year before that, nothing. Can't tell till the year is through. You take your chance with the rest of us. Now, if he is a sensible man, and has had a little experience, he will say, add 5 per cent. to the wages, and say nothing about the profits. This makes the wages a fixed sum, and we come back to the old method.

In these days of excitement, when walking delegates infest the earth and men's heads are turned on the labor question, employers will fall in with popular whims to avoid strikes and other troubles, and by adopting profit sharing or other popular devices, may succeed in doing so to their advantage, but these are temporary expedients, and not founded in business laws.

It may be said that experiments of this sort have been successful. Doubtless this is so; but before measuring their value, as determining principles, we must endeavor to eliminate the personal equation. I once knew a school teacher, a man of remarkable success in his profession. His influence over his scholars and under-teachers was almost unbounded. "There is but one rule here," he used to say to them, "and that one is not a rule but an exception. It is this: In this school there are no rules." Another favorite remark was, "We use text books here because they help to measure our work and keep us together, and they save some trouble; and besides, it is the fashion. But I hope no one puts much confidence in them. They are full of mistakes, and you have to be all the while on the watch." Now that man's personal influence was so great, and the atmosphere of neatness and order which he induced so pervading, that his pupils and under-teachers would pick up chance scraps of paper from the school-room floor and put them in their pockets lest he should see them, or because they had themselves become unable to endure any infraction of the general order which prevailed. But who would recommend this system, or lack of system, for general adoption, or how many

teachers, if they tried, could make it work successfully? It might be an inspiration or a suggestion of value, but not a method.

The case of that very worthy Frenchman, Edmond Leclaire, which has been so often quoted to show the benefit of profit sharing, is a perfect illustration of mistaking the power of personal influence for the effect of a system. This was the case of a man prosecuting a business very simple in its nature, giving up his life with enthusiasm to a mingling of sentiment, business, philanthropy and charity—able to impress his own will and methods on all about him—a sort of benevolent business despot, who amused his people by letting them play at self-government while he really held the reins. A man so situated and so acting could work out results highly praiseworthy in many respects, but of no value whatever as permanent and universal methods of business administration.

It is a most excellent thing to induce workmen to practice economy, to learn temperance, and to cultivate thrift; to have libraries, and burial clubs, and night schools, and savings banks, and debating societies, and private theatricals, and church suppers; but that whole subject belongs to the domain of philanthropy or Christianity or sociology, and has only a loose and indefinite relation to questions of work and wages.

If the plan of profit sharing has the merit which some have supposed, it is destined to become general, or it should be; and we must try to look at it as it would be if it were universal and legal and compulsory, at least to this extent,—that when the workman was to receive a share of profit as a part of his wages he should have the power to enforce the demand. This must be a necessary part of the scheme, otherwise the profit sharing becomes mere alms giving. A Christmas turkey presented to a workman at the end of a profitable year is a very excellent thing, but it is not profit sharing. And yet I think many people regard the two as being precisely the same in principle. Now, suppose the plan to be universal, and it simply comes to this, that it is an attempt to raise the wages of the country by a method which introduces an element having an interest strongly antagonistic to that of the business itself; the prime interest of the one being strength, permanency and growth, while the interest of the other is to abstract each year the largest possible portion of earnings. It may be said that this is always virtually the relative position of employer and employed, but here, where as I am supposing the system has been

legalized, we have an interest coupled with a power; an element of annoyance, disturbance and positive danger; a lever for the demagogue, an opportunity for the business rival — a harvest ripe for the sickle of the pettifogger. And, so far as the workman is concerned, it offers him a remuneration not according to his industry or his ability or his deserts, but according to the success in business of the person or corporation which employs him; a condition of things, as it seems to me, likely to be fatal to all our old-fashioned notions of loyalty, and to place both workman and wages on a speculative basis. When, too, this method of remuneration becomes general it becomes by universal law subject to the same conflicts, competitions, fluctuations and diminutions that attach to the present system of wages, and in obedience to these laws the amount paid as wages, as a whole, will settle down upon the same scale of proportion to production as would obtain under the ordinary method.

There is considerable difficulty in treating this question satisfactorily in the form of an essay. This grows out of the fact that the objections to the scheme are largely, in fact mainly, of a practical character, and have to do with matters of detail in business management. Sentiment and rhetoric are pleasing to our ears, while arithmetic, book-keeping, legal problems, and the investigation of the minuter details of business generally, are dry and wearisome, and, in short, make us tired. Yet in order to understand the probable effect of the application of any untried system, we must imagine, so far as is possible, all the situations which will grow out of it, and endeavor to anticipate their arithmetical, financial and legal results.

In a small way, where very few parties are concerned and the nature of the business is simple, profit sharing may be adopted with success; as, for instance, the common case of raising crops on shares. Here there can be no deterioration of plant, and in fact the capitalist really agrees to receive part of the product as a rent. It is not very infrequent to employ a salesman or other agent where an interest in profits constitutes a part of his compensation, and these cases are cited as a proof of the practicability of profit sharing. It is, however, usual in these cases to fix by contract some arbitrary method of estimating profits, which relieves the subject of some of its embarrassment, and even then it is not free from difficulty, and is usually only adopted to avoid a strike or something akin to it, or to reward special skill.

Humanly speaking, it is impossible to lay down a rule for the estimation of profits in a complicated manufacturing business which would be likely to be accepted by those who were endeavoring to carry on and build up the business, and also by those who, without having any other interest, looked to a participation in the profits as a method of payment for their labor. So long as the parties interested in the business all have the same *kind* of interest, that is, as stockholders or partners, each in proportion to his investment, differences may be waived and difficulties bridged over, and a certain amount of patience and hopefulness exercised in the feeling that all are sharing alike, but so soon as you introduce this foreign element, by which the workman regards the profit as a fund in part belonging to him, you lay the foundation for infinite trouble. It is not altogether easy to explain exhaustively in general terms why this should be so, especially to persons who have had no experience in the conduct of complicated business, but I think I would feel pretty sure of assent to my statement from any one who had.

Let us take the case of a woolen mill working on goods designed for spring garments. It has a capital of $200,000, $100,000 invested in plant. It can produce $400,000 worth of goods in a year, and must do so to work profitably. These goods must all be sold within a few weeks time in the fall. During all the rest of the year the mill is running and accumulating the goods. The commission merchant or selling agent in the city has stored the goods in a warehouse, and the labor and material have been paid for by drawing drafts against the goods, which are accepted by the agent and discounted by banks. The fiscal year of the mill ends in July. Eight or nine months' production are on hand. Now no one can tell at what price these goods will sell, or even whether they may not have to be carried over to another season with a heavy interest account running against them. The mill manager will make up its account, putting in these goods at such a price as he thinks prudent — perhaps at cost, perhaps at the price he thinks they will bring; this is merely for the purpose of accounting. The risk is not over yet, and any assumed profit is speculative, but so long as no dividends are paid from these earnings, and only stockholders are interested, no one is wronged. But now, by the terms of the bargain, the workmen are absolutely entitled in law to their proportion of these profits. They have furnished their year's labor and they want their reward. Here is

material for difference of opinion, for litigation, for ruin. This is only one sample from an endless variety. A mill takes out an old engine, only worth its weight for old iron when once out, say $300, and puts in a new one costing $10,000. This was a necessity because the old one was wearing out and in danger of giving out; yet it has run the mill. The new one can do no more; the earning power is no greater. Common business sense says, charge this new engine to repairs. This is what would ordinarily be done, but that will take $10,000, or at least $9,700, out of profit account for that year. The workman says, is it right that I should pay with my wages of this year for a new engine which will last for eight or ten years? And, viewed from his standpoint, he has reason in his question. Yet it is doubtful whether, from the manager's point of view, a single penny of that cost should appear in profit. He cannot afford to pay his stockholders nor his workmen for the privilege of putting in a new engine, for he knows that system of bookkeeping would end in grief.

Every manufacturer understands that when he builds his plant and when he buys or makes a new tool or machine, he to a large extent sinks the cost of what he thus invests. Except for the one purpose for which it is designed it is almost, and in many instances entirely, worthless. Any failure of success, therefore, involves substantially the loss of all that he has invested. He makes allowance for this, and his earliest profits, under sound management, will be used to make good that risk by charging off a liberal portion of his investment to profit and loss. This is the usual course in a new business, and the course dictated by prudence. But this would be in direct opposition to the interests of the profit sharing workman.

Suppose again that on the last day of the year an establishment is destroyed by fire. It is insured for three-quarters of its value, but the one-quarter loss more than wipes out all the profit of the year. What are the rights of the workman? Then there is the question of allowance for bad debts and contingent losses and other similar questions.

But I think I have said enough to indicate where the trouble lies. The special instances any one can imagine for himself.

That there is something fascinating in the idea that the laborer should share in the profits of his work is not to be denied. That there are cases where it can be safely done is also true, but that

as a general method of regulating wages, or a safe, successful or satisfactory plan of general application to the conduct of business, it has any considerable merit, seems to me chimerical.

We all know how much there is in the "art of putting things." We sometimes get an altogether new and unexpected light by a slight variation in the form of statement. The Sultan, in the story, beheaded the unfortunate vizier who interpreted his dream to mean that he should die before his sons, while he rewarded with gifts him who interpreted it that his sons should flourish in splendor long after he had gone to his rest.

Let us try a little change of statement in the profit sharing problem. Suppose, instead of saying that the workman shall have his wages and a portion of the profit, we say, he shall have his wages unless there is a loss, in which case he shall suffer a proportionate deduction; how many subscribers would you find to that theory? You see the hardship of it at once. And yet, if there is any such thing as a wage fund or a point towards which the price of labor gravitates, what else is this scheme of profit sharing, put it how you will, than that the workman's wages, maximum and minimum, depend on the success of the business. The *raison d'etre* of profit sharing is that in some way the workman should get higher wages because they are rightfully his — because he earns them. The added portion is as much his by right as the fixed portion; otherwise it is charity; and the operation of natural laws in case of the general adoption of any such plan, would so regulate prices that in the cost of living the increment would be reckoned with the original sum as a part of the wages due; and yet, profit sharing proposes that he shall lose a part of this, his lawful due, unless his employer so manages his business as to make enough to pay him in full out of a portion of the profits. No body of workingmen could safely take the risks of such a system, nor would they when they once saw clearly where it led.

The practical difficulty in the application of profit sharing to anything more than a very limited number of business operations consists in the fact that it introduces two sets of people, both interested in the profits, but whose interests are of a very diverse nature. Only one party is interested in the preservation of the capital. Only one party is interested in such a way that it can afford to submit to any present deprivation for the sake of future advantage; or at any rate will be likely to see the advantage of

such submission. Yet this is frequently a matter of vital importance. And because these interests are diverse, one party will naturally be jealous and suspicious of the other, and discord will ensue. So long as the workman is receiving more than his neighbors he will be pleased and happy. If he receives less, which in any general application of the theory must frequently happen, he will be discontented. And it must never be lost sight of in all considerations of this sort, that only a moderate proportion of business undertakings are successful.

I began with admitting the assumption, for the purpose of the present paper, that our workingmen are underpaid. Whether this is *true* or not is an interesting and important question, but wholly aside from the one herein discussed, which is simply whether profit sharing is a practicable and desirable method of increasing wages. When, however, one reads the elaborate statistics of Mr. Edward Atkinson, showing that a day's work will buy more today than almost ever before in the history of the world, in which I believe his conclusions to be correct although his methods have been criticised; when one notes the lavish extravagance in dress of our shop girls and domestic servants; when one remembers that patches, those homely evidences of domestic thrift, are now a matter of history, and that our laboring people have bought their clothing ready made and thrown it aside when it needed mending, until the use of the needle is almost a lost art among them; when we see every species of amusement supported by funds drawn from the working people; and when we further reflect that a large majority of the great capitalists of today were twenty and twenty-five years ago working for less wages per diem than the common day laborer is earning now; and furthermore when we find that complaints of wages do not come from the industrious and provident class, but from the lazy and shiftless — have we not reason to suspect that there are other factors beside the amount of wages in the problem of success? Our working people see and desire and envy the result, but they wish to get it without the exertion and self-denial by which it has been achieved. They want the chestnuts of success, but they have no notion of burning their fingers at the fire of exertion.

The problem with the workman or workwoman of today seems very largely to be how to render the least possible service and get the greatest possible pay. I saw not long ago three men take hold

of a bench of some weight to move it. It did not stir. They looked at each other. It was too much. They laughed. "Did ye lift?" says one. "Not a hap'orth," says the other. "Nayther did I," says the third. "Now let's lift," says one. So they lifted, and the bench was moved. This is modern labor. On the other hand, I look back to the early days of manufacturing in New England — and I am old enough to remember before the times had changed — when our workmen and workwomen were our native-born population; when the manufacturer, if his credit was good enough, frequently borrowed his capital from the man whom he hired as a workman, who preferred his fixed day's wages to the risks of business, but was very glad that some one else was willing to take that risk and to give him employment and interest for his money; when strikes and strikers would have been scouted with contempt; when the workman was a MAN or a *woman*, as the case might be, who had his own plans for the present and the future, who lived in his own house and knew what to do with his money. He had read in Poor Richard's Almanac, "Spend one penny less each day than thy clear gains," and he saw the point of it. Where are those men now? They and their sons are the capitalists, and financiers, and bankers, and merchants, and clergymen, and professors, and lawyers, and doctors, of today; and the women are their wives and mothers. And what had they that the present generation of laborers lack? Only three things, and they are these: Industry, Honesty, Thrift.

3. MR. DOLGE'S EXPERIMENTS AT DOLGEVILLE.

Mr. Alfred Dolge, a manufacturer of piano felts, sounding-boards, piano lumber, etc., at Dolgeville, Leipzig, Otter Lake, and Port Leyden, all in New York, finding himself unable to attend the Saratoga meeting, sent the following letter to the Secretary, dated at New York, September 8:

DEAR SIR:

I am very sorry to inform you that, on account of important business engagements, it is impossible for me to be at Saratoga tomorrow. After reading the proceedings of your last convention, especially Mr. Harris's able essay on the "Ownership of Land," I have become exceedingly interested in the labor and aims of your Society, and since I cannot listen to the discussion on "Profit Sharing" tomorrow, I hope you will kindly send me a copy of this year's Report when printed.

I should have tried, in an informal manner, to discuss with you and Mr. Harris the term *Profit Sharing*, which in itself seems to me wrong. I have no method of *Profit Sharing* in my establishment, but try, as near as I can ascertain, to pay to each man his earned share of the increased value of the goods manufactured or sold. It seems to me that, at the very start, we should not allow the distinction of Capital and Labor and Profit. For me, there never was such a thing as "Profit," only earnings. If I, by reason of superior knowledge of my particular business, can sell my goods at a higher price, or manufacture them at a less price, than my competitor, I do not make a larger "profit," but receive better wages for work better done. The same applies to the workmen in the mill. If an author writes a book which has a very large sale, he does not make a larger profit than his colleague, whose book does not sell as well, but the public pays him a better price for his superior work. I hinted at this in my last Reunion speech (of which I send you copies) when I said that I would ask a salary of $25,000 per year to manage my business for a corporation,—because I know I can *earn* that amount of money.

If I could have spared the time I would have written out my ideas and views and submitted the same to you tomorrow; it was, however, utterly impossible. Mr. E. Richard has sent a paper to Mr. Harris showing some of my doings at Dolgeville, but you might be misled by it as to my views on the social question. I am simply doing, under the present conditions, what I can to elevate my workmen; and in my experience with them I have come to the conclusion that the evil must be taken by the root, by securing first of all good schools and very good education for the poor classes in order to enable the workingman to understand and comprehend his position. *Then* "Profit Sharing"—or as I would

call it, *proper* and *just distribution of earnings*, will be possible, and not before. It will, at the best, require two or three generations to accomplish that, but with the assistance of such praiseworthy labors and scientific researches and studying of the various aspects and bearings of the social question, as the members of your Society interest themselves in, a very great deal will be accomplished.

Again regretting that I could not make use of your kind invitation, I remain,

Yours Respectfully,

ALFRED DOLGE.

The Paper of Mr. Ernst Richard, of Dolgeville, which was read by Prof. Harris, is as follows:

MR. ALFRED DOLGE AND HIS EMPLOYEES.

The public at large and our statesmen appear to acknowledge the existence of a "Social Question," and our legislators begin to spend some of their time on labor statistics. But a few individuals have for years past, in a smaller circle of influence, tried a practical solution of this question with more or less success; and especially those manufacturers who have invented different systems of sharing the profits of the capital with their laborers. Although these experiments reach directly but a comparatively small number of working men, they are of special interest to the conservative friends of the working people, for they help to show that there *is* a possibility of reconciliation between the interests of Capital and Labor, and that under the present system of social economy the workingman can obtain that subsistence we all believe ourselves entitled to.

We may well consider the harmony and good feeling between employer and employee, and the absence of strikes, lockouts and boycotts since the start of an enterprise, twelve years ago, as a mark of success in such an experiment; and a system standing this test is worth attention. The methods of "Profit Sharing" adopted by Mr. Alfred Dolge of Dolgeville, Herkimer County, N. Y., answer our demands in that respect, and justify an exposition of their features.

1. Wages.

Before we begin to describe the different institutions that serve to improve the condition of Mr. Dolge's laborers let us shortly consider the basis on which this condition is built, that is, the

wages that he pays; a subject not to be omitted, inasmuch as it has been said, that sometimes the introduction of Profit Sharing by the employees has been followed by a reduction of wages, that in dollars and cents more than equalled the share of profits which the magnanimous capitalist saw fit to consign to his laborers. The average wages of the Dolge Mills for the year ending December 31, 1886, were as follows:

Department.	By the Year.	By the Day.
Machinists,	$756	$2.52
Carpenters,	720	2.40
Pipers,	597	1.99
Piano Hammermakers,	539	1.79⅔
Shoemakers,	525	1.75
Laborers on Machines,	476.73	1.60
Sandpaperers,	510	1.70
Woolcarders,	823	2.74⅓
Journeymen,	417	1.39
Girls on Sewing Machines,	286.50	.95½

Here we have an average considerably exceeding that of the average annual product of the American wage-earner. It might even be higher than given, and considerably in the last named department, if the days left out by reason of sickness, vacation, etc., were accounted for. The above figures are taken from the amounts actually paid. The number of employees fluctuates between 500 and 600, the highest number reached being 621 at one time.

Except in wages no employee is entitled to any direct participation in the profits of the business, but at the end of each business year Mr. Dolge has, thus far, allowed a remuneration (proportionally) to the foreman and workers of those departments whose workings brought out satisfactory results. This comes rather in the shape of a present than as a percentage of profits due to the recipients.

2. Pension System.

While the above remuneration is quite arbitrary, as we have seen, Mr. Dolge has thought it a duty of the employer to provide for the employee and his family in the time that he is disabled for work, and for this purpose he instituted the Pension and Insurance rules of the establishment. The former, issued January 1, 1882, read as follows:

"Every regular employee of the firm of Alfred Dolge shall,

after a continuous service of ten years, be entitled to a pension under the following conditions:

Pensions will be due in case of partial or total inability to work, caused by accident, sickness or old age, as long as such inability may last, and it is to consist in the following quota of the wages earned during the last year, viz.:

50 per cent. after ten years' service.
60 per cent. after thirteen years' service.
70 per cent. after sixteen years' service.
80 per cent. after nineteen years' service.
90 per cent. after twenty-two years' service.
100 per cent. after twenty-five years' service.

The next paragraph provides for those disabled in service dur- the first ten years:

"In case of accident while on duty, or of sickness contracted through the performance of duty, employees shall be entitled to a pension of fifty per cent. at any time previous to the completion of ten years' service. As the pension is to be an equivalent for lost wages, the title to it is strictly personal and not transferable under any circumstances. In case of partial loss of wages where earnings are not cut off entirely, but only reduced, the pension is to be computed on the difference of wages only, representing the loss actually sustained. The above regulations do not in any way affect the right of the firm to discharge employees, or of the employees to leave. The firm reserves the right of amendments to the above law, and of final decision in case of doubt and in all pertinent questions not above provided for."

Up to date only one laborer enjoys the benefit of this rule. He met with an accident while working. same years ago, and draws a pension of $300 annually. There has been no other occasion given to apply this rule.

3. Life Insurance.

In his last annual address to his employees, January 22, 1887, Mr. Dolge instituted an Insurance plan which is this, viz.: That each employee who has for five consecutive years been in the employ of the firm is entitled to a life insurance policy of $1,000, and at the expiration of the tenth year of steady employment to another $1,000 policy. Premiums and all expenses will be paid by the firm as long as the insured is in the employ of the firm.

For those that are rejected by the Life Insurance Company an amount equal to the insurance premium is deposited in a savings

bank. For those that have positions of greater responsibility the amount of insurance is higher than above given. The policies for these now amount to $68,000, including that of the director of the felt factory with $10,000. Seven persons having served ten years hold $2,000 policies; fifteen having served 5 years, $1,000 policies; six persons, two of them being over 60 years of age, have bank books. Altogether 36 persons are entitled to the benefit of the Life Insurance plan, at a cost to the firm of over $4,200 annually, including $249.50 for bank deposits.

The number might appear low considering the average of 500 to 600 laborers, as stated; but it is explained by the fact that the Dolgeville factories were only opened on a small scale in 1875, and that only continuous workers fall under the provisions of the above rule. After six months of steady work the employee is put on the list of regular workingmen, from which we take the following table:

We find then, January 1, 1887,

7	persons	out of	27	employed	in	1875
14	"	"	21	"	"	1876
25	"	"	33	"	"	1877
38	"	"	42	"	"	1878
56	"	"	59	"	"	1879
81	"	"	87	"	"	1880
75	"	"	107	"	"	1881
107	"	"	118	"	"	1882
112	"	"	140	"	"	1883
115	"	"	125	"	"	1884
125	"	"	132	"	"	1885
173	"	"	216	"	"	1886

The insurance roll contains now 272 names.

Many of the men left the employ of Mr. Dolge but came back after some time, and thus shortened their term of service, which, for the right of pension and insurance, is counted from the last entrance in the factory. To complete these statistics I may say that the total number of engagements since 1875 is 734, and the average working time in Mr. Dolge's employ of every engaged person, nineteen months. January 1, 1888, twenty-two more persons, and in 1889, twenty-eight more will be entitled to insurance policies, and so forth,—the number increasing every year.

4. The Mutual Aid Association.

Although the above rules are of the greatest importance for the material welfare of the workingmen and their families, we may be just as much interested in those institutions where the workingmen, under the auspices and help of their employer, try to improve their own condition — endeavors that make them independent, increase their interest in economic matters, and teach them other valuable lessons. Partly with this view, of accustoming his men to manage their own affairs, six years ago Mr. Dolge started, with a donation of $300, increased later to $400, the "Mutual Aid Association," the workings of which may be illustrated by some of their statutory articles, viz.:

ARTICLE I.

The purpose of this Asssociation is to give its members pecuniary assistance in case of sickness, inability for work, or death.

ARTICLE VII.

All members earning $6 or more per week contribute fifty cents per month in advance, and all those earning less than $6 per week contribute twenty-five cents per month, in advance, into the funds of the Association.

ARTICLE IX.

In case of sickness, every member paying fifty cents monthly contribution is entitled to $5 per week, and every member paying twenty-five cents contribution per month is entitled to $2.50 per week relief money from the funds of the Association as long as the medical examiner of the Association, or a known physician of the patient's place, certifies to the inability of the patient to do any work, and it is left at the option of the Association to reduce the relief money after a sickness of three months.

ARTICLE X.

No member shall be entitled to any relief money from the Association unless he has been a member of the Association during three consecutive months.

ARTICLE XI.

Sickness does not entitle a member to any relief money from the Association, if it is the outgrowth of disease existing and dissimulated by the member at the time of his reception into the Association; or, if it is the consequence of an irregular mode of living contrary to medical advice.

ARTICLE XIII.

Members not entitled to the regular relief moneys, but needy on account of old age, or excusable sickness, receive $1 per week; but the committee of fifteen may increase, reduce, or altogether cut off this assistance, if in their judgment the financial status of the Association should demand it.

ARTICLE XIV.

If a member dies his heirs receive $50 from the funds of the Association upon proof of death. . . . .

The assets of this Association are today $1,163.27, the membership is 121, and the amount paid for relief, from the foundation to Aug. 1, 1887, is $2,865.30.

Not satisfied with this protection of their families against material need, the men started among themselves the "Dolgeville School Society," with the purpose of giving their children better educational advantages than country schools generally offer, and to enable the trustees of the district to engage, for better wages, more competent teachers. During the past year of its existence the School Society spent over $900 (an amount considerably higher than that on the district tax list), coming out of the voluntary contribution of the members of the Society, who taxed themselves from 10 cts. upwards monthly. Mr. Dolge contributes $300 annually to their funds. Through the influence and vote of this Society the annual district meeting of 1886 decided to have a new school-house built, which is now nearly completed, at a cost of $15,000, three-fifths of which are a donation of Mr. Dolge. The rest ($6,000) is raised by taxation, which debits Mr. Dolge with $2,000 more. A few weeks ago the School Society achieved a further important success by carrying their motion, in a special district meeting, to have the District changed into an Union Free School District, a noticeable progress, as those acquainted with the school laws of New York will know.

5. Other Organizations.

Speaking of societies, I must not forget to mention some other organizations formed by employees of the Dolge factories, which all enjoy the hearty and effective support of the employers, from whose immediate surroundings came the impulse which called them into life.

The doings of the Volunteer Fire Company are explained by its name. The German "Turnverein," for physical and mental culture (the verbatim translation of the German would be for physical and mental gymnastics) counts, in spite of its German name, a good many Anglo-Americans among its members.

The Turners are proud that from their organization emanated the School Society, now superior in strength to the mother society and controlling the majority of the school district vote. Besides keeping an evening school for physical exercise, with a separate department for boys under eighteen, the Dolgeville Turnverein could report last year to the national board of the North American Turner's Union, 45 evenings of lectures and discussions. On these occasions, the members endeavor to get clear ideas on the leading topics of the times, and to make those that have recently immigrated acquainted with the institutions of this country, their future home. Mr. Dolge, to whom the Society is obliged for material aid of great importance, when he is in the village, never fails to attend these discussions and to take active part in them. An amateur orchestra of 24 members, and a Dramatic Association help successfully in the æsthetic education of their members and the public at large. All these organizations, though supported to a great extent by Mr. Dolge, are by no means under his control; he only helps them to follow their own chosen way, and encourages every step towards the advancement of his workingmen when it results from their own energy and initiative. I may add that Mr. Dolge has built a club-house for his men, containing a library, reading-room, billiard-room, bowling-alley, lodge-room and a hall with a stage for social and other meetings (mostly used for the exercises of the turnverein and the orchestra), at a cost of more than $5,000, and maintained at an annual expense of $300 to $400. He has set apart a large tract of land for a public park, which costs him annually, including maintenance and interest, $1,000, and whose romantic beauty attracts visitors from a distance.

6. Ownership of Homes.

In pursuance of this system of putting the workingmen on their own feet, Mr. Dolge has avoided the well-known scheme of having them acquire own homes by paying a somewhat higher rent. Though he does not take the responsibility of encouraging them to acquire real property, inasmuch as the value of the same, and

in some sense the welfare of the whole village stands or falls with the one enterprise represented by him — yet men of good standing who, on their own account, come to the resolution to build a house, always find him willing to help. They generally have cash enough, previously saved, to pay for a building lot, that may be had at the price of $60 to $300, and they pay for a house, not built after a common pattern for all, but built according to each man's fancy. This house is built by the firm, who receive payment in monthly instalments of $10. Thus acting, in a regular business way, Mr Dolge avoids the danger of making the tenant dependent on a landlord who is at the same time his employer; and always leaves the man conscious that the amount he pays every month is not a regular expense, but a debt which he will get rid of the sooner, the larger the amount he saves monthly for its payment. The ambition to own unincumbered property, which helped him to complete the payment of the debt, in many cases has taught him also to calcuate and to save in a way he did not at first think of. At present 53 of Mr. Dolge's laborers own houses acquired while in his employ, some of them own more than one, and 10 have bought lots to build on.

7. Savings, etc.

Out of Mr. Dolge's endeavor to keep his employees independent where no business interests interfere, rises also his objection to a savings bank connected with the firm, introduced by some employers; but as there is no savings bank in the village his laborers are allowed to leave with him such part of their wages as they see fit — a kind of a call-loan, for which they receive six per cent. interest. Only such money as is earned in the factories and consists of wages not drawn when due, falls under this arrangement. If there were a reliable savings bank in the place he would not offer this accommodation.

To the Dolge system of relation between superintendent and help belongs the reunion he tenders in the beginning of each year to his employees. The principal feature of the banquet is an address by himself, reviewing the accomplishment of the preceding year and showing the tasks of the ensuing business year. A specimen of these addresses is that of the last reunion, Jan. 22, 1887, which has been largely commented upon by the press.

8. Monthly Payment of Wages.

Under the above system the village of Dolgeville knows labor troubles only by hearsay and by reading the newspapers. In the spring of this year a "Knight of Labor" tried, without success, to rouse some dissatisfaction on account of the monthly payments; whereupon a vote was taken in all departments of the factory, with the result that only a minority of about forty were in favor of semi-monthly or weekly payments. Mr. Dolge's reasons for the monthly payment arise from the particular situation of his mills in a small village without railroad connection. As the vote taken shows, the laborers prefer this mode; it has been the custom there for generations, long before Mr. Dolge opened the factories, and all business transactions are regulated by it. Many prefer to lay away a larger amount of money at one time, while the economical ones buy their supplies at wholesale, and want, therefore, greater sums at once. For the employee this custom saves some book-keeping, and, as there are no banking facilities, the too frequent transportation of a large sum of money over eight miles of lonesome road. Where the conditions are different Mr. Dolge is decidedly in favor of shorter intervals between pay days, and has made arrangemements accordingly in his New York establishment.

I may remark, for those who do not know the firm, that Alfred Dolge manufactures at his mills in Dolgeville, in the felt department, felt and all kinds of felt goods except hats, especially piano felts and felt shoes; in the lumber department he makes a specialty of piano lumber and mouldings; in the machine shop many of the machines in use at the factories are constructed. In his New York establishment there is a large sale of products of his own manufacture and of goods of every description for the use of piano manufacturers imported by him. The village of Dolgeville has now about 1,300 inhabitants.

4. PROFIT SHARING, HISTORICALLY AND THEORETICALLY. CONSIDERED.

BY GEORGE MAY POWELL, OF PHILADELPHIA.

The heart aye is the part aye
That makes us right or wrong.

Profit sharing is one efficient key for helping to unlock the intricacies of the labor question. It is not always correctly considered when looked upon as identical with coöperation, the latter, in its most popular sense, being simply one mode of commercial distribution. Even productive coöperation is more nearly allied to partnership between laborers whose combination of small capitals enables a number of persons to jointly conduct a productive industry, independent of larger capitalists. Profit sharing as conducted in the most widely known illustrations, seems to be where capital admits labor to a limited share of net profits in production, such limited share being determined by capital.

The instances in which profit sharing has been demonstrated to be a beneficent arrangement for both labor and capital are too numerous and have extended over too wide ranges of time and of kinds of industries to leave its wisdom a subject of reasonable doubt. The only question is: "Are all parties truly willing to do right by each other?" If capital in the case is corporate and conducts itself in a way to merit the adage "corporations have no conscience," or if it is individual, and is represented by a person or persons who are hard, overreaching, overbearing, sharp and tricky, or incompetent, profit sharing is about as likely to succeed as water is to run itself to a level higher than its source. The same is true if similar conditions attach to labor. The central core of all branches of this or any other section of the labor problem is ethical. When the laborer and capitalist are each truly willing to do as he would be done by, there is little else to discuss in the premises. Of course, there must be skill in the selection, arrangement and carrying out of operations in general, and especially in detail.

Where profit sharing has failed, it has usually been where either or both parties thereto strove to get undue advantage over the other. As will be shown in illustrations to follow, it has often

been necessary for the capitalist to educate the laborer as well as himself up to fitness for profit sharing. I doubt if a case was ever known or ever will be known where, as a mere cold question of money-making, profit sharing has within it the elements of success. There must be real, paternal sympathy between the parties. There must be a moral as well as intellectual bond established between them. The great pioneers and promoters of successful operations in these lines during this century — so far as we know — have mostly been men and women in whose personal character philanthropic, Christian patriotism has been predominant. Its operation, however, has been financially far more profitable to all parties than where wealths of capital and labor were wasted by war and in jealous watchfulness. "He conquers not who does not conquer hate." I believe that profit sharing in any other hands will be like the action of a galvanized corpse in its incipiency, and equally dead in its after history. As in all other lines of human effort, there is death just in proportion as there is lack of sturdy moral principle. All seeming success which stands on other foundations is failure in fact.

I do not care to discuss this question in this paper, or elsewhere, in the abstract. We all remember Sandy's definition of metaphysics (which in substance was that neither the man talking nor the man listening understands). We prefer examining actual, practical illustrations of profit sharing in agriculture, railroading, manufactures, merchandise, etc., illustrations which demonstrate that it increases both the quantity and quality of product from a given expenditure of labor and capital. I do not care, either, to deal much with "doctored statistics." I once knew a clergyman who had been induced to invest in oil stocks. Some years afterward he remarked that he had lost faith in the old adage, "figures don't lie." He was sure they did lie at the bottom of oil wells.

If some of my cases are well-known cases, it will add to authenticity, if not to knowledge. The first case is that of Von Thunen, who, nearly half a century ago, made a mark in this line near Mecklenburg. Including bailiff, school-master, cartwright and farm hands, there were twenty-one persons involved. In addition to wages current in that region, he allowed ½ per cent. on the yearly profits above $4,000. Afterwards, the mark was raised to $4,500. If that sum was not reached in any year, the deficit was made up from the next year's surplus; and 4 per cent. of this

bonus took the form of a Christmas present. The rest was invested for the participants and the interest accumulations soon exceeded the bonus. This so pleased the people, that the plan acted as a balance-wheel to regulate and unify the whole. They did not thereafter wish to either seek other employers or to emigrate to America, and the sick and aged found in it relief from financial anxiety.

Herr Jahnke made a similar experiment near Berlin. Hired labor was scarce and expensive. He furnished land and capital for five married men and their families. Each man had a cottage and garden and fuel free, and about $2.62 a week in summer, and $2.42 in winter. Five times these sums per week, also $225 a year, was credited to the proprietor for managing. The remainder, after paying current expenses, was equally divided between labor and capital. The average annual pay of each laborer by this contract, including value of rent, fuel and garden was about $293. Prof. Von der Golz, in a work on "Wages in the German Empire," puts the highest average pay of an able-bodied farm laborer at $166 a year. In 1872, the proprietor would gladly have sold this estate for $22,500. It was so enhanced in value through thorough culture incident to five years' profit sharing, that it was appraised at $25,500 in 1877.

A Danish Baron divided the profits of his estate among his 80 laborers. "One day," the Baron said, "rye was being sown. When at half-past seven in the evening I found the people still at work, I remarked that they would not succeed in finishing the two and a half acres still unsown that day. They, however, said with one voice that it *must* be done. It *was* done."

More than half a century ago, the tenants of Mr. Vandeleur's estate in County Clare, Ireland, had murdered his steward. It was at a time of fierce agrarian riots. The peasantry marched through the counties of Clare, Galway, Roscommon and Tipperary, committing murder and robbery. They demanded, too, for example, that broad estates be cultivated with spades instead of ploughs. Then and there Mr. Vandeleur formed the fifty-two laborers on his estate into a profit sharing association. At harvest time, they labored longer than the agreement demanded. When, too, as was customary, fox hunters were about to ride pell mell on "association wheat," the people barred the gates and kept the hunters at bay. In other days, they would have joined in the rev-

elry and destruction when a hated landlord was the chief party in interest. When cattle broke into a field, none took notice of it then, if the herdsman were absent. Now, such an occurrence, or even a more trifling waste, was looked after sharply by all.

In a public address, Mr. Vandeleur said, if land proprietors would generally enter into this plan in Ireland, "there would be no more starvation in the midst of plenty; nor any more necessity for industrious men to leave their country for foreign wilds."

At a general meeting of this association, these people said: "At the beginning, we were opposed to these plans; but they improved our condition. Our wants are attended to, and our feelings toward each other entirely changed from jealousy, hatred and revenge, to confidence, friendship and forbearance."

Owing to gaming habits common among British gentry, the proprietor met with disaster and the agricultural family at Rahaline was broken up after years of success. But, like the footprints of some pre-historic bird, this work of Mr. Vandeleur left a story,—not in the rock, but on the green hills of Erin, which the civilized world would do well to ponder. Both landlords and Home Rulers, all over Britain, would be benefited by a very careful study of the story. Our American farming kings might find in it the key to unlock treasures. Better still, the way might thus be opened for thousands of sad-eyed poor in our great cities, to be transferred to rural homes eventually owned by them in severalty, and cultivated coöperatively.

"Farming on shares," a participation largely practiced in this country, is so well known, that we only mention it in passing. Mr. Henry carried this on so extensively in Kansas some years ago that he came to be known as "The Wheat King." Many a poor but competent and enterprising man in America has made it the means of getting the start in life to which he owed a good home and competence, and wealth even, before passing his prime. Our young men may yet come to see that if they were as well trained as German, French and Belgian agricultural engineers, they could carry this on to great profit, and with very little cash capital. Many sent abroad to study, return to a more meager professional practice of law or medicine than they would if the study had been with this rural end in view.

Much of what is called "profit sharing" in New England fisheries would, we think, be more accurately designated as pro-

ductive coöperation. In the latter class, likewise, we would put some corporate industries in which wage-earners hold stock.

Participation in railroad operations has been eminently successful in Europe, and we hope for good results from American experiments now being tried. As early as 1844, Mons. Bartholomay (an old Huguenot who for forty years was President of the Paris and Orleans Railway) urged participation on their lines. They adopted it in 1845. The system passed various stages till 1850, when uniform distribution was made. The amount divided was 15 per cent. of the proceeds after deducting current expenses, and 8 per cent. to stockholders; one-third of this (or 5 per cent.) was paid over as a cash bonus, one-third was put in savings bank to credit of participants, and the remainder was invested for them in the State Pensions office. The latter gave participants an annuity of not less than $120 after 55 years of age. This system was extended to the Central, the Bordeaux and the Nantes on the consolidation of these roads with the Paris and Orleans in 1852. Profits accrued so rapidly that employés had 34 per cent. added to their wages in 1852, and 41 per cent. in 1853. This led grasping stockholders to contest these concessions to labor, till for five years past there has been no appreciable savings bank fund, and the cash bonus is practically *nil*. From 1845 to 1882, the aggregate profit shares allotted to labor on these French railroads was about thirteen million dollars. Participation is still helpful to them by enabling them to maintain their state pensions. This relieves the aged, the sick, and those suffering from accidents; also families of participants for some time after their decease.

In this country, it would be valuable in nipping pauperism in the bud and reducing the army of tramps. Mons. Robert, President of the French Particpal Society, says of the experiment: "Applied as it was in 1858, participation exercised on the staff of the railway a considerable influence. The deep feeling of serious identity of interests gave to the *personelle* the appearance of a vast family. The employés looked after each other. They constantly had in mind a profit to share or a loss to avoid. They treated passengers' luggage with care (think of that)! If one treated it roughly, a comrade said, "What are you about? you will shorten our dividend." But the cash dividend having disappeared, the zeal of most of the laborers has disappeared with it. Stockholders' profits have fallen too, and ere long there will be a return

to the more equitable system of Bartholomay. Have the stockholders in American roads no lesson to learn from this? A single smash-up often costs them hundreds or thousands of dollars. It would have been prevented by greater care by employés. Profit sharing would have insured that care. We read in an old book, which some of us believe never makes inaccurate statements, "There is a withholding more than is meet; but it tendeth to poverty." A railway strike costs labor millions, and stockholders other millions, and the commercial world tens of millions. The strike would have been rendered impossible by a wisely-managed system of participation.

We venture the assertion that incidental profits of such a system, through watch and care at every point on the "plant," would more than pay all the cost. Also that dividends to stock would be, as they have been in France, greatly increased by such relations to labor. What of the gain in public peace and personal safety? As trains speed over mountain and prairie, as they dash through storms and the darkness of night, the traveller, and those who watch and wait and pray for him at home, would know his safety was more certain than it is now. Every conductor and engineer, fireman and brakeman, every trackman, signal and telegraph operator and switchman, each and all would thus be made to constitute a vigilant guard of his personal safety.

A successful example of profit sharing in mechanical lines was that of Edna Jean Le Claire. He was a poor boy, born of Huguenot stock. He came from a village to Paris, and learned and established the business of house painting. He soon set about improving the condition of his workmen. It was not so much their condition when they had work and were strong that touched him. It was the uncertainty of their situation. If an employer failed or died or sold out, they had no assurance of the future. Accident, sickness, or old age, were spectres in their path. The young employer felt himself indebted to their skill and honesty for his success. Fearing a trick, the police opposed his holding a meeting, Feb. 15, 1842, to lay his plans before his men. Some of his men thought it a scheme to reduce wages. Therefore, without consulting them, he assembled them, and threw a bag of gold on the table, from which he counted out to each of them over $50 more than his wages for the year amounted to. This was an "object lesson" which they could not fail to understand. During

each of the next six years, he divided among eighty persons nearly $4,000 in participatory bonuses. He combined an Aid Society with the plan in 1848. In 1864, he had this Society incorporated, and five years thereafter executed a deed, by which the entire business passed jointly and equally to the managing partners and the Aid Society. So firm in golden rule fairness were these foundations laid that the house passed unscathed through the terrible German siege that followed Sedan and the more terrible Commune rule. His last official act with his "Business Family" was at the annual meeting, June 23, 1872. He died July 10 in that year. At the meeting $6,750 were turned over to the Aid Society, and $15,500 in bonuses to the workmen from that year's current business. In thirty years he had paid the Aid Society and to employés in bonuses additional to wages, $220,000, and he had accumulated a private fortune of $228,000. There was, besides, a working capital of $50,000 in hand, and a reserve fund of $20,000. Here there were two closely connected but separately administered concerns — the business house and the Aid Society. In 1883 the Aid Society had over $300,000, and there were in the Society more than 105 members, not including 52 pensioners receiving $10,000 a year.

In the Le Claire Industrial Family, profit sharing applies both to apprentices and to transients. One man who had worked only ten hours had, at the end of the year, a bonus of about 16 per cent. over current wages. If a man temporarily employed suffers a disabling accident, he has a retiring pension of $240, the same as if a member of the Aid Society. If the accident eventuates in his death, his widow, like the widow of a member, has a pension of $120. Considering the simple habits of the French working people, these pensions are equal to fully twice these sums in the United States. Thus it is seen that this Family have the following gains:—

1. A large yearly bonus additional to good wages.
2. A benefit club.
3. A $240 pension for men.
4. A $120 pension for widows.
5. An accident insurance.

Le Claire saw in participation greater gains than all this. To his mind, it was a lever to raise the moral and intellectual condition of his beloved people; good conduct, as well as skill and

industry, being necessary to admission into the Aid Society. The reputation of Paris house-painters is notorious for being dilatory, intractable, intemperate and dishonest. But the "Old Guard," as the Le Claire men are called by city architects and builders, is the reverse. There is more demand for them than they can supply.

Le Claire said, It is better for me to earn one hundred francs, give fifty to my men, than to earn twenty-five and keep them myself. He was earnest for the emancipation of labor from thraldom to capital, employing it merely for secular speculation. He was determined the world should see an example of labor relieved from the grinding pressure of uncertainty about being employed or having fair pay; also from the laborer being haunted by fears for his family in case of death or accident to himself. Best of all, that the laborer should be fitted for Christian citizenship. Near his last days he wrote: "I believe in the God who has written in our hearts the law of duty, the law of progress, the law of sacrifice of one's self for others. I submit myself to His will, I bow before the mysteries of His power and our destiny. I am an humble disciple of Him who told us to do to others what we would have them do to us, and love our neighbor as ourselves. It is in this sense that I desire to remain a Christian till my last breath."

M. Robert, President of the French Participation Society, well said that "these results of the Le Claire experiment could not have been realized by those seeking such material ends in a merely mercenary spirit. It could only be done," as he said, "by economic science, enlightened by the spirit of the gospel."

An interesting American example of profit sharing is that at Peacedale, near Providence, R. I. An important item in its success is that the proprietors have their own unpretentious homes among their people, instead of living in lordly style in some distant city. They have also urged and aided the members of their Industrial Family to secure homes. A free library has been given them by the proprietors, the Messrs. Hazard. The general principle of division there seems to be to give labor and capital each half of the profits; profits being what is left after paying wages and current expenses and modest interest on a capital of $250,000. Four hundred and fifty persons are employed, and for more than a generation this has been known as a successful industrial Christian community. The proprietors belong to the Society of Friends. They own all the stock, and they aim at success by saving of

wastes more than by buying cheap and selling dear. They treat the bonus they pay their people as honest dues for care and faithful service, not as a gratuity. Those acquainted with this Industrial Family are satisfied that its financial gain, while respectable in amount, has not been so great through participation as the moral effect. The care and painstaking of labor, and the fraternal and paternal interest of proprietors and people in each other, have developed character, conscience, personal thrift and intelligence, of far greater value than money.

Profit sharing in the Pillsbury Flouring Mills at Minneapolis, Minn., is worth study. They have an annual output of $10,000,000 worth of flour; also eight millions more of grain elevator operations. Two and a half millions are required for running expenses and interest on capital. Average men who have been in their employ five years receive participatory bonuses amounting to 50 per cent. in one year, in addition to full average wages of that region. Those occupying places of special care and responsibility have received bonus additions to such wages of 65 per cent. "Yet the company," says Mr. Carroll D. Wright, "consider that their plan of profit sharing has greatly increased their own profits by the voluntary service of their men in times of need. By their interest in the business and in other ways, the evident good-will of their employés is regarded as the most important and agreeable result."

The cases cited prove, we think, the affirmative of our initial premises with the iron tread of the "logic of events." We need not expect to succeed at once. "The child learns to walk by falling."

The success of profit sharing may, perhaps, be compromised by either party belonging to any organization formed for the express purpose of combatting the other. Just as carrying weapons, either open or concealed, is often *per se* incipient war. Profit sharing seems to be better adapted, in some respects, to produce equilibrium between labor and capital than its cousin, productive coöperation. This chiefly because of its being more likely to have first-class business management. When we remember that about 97 per cent. of those entering the mercantile arena go to the wall and only three per cent. succeed, we see how rare a talent first-class business management is. Profit sharing is, probably a stepping stone to prepare the masses for success in productive co-operation.

No profit sharing can succeed without honest and able management, any more than any other enterprise can succeed without it. Many have failed for want of either or both of these requisites. There may be both these qualities in intellectual senses, and still leave little if any chance of success, unless to them be added certain humane elements. There must be a sense of tender and large-hearted fraternity existing or built up between labor and capital, in any profit sharing enterprise that is permanently prosperous. These elements are fostered more by religious and reform forces than by all other influences combined. Therefore, studied from any other standpoint, this and all other branches of the industrial problem are "inexplicable riddles." Viewed from this high outlook, their easy solution is seen "with the clearness and precision of algebra." All other definitions or diagnoses of the situation by so-called politico-economic terms give only "hazy visions of the incomprehensible." Webster defines "politics as that part of ethics which pertains to the public good." With that definition of politics as the root of politico-economics, we have the foundations which show it to be identical with our premises and conclusions relative to successful profit sharing.

Social science, and all other science worthy the name, rests on the fixed laws of One whose essence is a love that seeks the best good of all His creatures. The essence of their true relation to Him is passive submission to, and active doing of, the will of our Great Lover. Consequently, when, in the practical relations of life now under consideration, as in all other relations, we seek to know and do that will, all will be harmony; a harmony typified by the glad response of all the strings of a harp when a chord is struck on any of those strings. This — nothing less, nothing more — is the substance of that Christian religion which has been the most powerful factor in the civilization of the world and the elevation of the human race; the key to success, in this or any other phase of the labor problem. This is only another way of putting the more terse statement of Mr. Carroll D. Wright, chief of the National Labor Bureau, at Washington, that the problem was essentially "one of ethics."

Finally, therefore, the two following points are suggested as being among those worthy of special consideration:

1. A Sabbath so observed, in the spirit and the letter, as to be

the spindle to take the moral slack twist out of the people, rich and poor, and so fit them for profit sharing.

2. A temperance that will wipe out the drink and dissipation which creates over three-fourths of the labor troubles of Christendom.

Two things more cordially hated and fought by those anarchic elements which are roots of our labor troubles, than such a Sabbath and such temperance, cannot be found on earth, or in air or sea. Consequently, they are the chief weapons with which to fight the enemies of labor and capital, and build up profit sharing and kindred elements of relief from labor troubles.

A most distinguished United States Senator from this my native State voiced two ideas which are of absolutely universal application in all the realms of practical thought and action, viz., "The Higher Law," and "The Irrepressible Conflict." Dangerous lightning will flash and the thunder will roll around the labor question, till men walk in the light of this higher law.

Between or after the reading of the Papers of Messrs. Kingsbury, Richard and Powell, Prof. Harris and others took part in the discussion.

By way of introduction to the reading of Mr. Richard's paper on Mr. Dolge's business management, Prof. Harris made a few remarks on Profit Sharing, endorsing in the main Mr. Kingsbury's paper, just read. While Prof. Harris believed heartily in all experiments that promised to lead towards the elevation of the character of labor and its better remuneration, he yet had misgivings about the value of profit sharing as a solution of the labor problems now existing. If many laborers combine and furnish the capital, and all varieties of business talent that are required, and then share the profits, well and good. But if capital and business talent and directive power are to be furnished by one set of men, and manual labor and technical skill only by another set of men (the laborers), it will never do to remunerate hand labor and directive power alike. And for the managers who furnish the capital and direction to give the laborers a bonus, in excess of regular wages, and call it "profit sharing," incurs this difficulty,—it amounts simply to an increase of wages. An increase of wages is a good thing up to the point where capital and directive power still secure their own due remuneration. Beyond that it is suicidal for capital and management to increase wages; for this leads directly to bankruptcy, and bankruptcy is one of the most fearful of all scourges to which labor is subject. If, as has been asserted here today, the failures in trade amount to 90 per cent. of all the adventures, we may safely assume that three out of every four adventures in manufacturing will fail. We may classify adventurers in business under three heads: *First*, those who have great ability and can make money under any and all circumstances; *secondly*, fair business talents, that can make money in good times, and hold their own in bad times; *thirdly*, those who can make money in good times, but are not able to tide over bad seasons. There is a fourth class, to be sure, who are so poor in their managing capacity that they cannot make money even in good times; but such do not generally venture more than once, as they lose all that they have the first time.

Now there must be a margin between the sum of the wages and the total receipts sufficient to cover the risks of business. When

the wages are too high the third class are all in danger of collapse. Even the second class cannot avoid bankruptcy when wages are brought up to the minimum standard that first-class business talent could afford to pay. It is evident that it will not do to measure the standard of wages by the standard that the very best business men can afford to pay.

Now profit sharing can be adopted by the highest class of business men to the injury of the second and third classes. For the latter must adopt the same measure or else deal with inferior and discontented workmen, who will by strikes damage business. But such profit sharing amounts to a rise in wages; and wages are now at such a high point that 75 per cent. of all adventures fail and lose the capital invested. It would seem that wages must be so regulated that they will enable the two ablest classes of business managers to make money, on the whole, after averaging brisk and dull seasons together; for there are good and bad seasons of business within every year; and there are greater elevations and depressions which alternate in a cycle of several years.

The system of competition in business is a system of survival of the fittest, which constantly winnows out the incompetent adventurers, and puts business into the hands of the few who are competent. It is the fact that the competent can afford higher wages and actually do pay such wages. That acts as a process of elimination of the incompetent. It would seem therefore that this system of competition is not only a struggle to sell the most goods to the best advantage, but a struggle to obtain by wages the ablest and most skilful workman. In short it is a competition which results in producing goods at the lowest price, and in paying the highest price for raw material and for labor.

Looked at from this point of view, there can be no question that profit sharing is simply a method of paying a portion of the wages. Since the present competition, however, pays wages high enough to eliminate three out of every four of those who adventure in business, is it not clear that wages, like everything else connected with the competitive system, have a way of finding their just and proper level?

This view of the matter shows us at once a danger that strikes may injure labor more than they benefit it. For if the natural competition of employers in their struggle to obtain the best laborers tends to raise wages up to the highest point at which

business will prove remunerative, it follows that strikes may force wages up above their normal level, and thereby force the lower rank of otherwise successful business men to wind up their concerns. The final result is, many laborers out of employment.

Mr. Dolge's arrangements, as they appear in the communication of Mr. Ernst Richard (who is the Principal of the Public Schools of Dolgeville) do not properly come under the designation of "profit sharing." I am sure that his efforts to elevate his workmen by good schools and other means of intellectual and moral improvement, will be recognized by all of us as wisely directed. The one thing which we may be sure will help most to remove poverty and misery is the intellectual and moral education of all classes. The best of all help is that which fits the recipient to help himself.

Towards the close of the debate the following remarks were made:

Mr. RICE, of Boston: The question which has been up for discussion here has been debated upon the side of the manufacturer and of the theorist, but not on the side of the workingman. It is my privilege to belong to a society of young men in the city of Boston who are known as the West End Workingmen's Club. This question was discussed by them last winter, and although, of course, there were debaters appointed for each side of the question, who did their duty and brought out all the points that have come up here, yet when it came to a vote it was evident that there was not one single workingman present who was in favor of profit sharing. And I think it was the unanimous decision of that company of workingmen that there was only one side of the question, simply from this doubt: Who is going to share the losses of the manufacturer? The workingmen would be very glad indeed to have additional wages, but they demand those wages as a right. The workingman does not want to take anything like charity. He wants to have what is given him because he has earned it, and, if a concern can pay larger wages, then to give it under the right name — wages. And if the workingman cannot share with his employer the amount of losses which may happen to come within that year, why he has no right to share in those good years when he may possibly have a large amount of money as his profits. Then there is another question involved. Who is going to tell

what the profits are? Are you going to allow the workingmen to come and look at your books? And will the workingmen ever be satisfied unless they can? No. There will always be an element of discord there. Now, what the workingmen want today is not so much profit sharing as justice. They want to have those manufacturers who can pay more wages give them their hire. The laborer is worthy of his hire. He is worthy of what he can produce, but he does not want it under any kind of profit sharing. And what the laboring man demands more than anything else is not alone large wages. As one of the young men (members of the Boston Club that I referred to) said: The workingmen get wages honest enough and we want more money in the line of wages. What we want besides is that we shall have the hours of labor decreased, so that we can have more time to give our minds culture.

Mr. POWELL called Mr. Rice's attention to the fact that all the instances spoken of in his paper were where there were full wages paid as honest dues, and, in addition, the profit sharing was paid as an honest due, not as a gratuity.

Mr. RICE: I wish to say that the illustrations drawn from France and Germany, which we all know about, are not in this country, and that makes a very great difference. The wages paid there are very different from what is paid here, and the whole conditions are different.

Mr. N. O. Nelson, not being present, has sent his remarks to be printed, as follows:

MR. N. O. NELSON, of St. Louis: There are times, says a German philosopher, when we turn regretfully back to the primitive age of our race. At no time are we more impelled to this reflection than when contemplating the results of industrial evolution. If we go among the peasants who inhabit the Tyrolese Alps, we find a distinct type of society as it existed before inventive genius had created power and appliances by which one man produces all that is required for the proper sustenance of many, and before capital had become the great reservoir of productive energy. These people live in comfort and contentment. They are hospitable, virtuous and happy. Without discussing the value of this social condition, it is at least undisputed that they are free from

the debasing surroundings of the very poor in great cities, free from the uncertainty upon which wage-workers' living depends, and free from the caprice of fortune, which in a highly organized commercial community constantly precipitates men from their established positions and occupations. We do not desire to return to the primitive methods of the Tyrolese, nor even of our colonial New England forefathers, but if we reject the conceit that our own time and civilization contain the highest attainable standard, we may learn a useful lesson by considering the value of these social democracies. We are possessed of resources vastly surpassing theirs, and it is the part of wisdom to make these resources serve their best purpose. It should be the province of highly developed commerce and industry to so accumulate and store up, that not only the uncertainties of seasons, but the uncertainties of fortune and health and life may be guarded against. Legitimate accumulation of wealth, as distinguished from productive capital, is a reserve fund to create an equilibrium between the good and ill of seasons and fortune. We have at all times a year's supply of wheat in store. We should not starve if the heavens dried up so that not a sheaf were harvested in a year. Men of reflection will not be satisfied with the mere accumulation of vast aggregate wealth regardless of its application or its effect upon the character and well-being of the race. We may view with alarm the erection of stately architecture and the gathering of art treasures, if these go hand in hand with the ignorance and degradation of a large proportion of the people, and of crowded storehouses in the midst of want. The question is not answered either by showing the aggregate superiority of our industrial system over the primitive systems, or by showing great advances in our own conditions. The question is, are we doing in this regard the best that can be done, or are we inviting social danger and disaster as results of the very advantages we have gained?

The individualism which perfect political and religious freedom begets, develops a mastery of the intellectually strong which may be as tyrannously oppressive to the weak as any physical superiority in barbarous or aristocratic society. We may substitute the cunning of a Gould for the force of a Canute. There may be as distinct and powerful and evil an aristocracy of natural selection, in the industrial world, as there ever was by heredity in the worst days of feudalism. It does not alter the matter that fortunes and

their attendant power rarely pass to the third generaiton. The class remains, though there be ever so many changes in the individuals comprising the class. It is not material whether English syndicates buy up our unoccupied lands, or they are held by subsidized railroads, or whether the "Bulls" or "Bears" are broken in Wall street. The process of absorption goes on. In either event the great mass of workers get only the market price for their labor, the constant effort being to get as much work for as little money as possible. When investments in unproductive railroads and unproductive mansions, and in factories beyond the consuming ability of the country,bring to a halt a large part of the accustomed industries, then we find the stored-up supplies in the hands of a limited class; and penury, if not starvation, await those who have worked industriously for a bare living, and now, in the time of commercial stagnation, find nothing to do. This is not a logical or rational use of the forces of invention and organization, or of the superabundance presumably laid by for a rainy day. The trouble lies in too much hoarding when all forces are engaged, too unequal and arbitrary a division of that which is produced, and too light a recognition of the mutuality of all social relations.

The worst ills of society arise from the idleness or precarious employment of a considerable portion of city populations. Very little crime is perpetrated in the country, where employment is comparatively regular. More than four-fifths of the indictments found by a city grand jury are against persons without any fixed employment, and the same is true of the work in police and criminal courts. It might be true (but it isn't) that these people are vicious first and idle afterwards. Any large employer is constantly besieged with applications for work, and from men who are able and willing to earn a fair living. This is true in prosperous times, and when times are not prosperous a large percentage of strong industrious men are as helpless as infants, because they can get no work. Can these men preserve any of the safeguards which make men honest? Can they feel a patriotic pride in their country? Can they love their neighbors who lives in splendor? Can they reverence the laws of property which guard the granaries and shops and empty houses, while they and their families starve and freeze and live in a single room?

If this arises from an arbitrary method of dividing the product of those who work, of paying fixed wages with only partial refer-

ence to the value of the product, then it is important for social science and governing minds to discover a plan which shall be automatic instead of arbitrary, and shall divide the whole product instead of a part. Such division does not contemplate the current consumption of all that is produced. A due accretion to productive capital should be regarded as a regular charge upon production, in the same light that repairs and maintenance are. But reproductive capital must not be confounded with unproductive wealth. A lathe or a loom represents the ability to create useful commodities. A pleasure yacht is not only non-productive, but its continued maintenance is a heavy charge against production.

In considering the source of business profit — the surplus after wages are paid — some have strenuously argued that this profit accurately represents the services of management. That is to say, competition between employers will ensure the offering of such wages to workmen, and such selling prices for the product, as to leave no profit for the least capable managers; and therefore the profits earned by some are the wages of their superior skill in management. If society were organized so simply that all its parts would seek their level as water does, or if evolution performed its whole work in a day, this apparently logical proposition might be true. If our republican elections insured us always the most virtuous men for office, if the inventor always received the royalty paid for his invention, if Tweeds and Huntingtons, and stock speculators always acquired their wealth by (in some manner or degree) producing or earning it, then we might give this proposition serious reflection. It would still be open to the charge of barbaric selfishness, the application of a totally unsocial principal. It is not taught by the severest political economy that a social structure would be well-reared and maintained by the practice of unqualified egotism. "Buy in the lowest and sell in the highest market" is a commercial maxim which may be safely applied to trade, where buyer and seller stand upon approximately equal footing, each being able to seek and ascertain the best market. But our civilization would unhesitatingly condemn the application of this formula to all the relations of life. We should have no elemosynary institutions. no free schools or universities, no libraries and no charities. All of these are in contravention of the theory that society is composed of individuals, each one of whom is and should be engaged in caring solely for his own interest. In all

public concerns the principle is fully recognized that the strong owe duties to the society of which they are a part. No political economy will bear the scientific test of experiment which does not embrace this social tenet. Our highly organized industrial system has grown to be one of the chief elements of social science. It is a complex machine in which the vast majority of persons must operate as mechanical parts, or there is no room for them. The boundless natural resources of our country are inaccessible except through the established channels of organized commerce and manufacturing. No appreciable portion can deal with the natural resources directly. They must work through the medium of capital, expert management and fixed association. If, therefore, the master may not justly claim all that his head or hand can conquer, and if the great mass of men are obliged to work upon some terms in the industrial machine, it seems eminently proper that a mutual, and as nearly as can be devised, self-adjusting interest should exist between productive capital, employer and employed. This is what profit sharing or participation essays to create. It is a democracy in which capital represents the constitution, management represents the government, and clerks and workmen the people. Monarchists have never failed to find fatal flaws in democratic structures. and yet democracies have developed the strongest individualism and the greatest security to the rights of all. Industrial democracy is quite as feasible and advantageous. The essential features of profit sharing are to pay customary wages to all employees, including managers; pay interest on capital, and divide the remaining profits rateably upon wages and capital. Proceeding upon the assumption that wages have been adjusted according to the value of the services contributed by each, the same standard is equally accurate as the basis for dividing the profits.

Profit sharing is essentially co-operation instituted under the patronage of capital. Whether in manufacture or in trade, capital is a necessary element,— is indeed the first element. This capital may be contributed by one only, or by several, or by a large number. It may belong to a capitalist wholly disconnected with the particular business, or it may be owned in varying parts by all the persons directly engaged. The circumstance of ownership in no wise offsets the anticipated earnings in behalf of capital as such. Capital is in fact labor stored up, and as such may claim wages and its share in profits. Men are not equally en-

dowed, not equally assiduous or sagacious, and for these as principal reasons they will not have capital alike nor earning capacity alike. There will continue to be natural masters, and it is these with their capital and their qualifications for management which simple co-operation finds it difficult to secure. In profit-sharing this element is fully recognized. Not only the established system of factory and mercantile operations is preserved, but the already established and successful establishments are made the basis for ingrafting this modified co-operation. The capital remains intact and the management undisturbed. The management becomes the representative not only of the capitalist partners or shareholders, but of the workmen as well. Capital, management and employee join hands to make the best use of their respective talents for mutual benefit. All that is earned after paying usual wages and interest on capital invested, is divided between the three agencies. Following the theory here set forth, this division should be made upon wages and interest, but it may be made upon wages and capital. Reverses are provided for by setting aside a percentage of the profits in prosperous years to a surplus fund. By this means the workmen share the losses as well as the gains. They have earned by special industry and care a share in the profits, and thereby a share in the surplus or idemnity fund. There should likewise be a pension or beneficiary fund as a provision for sickness and death. It is barbarous to allow families to become paupers the moment accident or death deprives them of their natural guardian. It is not an onerous burden for a business house and its employees to provide properly for such families while they remain in a dependent condition.

No workman will begrudge his contribution to a common fund for the protection of his own and his comrades' families.

These remarks do not purport to argue from a purely economic standpoint, but it is true, nevertheless, that in the long run as much money may be earned by proprietors under this system as under the warlike system of flat wages. Very large sums are squandered in strikes and much valuable business lost from fear of strikes. A stoppage of work in coal or coke fields affects every dependent iron industry. The same is true of any important railroad strike. The mutual interest which is assured by the supplementary division of profit sharing should effect three important results:

(1.) Eliminate strikes and their attendant waste and demoralization.

(2.) Prevent the undue storing up of surplus, which reacts upon commerce, causes depression in trade, and a relaxation of industrial vitality.

(3.) Cause an improvement in the social condition, stability and morale of workingmen, with no corresponding detriment to the employing and capitalist classes.

Notable instances already cited, of the complete success, commercially and socially, of profit sharing, are Godin of Guise, Leclaire, and the Orleans and Paris Railway in France. These have been in operation from twenty to forty years, and their history is well-known. Their example has been largely followed in France, Germany and Holland. The Peace Dale Manufacturing Co. of Rhode Island, and the Pillsburys of Minneapolis, may be called the pioneers in this country, but the system has grown rapidly in favor, and examples now run into the hundreds. I adopted it two years ago, and find it eminently satisfactory to the men and to myself.

5. LABOR ORGANIZATIONS.

THEIR POLITICAL AND ECONOMIC SERVICE TO SOCIETY.

BY JOHN GRAHAM BROOKS.

(Read Friday, September 9.)

We owe to the Germans the most unbiased account of the English Trade Unions. From Brentano and Held to Bernreither their work is informed by the true scientific quality. It is objective, impersonal and infinitely painstaking. Brentano's investigations are now almost antiquated. Dr. Bernreither's are the most recent. Brentano began his study when the press, the employer and the economist were stiff and haughty in their prejudices against such unions. Dr. Bernreither's cautious and independent research shows us how complete a victory has been won. The great papers, once contemptuous of these ambitions to combine, now hasten to praise this book, wondering how it is that a foreigner can tell the story of these organizations with such skill and fidelity that Englishmen are advised to read it for their own instruction.

With ample time and with unusual facilities for the study of his problem, what is it that this jurist and scholar finds most to commend?

He finds in these unions a capacity to learn. He finds them, in spite of much blundering, steadily concentrating their efforts upon those things that are useful to society as well as to themselves. He finds them able to accept defeat in such way as to improve by it. He finds them steadfastly turning away from the dream of the Continental agitator, and dealing more and more confidently with the humbler but realizable facts upon which their improvement depends. He finds that by free and independent initiative they have done a work for society full of instruction for every Government of Europe. In a word, he finds one of the chief signs of England's industrial and moral strength in these same unions of workingmen.

I have often heard it said: "Even if such organizations have done a great and good work in England, we in this free America have no need of such things." This will hardly bear examination. The fierce competitive struggle in our industrial world goes on in

England under precisely the same economic laws that obtain in America.

It may be admitted that the economic need of such institutions is far less than in England a generation ago. Yet the most signal service rendered by these unions has never been primarily economic; except indirectly, probably never will be. The best work has been of educational character.

The claims for purely economic victories (lessened hours and higher wage) have been wildly overstated. Increased mobility of labor, a wider market, and especially the swift development of machinery, first made such improvement possible before any union could score its triumph. In special cases they have forced a lessened working time and added wage, but these gains, if carefully analyzed, will be found to dwindle into such modest proportions as to excite far less enthusiasm than has been felt.

Indirectly, through that disciplined intelligence which long obedience to organized methods gives, very considerable economic results have been won, and they have been won earlier. Yet it grows ever clearer that the great work of the Unions has been, first educational, and only in secondary ways, economic. They are not, however, less to be justified.

Our civilization has stimulated the growing passion for equality — more definitely, for the means and opportunity for equality — until the feeling asserts itself naturally through organization. In this the laborers but catch the tune to which our whole commercial society is marching. Organization among the workers is as sure a sign of new intelligence as is that other discovery made by them in England some forty years ago, viz.:

That no class was wise enough or good enough to prescribe rights or duties to another class. No class was unselfish enough to make the conditions under which another class should live and work.

But now a distinction must be made between two kinds of Unions; Knights and Trade Unions. Schemes so ambitious and so general as those of the Knights of Labor must, I think, fail. A plan that proposes to make men unite at the very points where their material interests most conflict can have but one end. The "sublime harmony" between Knights and Unionists is very largely ideal. Though in countless cases their interests would prove the same, in countless other cases they would (as recent history amply shows) violently conflict.

Again, many of the theoretic claims of the Knights deserve either ridicule or severe censure. Note the confidence, for example, with which they would throw upon the Government such enormous duties as the furnishing of plenty of money and taking charge of the railway service.

Note their attitude towards the whole body of lawyers and bankers. Note the confidence with which they propose to revolutionize the currency. They have passed hundreds of resolutions showing clearly that they have as yet no conception of tendencies, economic and political, that are violently contradictory. I have heard prominent men at labor meetings praise in the same breath Prof. Ely, and Herbert Spencer, with his utter horror of almost every method that the Professor and the Knights alike recommend.

Until events recently forced Henry George to state clearly his radical antagonism to Marx, the philosophies of both of these men were lauded and accepted. I tried last winter, before a body of workingmen in Boston, to show how fundamental a difference existed between George and Marx. One of the most influential Labor leaders in the State denied that any such contradiction could be shown. The last three or four numbers of Mr. George's paper show us what the antagonism is. So, too, the too vague and unrelated principles of the Knights caused no trouble as long as they constituted merely an ideal — an ideal held erect far out of reach of troublesome realities,—but the moment the generous phrases were brought down and forced to close with the tough facts of political passion and the clear-cut self-interests of the trade unions, then, the inherent weakness of social philosophy according to the Knights appeared.

These weaknesses and contradictions must, I believe, more and more appear in the struggle with definite self-interest of distinct trades, until the Knights go to the wall, or change their scheme until it mates with such widely varied interests as are found among the whole body of the wage-earners.

In a multitude of cases the real identity of interest is not, as the Knights assume, between two or more groups of laborers, but between the laborers and their employer. So direct indeed is this perpendicular line of common advantage that a very little conflict between Knights and Trade Unions brings out violently the antagonism of interest. I wish to bring out this difference between the Knights and the Unions; first, in order to avoid confusion, and

secondly, in order to show the better what a real service the Knights have done and are doing for society, if we consider educational results rather than the economic. Judged strictly from industrial results they have thus far done probably much more harm than good; but educationally and politically, using the word broadly, they are, through their organizations, doing a work for the community of extreme value. As this political and educational service is identical with what seems to me good in the Trade Unions, I shall not further distinguish between the two.

I wish now briefly to consider the service these labor organizations are doing the community. I shall speak almost wholly of things that I have known about during two years of intimate experience with labor men and movements. If it can be shown that these Unions are growing into schools for the training of the very virtues that a struggling democracy needs; if it can be shown that in spite of gross blundering they tend to strengthen our society just at those points where a wise and impartial scholar like Sir Henry Maine finds us dangerously weak; if it can be shown that the more prudent and conservative instincts are taking the place of turbulent and thoughtless impulses, that cautious leaders are beginning to replace the mere mouthers, we shall see how real is our indebtedness to such forces.

All these things I find true among so many Unions in different parts of the country and among those in widely differing trades as to leave little doubt that what all competent opinion finds true in England is becoming true in America. I know no way to tell more truthfully what this service is, what especially it promises to become, than by looking at the rise and growth of a Union hardly three years old.

I will ask you to consider a community in which are some thousands of wage-earners living (so far as any training that could be called *social* is concerned) lives of the most thoughtless and irresponsible individualism. This kind of individualism was harmless enough in our earlier village life, but in our growing cities it leaves far too large a number in a very dangerous isolation. It leaves them untouched by those influences which alone can *socialize* men's instincts. I believe we do not in the least realize how grave is the danger to society of a large class in our cities that is absolutely cut off from every influence except such as lead to anti-social feeling.

I am confident that large numbers in all our cities have been brought over from this risky isolation into a schooling which, despite all its faults, tends powerfully to develop in them conservative and purely social qualities. Such training will be partial. Beyond the sharp outline of their organization their selfishness will often show itself with something like brutality. Yet the organization furnishes us with the strong beginnings of social discipline.

Look again at the work done upon members of the Union referred to. If we exclude a small percentage of exceptional men, they are under no influence that could teach them politically and economically the very things most useful to them and to society. Over the large majority, and especially over the most influential, the Church has no influence whatever. For a few the public library and three or four secret societies do something. But the large body of them are left after work is done to amuse themselves on the street, in billiard and pool rooms, in the theatre, grog-shop, or, worst of all, in the secret rooms of some small club.

One day some hot words from the foreman in the mill start the new interest. The men gather at noon to discuss their supposed grievance. Within a week speakers from another town are there to instruct them. A hall is secured and the union established, and into the lives of those men comes a new and powerful interest, an interest strong enough and constant enough to bring them together four and five nights in the week. What are they doing?

Plenty of foolish things, doubtless, but, upon the whole, they are attending to what they understand to be their own interests. They subscribe for the journal of their craft, published in the interest of the employers. They subscribe for several labor papers from different parts of the country. These papers are filled with errors, but the literature creates a new intellectual interest. Books upon the labor question and upon economics are bought and circulated. Lecturers representing different points of view are asked to address them. Under the pressure of another Union, temperance resolutions are passed which result after much discussion in what has already proved to be a definite influence against intemperance.

Meeting together for a winter brings them into such relations of confidence and good-fellowship that a mutual insurance society is formed against accidents and death. This is in imitation of hundreds of such societies made possible throughout the land by such Unions.

We find these men beginning, through their organization, to ask seriously, for the first time, questions about their business in its larger relations. The fear that too large profits are sliced off their wages leads them to ask about all that enters into the trade — cost of material, insurance, rent, state of the market and all the questions, indeed, that enter into the trade that employs them. They are, in a word, just beginning to grapple with the great questions of national industry, and this new energy of interest the Union organizes and directs.

Soon they begin to experiment with politics — to see what may be done through organized effort to reach by legislation their economic end. It stands to reason that they will blunder sadly in dealing with the industrial problem. But in what illustrious company they will march! What wisest and stoutest head has not been muddled over some phase of this vast question? Note, however, that these men are beginning freely, at the sacrifice of much time and money, to *reckon* with the problem. Through these same organizations they are brought into such vital relation to the business world and its laws that they must in their own defence study the new problems long and earnestly.

They not only study and discuss, they begin to experiment.

Like all men roused to study anything, they begin to form a theory about it. These workers quickly get such theory. "Labor produces all wealth," "Capital gets far too large a profit," etc. They experiment by striking.

Within eighteen months in the Union of which I am speaking are two strikes. Today the best men say frankly: "The strikes failed." One of their chief officials says openly: "We can't get what we want in that way." The dull ones don't see this yet, but they are learning it.

I know positively that under this experience an entirely new conception of the business situation has been gained, and it seems fair to ask how these men would have learned otherwise so valuable a lesson. Through much hard contact with fact and law labor organizations are learning the political and economic conditions of existence in a growingly complex society. They are learning the sharp, close limits through which success in this life is possible. They are learning to adapt themselves to the vigorous conditions of nature and to economic law.

Two years ago I heard a labor leader and editor say: "We can raise wages throughout America 25 per cent. without checking

business in the least." Another speaker was persuading his audience that, under present conditions, five hours' work per day would be ample for the comfort of all. When the wage-earners in such a political society as ours hold to such errors as these, how can they be taught the soberer reality?

They are stirred into intense intellectual activity on the subject, they are organized and grimly determined to use votes to gain their economic end. Under such circumstances is it not fortunate that, even at considerable expense to business, they can be taught the truth about political and business possibilities? That the Unions are doing just this most needed work no one can doubt who looks fairly at the facts. Signs of greater soberness can be seen all along the line. A growing caution appears everywhere in their papers and in their published resolutions. I could give a hundred instances of which the following is typical:

The silk hatters some weeks since reported: "Experience has taught us the utter futility of strikes." Is it at all probable that these hat-makers would have learned this most valuable lesson in any other way. Strikes lessened; meantime, the amount of the product lessened wages; interfered with business; did, indeed, a good deal of mischief. But every thoughtful student sees in this movement something deeper than the merely material result.

Can we not bear to have the world's business bothered a little, if we get another and higher value out of it, a value that, even for the business, will finally justify itself?

Another Union says; "We have tried boycott and strike and see that we can't get what we want in that way." What precisely has been learned here? They have learned how fatal it is to tamper, by rude means, with that infinitely delicate mechanism through which the world's industry is carried on, and thus, in the more successful and older Unions, prudence, forethought and honest endeavor to study the situation are taking the place of clumsy artifice.

Let any one study the history of most of the older Unions, and it will appear that at first there was a sort of savage selfishness of the narrowest type. At first no point of view but their own. Then, under experience, it is found necessary to reckon in the interest of the employer as well, and, finally, that constant reference has to be made to public opinion and to society at large.

Here in little is the history of progress in every separate group that makes society. Here is the chief value of such organizations.

They are helping to build up the social instinct as against the egotistic instinct. They are forcing large bodies of uninstructed men to deal long and earnestly both with the theory and practice of our industrial problems. They are doing this in such a way as to discipline their members into a capacity for wiser citizenship.

I doubt if any single influence in this country acts more directly and more powerfully towards this end of making the kind of man the Republic wants than these Unions.

In spite of overmuch that is petty and tyrannical the Unions are themselves little republics, exercising upon their members an influence distinctly intellectual and moral. The method of election, the system of voting, the holding of office, the constant testing of personal fitness for special duties, the way in which responsibility is thrown upon the individual, the way in which responsibility is taken by the whole body, as in case of a dishonest treasurer; the whole machinery indeed is such as to bring the men under a measure of essentially moral discipline. The discipline is moral because the will of the individual is forced to submit regularly to the organized will of the whole.

These Unions are, in a word, industrial and political schools, teaching in our midst to some million and a half of men, the very qualities of disciplined intelligence which are growing daily more indispensible to our democratic society. To those who need it most they are teaching the habit of obedience to something outside themselves. They are learning here through their own free initiative both to govern and be governed. This capacity of submitting to laws that they themselves have made is the hopeful beginning of an education, political and industrial, that society will more and more need in our immediate future.

Through and by the help of these organizations their struggles, experiments and defeats so react upon themselves that the hardest and most valuable of all lessons is being taught them. The Unions are making their members daily more capable of dealing with the world's business according to its own laws; they are making them more capable, through repeated experiences and struggles, of using more cautiously and wisely the forces of politics in the industrial sphere.

The Unions are, in a word, training the wage-earner into the sure possibilities of a larger and safer citizenship. For such service is it not fair that we should be toward them a little more discriminating and just?

6. WOMAN AND THE TEMPERANCE QUESTION.

BY FRANCES E. WILLARD, OF CHICAGO.

(Read September 9.)

"Temperance and the Woman Question" would be a wording of my theme quite as descriptive of its real significance as the one chosen; for, as the slave came to freedom, not by any prescribed route, but along the "oblique line" of an armed contention about rights, state and national, so woman is taking her true place in the world, and will be freed from her artificial disabilities as an outcome of the mighty modern contention between saloon and home. All this is to be done in face of the time-worn and time-disproved objection that "you cannot handle two issues at a time." History affords repeated proofs that if you lack the nerve to do this, "two issues at a time" will very likely handle you.

Washington and his compatriots had to decide at the same time the tremendous question of framing a new government and fighting an old tyranny. It is simply a case of cyclone in the moral heavens. One cloud meets another at a given angle; they join forces, pool their issues, sweep before them the existing order of things, clear the air, and new adjustments follow in their wake.

Curiously enough, the first regularly organized temperance society in America was formed in this most famous of all counties for cold water — Saratoga. Naturally enough, the two professions, devoted to health of the body and spirit — *i. e.*, the medical and ministerial — stood sponsors at its christening. Dr. Billy J. Clark and Rev. Dr. Lebbeus Armstrong called the meeting, in the neighboring village of Moreau, in the year 1808, that resulted in this first society. Naturally enough, too, that meeting was convened in a school house, prophetic of the days, less than eighty years later, when, in that very school, scientific instruction against the use of intoxicants should be given by order of the State.

Most unnaturally, however, no women were invited to attend, and none so far forgot the prescribed dimensions of her "sphere" as to take her knitting work, and from the vestibule of the old school house lend an ear to the proceedings of the men. Time passed on; the temperance reform spread slowly; in 1833 its first national convention was held in Independence Hall, Philadelphia,

and in 1836 the second convened in Saratoga. Among the delegates here was Gov. Trimble of Ohio, and with him, from the always progressive West, came his bright young daughter Eliza. The convention was so small that its preliminary meetings, at least, were held in a hotel, and the Governor, as a matter of course, brought his daughter with him to the first session; but, before entering, her quick eye noted the entire absence of ladies from the group, and she whispered to her father, "I don't like to go in, I shall be all alone." The go-ahead Governor, nothing daunted, made this significant reply: "No daughter of mine must be afraid even if she is all alone in a good cause." With this he led her to a seat, and Eliza Trimble was the first woman ever admitted to a national temperance convention. Thirty-seven years later, as Mrs. Judge Thompson, of Hillsboro, Ohio, this same woman led the first praying band of that wonderful "crusade" which, in the organic form of the Woman's Christian Temperance Union, State, national, and world-wide, still goes marching on to victory.

It is due to the Good Templars (organized in 1851) to name the fact that from the first they have admitted women to membership and to all but the highest office in their society, and later on, other temperance associations have done the same, until now there is not, in the United States at least, an organization of any importance in which women are not included.

It was at the temperance conventions held in New York State, in 1852–3, that the intolerance of men who would not admit women as delegates gave its first great impetus to the Women's Rights movement, and it may be claimed, without doing any injustice to Susan B. Anthony, that grand pioneer of temperance and the woman question, or to her associates, that the "woman movement" of to-day is nowhere so systematically organized, or so steadily and powerfully growing, as in the Woman's Christian Temperance Union and the prohibition party. But it should be distinctly understood, that while frankly avowed, this movement is the oblique, while the temperance is the straight line; this is by indirection, while temperance is the direct issue; this movement is the "led horse claim," while prohibition is the war horse in the fore-front of the battle; this movement "of the women by the women for the women," though switched from its side-track to the main line, has not the right of way, for that belongs to the prohibition cause itself.

The evolution of the temperance reform has clearly shown that it must be many-sided if it would adequately cope with its many-sided foe. The drink habit and the liquor traffic are like an entrenched fortress, approached by many roads, along each of which a skilled general will send a detachment of the army. The entrance to each is commanded by a gun that must be either spiked or taken. In their days of inexperience men crowded all their forces against the drink habit itself, seeking to cut off the demand, and overlooking the immense part that the supply and the tempting display of a luxury have in creating this demand. But the argument of defeat taught them that they must have at least two issues; must simultanously attack demand and supply. Not until they had been sixty years at work did they found the National Publishing Society in New York, and thus prove by their works that their faith was based upon the educated conscience of the people.

Perhaps it is because women are the natural teachers of the race, beginning with it earliest, and standing by it latest; at any rate, when, for the first time in history, the women of the nation assembled in a temperance convention, as an outgrowth of the Ohio crusade of 1873–4, they proceeded to "branch out" on the educational and other lines in a fashion that has no parallel in the annals of the movement. The committee on "a plan of work" reported sixteen specifications, several of them being then for the first time brought forward. From this report the following extracts are taken:

"Since organization is the sun-glass which brings to a focus scattered rays of influence, we urge the formation of a Woman's Christian Temperance Union in every State, city, town and village. The evolution of temperance ideas is in this order: The people are informed, convinced, convicted, pledged. With these facts in view we urge: The careful circulation of temperance literature in the people's homes and in saloons; teaching the children, in Sunday Schools and public schools, the ethics, chemistry, physiology and hygiene of total abstinence; seeking permission to edit a column in the interest of temperance in every newspaper in the land, and in all possible ways enlisting the press in this reform; endeavoring to secure from the pastors, everywhere, frequent temperance sermons and special services in connection with the weekly prayer meeting, and the Sunday School at stated intervals, if they be only quarterly; establishing an anti-treat league; temperance coffee rooms, and friendly inns; homes for inebriate women; reformed men's clubs; the multiplication of public drinking fountains; carefully studying to increase the counter attractions of the home as against the saloon; and last, but not least, appointing a

special time for united prayer each day." In conclusion, the belief is expressed that "we may live to see America, beloved mother of thrice-grateful daughters, set at liberty, full and complete, from foamy King Gambrinus and fiery old King Alcohol."

The spirit of this remarkable convention, and of all those that have succeeded it, is shown in the closing resolution, unanimously adopted:

Resolved, That, recognizing the fact that our cause is and will be combated by mighty, determined and relentless forces, we will, trusting in Him who is the Prince of Peace, meet argument with argument, misjudgment with patience, denunciation with kindness, and all our difficulties and dangers with prayer."

It is given to few reformers to see their plans so generally adopted within a period so brief as that which has elapsed since this Cleveland Convention. As is well known, the International Sunday School Convention, at its Atlanta meeting in 1881, in response to a great petition presented by the W. C. T. U., took favorable action on the request for a quarterly temperance lesson in the international series, and the two triennial conventions since then have strengthened the provision, by which nearly eight million Sunday School children are placed under temperance instruction from the Bible point of view.

In 1882 the first scientific temperance instruction law was adopted by Vermont, and that great work has been carried steadily forward by the W. C. T. U., until now, in twenty-two States and nine territories, the study of hygiene, "with especial reference to the effects of stimulants and narcotics," is by legal enactment regularly taught in all grades, and in several States a failure to do this involves a forfeiture of the educational fund. Besides all this, the first temperance legislation ever won from the reluctant National Congress (in 1886) was a result of the combined attack of our white ribbon forces led by Mrs. Mary H. Hunt of Boston, our national superintendent of this branch of work. By its provisions the scientific temperance law now extends to all the territories, to the Military Academy at West Point, the Naval Academy at Annapolis, and wherever any school receives funds from the United States treasury, thus placing six millions of children under temperance instruction from the scientific point of view.

Under the general divisions of preventive, educational, evangelistic, social and legal, and the department of organization, the

National W. C. T. U. now carries on forty distinct lines of work, and it is, with its thirty-eight auxiliary State, and nine territorial unions, besides that of the District of Columbia, the largest society ever composed exclusively of women and conducted entirely by them. It has been organized in every State and territory of the nation, and locally in about ten thousand towns and cities. Great Britain, Canada, and Australia have also organized. As a general estimate (the returns being altogether incomplete), we think the number of local unions in the United States about ten thousand, including Young Women's Christian Temperance Unions, with a following of over two hundred thousand, besides numerous juvenile organizations. This society is the lineal descendant of the great temperance crusade of 1873–4, and is a union of Christian women for educating the young; forming a better public sentiment; reforming the drinking classes; transforming, by the power of divine grace, those who are enslaved by alcohol; and securing the entire abolition of the liquor traffic. Its auxilliaries have been, confessedly, the chief factors in State campaigns for local option, statutory prohibition and constitutional amendment. It has united Northern and Southern women in a common work for God and home and native land, thus sweeping away the alienation of years, and replacing it by sisterly affection, tender and devoted. It has founded a publishing house and a temperance paper (*The Union Signal* in Chicago) which are today exercising an influence exceeded by no similar agency in the nation. Over fifty millions of pages are printed by this Woman's Temperance Publication Association in 1887. Five editors are employed, and about seventy other helpers. Four papers are regularly published, and *The Union Signal* has the largest circulation of any religious weekly in Chicago.

The departments of Heredity and Hygiene in the National W. C. T. U., which strike at the very root of the alcohol delusion, are of great practical usefulness in the homes of the people; its work among the children in Sunday Schools, loyal temperance legions, and kindergartens; its efforts to influence college students and to train and organize young women for a philanthropic life; its evangelistic work for the non-church-going class, for railway employees, soldiers, sailors, miners — especially for drinking men of every class,— all these have proved the breadth of its comprehension and the tirelessness of its zeal. The society's efforts to reach the pauper and the prisoner, to establish reformatories and homes for

the wretched victims of inebriety and their suffering children, and its Temperance Flower Mission, appeal to every philanthropic heart.

It has permeated public sentiment by its steady advances upon the press through weekly and monthly temperance bulletins and its countless lectures and conventions, until the outlawing of the saloon and the protection of the home have become the watch-words of the people, and will soon be the war-cry of governmental leaders.

This society has sought to purify popular holidays, coming with its sisterly influence to the fairs, celebrations, encampments and expositions, and by its unrequited toil, providing refreshments, keeping alcoholic poisons off the grounds, circulating pure water and pure literature, while its appeals to officers and legislators have often been rewarded by the banishment of alcoholic poisons from these great play-grounds of the people. It has battled for the maintenance of the American Sabbath, sought to introduce the juice of the grape at sacramental tables, and to secure a day of prayer for temperance in the week of prayer.

It has circulated countless petitions and addressed synods and conferences, teachers' associations and medical societies, as well as legislatures, state and national, always with one object and with one plea: "We beseech you to refrain from the use of alcoholics, and to outlaw the liquor traffic."

In recent years it has bravely championed the cause of social purity and the White Cross movement, which seeks to instruct the young manhood of the nation, uplifting and preserving it from the ways that take hold upon death. It also strives to redeem outcast women from a slavery worse than that of chains, and by better laws to secure protection to women and girls from the cruelties of brutal men.

It has sent forth its call to all civilized lands for a union of womanhood against the brain-poisons which are the greatest foe of home, and a World's W. C. T. U. is the result, which has its organizers in Japan, China, India, Switzerland, Scandinavia, and Germany, has enlisted Australia and the Sandwich Islands, and has at its head Mrs. Margaret Lucas, the sister of John Bright.

At present a great building to be called a "Temperance Temple" is projected, to be built in Chicago at a cost of several hundred thousand dollars, and to furnish accommodations for the

publishing house, training school, officers' parlors, a temperance library, auditorium, etc., also to be a source of large revenue by means of office rentals. Mrs. Matilda B. Carse is the intrepid prime mover in this enterprise.

A Temperance Hospital has been already opened, to demonstrate the practicability of the successful treatment of disease without the use of alcoholics.

It will be seen by this résumé that the curse of narcotic stimulants has never been antagonized at so many points, or through methods so systematized as those of the W. C. T. U. A distinguished Southern gentleman, impressed by these considerations and the unique spirit of this new organization, declared that the four letters that stand for its name were abbreviations of "We Come To Unite" so far as good people are concerned, and in the case of bad ones, "We Come To Upset."

It may be fairly questioned if any one society has ever developed so many experts and specialists. Each superintendent of a department (and there are forty) has an associate in each State; she in turn has one in each local union; and the motto of each among these thousands is, "This one thing I do." By abolishing the cumbrous method of "committees" and making each appointee a woman of one work, aspiration is quickened, responsibility fixed, and desired results are far more certainly assured.

The National W. C. T. U. is continually tracing the diseased conditions of some new nerve of the body politic to the brain-poison curse, and seeking out some added method by which this poison may be neutralized. For instance, it believes that there is a close relationship between the tobacco and the alcohol habits, and has organized a special effort to forewarn boys against this danger, and to commit young ladies against the toleration of the cigar. The old lady was a modern type who, upon seeing almost in line a distillery, a brewery, and a tobacco warehouse, said: "I'm glad the women haven't got all that stuff to smoke and chew and swaller down."

The National W. C. T. U. sympathizes deeply with the young men of this age, hampered in their struggle for a wholesome, cleanly life, by society's low standard, and hedged about by its treacherous customs and cowardly laws. To offset the dealer's avarice by woman's instinct of self-protection, and to match the drinker's love of liquor by his mother's love of him, are its stead-

fast and by no means futile aims. Its faith is optimistic, as the reformer's must always be. It believes that the poison habits of the nation can be cured by an appeal to the intellect through argument, to the heart through sympathy, and to the conscience through the motives of religion, but that the traffic in these poisons can be best controlled by prohibitory law. In this faith it goes forward, genial as sunshine, steadfast as gravitation, and persistent as a Christian's faith. It has learned to use the weapons of the enemy; while they brew beer, it is brewing public sentiment; while they distil whisky, it distils facts and arguments; while they rectify spirits, it helps rectify the spirit of humanity, which was made for truth, and will ere long perceive, embrace, and live it out into the customs of society and the laws of the land.

Our organization has taken as its motto, For God and Home and Native Land; and as its watchword, No sectarianism in religion, no sectionalism in politics, no sex in citizenship.

We repudiate high license, believing it to be a method by which Mammon is yoked to the car of King Alcohol, and moral chloroform administered to the voter. We accept the word "high" in relation to the laws against the liquor traffic only when it forms a part of our favorite polysyllable, *pro-hi-bition*. We have found in our study of the traffic that it is entrenched in politics as well as law, and we are determined to follow it whithersoever it goeth.

We believe that national prohibition is the goal toward which we are to work for home protection, and that anything less is necessarily a fractional measure, impossible of satisfactory enforcement. We are therefore Senator Blair's most active allies in securing petitions from the people to this end, and we are also in favor of his great educational bill, for wherever schools are multiplied there scientific temperance instruction will more generally prevail.

We believe that whatever enlarges the relation of woman to the state, increases the power of the home against the saloon; therefore we have a department of franchise, and an army of workers devoted to removing all the political, legal and financial disabilities of women. We want the ballot because the liquor traffic is entrenched in law, and law grows out of the will of majorities, and majorities of women are against the liquor traffic. But as steam can be applied to locomotion only through an engine, and electricity can be utilized only through a battery, so, in a republic,

we can condense the opinion of this majority of women into law only through the magical

> "Weapon which comes down as still
> As snowflakes fall upon the sod;
> But executes a freeman's will
> As lightnings do the will of God."

Since, then, the ballot in woman's hand means, in Kansas and wherever secured, the liquor traffic worsted, we regard this enfranchisement of women as a part of the great mission by which the party of the future shall redeem the republic from its most threatening foe.

The prohibition party, primarily organized for the overthrow of the liquor traffic, has had the prescience to incorporate in its platform, which boldly takes sides on every vital issue of the day, a plank in favor of woman's enfranchisement. First, because this party is devoted to prohibition by law, and secondly because it has declared itself in favor of prohibition by woman's ballot, the Woman's Christian Temperance Union is the faithful friend and ally of this new movement in our politics, which we believe will give to the working man his rights, protect the homes of the nation, and enthrone Christ in the government. We believe that any custom, traffic or party on which a good woman cannot look with favor, is irrevocably doomed. Their welcome of her presence and her power is to be the final test of their fitness to survive; all Christian civilization is radiant with the demonstration of this truth. Woman will yet fulfil her mission to make the whole world home-like, for she carries the spirit of the home into every place she enters, and she will enter every place on this round earth. We believe that woman, side by side with man, will solve the temperance question, and that thus only is its solution possible.

II. PAPERS OF THE JURISPRUDENCE DEPARTMENT.

1. THE AMERICAN SYSTEM OF TRIAL BY JURY.

BY D. H. CHAMBERLAIN, ESQ., OF NEW YORK.

(Read September 8.)

English law — meaning by this term, the law which in general prevails in English-speaking countries and nations,— is to a degree unparalleled in other systems, ancient or modern, an historical growth. If we direct our attention to any important feature or principle of this law, we find that such feature or principle not only comes down from a remote period in the past, but that its present form and function is largely the result of the events, customs, usages and general historical influences which have marked its history and illustrated its progress. There is no important branch of our present jurisprudence which does not at once demonstrate this fact. The English law of Real Property, including all its leading topics — the nature and kinds of Estates, the modes of Conveyance, the law of Title, Descent, Devise, and Inheritance,— the law of Mortgages, the vast range of rights of Persons and of Things, as they exist and affect us today, are deeply intertwined with the whole development of English society. Indeed, if I were to select the characteristic of English law and jurisprudence which seems most strongly to differentiate it from other legal systems now or heretofore prevalent, I should point to its strictly historical continuity and development — its slow evolution from historic germs and forces — its genuine correspondence and harmony with the changing or advancing demands of successive periods and times.

I think it may be said that the most valuable and distinctive contribution which the present age or generation has made to the sum of human knowledge — to civilization, in a broad sense — is the method or habit of investigating and explaining phenomena of nature and life by the light of their historical origin and development. I look, therefore, upon such men as Sir Henry Maine and Charles Darwin as the discoverers, in a genuine sense, of new

worlds — vast, illimitable domains of knowledge and wisdom. From such studies, led by such guides, we have spelled out what seems to be a law of all natural existence, more sweeping in its stretch, deeper in its reach, higher and more fruitful in its results and prophecies, than any known to former generations. That law is no other than the cosmic law of development — evolution — a law which contradicts no sound learning of the past, destroys nothing valuable in old opinions and faiths, but makes rounded what before was fragmentary, explains what before was inexplicable, and discloses new lines and sure prophecies of advance not before dreamed of.

No field of human history, it seems to me, is shown to have been more completely under the reign of this law than the field of form, which law. We have been truly told by the highest authority[1], that "the earliest notion of law is not the enunciation of a principle, but a judgment in a particular case." By a process as logical as natural, we pass by a series of judgments in similar cases, to rules and principles of general application — reaching in this way the idea and fact of *the Law*. English law is in this respect scarcely peculiar, for this rubric of growth has prevailed historically, in a large sense, in all important systems of law. English law, however, has had three chief sources, or to state it more exactly, it has in its development assumed three leading forms, moved along three main lines — unwritten law, written law, and statute law. I do not think it correct to ascribe our law chiefly to the process and source which we usually call the common law. Our common law, in the order of time, preceded for the most part the other forms and sources of our law. As the barons at Runnymede are said to have marked their assent to Magna Charta with their sword-hilts, because they could not write, so our earliest law by obvious necessity was unwritten. But our Equity law, which is mainly written law, grew by the same methods and from the same sources,— the wants of society and the gradual accumulation of particular decisions. Both systems or branches were equally marked, in the earlier stages, by a natural, silent, almost unnoticed growth — growth, too, at the hands of courts and judges, not of parliaments, legislatures, or law-givers. Statute law, or law proceeding directly from legislative authority, which is *ex vi termini* written

[1] Austin, Jurispr. 2, 83.

law, has likewise from early days moved step by step with the other forms of our law. The great statutes of Henry II., of Edward I., of Henry VII., of Henry VIII., of Elizabeth, and of Charles II., are not only great landmarks and historical sign-posts in the march of English law; they are the very sources —*fons et origo* —of a great part of our settled law and jurisprudence. Lord Bacon has said, as pithily as truly, that each feature of our law can be traced to its source, as surely as each of the converging streams that make up a great river can be traced, by "the tastes and tinctures of the soil through which it has flowed." Our common law, equity law, statute law, — written and unwritten law — are, each alike, *growths* — marked and determined alike by the varying needs of successive periods or exigencies — indented, shaped, moulded, as we now see them, by the influences of a continuous, historical, natural evolution.

"Not Nature's self more freely speaks in crystal or in oak,"—

than she has spoken and now speaks in the Law which in general characterizes the English race; and because it is a *growth*, and not a fabric, because it is, like the manners and culture of the race, the slow result of development from within, spontaneous and self-selected, not imposed or contrived by an authority or influence from without, our English system of law stands today before the world, in the almost unanimous judgment of the competent, as the most adequate embodiment and expression of the sense, as well of the method, of Civil Justice; that "Justice" which Sir James Mackintosh has told us,[1] "is, after all, the permanent interest of all men, the only security of all Commonwealths;" and of which Cicero said,[2] *Hoc verissimum est, sine summa justitia rempublicam geri nullo modo posse.*

I have been led to this rapid summation of the characteristic sources and methods of English law, on this occasion, because I am set to examine one important feature of its legal policy, one signal method of its legal administration, one remarkable instrument of the enforcement of its civil justice; and in the discharge of this duty, it is my purpose to examine our System of Trial by Jury, not as a theory nor an ideal, but as a fact, — to inquire not so much how it harmonizes with *a priori* conceptions or scientifi-

[1] Misc. Essays, 43.
[2] De Repub. lib. II.

cally-devised models, but rather what in fact it is, what it accomplishes, how it suits, has suited and seems likely to suit, the wants, sentiments, prejudices, habits; in a word, the *genius* of the English race.

In making such an examination of any notable institution of our legal system, nothing is more necessary than an ever-present consciousness of the fact to which reference has now been made—that our law and our legal institutions, almost without exception, come to us hoary with age, the slow moderated growths and accretions of many generations, and of several centuries; that if we can boast of freedom and enlightenment beyond other nations, they are ours, because ours is

> "A land of settled government,
> A land of old and just renown,
> Where freedom broadens slowly down,
> *From precedent to precedent.*"

In his profound and brilliant chapter on the "Modern History of the Laws of Nature," Sir Henry Maine has said:—[1]

"There are two special dangers to which law, and society, which is held together by law, appear to be liable in their infancy. One of them is that the law may be developed too rapidly. This occurred with the Codes of the more progressive Greek communities, which disembarrassed themselves with astonishing facility from cumbrous forms of procedure and needless terms of art, and soon ceased to attach any superstitious value to rigid rules and prescriptions. It was not for the ultimate advantage of mankind that they did so, though the immediate benefit conferred on their citizens may have been considerable. One of the rarest qualities of national character is the capacity of applying and working out the law, as such, at the cost of constant miscarriages of justice, without at the same time losing the hope or the wish that law may be conformed to a higher ideal."

Referring, for illustration, to the mobility of the Greek mind and the fickleness of the Greek judicial sense, he continues:

"No durable system of jurisprudence could be produced in this way. A community which never hesitated to relax rules of written law whenever they stood in the way of an ideally perfect decision on the facts of a particular case, would only, if it bequeathed

[1] Anc. Law, 72.

any body of judicial principles to posterity, bequeath one consisting of the ideas of right and wrong which happened to be prevalent at the time. Such jurisprudence would contain no framework to which the more advanced conceptions of subsequent ages could be fitted. It would amount at best to a philosophy, marked with the imperfections of the civilization under which it grew up."[1]

English jurisprudence consists preëminently of judicial materials and "framework" to which the more advanced conceptions of successive periods and generations have continually been fitting and adjusting themselves without break in the continuity of historical life; for, says Palgrave,[2] "by far the greatest portion of the written or statute laws of England consists of the declaration, the re-assertion, the repetition, or the re-enactment, of some older law or laws, whether customary or written, with additions or modifications. The new building has been raised on the old groundwork; the institutions of one age have always been modeled and formed from those of the preceding, and their lineal descent has never been interrupted or disturbed."

No more conspicuous example of this characteristic can be pointed out than the institution of Trial by Jury.

Its precise origin in our history is an inquiry more difficult than important, but its interest has been sufficient to attract the labors of learned investigators whose conclusions are far from uniform or harmonious; but it is clear, at least, that it did not owe its origin to any positive law; it was not the creature of any royal edict nor of any Act of Parliament. Its forms, as well as its functions, arose from usages and customs which took their place silently and gradually in the life of the people. Its purely English origin has been till recently stoutly asserted by many, Blackstone calling it "a trial that hath been used time out of mind in this nation, and seems to have been coeval with the first civil government thereof." "Many writers of authority," says Canon Stubbs,[3] "have maintained that the entire jury system is indigenous in England, some deriving it from Celtic traditions based on the principles of Roman law, and adopted by the Anglo-Saxons and Normans from the people they had conquered. . . . . Those who ascribe it to Norman sources do not agree as to the source

[1] P. 73.
[2] Eng. Commonw. 1, 6.
[3] Const. Hist. of Eng. I, 612.

from which the Normans drew it. One scholar would derive it from the Norsemen of Scandinavia, another ascribes it to the influence of the canon law; another traces it through Gallic usages to Roman principles; another derives it from Asia through the Crusades, and another ascribes its beginnings to the Slavonic tribes of Northern Europe." Freeman, in his "Norman Conquest,"[1] rejects the notion that it is due to a single legislator, in England or elsewhere, or that it was "copied from this or that kindred institution, to be found in this or that German or Scandinavian land, or brought over ready-made by Hengist or William."

Disregarding all partial views, the well-established truth seems to be that forms of trial resembling in greater or less degree trial by jury are part of the primitive institutions of all nations. Thus the *dikasterion* of the Greeks, the *judices* of the Romans, the compurgators of the Saxons, and the recognitors of the Normans, are each, in some striking particulars, archetypes of the trial by jury. The Greek dicasts were, however, a body of citizens numbering some thousands from which a smaller but indeterminate number was chosen for the actual trial and decision of cases. The jury or body thus chosen often numbered 500. The Roman *judices* were doubtless derived from the Greek dicasts. The ordinary translation of *judex* is judge, but the idea of the Roman *judex* is much more nearly that of the modern juryman. The compurgators of the Saxons, on the other hand, were the accused and his friends who appeared and swore to the innocence of the accused or to the claim or defense of the party. But the nearest approach in its day to the modern trial by jury appears in the system of recognition by sworn inquest, introduced into England by the Normans. "That inquest," says Stubbs,[2] is directly derived from the Frank capitularies into which it may have been adopted from the fiscal regulations of the Theodosian code, and thus may own some distant relationship with the Roman jurisprudence." The Norman system of recognition consisted of the submission of questions of fact, relating to fiscal and judicial business, by officers of the crown to sworn witnesses in the local courts. This system, brought in by the Norman conquerors, combined with the system of Saxon or Anglo-Saxon compurgators, and out of these elements arose the institution of the jury.

[1] Vol. V. 451.
[2] Const. Hist. of Eng. I, 613.

Without entering here upon lesser details, it may be said that there came a time when, by an enactment of royal authority,—the Statute or Assise of Henry II.,—the distinct form of the present institution appears. "In it," says Forsyth,[1] "we first find the jury in its distinct *form*, but the elements of which it was composed were all familiar to the jurisprudence of the time, and we shall see that as regards its definite constitution, it involved no idea novel to the minds of our ancestors."

The assise, or grand assise, of Henry II., was a mode of trial confined to questions of the recovery of lands of which the complainant had been disseized, rights of advowson, and claims of vassalage. In cases of disseisin, the demandant duly appeared in Court and declared his case, concluding with the words, "And this I am ready to prove by this my freeman C., and if any mischance happen to him, then by another, D." The champion thus offered by the demandant was one who could, from his own knowledge, testify to the justice of the demand. But the tenant was not obliged to accept the combat thus offered. He might avail himself of the enactment of Henry II., and choose the trial by assise, *magna assisa domini regis*. A writ was thereupon addressed to the sheriff commanding him to summon four knights of the neighborhood where the property lay, who, after being duly sworn, were to choose twelve lawful knights, who were most cognizant of the facts, and who were to determine on their oaths which of the litigant parties was entitled to the land. The defendant was also to be summoned to hear the election of the twelve jurors by the four knights, and might except to any of them. When the twelve were duly chosen, they were summoned by writ to appear in court and testify on oath the rights of the parties. When they met to try the case, if any of the twelve were ignorant of the facts, they so declared, and others were then summoned who had knowledge of the facts, until at least twelve were found who were acquainted with the facts. But, if the jurors when chosen were not unanimous in their conclusion, others were added until twelve at least agreed on one side or the other; and the concurrent testimony, or verdict— *veredictum* — of such a jury was conclusive.[2]

In considering what suggested or gave form to this institution

[1] Tr. by Jury, 101.
[2] Forsyth, Tr. by Jur., 103-105.

of assise — which seems to be the proper origin, or at least the earliest real archetype of the modern Trial by Jury — it is sufficient, perhaps, to say that it was the constant practice in the times of the early Norman kings in controversies relating to lands, to appeal to the knowledge of the neighborhood, or, in many instances, to summon a number of witnesses who represented the vicinage, to state on oath to whom the lands belonged. In principle or theory, there was no real distinction between these Norman inquests and the recognitions by the knights of assise under Henry II., and we may safely conclude that the latter was derived from the former. In each, the verdict or deliverance was the testimony of witnesses having knowledge of the matter in dispute; and if we substitute the determinate number of knights under the English assise for the indeterminate number of the *probi homines* of the Norman inquest, we have a procedure which may fairly be said to prefigure the later trial by jury.[1]

The assise, or trial by assise, is first mentioned in existing English statutes in the Constitutions of Clarendon, A. D. 1164, wherein certain disputes between laymen and clerks were to be determined before the chief justiciary by the verdict of twelve lawful men — *recognitione duodecim legalium hominum.*

It was one of the most valued provisions of Magna Charta, (A. D. 1215) that legal suits should no longer follow the ambulatory royal court, but should be tried in some fixed place, and that recognitions by assise should be taken in the counties where the lands lay, for which purpose the king was to send into each county four times a year two justiciaries, who, with the four knights, were to take the assise, that is, to summon the twelve recognitors. Glanvill, the earliest of our English judicial writers, who wrote in the reign of Henry II., and Bracton, who wrote about the middle of the 13th century, and the author of the treatise called "Fleta," written in the reign of Edward I., describe the assise and its changes. This institution not only remained on the statute book till the enactment of the Statute of 3 and 4 William IV., but as late as 1838 a trial took place before Chief Justice Tindal in the English Court of Common Pleas, where four knights girt with swords and twelve other recognitors acted as the jury and were addressed as "Gentlemen of the Grand Inquest" and "Recognitors of the

[1] Forsyth, Tr. by Jur., 112.

Grand Assise."[1] (*Davies* v. *Lowndes*, 5 Bingham's Reports, New Cases, p. 161).

While the Assise of Henry II. was in vogue, a procedure came into use, known as the *jurata*, of which mention is first made in Glanvill. Forsyth holds that this procedure and name arose from the mode adopted in Anglo-Saxon times, of referring disputes concerning lands to the knowledge of the *comitatus* or county, or as afterwards in Anglo-Norman times, of allowing the neighborhood to be represented by a certain number of *probi et legales homines*, who stated on oath on whose side the right lay. These latter were the *jurata patriæ*, or often simply *patria*, as representing the whole country whose decision their verdict was deemed to be. The distinction between the *assisa* and the *jurata* seems to have been that the *assisa* had a technical meaning and applied only to cases which involved the recovery of land or realty, or the fact of villenage, the verdict of the recognitors being confined to the question of the rightful seisin of the land, or the civil status of the individual. Other issues arising in the course of the trial of such issues could not be determined by the recognitors *as such*. Hence the assise, for the purpose of deciding these issues, was turned into what was called the *jurata* — a fact expressed by the phrases *assisa vertitur in juratam*, or *cadit assisa et vertitur in juratam*,— and the issue was said to be decided *per assisam in modum juratæ*.

Whether the same recognitors acted as the *jurata* is perhaps not clear, but Forsyth, agreeing with Reeves, in Hist. Eng. Law, Vol. I., Ch. 6, thinks the recognitors of the assise and the *jurata patriæ* were in such cases one and the same body, but it is certain that in both the assise and the *jurata*, the verdict or deliverance was neither more nor less than the result of the testimony of the jurors, delivered to the Court as the warrant and basis of its judgment.

The end of the 13th century, therefore, saw the first establishment in England of an institution or procedure for the judicial settlement of civil controversies, which may be described thus: THE SELECTION UNDER THE AUTHORITY AND COMMAND OF THE KING'S WRIT, OF A FIXED NUMBER OR BODY OF FREEMEN FROM THE VICINAGE OF THE SUBJECT OF THE DISPUTE, WHOSE TESTIMONY FROM PERSONAL KNOWLEDGE OF THE FACTS, WHEN RESULTING IN A UNANIMOUS CON-

[1] Forsyth, Tr. by Jur., 115.

CLUSION, WAS RECEIVED AS CONCLUSIVE OF THE FACTS, AND BECAME THE BASIS OF THE JUDGMENT OF THE COURT THEREON.

The striking and radical contrast between this institution and our present trial by jury will not escape attention; namely, that the jurors of the 13th century were only sworn witnesses; and it becomes a most interesting inquiry how, when and why, English jurors ceased to be witnesses and gave their verdict upon the evidence laid before them.

It seems clear that the practice of introducing evidence before the jury as the ground of their verdict began in the case of deeds to which persons were named as witnesses. In such cases the witnesses to the execution and delivery of the deed made their declaration to the fact, though it is thought by some writers that in the earliest stages of the jury this difficulty was met by summoning the witnesses to the deed as members of the assise or *jurata*. They thus became part of the jury by reason of their special knowledge of the facts, but the separation of witnesses from jurors was well-established in the reign of Edward III., as appears by the Year Books of that period.[1]

Moreover, contemporaneously with the assise and the *jurata*, another mode of trial had obtained place, called trial *per sectam*, the *secta* being the sect or body of supporters or witnesses whom either party to a controversy might vouch in on his own behalf and who had personal knowledge of the transaction in question. This proceeding is not mentioned by Glanvill, but there is abundant evidence that, like the witnesses to deeds, the *secta* gradually came to give their evidence before the jury, so that as early as the 11th year of Henry IV., (Year Book, 2 Henry IV.,) we find the judges declaring that "the jury, after they are sworn, ought not to see or take with them any other evidence than that which was offered in open court." "This effected a change," says Spence, in his "Equitable Jurisdiction,"[2] "in the modes of trying civil causes, the importance of which can hardly be too highly estimated. Jurors, from being, as it were, mere recipients and depositaries of knowledge, exercised the more intellectual faculty of forming conclusions from testimony, a duty not only of high importance, with a view to truth and justice, but also, collaterally, in encouraging

[1] Forsyth, Tr. by Jur., 128.
[2] p. 129.

habits of reflection and reasoning, which must have had a most beneficial effect in promoting civilization."

At the present day, if the fact that a juror had personal knowledge of the facts were not a ground of objection to his competency, yet if a judge were to direct a jury to consider their own personal knowledge outside of the evidence of witnesses, in reaching their verdict, it would be clear ground for a new trial. Recently a juror in New York city who was shown to have visited the scene of an alleged crime for the purpose of informing himself as a juror, was adjudged by the Trial Judge guilty of a contempt of court, the Court of Appeals afterwards holding that such conduct was not technically a contempt though it might be punishable as a misdemeanor.[1]

It will be observed that our examination of trial by jury, thus far, shows that it was originally a procedure applied only in civil matters, and in the first instance, limited to disputes involving the right to lands or the status of freeman or *villein*. We find no trace of a jury for the trial of criminal causes before the Norman invasion. Glanvill, in describing the modes of criminal trial, mentions only the judicial combat, compurgation, and the ordeal of hot iron, in case of a freeman, and of water, in case of a "villein," the distinction being that the combat applied to a case where the accuser came forward to make the charge, while compurgation was the ordeal applied where the charge rested on public rumor or belief. Owing to the prevalence of the custom of holding each neighborhood responsible in a degree for all offences committed within it and the natural unwillingness of individuals to come forward as accusers, the Constitutions of Clarendon (A. D. 1154) provided that where one was suspected against whom no private accuser appeared, the sheriff should swear twelve lawful men of the neighborhood who should "declare the truth thereof according to their conscience." These jurators for a long time combined the functions of accusers and triers. By an ordinance of Richard I. (A. D. 1194) four knights were chosen from each county who in turn were to choose two from each hundred, each two of the latter choosing ten "lawful and free men out of each hundred," who, with the two first chosen, making twelve, were to present crimes and make arrests in the respective districts. Here are found, plainly, the germs of the Grand Jury and the Trial Jury.

[1] N. Y. Rep., 101, 245.

For a long time after the principle was in some sort established that the trial of criminal offences was a function of the jury, the accused could not demand it as of right, but it was bestowed by the King's grace, often purchased by the payment of money. Instances of this are of record as late as the reign of Henry III. In the time of Bracton — about the middle of the 13th century — the usual mode of trial was by combat, but, in most cases, the accused could *put himself upon the country*.

In the reign of Edward III. the separation of the accusing from the trying body — the Grand from the Trial Jury — had become prevalent and fixed. The qualification of personal knowledge on the part of the trial jurors, like the same qualification in civil causes, remained only in the requirement that the jurors should be summoned from the hundred where the crime was alleged to have been committed, a requirement finally reduced in England to the calling of jurors in both civil and criminal causes, from the body of the county.

We may now say that we have discovered, in the progress of English history, at about the middle of the 14th century, an institution of which the essential features are these: THE CHOICE OF A BODY OF LAYMEN, USUALLY TWELVE IN NUMBER, OUT OF THE WHOLE MASS OF QUALIFIED CITIZENS OF THE COUNTY, TO ASCERTAIN, UNDER THE GUIDANCE OF A JUDGE, THE TRUTH IN QUESTIONS OF FACT ARISING EITHER IN CIVIL OR CRIMINAL CAUSES, BEING RESTRICTED TO THE EXCLUSIVE CONSIDERATION OF MATTERS THAT HAVE BEEN PROVEN BY EVIDENCE IN THE COURSE OF THE TRIAL.

These features are now the essential elements in the present English and American system of Trial by Jury. For over 500 years, therefore, the system has stood the highest and most crucial of all tests — the test of time and experience.

But before we proceed to examine its merits or defects, let me notice the curious if not important query, why the English trial jury from almost its first appearance was limited to the number of twelve; for it is found in some early writers that the verdict of eleven jurors out of twelve was accepted, and it was not until the reign of Edward III. that it was finally decided that there could be no legal verdict which was not the unanimous opinion and finding of the whole jury. It is further to be observed, that in the assise of Henry II. the jury did not consist of twelve, though no

verdict could be conclusive in which twelve of the jury did not unite. The mode of procedure was that if twelve did not agree, others were called in until at least twelve reached a unanimous conclusion — a process called *afforcing* the jury. Mr. Starkie[1], however, regards it as doubtful whether the process of afforcement was ever applied in criminal causes. That twelve was a favorite number is well established. Mr. Hallam remarks[2] that this number was not confined to England, nor in England nor elsewhere to judicial institutions, and he adds, "Its general prevalence shows that in seeking for the origin of trial by jury, we cannot for a moment rely upon any analogy which the mere number affords."

On this point, Forsyth says,[3] "It is not difficult to discover why the number, twelve, was chosen. Twelve seems to have been the favorite number for constituting a court among the Scandinavian nations. We have seen that in the Anglo-Saxon polity the twelve senior thanes were to go out, and the reeve with them, and swear on the relic given them in hand, that they would accuse no innocent man. Twelve "Lahmen" were to administer the law between the British and the Angles. The number of compurgators in cases of importance was usually twelve, so that it became a common expression of Anglo-Norman law to say that a man freed himself from a charge by the twelfth hand, and this number prevailed equally on the continent. Long habit had taught men to regard it as the proper amount of evidence to establish the credibility of a person accused of an offence; and it was natural that the same number should be required when the witnesses came forward, not to speak to character, but to facts."

In an old tract published in 1682, entitled "Guide to English Juries," and attributed to Lord Somers, it is said: "In analogy, of late the jury is reduced to the number of twelve, like as the prophets were twelve, to foretell the truth; the apostles twelve, to preach the truth; the discoverers twelve, sent to Canaan, to seek and report the truth; and the stones twelve, that the heavenly Jerusalem is built on; and, as the judges were twelve, anciently, to try and determine matters of law; and always, when there is any waging law, there must be twelve to swear in it; and, also,

[1] Tr. by Jur., 17.
[2] Midd. Ages, vol. II., ch. viii., 273
[3] Tr. by Jur., 108, 109.

for matters of State, there were formerly twelve Councillors of State. And anything now which any jury can be said to do, must have the joint consent of twelve, else it is, in construction of law, not the doing of the jury, but of private persons, and void."

"If the work of forming verdicts," says Bentham,[1] "had been the work of calm reflection, working by the light of experience, in a comparatively mature and enlightened age, some number, certain of affording a majority on one side, viz.: an odd number, would on this, as on other occasions, have been provided; and to the decision of that preponderating number would of course have been given the effect of the conjunct decision of the whole."

Upon the whole, no very logical reason can, perhaps, be found for fixing the number of the jury at twelve. It was due, probably, to some degree of fanciful, superstitious, or customary deference to or faith in that number, though it may be considered that that number affords a fair test in general of the average sense, intelligence and judgment of a community. At all events, it is unreasonable to believe that the steady adhesion for five centuries or more to that number has not rested on a conviction that it affords at least as strong a guarantee as any other number could, of such results as the jury was at first fashioned and is still intended to secure in the administration of the law.

It is of interest here to note an historical error connected with trial by jury which still has the sanction of the great names of Blackstone and Hallam,—that the phrase *judicium parium*, or "judgment of one's peers," as used in Magna Charta, had reference to trial by jury. The phrase greatly antedates Magna Charta, and *judicium parium* was a well-known and peculiar term applied strictly to the feudal procedure by which the lord with his vassals sat to try questions of title between others of his vassals. The phrase was current in France likewise long before any such institution as the jury existed. Moreover, at the time of Magna Charta, the jurors, so far as they were known at all in England, were merely witnesses deposing to facts with which they were familiar. How could their testimony have been called a *judicium?* Glanvill, in speaking of the verdicts of juries, says *Stabit veredicto visineti*, but in referring to the judgment rendered on the verdicts of juries, he says, *secundum dictum visineti judicabitur*. Coke, too, in his

[1] Art of Packing, as applied to Special Juries.

Institutes, expressly distinguishes between trial by peers and trial by jury; and Forsyth points out that amongst the *pares* of the baronial courts the opinion of the majority prevailed — a characteristic never belonging to juries.[1]

This system or institution thus developed in England, was, of course, brought to this country, and from the earliest periods in the history of the States of the Union, it has had its place in civil and criminal procedure. Whatever the original nationality of the founders of the several American colonies, so strong was the influence of the English example that trial by jury soon became the law of all the colonies and the common right of all the people.

No stronger proof of the value attached to trial by jury, and the universality of its adoption, can be adduced than the fact that the Constitution of the United States, as well as the present Constitutions of all of the States, as well as most of the successive Constitutions of the States, as they have been from time to time amended, revised or newly made and adopted, have in some form of express words decreed the inviolability and perpetuity of trial by jury. The terms used in the Constitution of the United States are, "In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed," and "In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved."

In a majority of the State Constitutions the broad provision is made that "The right of trial by jury shall remain forever inviolate." In not a few, provision is made that the jury shall be drawn from the county, district or vicinity in which the offence was committed, the Constitution of Massachusetts in particular, declaring that "in criminal prosecutions, the verification of facts, in the vicinity where they happen, is one of the greatest securities of the life, liberty and property of the citizen."

Embedded thus in the historical foundations of the civil government and jurisprudence of the English people, entrenched behind the strongest and most permanent defences which the people of this country can erect — the organic laws and constitutions of the United States and of the several States—Trial by Jury presents

[1] Forsyth, Tr. by Jur., 91 *et seq.*

itself as one of the foremost features of the system of jurisprudence under which the English race has been trained, concurrently with which it has gained its liberties, and through which it is believed, as is evident, those liberties will in the future be preserved.

We can, therefore, hardly put ourselves to a worthier or more useful task than that of inquiring in what lie the strength and value of this system, in what lie, perchance, its weakness and defects, what of it should be guarded and preserved, and what, if any, may be discarded or changed.

Mr. Starkie's definition of a jury is as follows:[1] "A jury, as now constituted, may be defined to consist of "twelve men *selected* from the body of the community, and *sworn* to decide any disputed matter of fact by *judging* upon evidence lawfully submitted to them."

If we mark closely this definition, we shall observe that the first idea it presents is that of a selected number of men from the body of the community. In theory, it is everywhere the aim to secure a fair average of the character, standing and intelligence of the community. Such a body of men, if impartially and fairly chosen, becomes in the first place fairly and strictly representative of the community from which they are selected. The parties to a civil cause, the accused in a criminal cause, find themselves brought to the bar of a tribunal composed of men in general of like conditions in life, of like sympathies, situations and surroundings. Their acts are to be viewed and judged of by those who are capable of entering into the special circumstances which are presented, of applying a standard of judgment and feeling which will be the result of an intimate and life-long familiarity with the conditions of life which are thus presented.

The true standard of judgment in all cases, the true rubric of impartial conclusions, is the consideration, by those who are called to judge, of the proper interpretation and valuation of the specific facts brought before them. This is a faculty which is not developed by mere intellectual ratiocination or mental capacity, is not the necessary or perhaps usual result of learning or wide observation, but comes best and most surely from the fact of life, habits, pursuits, interests and sympathies which have been concerned with facts like those which are presented for judgment. Such a capac-

[1] Tr. by Jur., 4.

ity or faculty of judgment may be said, in some large sense, to be instinctive, the unconscious dictate of habits, modes of life and thought which lie on the same plane with those of the parties whose controversies are to be determined. It is not in human nature to be content with the judgments of those who are far removed in modes of life, thought and action; and it is never to be forgotten that in the composition of the controversies which inevitably arise in civilized society, that tribunal is to be most highly valued which not only renders just judgments, but judgments which seem just to those who are chiefly affected by them. It is the instinct of our nature to desire a sympathetic or kindred tribunal, not a tribunal that shall decide *for* us so much as one that shall decide from a practical familiarity with the conditions out of which the facts of a given case have arisen.

A jury of one's countrymen, the verdict of one's fellow-citizens or neighbors, answers to this instinctive sentiment and demand. Such a tribunal will itself share in the good or evil flowing from its judgments. Such a tribunal robs the disappointed suitor, or the convicted criminal, of those complaints and feelings of injury which will surely assert themselves if the tribunal be not of the body of the community where the facts arose. It is not the absolute wisdom of the jury, it is not the certainty that its conclusions will be consonant with the most carefully considered views of the most highly-trained minds, that gives to the jury its superiority as a practical instrument for the settlement of civil disputes or for determining the guilt or innocence of those charged with crimes, but it is because being actually representative of the community, it brings necessarily and unconsciously to its task the knowledge which comes of likeness of life, habits, pursuits and sympathies, which is essential to the best practical results in its judgments, and still more essential to the peace, content and harmony of the society most directly affected by its judgments.

The mode of selection of jurors is likewise an essential element of the value of the system. Juries come not only from the body of the community where the facts arose, but they come at random and by the contrived chances of secrecy. The whole community of mature, self-supporting, independent citizens are the materials of our juries. It is not seldom suggested that if the best men of the community were alone selected, the results would be better. We may concede here that some individual cases might be more correctly deter-

mined, some miscarriages of justice be prevented, by restricting the range of choice of jurors, but if the highest average of good judgment in causes comes from the possession not so much of highly-trained intellectual faculties as from the instinctive sense and faculty of judging justly which grows out of an intimate knowledge of the life of the community where the facts arise, and if the stake which all duly qualified jurors must ordinarily have in the welfare of their community is the best safeguard we can set up against corrupt, partial or careless judgments of juries, then the rule which selects jurors by lot or chance out of the whole body of the community, and not from those having superior intellectual qualifications, is the rule best adapted to secure judgments conformable to the welfare of the community and the demands of truth and justice.

Two other considerations implicitly involved in what has already been said may well be specified here: first, the fact that the jury is a constantly changing body, a strictly temporary and occasional tribunal as to its *personnel*; and secondly, the sense of safety and freedom which a tribunal chosen wholly from the community at large gives to its members.

No feature of trial by jury is more unique than its constant change. A juryman is not an officer. He is not, even for the nonce, covered or adorned with any official insignia or rank. He has no tenure. The lot draws him to the jury today and tomorrow he returns to his wonted life and pursuits. He is a juryman solely by virtue and right of his membership of the community. He discharges only the duty of a citizen while he acts as a juryman. He belongs to no class, to no profession; he has no characteristics in himself or by virtue of his duty and function as a juryman, which do not come solely from his character of citizen. By the very conditions of his eligibility to jury duty, he is simply one of the body of the community. He acts his part as a juryman for an hour or a day and returns to the body of the community without mark, badge or trace of professional or official distinction.

If now it be true that civil liberty is the end of civil law and civil society, and if civil liberty reposes for its ultimate security on the capacity of the people at large to guard their rights and exercise their privileges, and not on the benevolence of rulers or elected officers, or the wisdom of legislators, then it is upon such

a representative body of the whole community as the jury presents, that we ought to, and must, rely for administering and enforcing the provisions of civil law and the machinery of civil society. Men sometimes say this is government by the lowest, not by the highest; our answer is that it is the mass, the body of the community, which most needs the protection of laws and their just administration; that the wise, the learned, the rich, and those high in position, have other weapons to defend their liberties; but the body of the community needs to sway the power of the jury as the one instrument which has proved the people's check to tyranny and their defence against despotism. No single feature of our civil life presents such freedom from officialism, from professional or class influences, and the influences of routine and artificial life, as the jury as now constituted in this country. No other agency may, therefore, be so safely relied on to enforce and administer those rules of property and of conduct, the infraction of which is the occasion and warrant of nearly all our civil laws and jurisprudence.

But I must not fail to draw attention to another notable function and influence of the jury — its direct educating influence. I have already dwelt upon the fact that the very essence of trial by jury is the principle of fairness. "The right of being tried, of having his dispute with another settled by his own fellow-citizens, taken indiscriminately from the whole mass, who feel neither malice nor favor, but simply decide according to what in their conscience they believe to be the truth, gives," says another, "every man the conviction that he will be dealt with impartially, and inspires him with the wish to mete out to others the same measure of equity that has been dealt to himself."

The value of the jury as a social and political, as well as a judicial institution, can hardly be denied by those who have well considered the subject. So acute a student and observer of English and American institutions as Tocqueville has pointed out the greatly increased influence of trial by jury in its application to civil as well as criminal causes. When applied only to criminal causes, he says, the people see it in operation only at intervals, and in particular cases; they are accustomed to dispense with it in the ordinary affairs of life, and to look upon it merely as one means, and not the sole means, of obtaining justice. But when it embraces civil actions, it is constantly before their eyes and affects

all their interests. "The jury," he continues, "and especially the civil jury, serves to imbue the minds of the citizens with a part of the qualities and character of a judge; and this is the best mode of preparing them for freedom. It spreads amongst all classes a respect for the decision of the law." . . . . "It clothes every citizen with a kind of magisterial office; it makes all men feel that they have duties to fulfil towards society, and that they take a part in its government; it forces men to occupy themselves with something else than their own affairs, and thus combats that selfishness which is, as it were, the rust of society."[1]

But it is as an instrument of education that it calls out his most ardent admiration. He calls it a school into which admission is free and open always, which each juror enters to be instructed in his legal rights, where he engages in daily communication with the most accomplished and enlightened men, where the laws are taught to him in a practical manner, and are brought down to the level of his apprehension by the efforts of the advocates, the instructions of the judge, and the very passions of the parties to the cause.

And this is the political training which is indispensable to the security of self-government, that self-government which is the special form of our civil freedom. The jury is the most direct and patent exhibition of the principle of making the people the arbiters of all questions affecting their property, their liberties and their lives.

There have doubtless been extravagant eulogists of Trial by Jury.[2] Its defects and limitations have been wholly lost sight of in admiration of some of its shining benefits. But when viewed with entire soberness of temper and judgment, when considered in a scientific or philosophical spirit as an actual institution, a part of the machinery for securing our common every-day rights and liberties and for protecting society and individuals against civil and criminal wrongs, it seems to me in the main to warrant our most cordial support and confidence. No substitute for it has been or

[1] La Dem. en Amerique, Tom. II, 188.

[2] As witness this famous but preposterous utterance of Lord Brougham:—"In my mind he was guilty of no error; he was chargeable with no exaggeration; he was betrayed by his fancy into no metaphor, who once said, that all we see about us, Kings, Lords and Commons, the whole machinery of the State, all the apparatus of the system, and its varied workings, end simply in bringing twelve good men into a box." *Present State of the Law*, Feb. 27, 1828.

probably can be devised which could bring to our society so much strength or to our liberties so much security.

Undoubtedly one of the chief peculiarities of our jury system, as it now exists, is the requirement of unanimity in the verdict. This feature attracts and deserves careful consideration. In its origin, as has already been pointed out, unanimity, in the sense of an agreement of all the members of a jury, was not a requirement, nor was the requirement of the concurrence of twelve jurors universal and absolute until the reign of Edward III., in the first half of the 14th century. Thus, as we have seen, in the assise of Henry II., a concurrence of twelve jurors was essential, but if twelve did not at first concur, other jurors were added until at least twelve agreed upon a verdict — a process called by the somewhat sinister term of the *afforcement* of the jury, though no compulsion or violence was imposed on any juror by this process. But when we recall that at this period of the jury, the jurors were merely witnesses to facts within their own knowledge, we see that the concurrence of twelve jurors was in substance a requirement of the concurrent testimony of twelve witnesses to conclusively establish a finding upon the issue presented. The verdict of eleven out of the twelve jurors was likewise allowed till the time of Edward III.

The rule of the concurrence of twelve jurors at a time when the jury was indeterminate in number was certainly a reasonable one in view of the fact that it was established when jurors were the only witnesses whose evidence was heard. But when the whole number of trial jurors was limited to twelve, and especially when jurors ceased to be witnesses and became only the judges of the testimony of others, the requirement of the unanimity of twelve was transferred and continued in spite of the essential and radical change in the constitution and function of the jury.

We may say, therefore, that the requirement of unanimity of jurors was, in the original application to the jury as it now exists, due not to any settled or well-considered policy but to the accident that a similar rule had been previously applied when the jury was different in number and character. The original requirement meant simply that in questions of disputed facts the concurring testimony of twelve witnesses should be necessary to a verdict. The present requirement is that in questions of disputed facts

twelve jurors shall concur in their opinion of all the testimony presented to them. As matter of history, therefore, as well as matter of reason, the requirement of unanimity does not stand upon an equal basis of authority with the other features of the jury.

When the question of the reasonableness of the rule of unanimity is considered, it may at once be said that the rule is almost wholly exceptional in respect to judicial as well as other affairs. In our courts of common law and of equity, and in our Courts of Appeal, if judges differ in opinion, the opinion of the majority prevails, and if the judges in Courts of Appeals are equally divided in opinion, the judgment of the court below stands affirmed. In the House of Lords, sitting as a Court of Appeal, or for the trial of a peer, or on the impeachment of a commoner, a majority of one determines the verdict and judgment. In legislative or parliamentary matters of all kinds, as well as in popular elections, the rule of a greater or less majority universally prevails.

The reasons which support the rule of unanimity are not without force. It often happens that it is the one competent, thoughtful, conscientious juror who by his dissent compels a full and fair consideration of the evidence, and thus becomes a safeguard against precipitancy and passion in the rendering of the verdict. The fact alone that unanimity must be reached before a verdict can be rendered, tends strongly, beyond doubt, to produce fair deliberation and due discussion in reaching the verdict. This is an unmixed and unquestionable good. But the question remains whether an absolute agreement of the twelve ought still to be required. I confess that in criminal cases I am strongly of the opinion that unanimity is the only safe rule. If the numerous instances of disagreements of juries whereby those who are believed to be guilty, go unwhipt of justice, are pointed to as results of this rule, the answer is that the cases are very few in which it is possible to affirm the guilt of those who thus escape. But more than this, it cannot be too often said, or too deeply impressed, that the object of our criminal law is not merely to procure convictions of those charged with crimes, but it is to furnish a tribunal where the innocent will escape as well as the guilty be condemned. The glory of our modern ameliorated criminal law and procedure is, above all, that it no longer aims primarily and principaily to secure the conviction of alleged criminals. Torture, the rack and the pulley, the inquisitorial examination of the accused,

were the fit instruments of ages when a trial was not so much an inquest or inquiry as a mode of legally condemning those whose cases were already prejudged. Individual human life and individual human liberty are sacred things. Nothing is more sacred except the lives and liberties of the whole community. The safety of society alone warrants criminal punishment. To convict and punish an innocent man is to do the gravest possible injury to the victim and to justice. No danger or exigency can warrant or excuse it, nor can any fancied necessity of society justify the adoption of any rules which are likely to result in unwarranted and unjust convictions, and I am sure that the requirement that society's great prerogative of criminal punishment shall not be exercised till twelve men sitting as a jury are persuaded by evidence that the real criminal is before them, is not too stringent a rule in behalf of the accused, nor too high a barrier against haste, prejudice, and the spirit of vengeance to which not individuals alone, but whole communities are so constantly exposed. The true maxim is that the judge is condemned, not when the guilty escape, but when the innocent suffer.

The rule of unanimity has, however, been unreservedly condemned by high authorities. Mr. Hallam,[1] in his "Middle Ages," styles it "that preposterous relic of barbarism;" Mr. Starkie[2] says "the rule has descended to us in a state of unmitigated barbarism;" and Professor Christian,[3] the learned commentator of Blackstone, says "The unanimity of twelve men, so repugnant to all experience of human conduct, passions, and understandings, could hardly in any age have been introduced into practice by a deliberate act of the legislature, and it remains to be seen whether the legislature will much longer tolerate such an anomaly."

But Forsyth, while pointing out and emphasizing the unreasonableness of the rule of unanimity, admits that the countervailing considerations, such as we have just adverted to, render it wise and salutary to retain the rule in criminal cases, though he concludes his chapter on this topic with the remark that "it would perhaps not be difficult to prove that it is better to allow the opinion of the majority to prevail in both civil and criminal cases, than to demand unanimity in the former."[4]

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[1] Supp. Notes, Mid. Ages, 262.
[2] Tr. by Jur., 49.
[3] *Vide* Forsyth, Tr. by Jur., 209.
[4] *Id.*, 211.

Civil cases, however, present other considerations, and in civil cases the report of the Parliamentary Commission upon the English Courts of Common Law in 1830 seems to set forth well the reasons for a change and the extent and conditions of the change.

"We purpose," say the Commissioners,[1] "that the jury shall not be kept in deliberation longer than twelve hours, unless at the end of that period they unanimously concur in applying for further time, which in that case shall be granted; and that at the expiration of the twelve hours, or of such prolonged time for deliberation, if any nine of them concur in giving a verdict, such verdict shall be entered of record, and shall entitle the party in whose favor it is given to judgment; and in failure of such concurrence the cause shall be made "*a remanet*," that is, a mis-trial.

There is one other feature of our jury system on which I am moved to comment and criticism. I have heretofore adverted to the consideration that special intellectual, technical, or professional training is not what we seek or need for jury service, or for its most efficient and satisfactory discharge, but there is a tolerably well-defined class of cases arising more frequently in the progress of the commercial life and development of recent years, of which it does not seem too much to say that they are in their nature unfit for jury trial. I refer to a class of cases thus described by a recent writer:[2] "Cases involving large mercantile or shipping transactions, operations in stocks, disputes between great corporations about matters of franchise, and others of similar kind, which may be characterized as causes arising from the investment and handling of large amounts of capital in active business."

Very few, comparatively, of any community have such knowledge of this class of transactions as is requisite to understand them, much less to pass upon them. The feeling and judgment, I believe, is well-nigh universal with those called upon to conduct cases, as well as with the litigants therein, that such cases cannot be submitted to ordinary juries with the prospect of correct or even intelligent verdicts. To continue to require that such cases, involving questions not only of intricacy and complication, but of a nature which lies outside the experience or observation of most men, and dependent for correct solution and decision not on principles of common sense or common experience but on the results

[1] *Vide* Forsyth, Tr. by Jur., 209.
[2] L. Skidmore, Prize Essay, Am. Bar Assoc., 1884.

of minute, varied, complicated and involved sets or series of transactions, to be viewed not in general or loosely, but with strict reference to details and with knowledge and appreciation of most difficult and technical questions and rules of commerce and business,— transactions, too, extending often over many years and through many changes in the *personnel* of the actors,— to require such cases, I say, to be submitted to ordinary juries, is plainly, in my judgment, to submit to chance and accident what should pass under the scrutiny of minds fitted by some previous training or experience to treat them with intelligence.

The legislation, statutory or constitutional, which shall aim to effect the change here contemplated, should, however, be most carefully guarded in its description of the excepted cases, in order not, under the guise of this reform, to narrow, in other respects, to the smallest extent, the province of jury trials in the full scope which they have hitherto been given in our jurisprudence.

In the course of the historical development of trial by jury as respects its general constitution and functions, we have noticed three prominent stages; first, the jury as simple recognitors, selected because of, and acting throughout on, their own knowledge of the subject of investigation; secondly, the jury exercising the mixed functions of recognitors on their own knowledge, and judges of the fact upon evidence laid before them; and thirdly, the jury acting solely as judges of the facts brought before them by the evidence of witnesses. It is, perhaps, impossible to fix an exact date when the jury as simple recognitors was first established, but if we find its source as a well-defined part of English law in the assise of Henry II., about the middle of the 12th century, and if the period of the introduction of the second stage — the jury acting in part as recognitors and in part as judges of facts testified to them — be fixed, as Mr. Starkie fixes it, in the reign of Edward III., or a little before the middle of the 14th century, and if the date of the final and universal limitation of the function of the jury to the determination alone of questions of fact upon evidence submitted to them under the guidance of a judge, be fixed as the first year of the reign of Queen Anne, or the year 1702, we shall see that the first stage continued nearly two centuries, the second stage a little more than three centuries and a half, while the third stage has now extended over nearly two centuries,— the latter

period covering nearly all of what may properly be called the enlightened development and humane amelioration of English law.

That the limitation of the function of the jury to questions of fact is the result of the evolution or growth of our law for the last two centuries is high proof certainly of the wisdom and practical value of this limitation. It may, in truth, I think, be regarded as the ripest and best fruit of our legal experience and reflection as applied to the trial by jury. It may be looked upon, too, as the result of mature and considerate reflection and purpose in contrast with some of the more fortuitous or accidental of the earlier forms and stages of the system. Lord Mansfield, near the close of the last century, declared that "the fundamental definition of trial by jury depended on one universal maxim which admitted of no exception,— *Ad quæstionem juris non respondent juratores; ad quæstionem facti non respondent judices;*"[1] and I cannot hesitate to express my own belief that the firm and unshaken establishment and continuance of this feature of trial by jury is the absolute condition of its permanent acceptance by any people who are intelligent and jealous of civil freedom.

It is not, however, to be denied that this restriction of juries to questions of fact has been often represented as an encroachment upon the just province of juries. At almost all times, there may be said to be a feeling in many minds, amounting at times to a popular impression or sentiment, that all questions, especially in criminal cases, should be submitted to the jury. It seems clear, however, that the very characteristics of a jury which render it a fit instrument for solving questions of fact,— its constant familiarity and sympathy with the common life, motives, habits and feelings of those who for the most part are engaged in litigation or affected by criminal proceedings, its free and unofficial character, its freedom from the influences of class or professional training and instincts, the brief, almost momentary period of its service and its quick disappearance into the indistinguishable mass of its fellow-citizens,—all these incidents and qualities of the jury actually unfit it for the function of determining what is the law which shall govern a case and in the light of which the facts are to be weighed and applied.

It is not needful here to raise any question of the relative im-

[1] Op. on motion for new trial in case of Dean of St. Asaph.

portance of the functions of the court or judge on the one hand, and of the jury on the other, for it is certain that these functions are essentially dissimilar. The law is, and must ever be, an aggregation of rules and principles requiring for its knowledge and application the most disciplined mental faculties and much special and technical training. The law, too, especially our law, whose glory it is that it has sprung by a free and natural process from the life and wants of the people, is linked together from generation to generation through centuries of unbroken evolution. No branch of our law is without its special history and its accumulated literature and learning. Precedent is the ligament that binds it into an intelligible and consistent whole.

That the English doctrine of Precedent, or the controlling force of established rules and decided cases over subsequent cases, is not thus esteemed by some even of the legal profession, is well-known. At a recent session of the American Bar Association this doctrine was thus characterized by a learned and eminent lawyer,— "Our progress in law reform is slow," said he, "and slow for the most part because we are dragging the old fetters of precedent and tradition, instead of boldly and freely abandoning the past and taking as our guides our present free thoughts and aspirations and hopes." Against all such passionate, though eloquent and enticing appeals, I would oppose what I believe to be the conclusions of reason and of history, that the doctrine of precedent or authority is at all times essential to the idea of the law, and that its prevalence in English jurisprudence is perhaps the most potent cause of the present superior value and influence of English law.

It will not be needful to consume time in demonstrating that to commit the law to juries is to destroy the possibility of the regular or effective application of the doctrine of *stare decisis*. To retain and apply this doctrine when juries become judges of the law as well as the facts, would require of juries much of the same special training and high mental power which the office of a judge now demands. It would commit to the decision of an unskilled body of citizens the determination of what our law and jurisprudence is today; and it would commit to a like unskilled body tomorrow the question of what our law and jurisprudence shall then be.

The close of the 18th century witnessed a contest in England concerning the powers of juries, which, having ended in a victory

for the juries as well as for popular rights, is often referred to as in some way an evidence that an enlargement of the powers of juries is an advance in the security of the people's liberties.

But the struggle for the rights of juries in criminal informations or indictments for libel, was not a struggle for the power of juries to determine the *law of libel*, that is, what constituted a libel or libellous publication as matter of law. It was rather a struggle for the right of juries upon the facts as given in the testimony and the law as laid down by the court, and upon a plea of "not guilty," to render, as in other cases, a general verdict of "guilty" or "not guilty;" and the victory won for juries was only the establishment of the right of the jury not merely to pass upon the fact of publication and the truth of the innendoes of the record, but to find upon the whole matter in issue, and such is the scope and limit of Fox's Act of 1792 which closed the struggle. The result was in truth a restoration or relinquishment to the jury of powers which logically and reasonably belonged to them in cases of libel as in other cases. Such is the express tenor of Erskine's famous argument in the case of the Dean of St. Asaph. "My first proposition," said the great advocate,[1] "is that when a bill of indictment is found, or any information is filed, charging any crime or misdemeanor known to the law of England, and the party accused puts himself upon the country by pleading the general issue — not guilty — the jury are generally charged with his deliverance from that crime, and not specially from the fact or facts in the commission of which the indictment or information charges the crime to consist."

The correct statement, therefore, of the function of the jury in the American system of trial by jury is this: That upon the evidence presented and admitted by the court, the jury has the power and right to find a verdict upon the whole issue; that is to say, whether upon the facts as determined by themselves, and upon the law as stated to them by the court, they will find for the plaintiff or the defendant, or in criminal cases, guilty or not guilty. To this the exceptions in this country are so few and slight as hardly to merit attention here or to modify this general statement of this feature of the American system of trial by jury.

A somewhat compendious and accurate statement of the law on

[1] Speeches, 1, 262.

this point as it prevails now in most of our states, is the following, which I quote from the proposed Code of Evidence of this State.

"All questions of law, including the admissibility of testimony, the facts preliminary to such admission, and the construction of statutes and other writings, and all other rules of evidence, are to be decided by the court, and all discussions of law addressed to it. And whenever the knowledge of the court is made evidence of a fact, the court is to declare such knowledge to the jury, who are bound to accept it."

"All questions of fact, other than those mentioned, are to be decided by the jury when a trial is had, and all evidence addressed to them except as otherwise provided in this Code."

Nothing, it must have been observed, has been or is now more constant or conspicuous in the constitution of the Trial by Jury than the complete identity of the jury with the great body of the people. It has been, in this view, well called "the country," the real representative of the average or common people. In its first form — while the jury were only a body of sworn witnesses — naturally the only qualification of jurors was that they should be freemen, and not villeins; and when it took on its permanent form and function — a body of twelve men empowered and sworn to make true deliverance upon the evidence legally presented and the law as delivered by the Court or Judge,—it was by choice, by lot or chance, from the whole mass of qualified citizens of the country, that the jury was chosen.

In addition to this general fact, there are some special circumstances which ordinarily have the effect of still further limiting the range of choice of jurors to the commonalty, using this word to designate, according to Webster, "that part of the people who live by labor, and are not liberally educated, nor elevated by office or professional pursuits." Of these circumstances, three may be named here: first, the usual exemptions and disqualifications from jury duty include all our higher executive public officers, members of the legislature, judges and clerks of courts, clergymen and those acting as ministers of any religion, physicians and surgeons, attorneys and counsellors-at-law, professors and teachers, superintendents, engineers and their assistants engaged in the public service or in the regular service of common carriers, telegraph operators and officers of the militia performing military duty. Add to these the exemptions granted by the laws of the United

States, and it will be seen how considerably the range of choice is restricted to what we may call the common people: secondly, the time required for the discharge of jury duty and its meagre compensation, and the consequent sacrifices it imposes, induce the greater part of our citizens engaged in large and active business pursuits, to seek to evade jury duty, and it is observable everywhere that such classes do succeed to a great extent in escaping from this duty: thirdly, jury duty in its nature and incidents, can have of itself little or no attraction for the more cultivated classes. The inevitable tedium of ordinary civil trials, the repulsive nature of many criminal trials, the physical hardship of others, and the irksome sense of responsibility which is found by experience to press upon the conscientious juryman, render the service one from which the best men are apt to shrink and to seek exemption. There remains, therefore, as the body from which our jurors are generally taken, comparatively few except those whom we have called, for want of a better term, the commonalty.

One obvious result of this general fact — a result which is often made a reproach of the system of trial by jury — is that the jury shares to the full in all the limitations of the great body from which it comes — in all its ignorance, all its prejudices, its emotions and passions, its inveterate tendencies, and its passing whims or fancies. It is in the strictest sense — in a sense far more strict than any other selected body gives us — the people.

Here, then, we have a body apparently not fitted to any high degree for the delicate and solemn duty of administering civil justice, and liable to be moved by prevalent popular impulses which sometimes are cruel, passionate and vengeful, and at other times weak, forgetful of the public weal, and responsive to public clamor. I do not seek to hide this practical, well-observed fact. The jury *is* at all points tempted as the people are. Like the people, it sometimes fails almost wholly to do justice or to promote the public good. This country has seen, and now sees in some of its parts, juries letting go popular criminals, standing in awe of mobs and law-breakers, or cringing before powerful and rich malefactors. But consider for a moment the nature of our society and government. Freedom and self-government are our aim, our method and our boast. Freedom involves the possibility, the probability, the certainty of its abuse. Freedom, guided by corruption and passion, has painted some of the ghastliest scenes in history. We

know well that popular freedom and popular institutions are safe only when the balance of popular sentiment and purpose is toward order and justice. We recognize the fact that intelligence and virtue must make and save the State, but we know as well that our fabric of government rests on the people — "government of the people, by the people and for the people," to put it all in the phrase which Abraham Lincoln did not originate, but did consecrate. The people commit follies; great waves of wickedness and wrong sometimes sweep them far from their moorings. Still do we not cry, "Long live the people?" For my own part, my faith in the great tenet of government by the people is well-nigh as invincible and unbounded as my faith in the wisdom and goodness of the Divine government over all. "The cure for the ills of Freedom," as Macaulay has told us, "is Freedom." "The test of freedom," says Emerson, "is the only test permissible in our country." "If," said Theodore Parker, "the inconveniences of freedom distress you, you have your remedy in going to a monarchy." "The propositions of civil equality and self-government," said Mr. Lincoln in his debates with Douglas, "are our creed, and we must take what they bring—the bad as well as the good. Our part is to make the bad as small as we can."

So it is with juries, which are always a part of the people. Juries are always precisely as good as the communities from which they come. The follies they commit cannot be prevented except by the same people of whom they are the exact representatives. No guards can be devised against such results except the virtue and intelligence of the people. Freedom fettered, is slavery, and not freedom. Fixed institutions, regular forms and methods of action are not fetters, but the tried means of freedom. When, therefore, I hear the jury system decried in view of some great miscarriage of justice like the Star Route Trials, I try to remember that it is better, infinitely better, that the people should rule ill than that a despot should rule well, and that trial by jury is no more exposed to abuses than are all our methods of freedom and self-government.

A study of the whole field of inquiry and research involved in a proper discussion of our system of trial by jury, will disclose the fact which might well have been anticipated, that this system has been the special mark of criticism, opposition, contempt even, at

the hands of a long and unbroken and still continuing line of legal reformers, precisians, sciolists, closet-students and *doctrinaires.* The type of these is Anacharsis of Athens, who one day went into the forum to hear a cause argued and when asked what he thought of Athenian liberty, said, "I think wise men argue causes and fools decide them." Trial by jury has lived and flourished, nevertheless, in spite of this long procession of antagonists, because, as Mr. Burke has said of the British Constitution, "its roots strike deeply into the firm soil of our English nature as trained and nurtured by the strong influences of a history in which it has somehow always seemed to the popular eye and sense to stand for the rights of the people against priestly encroachment and royal prerogative." Half, perhaps more, of its value today, I unhesitatingly concede and insist, is due to its historical affinity with the last five or six centuries of our English and American history. But surely he has read history or studied human nature to little purpose who has not perceived that the correspondence of institutions with the thought and aspiration of society, is the nearest approach to infallible proof of the value and perfection of such institutions; that innovation is not true progress; that, in truth, the best and greatest part of true progress consists in true conservatism; but that it is equally clear that blind attachment or unreasoning adherence to institutions even when consecrated by time and familiarity, is not true conservatism. No finer expression of the proper blending of these two qualities or states of mind, has ever been given than the great Apostle's, "Prove *all* things, hold fast what is *good.*"

Certainly, no one who enters upon an examination of our system of trial by jury should fail to take note of the opinion not seldom expressed, and doubtless far more widely felt, by some of the most intelligent and thoughtful, that the system is unequal to the demands of many occasions which arise in modern life when widespread forms of crime seem to have poisoned the air and dulled the popular sense of order, law and justice. Such critics and observers can point, as we have seen, to some startling lapses of juries in dealing with criminals who have entrenched themselves in some sort in the very citadels of power, who have seized upon some of the chief agencies of popular government and corrupted the very sources of public justice. For considerable periods in our recent history, the taint and blight of corruption has seemed

to fall upon communities to such a degree as to make it doubtful whether juries could be found who by their verdicts would arrest the evils and crimes which were so dominant and pervasive. If there be ground at times for the fear that the people, through the craft of leaders, the indifference and unconcern of the better classes, the ignorance and corruption of the lowest, may put in peril the great and permanent interests of society, and if it be true that in such crises, juries are specially liable to yield to the prevailing tendencies, I think, nevertheless, we are warranted in a firm faith based on the sum of all our later experiences, that after all, the people at large, the body of our communities, of which juries are a constant part, are still and will be in the future, equal to the stern task of upholding the laws and punishing popular crimes.

But I know of no way in which I can at once present the grounds of this faith, and an exhibition of the working and power of our jury system today, so well as by a brief summary of a very recent effort through the agency of jury trials to bring to punishment the authors and actors in a vast scheme of bribery and corruption in the city of New York.

In 1884 the Board of Aldermen or Common Council of the city of New York consisted of twenty-four members,—one memmer for each city ward. The Board had power to grant franchises for the use of the streets of the city for railroads, the Mayor having the usual veto power and the Common Council the power of passing a measure over the veto. The franchise to establish and run a railroad through Broadway below 14th Street, had been eagerly sought by several corporations and capitalists, and among others by Jacob Sharp, an experienced lobbyist, a grasping money-getter, a cynical and stolid believer in the maxim that every man has his price. Though one million of dollars had been offered by another party for the Broadway franchise, the Common Council voted to give it, without compensation to the city, to the corporation at whose head was Jacob Sharp. The resolution of the Council was vetoed by the Mayor and injunctions of the courts were interposed. On the 30th of August, 1884, a special meeting of the Aldermen was hastily called at which — the opposition of other interests and especially of those who had obtained injunctions, having been bought off by lavish expenditures of money, under the guise mainly of counsel fees—the Common Council hur-

riedly passed over the Mayor's veto the resolution giving the franchise to Jacob Sharp's corporation, only two of the Aldermen opposing the grant.

From the first, the belief that this result was secured by stupendous bribery was nearly universal, and by means of a legislative investigation in the winter of 1885-'86, many of the features of such bribery were laid bare. In March, 1886, the matter was investigated by the Grand Jury of the County of New York, the result being the finding of indictments subsequently against twenty-one of the twenty-four Aldermen for receiving bribes, and at a later period against Jacob Sharp and three of his associates for giving bribes.

It is proper here to call attention to the wide-spread power of the combination which effected this great criminal exploit. In the first place, the Aldermen, with the exceptions noted, were the ripe legitimate fruit of the corrupt and corrupting political methods of our great commercial metropolis. Each Alderman was the local chief of his party, the head of a great body of janizaries banded together for the purpose of grasping and holding the spoils of party victory — the emoluments of office and the incidental chances for other plunder and profit. It is hardly possible to overstate the extent and intricacy of the ramifications of the influence of these party leaders thus made legislators for our greatest city. The community was appalled at the magnitude of the crime believed to have been committed, and looked with a sort of despairing incredulity on all efforts or thought of efforts, made to bring these master-criminals to punishment. Certainly no circumstances could well be imagined more likely to defeat convictions before juries of the city and county of New York than the circumstances existing at the time when the work of prosecution was begun. Fortunately for public justice, the prosecuting officers of the county were men of great skill and ability, and directed their efforts, with apparent singleness of purpose, to the discovery of the real facts and the relentless trial of the accused upon the law and the facts. But it will be remembered by all who watched this struggle that the jury of the vicinage, drawn as it must be by lot from the whole body of qualified citizens — the constituents and fellow-partisans, as a majority of them must have been, of the accused Aldermen — was pointed to as the weak, probably the fatal, spot in the machinery of criminal prosecution.

It is necessary to pause here a moment to describe, as briefly as may be, the jury system of the city of New York. All trial jurors in that city are selected not as in other parts of the state, nor as generally in other states, by the ordinary officers of the town or city, but by a single officer, called Commissioner of Jurors, appointed by the Mayor. This fact, I think it is generally conceded, has, or is calculated to have, an unfavorable effect upon the selection of trial jurors, because the Commissioner is regarded as a partisan appointee, and in fact owes his position to partisan influences, and it is certainly noticeable that in the trials which we are now considering the Commissioner of Jurors fell under the grave censure of the Court as well as of the public.

The qualifications of jurors in the city of New York are in general those of other localities,— male citizens, between the ages of 21 and 70, owners of $250 worth of property, or husbands of wives who are such owners, not infirm or decrepit, intelligent, of sound mind and good character, able to read and write the English language understandingly. These qualifications show at once how much depends in the selection of jurors on the integrity and impartiality of the Commissioner of Jurors, and how difficult it is for the most vigilant prosecuting officers to exclude all incompetent jurors from the panels when once admitted to the list by the Commissioner, and it should be remembered that the difficulties of the prosecution of the accused Aldermen were greatly increased by the careless or corrupt manner in which the Commissioner appears to have done his work.

There seems to be a popular impression that the right of challenge of jurors, and the grounds and practice of challenge, in the city of New York are somehow more loose and favorable to the accused than they should be or than they are elsewhere. This impression, in spite of the success of the Aldermanic prosecutions, apparently remains in many minds as a reproach to the system of trial by jury. No good ground appears to exist for these animadversions. The right and grounds of challenge to individual jurors in the city of New York do not differ essentially from those generally prevailing and sanctioned by the best practice elsewhere. The number of peremptory challenges allowed to either party in capital cases is 30; in cases punishable by ten years imprisonment or more, 20; in all other cases, 5. Causes of challenge are of two kinds, (1) for *implied* bias, (2) for *actual* bias; implied bias

arising from facts which the law regards as disqualifying one for jury duty, as consanguinity or affinity to the accused, or conscientious opinions which would prevent one from finding the accused guilty; actual bias arising from the existence of a state of mind on the part of the juror which satisfies the Court that the juror could not or would not impartially try the issue. And here it is specially to be noted that the Code of New York in terms provides that "the previous expression or formation of an opinion in reference to the guilt or innocence of the defendant, or a present opinion or impression in reference thereto, is not a sufficient ground of challenge for actual bias, if the juror declare on oath that he believes that such opinion or impression will not influence his verdict, and the Court is satisfied that he does not entertain such a present opinion or impression as would influence his verdict." Could any more reasonable provision be devised or one better suited to admit intelligent, law-loving, crime-hating citizens to the jury box? One would imagine, in reading many newspaper comments on the selecting of the juries in the Aldermanic cases, that our law had been framed to exclude all intelligent citizens, especially all readers of newspapers. Nothing could be further from the fact. The fact that one has read all the newspaper reports and comments of an alleged crime, together with the fact that such reading has resulted in an opinion of the guilt or innocence of the accused, does not support a challenge or exclude one from the trial jury, unless the proposed juror either confesses he cannot find an impartial verdict, or the Court upon the evidence decides that he cannot render such a verdict. It is certainly indisputable by thinking men that in either of the latter cases the challenge should be sustained.

With these remarks on the jury system of New York city, bearing in mind the character of the Aldermanic crime, the relations of the accused to their several constituencies, the solidarity of their interests as defendants — twenty-two well-known leading politicians, the choice of a majority of the citizens as city legislators,— the fact that the accused had the money — four or five hundred thousand dollars — which they had corruptly got, in their pockets for their own defence, the slipshod manner, to use no harsher word, in which the selection of jurors was made by the Commissioner, let us now see how the system of trial by jury stood the strain put upon it.

A few statistics will be useful here.[1] Four trials of indicted Aldermen and one of the briber, Sharp, have taken place. The first Aldermanic trial was begun May 10, 1886, the jury was completed on the 13th, a verdict of guilty was given on the 15th. The second trial was begun November 15, 1886, the jury was completed on the 17th, and on the 24th the jury disagreed and were discharged. A second trial of the same case was begun November 29, 1886, the jury was completed December 8th, the verdict of guilty was rendered on the 15th. The third trial was begun January 24, 1887, the jury was completed on the 27th, the verdict of guilty was given February 1st. The fourth trial was begun February 28, 1887, the jury was completed March 18, the jury disagreed and were discharged on the 23rd.

It will be seen that the whole number of days occupied by these four trials and one re-trial, including Sundays, holidays and adjournments, was 61, or about 12 each. I regret I have not succeeded in ascertaining the exact number of full court days occupied, but my best information fixes it at about 46, or an average of about 9 days to each trial.

It will be seen, too, that the time occupied in selecting the jury gradually increased as the trials went on — and this for obvious and unavoidable causes — from two or three days, as in the first two trials, to not less than two weeks in the trial of the fourth of the Aldermen.

It should be said that the cause of the mis-trial or disagreement in each instance appears to have been the reluctance of the jury to convict upon the evidence of the perjured accomplices of the accused — a reluctance not surprising nor unusual, since there are conflicting views among courts and text-writers in respect to the required amount and nature of the corroboration of such evidence. I am not aware that any corrupt or improper motive has been charged upon either of the disagreeing juries.

It is of interest also to note that in the fourth trial the whole number of jurors summoned was 324, the whole number examined, 205, while the prosecution exercised 13 of its peremptory challenges and the defence only 6; that in the fifth trial the whole number of jurors summoned was 1,050, the whole number examined, 594; the prosecution exercising 17 peremptory challenges, and the defence 20.

[1] I wish to acknowledge my indebtedness to the special kindness of Mr. District Attorney Martine of New York city for most of the statistics given here.

The trial of Jacob Sharp was begun May 16, 1887, the jury was completed June 15th, and the verdict of guilty was given June 29th. In this trial the whole number of jurors summoned was 2,100, the whole number examined, 1,196; the prosecution exercising 15 peremptory challenges, and the defence 20. In this case, 44 calendar days elapsed from the beginning to the end, and if I am correctly advised, 31 full court days were consumed, 22 of which were occupied in selecting the jury.

Thus it appears, that in these five trials and one re-trial, about 90 days were actually occupied, about 4,524 jurors were summoned, of whom about 2,610 were examined in order to secure six panels, or 72 in number, of trial jurors.

Before these jurors thus selected, four convictions were secured — three of the bribe-taking Aldermen, and the arch-briber—while one mis-trial of an Alderman occurred.

The present fate of the whole twenty-two bribe-takers and the four bribe-givers who figured in this remarkable drama, reads like a page of romance, like some old poetic record of Nemesis. Of the twenty-two Aldermen who in 1884 stalked in lusty pride of power through the City Hall, three are now in Sing Sing; four are fugitives in British dominions; four, as the price of immunity from prosecution, have subjected themselves to the refined torture of testifying as witnesses to their own perjury and degradation; two are dead; one has been judicially declared insane; one not indicted, is kept under surveillance as a witness; and six are awaiting trial upon evidence which probably no one doubts will send them to keep company with their three comrades at Sing Sing, whenever the exigencies of the District Attorney's office shall make their trial possible.

Of the four bribers who stood on the pinnacle of fancied success in their great exploits in 1884 — the goal of a thirty years' struggle — one at 78 years of age is under sentence to Sing Sing; one is dead; and two are awaiting under enormous bail-bonds their trial and almost certain conviction.

This concrete example, this brilliant, and can I not say? conclusive, vindication of the adequacy of our present jury system to accomplish the purposes for which it exists, is worth more as evidence and argument in this discussion than all historical examinations or learned treatises upon trial by jury. No institutions, no machinery of government, are or ever will be automatic or self-

executing. Behind the best institutions, the best laws, the best machinery, there must be *men*. These not only "constitute a State," but they alone can make laws and institutions effective for good. If ever the people become corrupt, or if not corrupt, negligent of duty to a degree that permits corrupt men to control the machinery of government and the administration of the law, no laws or institutions will longer execute justice or uphold free government. But if the most we can expect of laws, institutions, governmental machinery, or jurisprudence, is to be servicable agencies in the hands of the people, adapted to secure liberty and justice when operated and applied to that end, then this example may long teach and assure us amidst many lapses and miscarriages arising from the temporary apathy of the people or the corrupt or partisan efforts of public officers, that trial by jury in the hands of fearless judges, and vigilant and competent prosecuting officers, is still fitted and adequate to punish wrong-doers, to protect the innocent, and to set those stern examples of retributive and vindicatory justice which are apparently sometimes necessary to the life and purity of civil society.

Ladies and Gentlemen of the Association: I trust it has been already clearly seen how little faith I have in any legal or jurisprudential changes which do not connect themselves naturally and organically with the Past. The genius of our race, in contrast to that of the French and some others is, as Mr. Lowell has put it,[1] our "profound disbelief in theory," and our disinclination to "commit the folly of breaking with the past." "Our fathers," he remarks, "were not seduced by the French fallacy that a new system of government could be ordered like a new suit of clothes. They would as soon have thought of ordering a suit of flesh and skin." So wide is the range and application of this thought beyond the one topic which we have been considering, that I beg to close with a word of a great Englishman who sometimes, if not always, puts great thoughts into the most powerful English now written. John Ruskin has said:

"All the best things and treasures of this world are not to be produced by each generation for itself; but we are all intended, not to carve our work in snow, that will melt, but each and all of us to be continually rolling a great, white, gathering snowball,

[1]Democ. and other addresses, 29.

higher and higher, larger and larger, along the Alps of human power. Thus the science of nations is to be accumulative from father to son; each learning a little more; each receiving all that was known, and adding its own gain. The history and poetry of nations are to be accumulative; each generation treasuring the history and songs of its ancestors, adding its own history and its own songs. And the art of nations is to be accumulative, just as science and history are; the work of living men not superseding, but building upon, the work of the past; all growing together into one mighty temple; the rough stones and the smooth all finding their place, and rising, day by day, in richer and higher pinnacles to Heaven."

2. THE LAW'S UNCERTAINTY.

BY THOMAS THACHER, ESQ., OF NEW YORK.

(Read Thursday, September 8.)

The movement for codification of the Common Law in this State, so radical in its aim, and so nearly successful, has found its strength in the common notion of the law's uncertainty. The advocates of codification have not had to prove the fact or the evil of uncertainty in the law. These have been generally assumed, and discussion has been confined almost exclusively to the proposed remedy, the benefits promised and the evils predicted.

Indeed, the remedy came so near being administered before those opposed to it awoke and bestirred themselves, that it was perhaps too late to ask for a careful diagnosis, for a thorough examination into the existence, the nature, location and causes of the supposed disease. The cup was almost at the lips of the patient. To stay the hand that held it, the remedy itself must be denounced, its dangers shown, and fear of it created.

So it has happened — somewhat strangely it at first sight appears — that the evil, the common idea of which has so nearly caused so great a revolution in the jurisprudence of this State, has itself escaped analysis and careful study.

It is the purpose of this paper to turn attention to this evil — the uncertainty of the law — and to the common idea of it. It may be that it will appear that the movement for codification has received support from this source, to which, without regard to positive dangers in the remedy, it is not entitled. But aside from the question of codification, an evil so commonly accepted should be investigated, its causes should be studied, that whatever remedies these causes may point to, may be applied. If codification be among the remedies thus pointed to, well. But the inquiry should not be restricted to the question of the advisability of codification.

The law is uncertain. It is easy to assert this, impossible to deny it. But the language carries several different ideas. "The law" has many meanings. Sometimes it means the machinery of justice, with the methods and agencies of procedure and administration; sometimes the sum of the rules and principles of jurisprudence; and sometimes the grand total of all these. It is man-

ifest that before any particular conclusion can be derived from the proposition that the law is uncertain, it must be determined in what sense the phrase "the law" is used. That the law is uncertain because of the methods of administration, or because of the necessary elements of human weakness therein, argues nothing as to judicial rules and principles; and on the other hand uncertainty in the principles of the law cannot point to reforms in mere procedure. Yet, it is believed that the movement for codification of the common law has obtained support from many whose notion of the uncertainty of the law involved no charge against the principles of the common law, but only against administration and procedure.

Again, the law, meaning the body of rules and principles, is made up of two parts, statutory and judiciary law. The proposition that the law is uncertain, even if it be understood that by "the law" is meant the body of rules and principles only, does not prove necessity for reform in either branch, until it appear that the uncertainty arises in the same branch. And yet uncertainty growing out of the construction of statutes has, undoubtedly, been made to contribute to the success of a movement, the purpose of which is to extend the field of legislation, and thus to increase the number of statutes to be construed.

It is quite manifest that if the law in any sense is made up of many parts, the popular cry that the law is uncertain does not point to need of a remedy in any particular part. The various causes of this cry, so far as they are legitimate, must be sought out, and remedies must be applied here and there according to the location and character of the causes discovered.

Nor must it be forgotten that every popular cry, though to some extent justified, is more or less the result of error. The popular cry against the law's uncertainty is largely caused by disappointment or a desire to excuse individual failure. Rather than confess his own fault, the disappointed litigant indulges in wholesale and illogical attack upon a system of jurisprudence which is the outcome and the pride of centuries.

Little more can be done within the limits of this paper than to suggest the possibilities of the analysis and examination to which attention has been called. But at least some of the legitimate bases of the common notion of the law's uncertainty, some of the various causes of the uncertainty which really is found in the law, and some remedies, may be pointed out.

In the first place, there is uncertainty in the law, according to the common conception, which does not really belong to the law even in the broad sense of that term, and for which, in the nature of things, the law can afford no relief. This specially appears in regard to facts and the evidence of facts. The law, whether in the courts or in the office, deals with facts. The facts and the evidence by which the facts are made to appear are, of course, beyond its control, and uncertainty so far as caused by doubt as to what the facts are or as to what evidence of the facts can be obtained is clearly not chargeable to the law. It is in a sense uncertainty *in* law; it is perhaps the most important element of uncertainty as to the result of litigation, but it is not *of* the law. Paley putting the question, "Why, since the maxims of natural justice are few and evident, do there arise so many doubts and controversies in their application?" says, among other things, "Wherefore the discussion of facts which the moralist supposes to be settled, the discovery of intentions which he presumes to be known, still remain to exercise the inquiry of courts of justice. And as these facts and intentions are often to be inferred or rather conjectured from obscure indications, from suspicious testimony, or from a comparison of opposite and contending probabilities, they afford a never-failing supply of doubt and litigation."

Uncertainty as to matters of fact includes that caused by doubt as to the honesty of witnesses, as to their bias, as to the correctness of their perceptions, as to the accuracy of their memories, and as to their power to make a truthful statement of what they know, unmixed with hearsay and conjecture.

In this category of uncertainty as to matters of fact must also be placed that uncertainty which arises from the different inferences of fact which different persons (whether from mental or moral causes) draw from other conceded facts. This is seen in witnesses, in judges when they try the facts, and in juries.

Uncertainty springing from the foregoing causes has nothing to do with the rules of evidence established by law, with the particular methods of the courts in trying questions of fact nor with regulations of practice or procedure therein. The same uncertainty arises in any inquiry into facts, whether through the courts or by other means, and it is attributable only to the limitations of human nature.

The jury system is, doubtless, one of the most cogent causes of

the popular cry against the law's uncertainty. Yet the law is chargeable with this only in a limited sense. The law, meaning the system of administratration, may be at fault in clinging to trial by jury as now constituted. Possibly trial by jury should be abolished. Possibly the rule of unanimity should be changed. Possibly other changes should be made. But the law must take some instrumentality for deciding issues of fact, and the instrumentality must be human, and no change of system can therefore work a complete cure. The evil, if such it be called, can only be lessened. If the trial of facts be by the judges, by referees, or by juries under different regulations, peculiarities of temper and of mental habits, differences of experience, political and personal prejudice, will always and necessarily occasion doubt as to the result.

A cause of uncertainty closely akin to uncertainty as to facts, and equally outside of the control of the law, is the doubtful meaning of written instruments. More and more, agreements have been reduced to writing, and a very large portion of the time of the courts is taken up in construing such writings, that is, in determining the mere meaning or intention of them. What more frequent cause of litigation is there than the doubtful meaning of wills? Yet no remedy can be afforded by the law, unless it be by demanding proof of training in this branch of the lawyer's work before admission to the bar; and to test such training in an examination of candidates would hardly be feasible. Doubtless legal training is generally defective in this respect, and the law schools of the country may well be appealed to, especially in these days, when employment of this kind is abundant and remunerative, to give special attention to the training of students in the art of expressing intentions in writing with clearness and certainty, and with a view to the possible changes of circumstances in which the intentions may become important. The law can do little or nothing.

Rules of evidence, of pleading, of practice and procedure, are fruitful causes of the law's uncertainty as commonly understood. But these rules are so largely statutory that the uncertainty which they produce does not point to legislation as the cure. If ideal legislation could take the place of that which actually exists, it were well. But from the Legislatures as constituted there is too little improvement to be hoped for, to risk the possible unsettle-

ment of that which by much labor in the courts has already been made clear. In these matters certainty and stability are of prime importance; the question of justice is excluded or subordinate. And if any remedy is to be afforded it would seem to be by allowing the courts, or an assembly of the Judges, to make needed changes from time to time.

Coming now to the law proper, as distinguished from matters of administration, it is to be observed in the first place that it is in part made up of statutes, and in part of what is called the common law, or judiciary law. Uncertainty springing from the statute law is akin to that which comes from written instruments, in that both are caused by the failure of written language to express an intent so clearly as to forbid contention. The draughtsmen are different; but as things are today, it is safe to say, that the language of statutes is no clearer than that of wills and contracts. Indeed, there are reasons for lack of certainty in the meaning of statutes which do not apply to instruments *in pais*. Statutes, general in their application, are often passed for special objects, or to meet particular cases, while instruments made by individuals effect only the particular purpose for which they are made. The drawing of a statute, therefore, requires a keener imagination, a much wider view of possible future facts, to say nothing of the larger retrospect needed to avoid conflict with rights already accrued. Moreover, many statutes are drawn to secure a secret object; the real intent is purposely hidden.

The amount of litigation turning upon the meaning of statutes is probably not appreciated. Of the cases fully reported in 104 New York reports, if criminal cases, cases turning upon the Code of Civil Procedure, cases turning upon written instruments, and a few not easily classified, be eliminated, about one-half of the remainder will be found to deal with the meaning of statutes.

The very wide field now generally covered by legislation in the United States may be realized by reading the very valuable and interesting article of Prof. Monroe Smith and Mr. F. J. Stimson in the "Political Science Quarterly" for March, 1887 — valuable and interesting, especially, because by induction from the history of legislation in the several States, it shows where legislation naturally stops. The law concerning land, trusts, mortgages, conveyances, marriage and divorce, wills, descent and distribution of estates, landlord and tenant, bills and notes, interest and usury,

and limited partnerships, is generally statutory. The law of corporations, which already covers a very large part of all business and property, is chiefly statutory. That which is left as unwritten or judge-made law is, as a rule, the law of torts, of personal property and of contract. A glance at the two fields, and at almost any volume of reports in this State, will show that here at least the law, even in the narrow sense excluding administration, owes its uncertainty quite as much to legislation as to the common law. If, then, it is asked what remedy do the causes of this uncertainty suggest, clearly codification cannot point to itself in answer. Not only do the facts fail to indicate that relief from uncertainty in the law is to be looked for in legislation, but, on the contrary, by reason of experience as to written instruments and statutes, the history of jurisprudence speaks against the proposal to extend the legislative field.

As to reforms in statutory law, or in other words, in legislation generally, the subject is a broad one. Nor is it within the purpose of this paper to discuss it. When the legislature shall have become the synonym for honesty, wisdom, judgment and ability, then, indeed, the field of useful legislation may be very much extended; then legislation may clear up the whole body of law, if, indeed, when that time comes, there shall be any need for law of any kind. But today the statutes that are, are not such — the influences under which, and the measure of ability with which they are enacted are not such — as to invite the extension of this agency beyond its present field.

The conclusion to which that which has now been said leads, is chiefly negative — that in a very great degree the movement for codification of the common law is not entitled to all the strength it has received from the common notion of the law's uncertainty, that that notion in great measure does not spring from experience of that branch of the law so proposed to be codified, that uncertainty arising from the causes heretofore specified is not, with one or two exceptions, chargeable to the law at all, and cannot be cured by any reform in the law, and, without any exception, does not belong to that part of the law covered by the Civil Code, and cannot, therefore, point to codification as even a possible remedy.

It remains to examine the causes of uncertainty in that portion of the law which the Civil Code, if adopted, would supersede; that is, in the rules and principles of civil jurisprudence, the evidence of which is found in the reports of cases decided.

There is one cause of uncertainty in the common law which, though not confined to the United States, is of peculiar force here. It is the fact that, while State lines do not affect business relations to any extent, yet every State has its independent judicature. In every inter-State transaction, when it comes to the test of the law in any way, there is first the question, what law governs, and this question itself is often one of doubt — has itself alone caused abundant litigation. And since, so long as courts are presided over by judges who are subject to human infirmities, the common law of the different States will necessarily differ in some respects, this preliminary question is an important one. Failure to put it or to answer it correctly beforehand, may lead to results wholly unexpected, and with whatever care the question be so answered, there must frequently be doubt, until a judicial answer can be obtained. For there are differences in opinion in the courts of the several States as to the principles by which to determine what law governs in inter-State transactions; and according as the question be presented to one court or another the law of one State or another may be held to be applicable.

There are Federal Courts, too, whose jurisdiction is limited indeed, but in large degree concurrent with that of the State Courts, and which, though generally bound to follow the law of the States, yet in considerable measure hold themselves free to declare the law independent of State decisions.

A complexity of doubt springs from this cause, and a remedy is hard, if not impossible, to find. The trouble lies, of course, in the many sources of the law. None of them can be cut off. Their independent existence is essential to our political organization. It has been suggested, lately, that under the inter-State commerce clause of the Constitution some relief can be given by Congress. But the suggestion must meet with strong opposition from the many who think that that clause has already been stretched far beyond the intention of the framers of the Constitution and from those opposed to further centralization of power in the Federal Government.

The small results from combined efforts to bring about uniformity in the law of the States upon single subjects, such as marriage and divorce, the law of conveyancing, etc., show that little is to be hoped for from concurrent legislation. It is urged that the adopting of a civil code in one State would lead to its adoption

elsewhere, but it is to be doubted whether the same code would be taken by several States even in the first instance; it seems certain that differences would afterwards be enacted. Codification puts the law in so convenient shape for amendment, and legislation so often seeks a private and special object rather than the general good, that he must be sanguine indeed who looks for uniformity of law among the States through the substitution of codes for the common law.

To quote from Mr. Carter, "the administration of law consists in applying the national standard or ideal of justice to human affairs." The standard of justice in the several states will become more and more uniform as civilization advances, and this progress may undoubtedly be aided, by special efforts of such associations as this, to enlighten the citizen of the states in the principles of the law. But summary relief is impossible.

If the difficulty arising from the independent jurisdiction of the several states and of the Federal Government be dismissed from consideration, there will, of course, still be found uncertainty in the common law. This is unavoidable in part — that is, so far as it arises from new relations. Prof. Smith well says, "that the uncertainty of the law lies almost entirely in the *application* of its rules, is a truth that would soon come home to us if our law were wholly statutory." New facts and new relations are continually appearing. The Courts are constantly called upon to select from the storehouse of the common law the principles rightly applicable to facts not before judicially considered. Analogy furnishes the means of selection. This process is necessary to the development and extension of the law in a just and orderly manner whether sought through the Courts or the Legislature. The common law is believed to embody all the principles needed for the solution of all questions of right and duty between man and man. The principles are clear enough. But to determine by analogy which principles should be applied in new complications, in the new relations brought about by changing methods of business, is by no means easy. Is the sleeping car substantially the same as an inn with respect to liability for losses? Shall the principles developed in regard to common carriers be applied to telegraph companies? What principles apply to the telephone? Such are some of the problems of analogy lately presented. Look, too, at the tendency of capital to aggregation and the various devices by which the

aggregation is effected. The law of corporations is fairly developed. But what is the law of syndicates, of pools, of corporate and other trusts by which combinations are formed? The difficulties and the doubts raised by such problems are the result and the sign of progress, and while civilization progresses, they must constantly press for solution.

There undoubtedly are, however, causes of uncertainty in the common law which can be removed or lessened. So much complaint of the difficulty of finding out what the Courts have established as law must have some just ground. And, to those who do not believe in codification, no duty would seem to be more clearly pointed out by the strength of the movement therefor, than to suggest improvement in the methods by which, under the present system, the common law is developed and declared.

It has been noticed, in connection with the conflict of the laws of the different States, that uncertainty is caused by the fact that the law affecting the same people comes from many sources. In any one State, then, it is desirable that the sources of the law be as few as possible. Co-ordinate Courts are an evil only to be tolerated so far as the necessities of business require. In the desire to prevent the law's delay, some have urged the more extended use of Courts of intermediate appeal, forgetting, as it seems, the evil of the law's uncertainty, forgetting that while speed is desirable in the interest of the few who are litigants, yet, in cases involving principles of general application, correctness of judgment is of vastly more importance, in the interest of the many who are not litigants, but who look to the Courts for the settlement of the law.

Courts of intermediate appeal having jurisdiction concurrent in scope, but exclusive in the area of territory, that is, having the same authority in different districts under the same sovereignty, are clearly open to the objection that they are different sources of law of equal authority, just as are the Courts of the different States. Their establishment is objectionable. If they are not necessary to the reasonable despatch of business, they should not exist. Any lawyer by a moment's reflection can think of some point upon which there is difference of opinion in different General Terms which constitute Courts of intermediate appeal in this State. What is law in one district, is not law in another; and so the success or failure of a cause may depend upon the district in which it is brought to trial.

To discuss the extent to which these intermediate Courts lessen the law's delay would be to trench upon another subject which is before this Association. But at least the opinion may be ventured, that the benefit in speed is exaggerated and is not equal to the contribution thus made to the law's uncertainty; and that one intermediate Court, made up of the several General Terms, and passing upon appeals throughout the State, or several intermediate Courts hearing different classes of appeals from the whole State, would quite as well prevent delay and be much less productive of uncertainty.

There must, of necessity, be many courts, or, better, many sections of the same court, for the trial of causes in the first instance, and, paradoxical though it seem, it may also be said in the interest of certainty as well as in the interest of expedition, the more the better. For at the trial the cause is shaped, and it is of the utmost importance to the value of decisions upon appeal, with a view to the settlement of the law, that cases come to the appellate courts in such condition as to present fairly and squarely, and without unnecessary admixture of unimportant issues, the questions of law upon which the rights of the parties really turn. Nothing prevents this so much as undue haste, caused by pressure of business, in the trial courts. Since the decisions of the courts of first resort are seldom published, and are, therefore, little looked to for evidence of what the law is, the objection to the number of different sources of law is of comparatively little weight as applied to them.

Let us pass now to the appellate courts, the reports of whose decisions furnish the evidence of the common law, and the methods by which decisions are there reached and declared.

The methods by which decisions are *reached*, after submission by counsel, are hardly open to discussion except among those who have sat as members of such courts. Outside criticism must stop with the presentation of the case by counsel, and upon this but one suggestion is offered. It is that an exchange of points should be required before argument. At the trial, when the facts are not yet determined, there is, of course, reason for not compelling counsel to show their hands. Under the exigencies so made to appear before trial, parties and witnesses may yield to the temptation to deception and perjury. But upon appeal the facts are already established, and there is no such objection to an exchange of points with a view to defining the issues and stripping the case of all but that upon which counsel agree to differ.

It would be a great advantage if, in connection with an exchange of points of law, counsel should be required to present a statement of all facts considered material by either side, showing how far the facts deemed material by either side are admitted by the other to be established. Since every decision is, strictly speaking, only that certain results flow from certain facts, it is of the utmost importance that the report of any case show exactly and surely what facts were considered by the court.

Reforms in the practice of the appellate courts in *declaring* the law, must furnish the remedy for the evil, which codification proposes to cure, if a remedy without radical change is possible. The *evidence* of the law under the present system is the real object of attack. It is generally conceded that the law should be developed by the courts rather than made by the Legislature. The strongest advocates of codification urge only that the law which has been so developed be declared by a code. Criticism of judicial methods of declaring the law, begun in the interest of codification, should be taken up and carried on by the courts in the interest of law. There is widespread dissatisfaction with the way in which the common law is now declared. What is the trouble? Does it lie in the system or the practice under it? Are there not faults which may be corrected? These questions demand the careful consideration of the judges of the appellate courts.

It is a matter of some delicacy to criticize the Judges of our highest Courts, but it is perhaps a more delicate matter for them to criticize one another, and it is probably necessary, therefore, for outsiders at least to suggest where possible improvements can be made. To point out particular instances of faults which seem to call for correction would seem to be too invidious, and consequently little more than suggestion is possible. The decision as to whether the faults really exist and call for correction must be left to the Judges themselves.

And, first, it is suggested whether the Courts cannot better declare the material facts considered in rendering judgment. As has already been said, the real decision in any case is only that certain results flow from certain facts. To quote again from Mr. Carter: "The Judge never undertakes to decide anything more than the precise case brought before him for judgment. He considers the facts of *that case*, and with the aid of such precedents, analogies and familiar rules as the deliberate and accumulated

wisdom of the past furnishes, he pronounces judgment, and there stops. He does not even declare, at least not as a necessary part of his function, what the law is. He is not bound to write an opinion. He usually does write one, stating his views upon the legal questions. But this is of no binding force. The strictest doctrine of *stare decisis* requires subordinate tribunals to follow, not the opinion, but the *judgment;* and the obligation is of no force in a future case presenting materially different aspects. If the Court in its opinion lays down rules in general terms which *might* embrace cases differing from the one decided, such declaration is *provisional* only and subject to modification in any future case presenting materially different features." This being so, it is of the first importance that, in whatever manner the decisions of appellate Courts are published to the world as evidence of the law, it should be made clearly to appear what the facts considered in each case really were. If all the facts appearing upon the record were in all cases considered by the Court, the statement of the facts for publication might properly be left to a competent reporter. But they are not. Sometimes by express waiver, sometimes because of silence of counsel, sometimes through inadvertence on the part of the court or otherwise, part of the facts appearing upon the record are omitted from consideration. Whether the omission be intentional or through mistake, it is equally clear that the fact is important with respect to the effect of the judgment as a precedent and should be made clear in the publication of the cases. The decision of the Court cannot, in the nature of things, be based upon any facts but those considered. The Judges have recognized the importance of a proper report of the facts, and have quite commonly adopted the practice of stating the facts in the opinion. But, with all deference, it is questioned whether the work is often done with that care which the importance of the purpose demands. Even if the Judge who prepares the opinion draws the statement of facts with as much care as the argument upon the principles, does it receive as much attention from his associates before it is in form adopted by the Court? Yet under the view just presented, which is undoubtedly correct, it is of much greater consequence to make clear the facts upon which the judgment is based than the reasoning by which it is believed to be justified. The judgment, as interpreted by the facts, not by the reasoning, becomes the law.

It may indeed be questioned, whether, for the purposes of precedent, the Courts would not do well to limit the reports of many cases to authoritative statements of the facts considered and the judgments. It will hardly do to suggest to our appellate courts, as was once suggested to one about to enter upon judicial duties, that, while their judgments will probably be right, their reasons will probably be wrong; but there are cases in which they may well ponder on the wisdom of this advice — especially where the Judges, agreeing as to the judgment, differ as to their reasons, or where business presses so much that time is lacking for the careful preparation of opinions in all cases. To give no reasons, is surely better than to give reasons carelessly.

But this leads to the broader question: What is the legitimate purpose of the opinion? The methods of the Courts in giving their opinions cannot, of course, be justly criticized without a clear conception of the object which they properly have in view. The legitimate purpose of the opinion is to elucidate the judgment. The purpose of such elucidation may be complex, including the justification of the Court in public opinion, the enlightenment of the people and the instruction of the bar with a view to the harmonious and logical development of the law. But as a test of the excellence of any opinion, it is enough to say that its proper purpose is to elucidate the judgment.

The judgment interpreted by the facts, which alone becomes law and binding under the doctrine of *stare decisis*, involves within it certain principles of law, but it does not express those principles so as to be readily apprehended and understood. In giving its opinion the Court sets forth in more intelligible form that which the judgment legally, but to the ordinary mind obscurely, expresses. And the very fact that the opinion is not law, but only explanatory of the law, gives it its opportunity for usefulness. The Judge, most skilful in the use of language, and most learned in jurisprudence, would hesitate to write a line in explanation of his judgment, if all his words were to become binding like the words of a statute. Yet, as explanation, he may lay down the reasoning, the propositions of law which he considers to be involved in the judgment, with that freedom which is essential to clearness, with a strong probability that all his statements will be substantially, if not absolutely, right, and with the certainty that his opinion may better be taken as the law for practical purposes than what the ordinary mind would draw from the facts and the judgment alone.

The purpose of the opinion being the elucidation of the judgment, it is obvious that the judgment should in all cases limit the scope of the opinion. The subject is the judgment rendered upon the facts actually considered, and the opinion should not go beyond this. Yet, this obvious rule is constantly violated. Every lawyer can name off-hand, at least one case in an appellate court, in which the opinion is largely made up of discussion of a point concededly not presented by the facts of the case, and therefore not involved in the judgment. These outside opinions are often very carelessly expressed, are seldom of any value whatever, and usually operate only to unsettle the law and invite litigation. They are always a diversion from the legitimate purpose of the opinion, and as a rule obscure rather than explain the judgment.

The judgment being the act of the court, the opinion elucidating it should be, in fact as well in form, the opinion of the court. It should express the views of at least a majority of the court, to which they are willing to stand committed, according to their light at the time. Yet experience suggests that this rule is often disregarded, that the opinion which in form is that of the court, in fact is only that of the judge who writes it. The opinion never pretends to be absolutely reliable, but it does and should claim to be presumptively correct in all its parts; and this it cannot be unless it has the actual and deliberate assent of at least a majority of the court. It is submitted that the rule should be rigidly enforced that the opinion of the courts contain nothing which is not believed to be the law by at least a majority of the judges. If a majority cannot agree upon the reasons, either no opinion should be published, or the various minority views should be reported as such.

Objections have been made to the publication of dissenting opinions, and if the rule above stated were faithfully observed, possibly the practice might well be abandoned. But the question seems to be of comparatively little importance. A dissenting opinion is what it seems; it is not a deception. An opinion of the court, which is not throughout assented to by the court, is a delusion and a snare.

If the opinion be confined to its legitimate subject, and be really that of the court, it is believed that most of the evils which lie in the present methods of declaring the common law will be avoided.

It should, however, be borne in mind that the function of an opinion being elucidation merely, it differs very materially from

that of an argument at bar. Counsel seek to persuade to a conclusion; the court to explain its conclusion already reached. If the court make clear and reasonable its course for some settled principle step by step, until it reaches the conclusion expressed by the judgment, its object is accomplished; and the reasonableness of its passing from one principle to another is to be shown by explanation, by clear but concise statement rather than by elaborate argument. Iteration has its uses in argument, never in a judicial opinion. The ideal opinion is that which as nearly as possible states the subordinate conclusion of the court in such language as would be adopted by an intelligent codifier. Elaboration of this branch of the subject is not necessary. The legitimate purpose of the opinion being always borne in mind, questions of form and style are easy of solution.

One special evil, which is common, is the abuse of the practice of distinguishing cases. The doctrine of *stare decisis* is valuable. When the courts refuse to *extend* an existing rule by analogy, it is proper to distinguish. But when they in fact depart from or alter a previous rule it is an abuse to seek an apparent distinction where no real distinction is possible. Endless confusion and no good results from such attempts.

It is possible that personal considerations among the judges of appellate courts are an obstacle to improvement in judicial opinions. That which has been written by one judge is, doubtless, often allowed to stand rather than give offense to the writer. All these considerations must be put aside, and the court as a whole, that is, all the judges of the court, must appreciate, and act according to the appreciation of, the fact that the opinion must be that of the court, and must in substance and in form have the court's approval. The criticism which has been passed upon existing methods of declaring the law, the courts must realize, and from them must come the remedy.

The purpose of this paper is to suggest. So it may well end here abruptly.

3. INCORRIGIBLE CRIMINALS.

BY PROF. FRANCIS WAYLAND OF YALE LAW SCHOOL.

(Read September 8.)

About a year ago I read before the National Prison Association, at its annual meeting in Atlanta, a paper on "The Incorrigible Felon." I sought to define him and to show what in his own interest and in the interest of the public ought to be done with him. His presence in the community under the name of incorrigible, or habitual criminal, or professional criminal, was found to be a well recognized fact, as painful as it was palpable. It was easily made apparent that the members of this class or guild are openly at war with all that society holds dear and is bound to protect, and are a perpetual and dangerous menace to the law-abiding citizen, beside furnishing a contagious example to the young and less hardened offenders, of daring and too often successful crime, and as much to be feared by the honest property-holder or wage-earner as a pirate on the high seas.

It was contended that the short and flagrantly inadequate sentences which our courts of alleged justice are in the habit of awarding to these persistent violators of law merely aggravate the mischief which should be cured, by, at the very least, preventing further outrages upon the persons or property of those who have surrendered to society the right to take the law into their own hands. If this protection is not afforded by society, it was urged that the citizen could logically respond to the natural instinct of self-preservation, and oppose force to force, at the risk of inaugurating a condition of chaos — in other words, "Lynch law."

It was further contended that the incorrigible felon has forfeited his right to be at large, and cannot reasonably complain if society, by providing for his imprisonment during the term of his natural life, makes it impossible for him any longer to defy the laws which were enacted for the due protection of the peaceable citizen. It was shown, finally, that legislation of this nature was not a novel idea, that it was a conspicuous feature of the penal code submitted more than sixty years ago to the State of Louisiana by that humane and enlightened jurist and penologist, Edward Livingston, and had within five years been enacted by the great and wisely

progressive State of Ohio. Since the paper, the leading feature of which I have thus briefly outlined, was presented to the National Prison Association, the policy therein recommended has been substantially adopted by the States of Massachusetts and Connecticut.

It remains now to consider another class of offenders whose existence is as distinctly recognized as the former class, and whose misdeeds are as palpable, although in some aspects less seriously harmful to the best interests of society and civilization. I allude to the incorrigible misdemeanants, meaning those wrong-doers who by the commission of a long series of petty offenses have abundantly demonstrated their inability or unwillingness to govern themselves within the just limits of wholesome laws. This class would include common drunkards, habitual thieves, incorrigible disturbers of the peace by committing assaults upon the person, resisting officers when in the discharge of their duty, wantonly destroying property, with many other minor offences (as they are commonly called for convenience of classification) too numerous to mention.

Compelled as I have been to produce this paper on the spur of the moment, without opportunity for suitable preparation, consiging the grave importance of the subject, I must draw my few and simple illustrations from the budget of convenient materials which the peripatetic penologist may fairly be supposed always to carry with him in his traveling bag. Naturally also, under the circumstances, these illustrations must be confined to cases occurring in my own immediate neighborhood. I see no sufficient reason to doubt that what is true of the city in which I live, is equally true of every community of equivalent dimensions in our entire country, nay, of every community in our land where a considerable number of inhabitants is congregated. I begin with the gentler sex. *Place aux dames.* One A. B. (permit me to resort to this alphabetical disguise to spare the tender feelings of the culprit or of her friends) has been convicted in the police court of drunkenness, unchastity and breach of the peace 40 times in the past 11 years. Her punishment has been in the form of fines ranging from $1 to $20 with costs added, of course, and of imprisonment in the county jail for terms varying from 30 to 120 days. C. D. has in the past eight years been convicted in the same tribunal of offenses of similar character 38 times with like results as to retribution. E. F. has, in the past decade, answered to the demands of offended

justice 50 times, with terms of imprisonment averaging 35 days and fines averaging $7, with costs added. Another sinner has, within the past 15 years, been committed more than 100 times for misdemeanors of the usual variety.

The court records, however, are very far from correctly representing the whole career of these wayward women. The arrests, usually, were only made when intoxication was accompanied by lewd or violent demonstrations, shocking, or annoying or alarming the neighbors or collecting a noisy crowd in the street. The intervals, longer or shorter, between the terms of imprisonment were almost invariably devoted to continuous dram drinking, terminating in the frenzied debauch which introduced them once more to the magistrate. Their presence in the community when outside the walls of the jail was simply pernicious to their families and to the public, while their all too brief incarceration was only useful by depriving them for a short period of the power to do active mischief. Meanwhile, whether at large or in durance, they were contributing nothing to their own support or to the support of their wretched families, were, though able-bodied, adding largely to the burden of public taxation, and were poisoning the peace and corrupting the morals of the entire neighborhood. A single extract from the police records of a local newspaper of recent date tells the sad story of a hundred cases. It is headed, "Celebrating her Release":

"Maggie Toole, one of the towns wards, was released from the almshouse yesterday morning, but was arrested very comfortably drunk last evening on Hill Street by Officer Doherty. One of her children, about three or four years of age, was with her. Both were sent back to the almshouse."

Turn now to the sterner sex. Here is the police record of W. S., an adopted citizen: One hundred and six convictions in 24 years, for the offenses of theft, resistance to officers and breach of the peace. Another adopted citizen was convicted of similar offenses 74 times in the past 24 years. The court official from whose hands I received this by no means exhilarating chronicle appended the following significant memorandum: "This man was a sailor, and when he has not been in jail has been to sea." Another man who had renounced his allegiance to Queen Victoria (and Her Majesty could well spare him), had during 19 years received and richly earned 90 convictions, with no longer sentence

than 30 days, and no heavier fine than $25. This man, always as active at the ballot-box as he was in the bar-room, died in 1881, disappearing from the precincts of the police courts and the county jail to appear, in the graphic language of an Irish judge, "before another and, probably, a higher tribunal."

Now, can anybody with sufficient intelligence to keep him outside of a retreat for idiots, contend for a moment that such men and women as I have described are not pests to society, without mitigation and with no reasonable prospect of reformation? Think of the children of such parents, with or without wedlock, reared amid such infamous and imbruting association. Consider the moral contagion tainting and debasing the neighborhood in which such families reside. Try to estimate the taxation, with absolutely no resulting benefits, which our present policy of dealing with these social outlaws entails upon every community. Weigh carefully these and kindred considerations, and then ask yourselves whether if they had passed in close confinement the entire period covered by their wasteful or violent wickedness, society would not have been vastly the gainer both as to public morals and public expenses.

But I have not yet told the whole or the worst part of the story. The incorrigible misdemeanant frequently and then always by natural evolution, matures into the incorrigible felon. Take a very recent instance, still from the same locality, and I beg to assure you that my home is not the abode of exceptional sinners. An irreclaimable rough, always brutal when drunk, and usually drunk, who, among many other offenses, had five times within ten years been most inadequately punished for forcible resistance to officers, the scourge of the neighborhood and a terror even to the sworn guardians of the peace, emboldened by the comparative impunity which had attended his previous outrages, committed the other day a murderous assault on the chief of police, knocking him down, beating, kicking and otherwise maltreating him with such devilish industry that only the tardy interference of timid spectators prevented the commission of the highest crime known to the law. Was not this the legitimate result of short sentences, trifling fines and general rose-water remedies?

Now, not to prolong such painful illustrations of human depravity, and not even pausing to speak of the practically licensed gangs of "roughs" which infest our cities and larger towns, I come to the

vital question: What are you going to do about it? What adequate policy have you to suggest? I answer, without hesitation, close confinement in jail or workhouse, until death or *until conclusive evidence of entire reformation*. Nothing short of this will correctly solve the problem or do entire justice either to the culprit or to the community. The disease is deadly; the treatment must be heroic.

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CONTAINING THE

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APRIL, 1888.

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PART I.

HEALTH AND EDUCATION PAPERS.

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GENERAL SECRETARY OF THE ASSOCIATION,

CONCORD, MASSACHUSETTS.

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INTRODUCTION.

The Papers included in this number of the *Journal of Social Science* are less than half of the Saratoga Papers of 1887. As some misapprehension may exist in regard to the publication of Papers by the Association, it may here be said that all Papers, engaged for the General Meeting of the American Social Science Association, are so engaged with the understanding that they may be printed in the *Journal of Social Science*, if the Council so decide; if, therefore, the writers choose to publish their Papers elsewhere (to which the Council offers no objection), it must be with the stipulation that these Papers may also be published in the *Journal*, at the option of the Council as to the time of publication.

A list of all the Addresses and Papers at the Meeting of 1887 was printed on pages v. and vi. of *Journal* No. XXIII. Those belonging to the Department of Education have been withheld by their authors, with the exception of Mr. Sanborn's Report and Mr. Gilman's Paper. The addresses of Colonel Higginson and Mr. Blaikie were not written out; the Paper of Mr. Mabie will appear in the *Century Magazine;* that of Prof. James is published by him in Philadelphia. The Papers of Miss Helena Magill and Miss Reed may be published hereafter.

The Papers of the Health Department are here printed in full; indeed, that of Dr. Dana on "Immigration and Nervous Disease," is somewhat extended beyond the pages read at Saratoga, as well as modified in its statistics and conclusions.

The two parts of the Saratoga Papers of 1887, will be sold together for $1.00 and the second part separately for 50 cents.

THE COMMITTEE ON PROVIDENT INSTITUTIONS IN THE UNITED STATES.

For the present year the General Secretary, F. B. Sanborn, of Concord, Mass., will act as Secretary of this Special Committee, of which, therefore, the present organization is this:

W. L. Trenholm, Washington, D. C., *Chairman.*

F. B. Sanborn, *Secretary.*

John P. Townsend, 59 Broad Street, New York.

Edmund J. James, University of Pennsylvania, Philadelphia.

Gamaliel Bradford, Boston.

Joseph Wright, Cincinnati.

Prof. H. C. Adams, Ann Arbor, Mich.

Joseph D. Weeks, Pittsburg, Pa.

Robert T. Hill, Washington, D. C.

C. C. Jones, Augusta, Ga.

Louis Zimmer, 20 Gallatin Place, Brooklyn, N. Y.

Rev. H. L. Wayland, Philadelphia.

Rev. Oscar McCulloch, Indianapolis.

Prof. J. W. Jenks, Galesburg, Ill.

Other members may be added.

Mr. George Walker, late Consul General at Paris, who had accepted a place on the committee, died in January, 1888.

The following circular has been issued by the Committee:—

CIRCULAR.

To Persons Interested in Savings Banks, Building Associations, Life Insurance, and other Provident Institutions for the People:

A special Committee of the AMERICAN SOCIAL SCIENCE ASSOCIATION has been formed since September, 1887, to make inquiry and report concerning Provident Institutions in the United States. It was formed at the instance of Mr. JOHN P. TOWNSEND, of New York, a well-known authority concerning Savings Banks, and an associate of the International Committee, which proposes to hold a conference, at Paris, in 1889, to consider the status and result of such Institutions throughout the world. The American Committee will report, first, to the Social Science Association, in September, 1888, at the annual meeting at Saratoga, and will then continue and complete its report for presentation and preservation at Paris, in July, 1889. With this two-fold object in view, the Secretary of the Special Committee makes the following statements, announcements, and requests:

I. As now organized, the Chairman of this Committee is Hon. W. L. TRENHOLM, of Washington, Comptroller of the Currency, who has placed at the disposal of the members such official information respecting Banks, Loan Funds, etc., as can properly be furnished by him,— thus greatly facilitating the work of the Committee. The Secretary of the Committee, Mr. F. B. SANBORN, of Concord, Mass. (General Secretary of the American Social Science Association), has also placed the facilities of his office at the service of the Committee, and invites correspondence from all parts of the United States concerning its work.

II. The work of the Committee has been provisionally assigned as follows:

(1.) *Mr. John P. Townsend, 59 Broad Street, New York,* will report on Savings Banks in general, and particularly on those of New York and New Jersey. He invites reports and correspondence on this subject from persons in New England, Pennsylvania, the Southern States, the Western, Northwestern, and Pacific

States; and desires such communication to be sent to him before or during June, 1888.

(2.) *Prof. E. J. James, University of Pennsylvania, West Philadelphia*, will report on Building Associations (so called), particularly in Pennsylvania, and will receive reports from members of the Committee, and other persons who will investigate this subject in other States, as *Mr. G. Bradford, of Boston*, has undertaken to do for Massachusetts, *Mr. Joseph Wright, of Cincinnati*, for Ohio, *Prof. H. C. Adams, Ann Arbor, Mich.*, for Michigan, *Prof. J. W. Jenks, Galesburg, Ill.*, for Illinois, *Rev. Oscar C. McCulloch, Indianapolis*, for Indiana, and other persons for other States. Such reports should be sent to Prof. James on or before July 1, 1888.

(3.) *Mr. Louis Zimmer*, 20 *Gallatin Place, Brooklyn, N. Y.*, will report on Life Insurance for the whole country, and will receive such communications as may be sent him on this subject by persons in any part of the country who have information to give, particularly in regard to the results of Life Insurance, as affecting people of moderate means. He will close his report during July, 1888.

(4.) *Mr. Joseph D. Weeks, Pittsburg, Pa.*, will report on Friendly Societies and Benefit Associations, under whatever name, which are organized among large b..dies of men united for special purposes,— whether Masons, Odd Fellows, Knights of Pythias, Knights of Labor, Brotherhoods of Engineers, etc. He invites correspondence from all parts of the country.

(5.) *Mr. C. C. Jones, Augusta, Ga.*, will, if possible, report on Provident Institutions of all kinds, South and Southwest of Washington, and Mr. *Robert T. Hill, of Comanche, Texas*, (now connected with the *Geological Survey, Washington, D. C.*, which is his address), will report on Arkansas, Tennessee, Texas, and such States as Mr. Jones may not reach.

(6.) *Rev. H. L. Wayland, Philadelphia*, will consider Postal Savings Banks, and will report on Provident Institutions among Hebrews and the Society of Friends.

(7.) *Mr. Gamaliel Bradford, Boston*, will report on Coöperative Banks in Massachusetts, and on Coöperation in general.

(8.) *Messrs. Adams, Jenks, McCulloch, and Wright*, above mentioned, will report, respectively, on the Provident Institutions of Michigan, Illinois, Indiana, and Ohio.

(9.) *Mr. F. B. Sanborn, Concord, Mass*, will report on the Savings Banks of New England, and will combine the special reports into one general Report. For this purpose, he should receive them on or before August 1, 1888.

III. All persons who may have written or printed information to give on the subject above named, are hereby invited to communicate with the gentlemen above mentioned, on their particular topics, or with the undersigned, upon any matter connected with the general inquiry. Particularly State officials who report on these subjects, are requested to furnish their last printed reports.

For the Committee.

F. B. SANBORN,

Special and General Secretary.

CONCORD, MASS., April 14, 1888.

CONSTITUTION, LIST OF PUBLICATIONS, OFFICERS, MEMBERS, ETC.,

OF THE

AMERICAN SOCIAL SCIENCE ASSOCIATION.

CONSTITUTION.

I. This Society shall be called the AMERICAN SOCIAL SCIENCE ASSOCIATION.

II. Its objects shall be classified in five departments: the first, of Education; the second, of Health; the third, of Trade and Finance; the fourth, of Social Economy; the fifth, of Jurisprudence.

III. It shall be administered by a President, as many honorary Vice-Presidents as may be chosen, a Treasurer, a Secretary, and a Council, charged with general supervision; five Department Committees, established by the Council, charged with the supervision of their respective departments; and such Local Committees as may be established by the Council at different points, to serve as branch associations. The Council shall consist of the President, Treasurer, and Secretary, the Chairman and Secretary of each Department, and ten Directors, with power to fill vacancies and to make their own By-Laws. The President, Vice-Presidents, Treasurer, Chairman, and Secretaries of Departments, and Directors, shall be chosen annually by members of the Association, and shall hold office till their successors are chosen. The President, or in his absence, a Director, shall be Chairman of the Council. The Chairman of the Local Committees shall be chosen at the pleasure of their respective committees. Whenever a Branch Association shall be organized and recognized as such by the Council, its President shall be *ex-officio* one of the Vice-Presidents of the American Association, and, together with the Secretary and Treasurer, shall be entitled to all the privileges of membership in that Association. And whenever a Local Department shall be organized and recognized as such by the Council, its chairman shall become *ex-officio* a member of the parent Association. The Chairman and Secretary of each Department, with the consent of the President of the Association, may appoint such special Department Committees as they may think best. The General Secretary shall be elected for three years, unless he resigns, or is removed by a two-thirds vote of the members present and voting in a regular meeting of the Council; and out of his compensation he may pay the salary of an Assistant Secretary, who may also be Secretary of one Department.

IV. Any person may become a member by paying five dollars, and may continue a member by paying annually such further sum as may be fixed at the Annual Meeting, not exceeding ten dollars. On payment of one hundred dollars, any person may become a life-member, exempt from assessments. Honorary and corresponding members may be elected, and exempted from the payment of assessments.

V. The Council shall have sole power to call and conduct General Meetings, and to publish the Transactions and other documents of the Association. The Department Committee shall have power to call and conduct Department Meetings.

VI. No amendment of this Constitution shall be made, except at an annual meeting, with public notice of the proposed amendment.

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1887-1888.

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MEMBERS OF THE ASSOCIATION.

[All Officers are *ex-officio* members of the Association; but persons serving on Department Committees may or may not be members of the Association. In this present list the annual members are given alphabetically, without reference to States; then the life members follow, classified by States, and finally the honorary and corresponding members. The only distinction between honorary and corresponding members is that the former reside in the United States, the latter in foreign countries. It is a rule of the Association to drop from the list of annual members those who have not paid their assessment for two years; but members so dropped can be restored to the list by paying their arrears. If former members do not find their names on the list as it now stands, it will generally be for the reason just mentioned.

No List of Members of the Association, as printed, can ever be quite complete, so many changes occur by death and withdrawal, the accession of new members, etc. The following list is as complete as the Secretary could make it, up to April 1, 1888, but, no doubt, the addresses of several members are wrong, and there are instances of names misprinted, etc., of which the Secretary will thank any person to notify him when the fact is observed.]

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PAPERS OF THE HEALTH DEPARTMENT.

I. RELATION OF THE PHYSICIAN TO THE COMMUNITY, AND OF THE COMMUNITY TO THE PHYSICIAN.

AN ADDRESS BY GRACE PECKHAM, M. D., OF NEW YORK CITY.

(Read September 7, 1888.)

Dr. Oliver Wendell Holmes writes: "Medicine, professedly founded on observation, is as sensitive to outside influences, political, religious, philosophical, imaginative, as is the barometer to the changes of atmospheric density. Theoretically it ought to go on its own straightforward path without regard to changes of government or fluctuations of public opinion." Dr. Holmes also shows that when an age is great in literature and art it produces great and learned physicians. In the time of Pericles, of Socrates, of Phidias,—Hippocrates, the father of medicine, appeared. At the time when Luther overturned the religious world, Vesalius broke through the old traditions in the search for truths. Harvey, the great discoverer of the circulation of the blood, had Bacon as a teacher and a patient. While Napoleon was fighting his battles, Bichat revolutionized the science of life. The same spirit of inquiry and investigation which animates the students of politics, literature and art at once prevails in science and medicine.

The physician of today is the product of centuries of varying circumstances. Like wind and weather, heat and cold, ebb and flow, acting upon the face of nature, so the community has acted upon him and made him what he is.

Surgery, the elder brother of medicine, was recognized in the early ages when contending nations waged wars against contending nations, and humanity was often wounded in the strife. A wound, external and palpable to the eyes, called out practical methods of dealing with it; but the sickness which came from within and wasted the vital forces was mysterious and hidden, and only to be relieved by an appeal to the supernatural; hence the priests of the people were the healers, and their methods of cure were rites and ceremonies. It was thus the ancient Hebrews

and Egyptians received medical care. Cleanliness and the prevention of contagion were the doctrines inculcated by the priests. The Greeks called in the philosophers as well as the priests to be their medical attendants. Æsculapius was the saving divinity. His temples were erected everywhere. His descendants, the Asclepiades, practiced the healing art and transmitted its secrets, compelling those who received them to swear by Apollo, Æsculapius, Hygeia, Panacea, and all the other gods and goddesses of the healing art, not to profane its secrets and to reveal them only to the children of their masters or to those who bound themselves by the same oath.

The Grecian community esteemed their physicians. The successful practitioner of those days was voted a golden crown, was initiated with all splendor into the Eleusinian mysteries, and was kept at the public expense. Their lustre and renown illumined their slaves, of whom they kept a number, and these were in demand among the lower orders.

The early Romans believed in the "faith cure" most emphatically, and thought that diseases were only overcome by the direct intervention of the gods. Their first physicians were *augurs* and *aruspices*, and their remedies in all cases consisted, for the most part, in religious rites and magical chants. If a plague fell upon them, they instituted dramatic sports; if overcome with a pestilence, they erected a temple to Apollo Medicus. We are told that once on such an occasion they solemnly escorted a serpent, who represented to them Æsculapius, from Epidaurus to an island in the Tiber. They deified diseases and offered divine honors to them. But when their ailments increased in number and virulence they employed Greek slaves. Medicine was almost entirely in the hands of foreigners. Cato, who had himself written a book on domestic medicine, said: "If the Greeks impart to us their learning, we are ruined, especially if they bring hither their physicians; they have sworn together to destroy all the barbarians with their medicines." In the time of the Emperors, some physician having been especially successful with these royal personages, obtained for himself and those who were to come after him, especial privileges and honors including the rights of citizenship. Books then were written by physicians, and schools of different *pathies* had their adherents. In fact, affairs began to assume a modern aspect.

It was in the Middle Ages that the title "physician," meaning natural philosopher, was first used. At this time the priest was the physician and the barber was the surgeon; a third class came in for recognition in medicine, namely, the apothecaries.

This sketchy outline of medical history is intended further to illustrate how the community has moulded and formed the physician; at times exalting and deifying him, then making him a high priest, next degrading him to a slave and a barber, or calling him a philosopher. Does not this also typify the beliefs held today, by different members of the great social fabric, in regard to the healing of their maladies? Turning aside from regularly educated physicians, some think religion will cure, some think the mind will, some think quacks and charlatans will. The great mass of the public loves quackery and always has. Ignorant of the laws which govern physiology, ignorant of anatomy, setting at defiance all hygiene,— when sick it turns to all sorts of strange gods. The mysterious and the miraculous appeal to the community; even many of the most educated and cultured display a marvellous credulity with reference to subjects connected with medicine. In olden time the people flocked to touch the king to cure them of their scrofula; in the Middle Ages they anointed the weapon which inflicted the wound with ointment, to cure the wound itself. Centuries ago they doctored themselves with the powder of burnt toad, which they would do today if its merits and magical effects were sufficiently blazoned forth upon the housetops and in long letters upon rocks and fences. It is estimated that thousands of children die annually because dosed with quack medicines, and the ailments and afflictions which have followed the inordinate use of advertised nostrums are among the unwritten chapters of the world's history.

Not only do people use these things themselves, but they recommend them to and prescribe them for others, with a fearlessness which is born of ignorance. They recommend the most potent drugs and pass about physician's prescriptions, which are oftentimes very ill suited, to say the least, to the persons for whom they were *not* intended. This all happens from the laudable desire of the community to relieve suffering. It is a spontaneous expression of good will and fellow feeling, and perhaps an outcome of an hereditary instinct, since in the early ages, when doctors were unknown, it was the custom to carry the sick

upon their beds to the highways leading to the great cities, and there expose them to passers by, who would look upon them, and if they recognized a disease which they or their friends had had, they would tell what had been helpful. It is indeed a cold blooded person who can sit calmly by and hear of aches and pains. and not suggest something for relief. "Take this, it helped me when I was feeling just as you do, and I am sure it will help you," is the usual formula employed. There is scarcely a physician who has not seen the evil results of this meddlesome medicine.

The community has its body, its soul, and its estate to look after. Its soul it commits to the clergyman, its estate to the lawyer, its body to the physician. Clergymen complain sometimes of our indifference to the soul; the physician knows we neglect the body; but the world very seldom neglects its possessions, and, in its selection of a lawyer, uses its uttermost endeavor to find one who will show wisdom and acumen. Yet the real, tangible thing which represents existence in this world is, after all, the body. It is the corporeal entity of muscle and bone, skin and nerve, which, at least for this life, so long as I am *I* and you are *you*, represents the individual. Without the preservation of its health and integrity, what were the wealth of the Indies? When it is enfeebled, how little enjoyment of mind or soul!

Unfortunately, in the selection of a physician the community are at a disadvantage; since to judge accurately of the merits of the physician would require a special education. Equally is the physician at a disadvantage; since his reputation is in the hands of the community, and his reputation is his stock in trade. It is all that he has; the instruments in his surgical case will get rusty, his medicines will become stale and evaporate, he will be seedy and out at the elbows if the community fail to appreciate him, or with a breath blow away his reputation. It often happens that a physician's reputation is at the mercy of his fellow practitioners. Professional jealousies, though perhaps less fierce in the medical profession than in others, do still prevail; since all doctors are not saints. No words are necessary, when a patient coming from another physician, tells what were the opinion and treatment of his case. An upward turning of the eyes, a spreading out of the palms of the hands, a shrug of the shoulders,—and the patient feels that the worst thing possible has been done for him, and that his former medical attendant if not a fool, is then what is worse,

a knave for giving such treatment. How easily a reputation is destroyed!

A certain portion of the community feels its power in this direction; it vaunts itself of its judgment, and says:— "You must employ *my* doctor." Over two hundred years before Christ, one Archagathus, a free born Greek came to Rome. He allowed the sick people to partake of their favorite dishes and drink wines. His popularity was immense, and the Senate conferred upon him the gift of citizenship and an apothecary's shop; but then he took to giving bitter medicines, and his treatment was severe, and, if we can believe the ancient historian, he was on this account stoned to death. You see it is but another illustration that the community wish to be doctored according to their own notions. The physician too, often meets Madame Dill, the subject of this witty epigram:

"Madame Dill
Is very ill,
And nothing will improve her,
Until she sees
The Tuileries,
And waddles through the Louvre."

Madame Dill does not hesitate, in her turn, to pull in pieces the reputation of the doctors whom she has whimsically set aside, or other people's doctors. How she lifts her hands, as she says: "Poor old Mrs. So-and-so! She did not live out half her days! I do not care what others think,—I *know* Dr. B. *killed* her." Madame Dill knew neither the name nor the nature of her friend's malady. With equal readiness does she extol Dr. A., because successful in the simplest exhibition of professional skill that could be given.

I am far from intending to convey the impression that the community never metes out justice to a physician; but I do wish, most emphatically, to call attention to how easily a reputation is destroyed, how unjustly, how recklessly it is done.

In the days of the Puritans, the offices of physician and clergyman were often united in one individual, and both offices were held for a life time. We are fast getting out of the good, old-fashioned way of having a family physician who knows each individual of the family, and his peculiarities. He knows the diseases which have occurred, and the effects they have left upon the system; he

knows that this man exaggerates the slightest ill, while another never complains, even if pain is very great and his trouble is serious. True, there are times when a family physician becomes a fossil, when through this very familiarity, he gets to following a routine treatment, and serious disease invades the household and insidiously grasps at the very vitals of its dearest member. Such instances go far to destroy the belief that there can be an ideal family physician. The rise of the specialists in medicine has tended to break up the influence of the family physician and has lessened his authority. It is greatly to the mutual benefit of the community and of the medical profession that there should be specialists. The field of medicine is constantly broadening. There is need of continual practice in certain lines to obtain requisite knowledge,— a knowledge that can only come from the seeing and examining a large number of patients. A good specialist must have been first a good general practitioner, since one branch of medicine overlaps and depends upon another, so that the various departments are like interlacing circles. Those who are really specialists stand towards the other members of the profession and the community, not as specialists, but as experts.

There are in the community medical tramps. Every physician knows them. They are both credulous and unbelieving. This statement may seem paradoxical; but nevertheless, these are the crowning characteristics of such people. They are credulous in regard to what is told them of the marvellous cures their friends or their neighbors' doctors have wrought; and are unbelieving in regard to what their present physician has told them of their own troubles; and they doubt the efficacy of his prescriptions. They half follow directions, they are irregular in their attendance upon their physician; and, after a few trials after this manner, they float off to some one else. Often they think themselves the prey to some startling malady, even sometimes priding themselves upon it. It is from this class that the faith-and-mind-healers obtain their brilliant results. One patient told me, with considerable pride, that she had had twenty-seven doctors, and not one of them had understood her case.

In surgery, the two and two which will make four can be seen; but very many medical cases are algebraic problems in which are the unknown quantities, x, y, z; and the physician must study with care and patience to work out the proper solution of health.

Much time and money are lost, much pain and suffering are endured by the community, because of lack of faith in the physician, because of lack of perseverance, because of lack of comprehension that a diseased condition which has been in existence for years, cannot be removed in a few weeks.

Intelligent obedience, coupled with confidence, are the great requisites to obtain from physicians the good which it is in their power to do. It was an ancient law in one of the countries of the Orient that if the physician forbade his patient, while under his care, to take wine, and he did so, *even if the patient recovered*, he was to be put to death. Laws were not always so advantageous to the physician as this, for there was a code in the Middle Ages which read as follows: "The physician shall not demand anything, if his patient die. And if a gentleman die after the effects of an operation, the physician shall be delivered up to the relations of the deceased, who may treat him as to them seemeth meet: but if it be a serf whom he has wounded or caused the death of, he shall be made to restore another to the lord." Too often patients hold a physician responsible for lack of success, when it is due to their own carelessness and failure to comply with the directions given.

The question then arises: How can we feel implicit confidence in physicians when we know that they have one set of doctrines in regard to disease during one decade which they entirely set aside the next; when, for one half-century, they bleed and deplete, and the next half-century, stuff their patients; when one drug is all-powerful with one generation and is set aside by the next as possessing no virtue? How can we believe that, in our day and generation, physicians have come to know all things? The physician is not infallible, nor does he claim to be, but he should claim to have studied and perfected himself, as far as he is able, in all that is known of surgery and medicine at the present day. The community, in whose hands the matter rests, should insist that the physician should have studied in colleges in which the highest standard is maintained. Too often is a preference shown for those who get their diplomas in a factory for the same. Public opinion, in this country, does not exact a longer course than two, or at most, three years for its physicians, while in Europe, five to seven years are requisite for graduation. Our government, instead of assisting physicians in their studies, makes their expensive

instruments, which must be imported, one-third or one-half as expensive again because of the duty levied upon them. The question of government aid to the physician is a deep and important one. If the government were to extend patronage to any of the arts and sciences, it would seem that it should do so to that branch of science which has the most to do with the health and welfare of its citizens. Fortunately, private individuals, of enormous wealth, have sufficient benevolence to do something toward increasing the facilities for improving physicians.

Many physicians are patient and painstaking investigators of disease. They are overwhelmed sometimes with the importance of making accurate and close observation. The medical profession of today are aware of the loss that has resulted from the failure of past generations to hand down to posterity the valuable results of experience, which would have helped to make medicine a more exact science. Modern medicine, with its enlightened knowledge and its hospitals, has already attained such results in saving and prolonging life that social scientists are puzzling their brains what to do with that class of individuals which the ancient Greeks disposed of either by slaying them out of hand, or by killing them with neglect. The question of government aid in medical scientific inquiry; the social problems raised by the prolongation of life in individuals who are crippled or injured; the advancement made in various departments of medicine because of modern investigation, are one and all topics which would require an elaborate essay to discuss.

What the medical code styles the "pecuniary acknowledgements" of the physician should, perhaps, be touched upon. The community is rather inclined to under-pay him. Certain it is that the doctor's fees are much smaller in proportion than the lawyer's. The calling of a physician is a most arduous one. His burden of anxieties and cares shortens his life, so that it is not so long as that of the lawyer or of the clergyman. It is seldom that a physician is a good business man, and too often he is called away to his last account, leaving on his ledgers columns of figures, representing bills which will never be paid. The community in general should pay their physicians more readily, more cheerfully, and more in accordance with the importance of the service. A thousand dollars retainer for a lawyer of reputation is not regarded as excessive where a large amount of property is involved, but we

have heard the same amount quoted as a monstrous charge for an operation, the successful performance of which saved the life of the individual. "Doctors earn their money easily," said a woman the other day, as she paid $500 for an operation in which the slightest deviation of the scalpel (as in the majority of operations) would have meant death to the patient. She considered neither the responsibility the surgeon assumed, nor the time and industry required to perfect himself for the operation, nor the years of experience and waiting for the reputation essential for the trust. Madame Dill pays for her diamonds and for her dresses; she would neither go without the jewels, nor have fewer and less elaborate costumes; but she would cheapen her doctor's bills, and grumble at their amount. A friend of mine recently remarked that there is no more heroic figure in modern life than that of the country physician, who cheerfully gets up in the dead of night and rides ten miles to attend some poor woman, who, he knows, can never repay him. Numerous are the calls upon the benevolence of a physician. An important case carries with it so much scientific interest that the money consideration sinks into insignificance in comparison.

Sickness never enters into the calculation of the light-hearted children of men, and to pay money for it when it comes, in addition to all the other discomforts that it brings, is like piling Pelion upon Ossa.

We will dwell but a moment upon the social relation of the physician to the community. It is generally of the most pleasant nature. Du Maurier has characterized one aspect somewhat peculiar to it, when he represents the pompous London physician taking out to dinner a stout old Dowager, who looks up at him with a winning smile, and says: "Doctor, I am so glad that I am going out to dinner with you, since you can tell me what to eat, what to drink, and what to avoid." The medical man is more often called upon in society to express a professional opinion than either of his other professional friends. The clergyman in these days is by no means expected to preach or pray in the drawing-room. It would be a bold person who would ask a lawyer a legal question while exchanging the small talk of society.

A prominent New York banker relates that, in a matter of litigation, he recently called upon the services of a distinguished Wall Street attorney, whose career in public life has given him

great prominence. The affair terminated in a settlement outside of the Court, pending which some dinners were given, where the principals and their attorneys came together. When the banker asked for his bill from the attorney, the figures were $15,000. It struck the man of money that this was a trifle high, and he asked for an itemized account. It read as follows:

To retainer	$5,000
To attendance on five dinners at Delmonico's, $2,000 each	$10,000
Total	$15,000

It is seldom that a doctor in social life escapes a challenge for an opinion on some health topic, personal or impersonal,— oftentimes his interlocutor having the misguided notion that in this way a physician can be most agreeably entertained.

There may be those who have listened to this paper who will think that the relations of the community to the physician have been dwelt upon rather to the neglect of converse. This, you see, has arisen from the necessity of the case — the physician cannot in any sense afford to neglect the community. He must strive, like Madame Blaize, "with manners wondrous winning," to please the community, since he rises or falls according to its opinion of him. Then again, he is bound by the solemn oath of great Hippocrates himself, to do all that is honorable and noble. Moreover, if he is a good and regular physician, he is sworn to a code which will not permit him to blow his own trumpet and advertise his proficiencies; which will not permit him to let the outside world know if he is at sword's points with any of his colleagues; which will not permit him to quarrel over patients with other practitioners, nay, rather to let the patient perish before he would do this vile thing; which will not permit him to have any secrets about his methods of practice. And if he invent an instrument, he must not patent it, since it is for the benefit of humanity — and the instrument makers, who can pocket all the profits.

In closing, I can do no better than to quote what the American Medical Association says, as regards the "Obligation of the Public to Physicians": "The benefits accruing to the public, directly or indirectly, from the active and unwearied beneficence of the profession, are so numerous and important that physicians are justly entitled to the utmost consideration and respect from

the community. The public ought, likewise, to entertain a just appreciation of medical qualifications, to make a proper discrimination between science and the assumptions of ignorance and empiricism; to afford every encouragement and facility for the acquisition of medical education."

The physician is no physician, in the highest and truest sense, who does not feel that his obligations to the public demand the highest and best endeavor within the power of the individual to give.

II. THE FUNCTION OF THE LUNGS.

READ BY D. EMERY HOLMAN, M. D., OF NEW YORK.

(September 7, 1887.)

Prolongation of life is the greatest effort made by all humanity. Preservation of life is one of the strongest principles of instinct. There is scarcely any sacrifice people will not make to gain this object. Yet how startling is the fact — the prevalence of death among the youth of this country who are under thirty years of age! This vast population of such limited career and little usefulness go out of existence at the very time when life should be the brightest and fullest of great deeds. By looking into the causes of this great calamity, it is found that the greater proportion of the community is carried away by some variety of lung complications. If this is the source of the evil, then here the remedy must be applied. The spot most liable to attack must be guarded. It is well understood how rapidly a stream of water will destroy a fortification if once the work gives way. The lung tissue must be trained and toughened to resist opposing elements, as the muscles of the athlete are prepared for conflict. My subject will be treated entirely from a popular standpoint, the use of technical terms and scientific definitions being carefully avoided.

The problem of life is exceedingly interesting and the solution often difficult. The length of life of the humanrace should equal or exceed one hundred, years according to the law of development of being in the created kingdom, that "the duration of life is five times that of the number of years coming to maturity." There is an endless variety of life in the world. Beginning with plants, we have the mould, which lasts but an hour, and the cedar, which lasts for a thousand years. In the insect world the ephemeron lasts only a day, and at twenty hours of age becomes an experienced veteran and looks upon its numerous descendants much as the parents of Eden would today regard the vast multitude of beings throughout the universe. These are insects of a higher order, whose existence through various stages of larva, chrysalis and butterfly requires a period of years. Among mammalians the same marked contrast prevails between the little animals of a few months and

Man, who should live for a century. Length of life should be in proportion to the time required for development.

The term of maturity of the little underground animals is a few months. Their period of existence is but a few years long. The horse reaches his full growth in three or four years and he lives fifteen to twenty years. The camel grows to the twentieth year, and his life is coëqual with the century plant of the desert. The time of maturity of the human family is twenty or twenty-five years. Thus our lives should extend to one hundred years or more. The experience of the past proves that this law is correct. The world of people generally regard as fabulous the great ages of the patriarchs. If we remember that the year, until the time of Abraham, consisted of only three months, the length of their lives does not so far surpass that of many modern instances. It was not until a much later period of the world's history that the year was made up of twelve calendar months. In remote parts of Asia the division of a year into three months is occasionally found today.

An instance of longevity in the more remote Middle Ages was Luceja, the Roman actress, who appeared on the stage for a whole century. Making her first appearance at twelve, she lived to the age of one hundred and twelve years. Helen Gray, of London, England, was favored by the actual growth of a new set of teeth at the advanced age of one hundred and five years. Henry Jenkins, of Yorkshire, England, is one of the most remarkable cases of long life. One hundred and forty years before his death he was a witness in the court and in all probability was a person of some years at that time, or he would not have figured in that capacity. He was a fisherman and lived one hundred and sixty-nine years. Others of great age were: the Countess of Desmond, 150 years; Thomas Parr, Shropshire, Eng., 152 years; Cybrinski, a Poland priest, 167 years; a United States pensioner, 117 years; Margaret Patten, Scotland, 141 years; Henry Evans, a Welshman, 129 years; Jane Schrimshaw, London, 127 years; Cornaro, a Venetian nobleman, 104 years; Marion Delorme, France, 134 years; Letitia Cox, Bybrook, Jamaica, 160 years; Peter Torten-Kafrock, Hungary, 185 years; Varnavas Pangolos, the Greek patriot, 111 years.

The reader will doubtless say that these extreme cases are doubtful. As additional proof, one of my own kindred might be

added to the list, whose life has already completed the 105th year, and who is still able to dictate correspondence to relatives at a distance.

From these—life histories we must be convinced that something is wrong with a great part of the race. The celebrated case of the Countess of Desmond is of so much interest that it might be well to mention it. "She was of the family of Fitzgerald of Drumana in the county of Waterford. When Edward IV was king, the countess married the fourteenth Earl of Desmond, visited England during the same reign, was presented at court, and danced with the Duke of Gloucester, afterwards Richard III. Sir Walter Raleigh says that in his time she was no less remarkable for her sprightliness than for her age. The house of Desmond was ruined by an attainder after the countess had lived over a century, and in her one hundred and fortieth year she travelled from Bristol to London to solicit relief from the court. She lived some years after this and twice cut a full set of teeth. She was nearly 150 when she died, as well preserved as many a woman at sixty."

In the reign of James I a morris dance was performed in Herefordshire by twelve people whose united ages amounted to 1,209 years. It would be difficult to say which was the greater wonder, that so many people in one small county should live so long, or that they should be in health or strength and spirits to travel and to dance.

The great number of deaths at all ages and stages of existence caused from some affection of the lungs makes the topic one of grave importance as well as deep interest to the community. There are the old fashioned asthmas, the pleurisies, the emphysemas, the pneumonias and phthises or consumption, the most terrible of them all, and the greatest enemy to even the prime of life. The lungs seem to be the grand highway of disease, and it is natural that they should be such when we consider their extent, great exposure, constant use and their neglect and great abuse.

The two large organs of the lungs, composed of one elastic, spongy tissue, occupy nearly the entire upper part of the chest cavity. They extend from the lower part of the neck to the lower border of the ribs. They commence with the trachea or windpipe. This divides at the lower part of the neck into two parts, one for the left and one for the right lung. These sub-divide until they

approach the last division, which is called the ultimate bronchial tube. This opens into a small space called the pulmonary lobule, which is composed of small partitions known as vesicles. These are surrounded by an exceedingly thin membrane covered with most minute blood vessels, over which passes the entire quantity of the blood of the body. The volume of air breathed at each inspiration within these spaces is brought into the closest proximity with the blood. Hence the great importance that every inch of these surfaces should be in perfect condition. The sum of all these little spaces where the air meets the blood is equal to the enormous area of 150 square yards. The external atmosphere may at each breath be bringing in all manner of deleterious material, seeking some weak spot to gain a foothold. This weak place cannot exist without danger to health. For the entire current of the blood comes here to obtain from the outside world the life-giving principle, or else the animal functions of life cannot exist. If we exclude the air from a burning coal it ceases to be bright. If the air is diminished from the lungs of a child it loses its bright color. If the air is entirely taken away from the growing plant the leaves droop and the blossoms fade. If it is suddenly denied the animal kingdom, violent spasms and a speedy death ensue. This vast surface of 150 square yards of tissue covering the blood requires the supply of pure oxygen from the air 1,080 times every hour. Obnoxious elements of every description are unceasingly, night and day, poured into this tissue organism, and they are rendered powerless only accordingly to the power of resistance. This great surface exposed to all enemies of health should be as well and thoroughly tended and every cell well washed with air as that the hands and face should be washed or the stomach should be free, or the muscles of the legs and arms receive proper exercise. When children play and race and romp they fill the lungs in every part, and the very exercise strengthens the lung tissues. And how rare are pulmonary troubles found at this age.

Belief in hereditary influence is greatly exaggerated, and the effect is often demoralizing upon the individual who thinks himself the victim of some disease which his ancestors possessed. Surroundings and training should entirely overcome such possibilities and the existence of any such belief. Tender, pale green plants may exist in shady places with poor light and unfertile soil for years in succession. But bring them out of their harmful

situation and they no longer keep their delicate form. They gain perfection of leaf and stalk and bud and flower.

The races of many of the older parts of Europe retain the same lineaments of face and expression, and the same characteristics generation after generation. But bring them out of their surroundings into a better country, with chances of development, and we have a changed being. The old type disappears and the new becomes superior in stature, physique and intelligence. The old man from the oppressed parts of Ireland is a decrepit, forlorn, unintelligent being. His descendants appear in the same phase under the same conditions. But let those descendants change surroundings and conditions and seek new soil, better training for body and mind, and a splendid specimen of his race is the result; the elements of hereditary tendency are overcome by better opportunities.

The belief of heirship in disease should not be allowed to oppress the minds of the race, even if such possibilities may exist under the same conditions and prevailing circumstances. If a father has a form of dyspepsia of long standing and great severity, caused by a combination of unfavorable elements and events, it does not follow that the child should receive the same affliction when he comes into the world with a perfectly healthful digestive apparatus and full of youthful vigor. If an ancestor has a valve of the heart ruptured or injured as the result of some fever, thus causing organic lesions, it seems next to the impossible that a descendant should inherit any such complication, or be any more prone to the trouble than the descendants of a confirmed dyspeptic.

If two puny, inferior persons have a family of poor order and similar physique, it seems to be the generally expected result. If two finely formed people, remarkably well balanced in mind and body, truly splendid specimens, have children of plain features, small stature, and but little mind, notwithstanding the fact that such is frequently the case, the observers are generally astonished, but do not lay such a condition to the influence of heredity. Hence it is better for the sake of happiness that such a belief should not control us, and its influence upon the body cannot be overestimated. A child comes into the world and from its very start is made to believe that it must sooner or later — generally immediately — have either asthma or indigestion or heart disease or consumption, because some one who preceded it was likewise

afflicted. The courage to fight any of these conditions, which might be acquired from without, is entirely destroyed, and they are accepted as the inevitable.

The discussion of the lungs must necessarily embrace that of the entire air passages, including the nose, throat and trachea, and bronchial tubes. It is possible that half the lung diseases may be traced indirectly to some defect in the upper air tract. These various portions or divisions must be considered. They must be complete, perfect, and perform their proper functions without hindrance. The defects are easily remedied, and this should be one of the first duties of those in charge of children. The nose, the proper breathing canal, should be free and admit the full current of air. The nose has within its channels the required elements for clearing the air of dust and foreign particles and warming it for the lower cavity. Any occlusion of the nose compels the air to be taken by the mouth — a most pernicious habit, decidedly disagreeable to the individual, deleterious to the general health, which even causes narrowing of the chest and seriously affects lung capacity. Another result is the deforming of the features of the face and the imparting of a disagreeable expression to the countenance. The current of air passing over the teeth hastens their decay and by that means impairs the bodily condition. These little props of sound health are of vast importance. When one of them is allowed to be taken away the strong constitution is just so much weakened.

The throat is the next channel for the inspired air, and its calibre and surroundings should be sufficient for its conveyance. A bad condition of the membrane, a pair of enlarged tonsils, or a state of inflammation will greatly affect the state of health. Most mothers' tender regard for their offspring will prevent them from proper attention and removal of all the obstacles to the free and perfect passage of air to the lungs, and the little victims are a thousand times more thrust into disease of the lungs than found there by a state of hereditary propensity. It should rather be laid to the unwillingness and perversity of their guardians.

The first step in childhood and youth is to give the lungs a fair chance to fill themselves to their full capacity at each respiration. Limit the supply of air and the result is diminished lung room. These obstacles must all be attended to and removed. They are all of simple origin. The formation of the necessary and proper

inlet to the air readily accomplished, the results are immediate and more than repay the little time and trouble required for this correction. The wheel, well supplied with water, will turn on indefinitely; but diminish the stream, and the whole machinery quickly feels the change and the wheel loses its power. Give the lungs an opportunity to secure, from the outside world, their needed supply of air and the next step will be to toughen them to resist the enemy. The methods are varied and of a most interesting character. The means of training many parts of the body are those of tiresome years of labor. For instance — the training of the muscles of the athlete, or the dexterity of the muscles of the hand required by the musician, or the skilled feet of the rope walker. But the development of the upper contents of the chest wall is pleasant, easy, natural, most invigorating, and most beneficial to the system at large. When the day begins, the first breath of air should fill the lungs to their utmost extent. Every space and every cell should be extended. The breath should be long and deep and without hindrance of any kind. When fully extended, the remotest corners may be reached by blows upon the chest well given by the hand under pressure of the breath, which drives every portion from its collapsed condition. A regular system of prescribed exercises is adopted for carrying out this plan of development — breathing gymnastics.

A most agreeable result is obtained by the art of singing, as taught by a competent master. It is a well-known fact, and one frequently commented upon, that singers become very robust in appearance, and of great endurance. The requirements of an opera singer are even greater than those of the blacksmith. Strength, nerve, power, and great endurance are absolute necessities.

Good reasons why everybody should learn to sing are found in the "Psalms, Sonnets, and Songs," published centuries ago, in 1588:

I. It is a knowledge easily taught and quickly learned where there is a good master and an apt pupil.

II. The exercise of singing is delightful to nature and good to preserve the health of man.

III. It doth strengthen all parts of the breast and doth open the pipes.

IV. It is a singularly good remedy for stuttering and stammering in speech.

V. It is the best means to procure a perfect pronunciation and to make a good orator.

VI. It is the only way to know where nature has bestowed a sweet voice, and in many that excellent gift is lost because they want art to express nature.

VII. There is not any music of instrument whatsoever comparable to that which is made of the voices of men, where the voices are good and the same well sorted and ordered.

VIII. The better the voice is, the meeter it is to honor and serve God therewith and the voice of man is chiefly to be employed to that end.

"Since singing is so good a thing,
I wish all men would learn to sing."

It would be exceedingly difficult to find a singer in active practice possessing any radical lung difficulty. The principle of taking sufficient breath for sustained measures or long sentences puts every fibre of the elastic lung substance to its full test and leaves no weak spot for accumulating tubercules. Every particle of blood flowing through these elastic meshes must receive their full amount of life-giving oxygen, and the whole system receives unbounded benefit. How often the remark is made about singers that "they look as if they could sing." Their very presence inspires the belief that they are in the best of bodily condition — possess a jolly disposition, and a buoyancy of spirit which pervades the surrounding atmosphere. A person with a sickly body, surly looks, melancholy disposition, and unhappy character, certainly could not harmonize with a charming voice, nor the idea ever occur to us that such an one could sing. Training produces marvellous results to whatever part of the body it is applied. From the angular and ugly are produced the rotund and the beautiful. Bad voices can be trained to become agreeable, morose dispositions made congenial, undeveloped muscles made round and firm and strong; vicious characters made harmless and gentle, weak lungs made strong and free from disease, and the tendency to short lives changed to the possibility of prolonged existence. The enunciation of the American language has become so depraved except among singers, actors, and a few orators, that listening to our own mother tongue is painful. The poor, undeveloped speaking voice, the nasal twang, or the guttural sounds, or the high-pitched quality, or the something or other about ninety-nine out of a hundred voices, makes a truly beautiful language most unmusical. Children in the public schools are allowed to continue all their pernicious habits of intonation, which are disregarded at home.

Many of the modern schools are supplied with vocal teachers, but the principles are not followed up practically in the speaking voice. In society gatherings of educated and literary persons, the brilliant thoughts and learned statements are presented to the listeners with so bad a delivery that half their force is lost to the public.

If the homes of most of the American people should be visited with the intention of listening to the voices of children in their conversation, the flat-nasal or imperfect quality of voice would prevail. They are a proud and ambitious people, anxious for culture, education, and the advancement of their families, and strive to gain for them whatever money can buy for their good. Yet we neglect the most marked accomplishment of all,— a round, clear, full-toned speaking voice.

The children at home are allowed to acquire an unpardonable habit. The bright young people in places of employment are sadly deficient in speaking well, and the children of the farmers obtain a twang to their voices most unbearable. All the result of lack of attention to good speaking. It is frequently asked by foreign nations if the Americans get their bad quality of voice from the Indians. And it is not to be wondered at, when we listen to ourselves and hear the defects. And it is this same continuance of the lack of attention to a full, round, smooth, well-pitched quality of the voice in the family, among all our school teachers, and in general society, which is daily robbing a wonderful language of its music, its purity, and its grandeur. Singing not only assists enunciation, but also fills the air cells of the lungs in a most complete manner, and strengthens all parts of the breast which contains so many of the vital organs. Care of the external parts of the chest is of considerable importance, as a means of hardening and strengthening its walls, and sending the blood more actively through its channels. Strike the upper part of the chest with the palm of the hand, after dipping it in water, a number of blows on the same side, until a full red color appears, then follow by a vigorous use of a coarse towel.

Proper gymnastics of a general character, intended to strengthen the muscles as a whole, are of value in developing the external parts of shoulders and upper parts of the body.

An important element of health and strength is good air, good food and good water. The first of these is generally supplied and

can be obtained on every hand, and by a little care and attention, giving it free egress to the workshop, to the sitting-room, or the sleeping apartment.

The organism requires its daily supply of food as a supporting element, and it should be of proper quality and quantity. The greatest abuse of the present generation is found in this department. But two articles of diet are sufficient to maintain life in its most healthful state. Instead of this simple regimen, we have an unpardonable list of ingredients placed before us three or four times each day, and tax the powers to their utmost with frozen, thawed, or burning mixtures. The recipient is coaxed, surprised, stuffed, until it becomes a miracle that we are able to bear the burden of our own indiscretion. Rarely, from the early cry in infancy until its warning voice ceases at the end, does its guardian give it needed care and rest. Grain and flesh prepared in the simplest manner, a greater proportion and more frequent use of the former of the two articles of food, should constitute the main portion of the general diet.

How vastly different from this rule is the common table, even of the poor men of cities and towns. The plainer class of people, remote from cities, where cases of long life are most frequently found, approach nearer to the proper plan of food supply. Hence they avoid many evils of the dyspeptic and invalid occupant of the village. The enormous variety of dishes placed at the disposal of most people is not only a source of many of the ills of mankind, but also a most pronounced way of over-taxing the various organs, which are compelled to work beyond their limit; and, at forty years of age, they are worn out instead of doubling that number of years.

It has been proved to the world that fasting can be carried on for an extended length of time without great inconvenience or detriment to the experimenter. The limit of forty days has frequently been the number attained by many of those attempting the feat, and the result is that after forty-eight hours, a better feeling prevails than under ordinary conditions of regular meals. A craving for food takes place at first, from the habit the system is in of taking nourishment, then the sensation ceases, possibly by some of the nerves becoming non-sensitive. The Italian Paulozzo, who became famous for his religious fasts in the fourteenth century, completed his forty days of Lent under the watchful eyes of the bishops, and he was pronounced "the simple and good man," on

account of his abstinence from food during so long a period of the church's fasting season. Water is always taken at will and in considerable quantity. The Tanner fast of recent date is not unfamiliar to the public, and certainly illustrates the fact that three solid meals per day are not absolutely necessary for health or comfort or support of the body. A less number and amount would be ample for all needs and thus prevent many of the congestions and evils of the digestive system.

There are many indirect but valuable ways of fortifying the chest against its great enemies. Swimming is one of the most powerful and exhilarating methods. Its many advantages are gained by the great freedom of movement allowed in the water, the great number of muscles brought into play, the strength acquired by the nervous system in overcoming the shock of cold, and the great endurance gained by the long continuance of this exercise. Rowing approaches next to swimming in point of value, yet is more limited in its action. General gymnastics, although more artificial, are of great value. Many of the games, as ball playing, croquet, lawn tennis, etc., are not looked upon with much favor, as they develop on one side more than the other the muscles of the body.

The occupation most conducive to the health of the lungs, and best adapted to prolong life, is work upon a farm, or the labor of clearing forest lands. It is employment easily obtained and furnishes, in great part, all the requirements of the body. It is a field of labor always open to rich and poor alike; to all ages and conditions of men, and the neglected acres of the country show that the tide of ambition has carried its population to more lucrative shores and left the healthful country places untenanted. The statistics of city life show a terrible mortality from lung disease. That of Paris shows that one-fourth to one-fifth of the population die of consumption.

In the enumeration of the various means for keeping the lungs in health, only the most prominent have been mentioned. Almost any three of these should be sufficient to gain the object. If such is the case, the use of them all should be positive. As the tendency is for the mortal part to change and decay, the body should be fortified in every possible way, to resist the daily attack. We are not yet ready to adopt the visionary belief of "the mind cure sect," who deny the mortal parts, (such as valves of the heart,) inflammation of the lungs, or

the possibilities of contagion; nor can we say that sin and error are washed away by denial, or that we can throw our aches, pains, and deformities into the wells of oblivion. One of their own peculiar phrases (if it means anything) which they frequently use might be applied to their belief,—"A protoplasmic void."

The prevention of what is called the ordinary cold is a matter of importance. When this acute active inflammation of the mucous membrane of the nose, throat, and bronchial tubes takes place, it is caused by damp, cold air upon the sensitive portions of the body. At first a congestion, then an inflammation follows. These sensitive places may be limited to two in number — the neck and feet. By a simple process of treatment, these channels of so much discomfort and the apparent origin of so many troubles can be greatly lessened.

As the topic of this paper under consideration, and the time allowed for it are limited, the modern methods of treating the various pulmonary diseases when once they are acquired and the good results cannot be given here. But a mere hint at their possibilities may give great encouragement, by mention of prominent cases as among physicians themselves, a class of people subject to many hardships and great exposure. Several British physicians at the Riviera are in good health, who formerly were considered hopeless. Others are at Algiers and in Switzerland, and examples of the same class of cases in the medical profession are living proofs in Colorado. As a closing example of what can be gained by skilful training for long life, that of Cornaro, the Venetian nobleman and physician might be given. A man of many vices, poor health, and a weak constitution, at the age of forty years he was so broken down by excesses, and so ill, that his attendants considered his life of short duration. In this condition, he commenced to repair the state of his health, and was so successful that he lived to be one hundred and four years of age. Between ninety and one hundred years old, he wrote vigorous and interesting treatises on the preservation of health and long life.

As we are placed on the earth for a period of years, it is to our advantage to make the most of it. We want health and wealth and friends and happiness, and a good disposition and buoyancy of spirit, and all the charms of a broad and generous career for the longest term of years; and "when a noble life has prepared old age, it is not the decline that it reveals, but the first days of immortality."

III. CERTAIN INJURIOUS INFLUENCES OF CITY LIFE AND THEIR REMOVAL.

BY WALTER B. PLATT, M.D., F.R.C.S. (ENG.), OF BALTIMORE.

(Read September 7, 1887, before the American Social Science Association.)

I do not intend to discuss in this paper the subjects of bad ventilation and impure air, imperfect drainage, damp cellars or insufficient nourishment. Residents of the country may suffer from all these, as well as dwellers in cities. There are, however, certain injurious influences more insidious in their operation, which are peculiar to cities, and affect the well-to-do as well as the poor, although not in equal degrees. I believe these lead, sooner or later, to degeneration of the individual and his offspring, by producing progressive feebleness, and to ultimate extinction of such families as are long subjected to their force. I refer to those influences which chiefly affect the stability of the nervous system, rendering it less capable of sustained work, and, in a secondary way only, the circulation and general nutrition. The end-result of all these influences is to lessen the producing power of each man, and thus to depreciate his value as an economic factor. They ought not to exist if their removal be possible, and if it can be effected without greater expense than their ill effects warrant. Their cause is to be found in faulty municipal arrangements, which can be largely corrected by intelligent action and supervision. They work by producing insomnia, and aberrant forms of mental action; singling out those who are less strong as subjects of the so-called neurasthenia. These effects accumulate with each successive generation subjected to their influence, until the final inheritor finds the load too heavy to bear and do any useful work. The ne'er-do-wells and idlers are often (not always) such, from actual inability for persistent effort. Let us see if such influences exist, if they are injurious to any considerable extent, and if it is practicable to remove or modify them.

We refer chiefly to three, and these are:

1. Disuse of the upper extremities for any considerable muscular exertion.

2. The incessant noise of a large city.

3. Jarring of the brain and spinal cord, by continual treading

upon the stone and bricks which make up our sidewalks and streets.

We leave out of the question those persons to whom these observations do not apply, *viz:* such as are able to spend nearly half the year out of town. Experience has shown that such individuals and families suffer in small degree from an ordinary city life. While on the other hand good authorities assert, that there are very few families now living in London, who with their predecessors, have resided there continuously for three generations.

(1.) Disuse of the Upper Extremities.

If there is one general physical difference between the country-bred and the city-bred man, it lies in the size and strength of the muscles of the shoulder and arm. It is almost impossible for a man to live in the country, without using the arms far more than the average city man. This use of the arms has, in both men and women, an important bearing on the general health, since it increases the capacity of the chest, and thereby the surface of lung tissue, where the blood is spread out in thin walled vessels, through which the oxygen and carbonic acid easily pass in opposite directions; serving thus the double purpose of feeding the body more abundantly and of removing a constantly accumulating waste product. This richer blood is again driven with greater force by increased heart and arterial action through its circuit. The vital organs are better nourished and the power to produce work is increased. Few will deny that a well nourished body can be trained to do more and better mental work than the same organism in a feebler state. Walking on an even surface, the only variety of physical exercise which most business and professional men get in town, is well known to be a poor substitute for arm-exertion. The reason is partially plain, since walking is almost automatic and involuntary. The walking mechanism is set in motion as we would turn an hour-glass, and requires little attention, much less volition and separate discharges of force from the brain surface, with each muscular contraction, as is the case with the great majority of *arm* movements. The arm user is a higher animal than the leg user. Arm motions are more nearly associated with mental action than leg movements. A man's lower limbs merely carry his higher centres to his food or work. The latter must be executed with his arms and hands.

A third way in which arm exercise benefits the organism is through the nervous system. Whether this is due to an increased supply of richer, purer blood, or whether the continual discharge of motor impulses in some way stores up another variety of force, we do not know. One thing is certain, the victim of neurasthenia is very seldom an individual who daily uses his arms for muscular work; with this, the limit of hurtful mental work is seldom reached.

It seems evident that arm rather than leg movements are essential to increased productive power. If these are neglected, the man as a social factor degenerates, and falls a prey to his stronger fellow man in the race for supremacy and productiveness. It may be remarked that American gout,—that condition of the blood which causes our English cousins pain in their feet, and Americans universal pains and increased irritability,—has one sovereign remedy so simple that few will take it; and this is, daily, systematic arm-exercise. It is nature's sedative, for which she charges nothing the next day, but gives us sleep instead of insomnia, and cheerfulness in place of discontent. A man may walk in an hour, four miles on a city side-walk, and reach his desk tired, exhausted of force, and better only for the open air and a slight increase of the circulation. Had he spent half that time in a well ordered gymnasium, using chest and rowing-weights, and after a sponge-bath, if he had gone by rapid transit to his office, he would have found his work of a very different color, easier to do, and taking less time to perform it. The view for some time held by Hartwell of the Johns Hopkins University, Sargent of Harvard, and others, that arm exercise prevents or does away with nervous irritability, and at the same time increases the absolute capacity for mental work, has not been sufficiently urged or accepted.

The remedy for this state of things is to cause every man and woman to realize the importance of arm exercise. Make it compulsory in schools, and popular after leaving school. If one's occupation does not require it in itself, muscular exertion of some kind ought to be taken daily with the same regularity as food and sleep; for all three are necessary to the fullest development of our powers.

(2.) Noise.

A second injurious influence, which pertains exclusively to city life, is incessant noise. This may not be very intense at any time, but when continuous, it acts as certainly upon the nervous system as water falling upon a harder or softer stone. Recent experiments upon animals subjected to the sound of a continuously vibrating tuning-fork for a number of hours, one or two days in all, show that the first effect is that of an irritant to the nerve centres, as certainly as an acid or an electric shock is to muscle fibre. A secondary visible effect is opacity of the crystalline lens of the eye.

The noise of a city is, at first, painful and confusing to one unaccustomed to it. I do not maintain that a really bad effect is at once apparent upon most individuals. When people are subjected to such a variety of influences, it is difficult to isolate and measure the result of one. Not infrequently, a change from a noisy to a quieter part of town is most beneficial to especially sensitive individuals. Much noise is unnecessary to the performance of most useful work. It means waste, wear, and tear in the majority of cases. The most perfect are the most noiseless machines, and this applies to the social organism as well. The rattle of badly built wagons over poor pavements, the ringing of milkmens' bells, or the jangling of those on street cars, street cries, and the like, have long been recognized as evils in European cities, and are suppressed in many places. In certain streets in Berlin, heavily laden carts and wagons are never allowed, and in others only when the horses walk. In Munich, the street cars have no bells. Recently, in New York, a measure has been under favorable consideration to abolish the ringing of milkmens' bells, and to have those on street cars taken off. The immense relief to the residents of a street in Baltimore, where the cars run every three minutes in each direction, when the bells were omitted for several weeks on account of sickness in that street, will not soon be forgotten.

Every one will instinctively call to mind boiler makers and workers in factories, as instances where men work for years in incessant din without injury. These are instances like those of pearl divers and miners, and show, rather, what can be endured by some than what is best for most. On the other hand, we have

all known individuals in whom the slightest noises cause absolute pain. The blowing of locomotive and factory whistles within city limits, has been abolished in some of our largest municipalities. The loud ringing of church bells at all hours of the day and night, in this age, when every one knows the hour of prayer, hardly recommends the religion of Good Will to men. All these unnecessary noises add more weight to the over-taxed nervous systems of many men and women who cannot escape them. It is certain that with the increasing intensity of city life, and its consequent strain, such things must be lessened, as far as compatible with business interests. Suitably enforced municipal regulations can do this. Elevated railroads should not be permitted in streets where men and women live. Under-ground roads should take their place where it is possible. Certain streets, or blocks at least, should be reserved for business purposes, others for dwellings alone, and heavy wagons allowed only on the first named, unless they are to leave their freight in the block. Rattling irons and chains should not be allowed. Pavements should be thoroughly laid, and then kept in repair. Londoners find asphalt the best pavement for all but the heaviest traffic, in spite of its being very slippery in wet weather. The other advantages far outweigh this one disadvantage. Horses can draw much heavier loads than on Belgian block, with less noise, while they are the cleanest pavements known. Those called asphalt pavements in America are a poor imitation of what our English brethren enjoy. Intelligent, honest city government, in a word, will give us health as well as increased business facilities.

(3) Jarring.

A more hurtful influence of city life is one that has not received the attention it deserves. Combined with the preceding two, it completes a formidable trio. Very few realize the fact that we who were designed to tread upon soft Mother Earth, have become a race of dwellers upon rocks and stones. In walking, the jar of the fall of our one hundred and fifty pounds comes entirely upon the heel, since it first strikes the ground. The ball of the foot and the instep serve only to raise us for another downfall, small, it is true, but equal to the weight of our bodies falling through one-half to one inch in a little less than one second. This shock would be sudden and unbearable, but for the arrangement of the

bones, muscles, and ligaments of the lower limb. The chief elastic distributing springs are the mass of muscles on the front of the thigh and that on the front of the leg. These deaden the shock much as two great India-rubber bands. The ankle and hip-joints help but little, while the curves of the spine and the discs of cartilage between the vertebrae aid a great deal in lessening the impact of the body with the ground. This shock in ordinary walking is less than if the body be raised one-half or three-fourths of an inch on the toes, and then suddenly let fall upon the heels; since the limb which is put forward is somewhat like the spoke of a wheel, if we imagine a wheel consisting of an axle and spokes alone. The brain bears almost the same relation to its containing bony case, the skull, as the ball does to the cup in the old-fashioned cup-and-ball, where the ball is tossed into the air and caught in its cup with a sharp shock.

If any one doubts that there is a distinct and decided *jar* of the brain with each step, let him walk a hundred yards when the brain is slightly over-sensitive from a bad cold or headache, and he will observe the pain each step causes. Or more scientifically, let them place (as I did recently) a pedometer inside the hat and it will register every time the heel strikes the ground. Fortunatley, the brain, in health, does not perceive these slight jars to its own substance, and interpret them as pain. Nature provides one more anatomical precaution against jarring by slinging up the brain in its spherical hammock, the *dura mater*. Now, in many people, the ill effect of these thousands of slight, daily concussions accumulate; and, after a time, concur with other causes in producing that state of disability called nervous exhaustion. An observant man may see at one side of any stone or brick side-walk in the city, wherever there is soft ground near by, a well-worn path which will be instinctively chosen by pedestrians. If we test ourourselves, we shall find the chief reason of our choice is because it jars us less to walk there than upon stones and bricks.

Most healthy men endure these concussions for a long time without very serious effects; while others, who suffer from them, are entirely restored by enforced rest, provided the circulation be at the same time maintained. It is not improbable that some of the long, cob-web-like processes of the nerve cells are damaged by being shaken for months and years over city pavements. Statistics upon such a matter are almost out of the question where

insufficient exercise, noise, and jarring of the nerve centres combine with other influences to overthrow the individual or to lessen his productive powers.

If it be, then, injurious to some, to walk daily for years upon stones and bricks, and less so upon earth or softer material, this can be remedied in two ways; First, by changing the material of our side-walks to a more elastic one. Something is needed for pedestrians which will be durable, yet not hard. Some of the varieties of asphalt composition are elastic, but none of them sufficiently durable, as far as I know.

Nature suggests a remedy, in a second way, by covering the human heel itself, where we find a very elastic pad one-half an inch thick, to lessen the jar of walking. If we replace the perfectly hard boot heel by an elastic india-rubber one, we provide an inexpensive and practical remedy, which it would cost the wearer but a few cents a month to keep in repair. This cover has the additional advantage of lessening the noise of hurrying feet, and preventing broken bones in the winter season. If, now, our city authorities will, at some future time, provide gymnasia, as well as libraries and parks, make our large towns quiet, as well as clean, and give us side-walks more like Mother Earth, I believe such a favored community will produce more, and lead, collectively, a happier life than most of our modern towns do now.

IV. THE CRIMINAL TYPE.

A PAPER BY WILLIAM NOYES, M. D., ASSISTANT-PHYSICIAN AT THE BLOOMINGDALE ASYLUM, NEW YORK.

(Read Wednesday, September 7, 1887.)

The problem of dealing with crime in America, has been largely a question of administration. The *pros* and *cons* of the "piece-piece" system, the State account system, and the contract system, have chiefly claimed the attention of our legislators, and the question is now, at most, simply one of the multifarious ramifications of our complex labor problem. Within the past four years the citizens of New York have witnessed the phenomenal spectacle of a change in the methods of conducting our prisons, by which the convict class, which was more than self-supporting between 1877 and 1884 under the contract system, is now made a burden on the tax payers, to an amount estimated at five millions of dollars in three years. And by what arguments, is it asked, were the opponents of the old plan able to bring about such a disastrous change in our prison policy? Simply by raising the cry that *Labor* was unjustly competed with, and so we "tax a thousand farmers in order to keep up the wages of one mechanic."

It were useless, however, to attempt to follow the vagaries of Albany legislators; and the matter is only germane to our present subject, as showing the manner in which the public mind is most easily affected, and its total disregard of all questions save those directly affecting the pocket. For, in truth, it is not as an object-lesson in pernicious political economy that our prisons have an exceeding interest to the scientific mind; but rather that there is being played there a drama which, for interest and for importance to the future welfare of the race equals any that has ever been enacted.

With the struggle for existence, and (let us hope) with the "survival of the fittest" we are all familiar; but there is also another struggle going on in our midst, with far different results, the chief of which is the *Survival of the Unfittest*, and it is the question of the criminal as a distinct type of the human species that you are asked to consider. At first thought, nothing could

be more hideous or repulsive than an inquiry into the natural history of crime; but the questions that it brings up and the speculations that it suggests are of such importance that we lose all feeling but that of interest.

To this new science, which considers the criminal rather than the crime, its founders have given the name of *Criminology*, which, for want of a better, we may accept, in spite of the protests of the verbalists. To Benedickt in Germany, Tarde in France, and Garofolo and Lombroso in Italy, is due among others, the credit of raising the study of the criminal to a secure position in the science of Anthropology; and to the last of these, Lombroso, especial distinction is due for his masterly study on the congenital criminal. His *L'Uomo Delinquente*, which has but recently been translated into French as *L'Homme Criminel*, is a classic, and to him must be given the credit of reducing to a system our knowledge of the criminal as a distinct type. His volume of eight hundred pages fulfils all the conditions that we demand in the modern scientific treatise; that is, we are given the embryology of crime, the natural history of the criminal, the anatomical and physiological peculiarities, the mode of life, the sentiments, passions, morality, religion, intelligence, language, literature, writing, and speech;— the psychology in fact, of a distinct and highly individualized class. It will be Lombroso's work that we shall be chiefly concerned with, and it will be his facts and his theories, with such criticisms as others have made on them that will be considered.

It is to be borne in mind that it is only the professional criminal we are dealing with at present; the regular inhabitant of our jails and prisons, and not the "criminals of occasion" as the French call those who trip but once or twice over some moral stumbling block.

Before considering the criminal, it were worth while to examine for a moment crime itself, or, rather, what our author calls the *embryology of crime*,— that is, the existence of crime, or what is the equivalent, among the lower organisms. Analogies in the vegetable kingdom, chiefly among the insectivorous plants, are sufficiently common, but only of importance enough to merit a passing notice. Among animals, many of the crimes of our statute-books find their exact counterpart. Ferri[1] found 22 vari-

[1] Ferri, Dell' Omicido, 1884.

eties of murder among animals, several of which were the same as those for which the laws provide punishment. Murder to procure food is common, and murder for the leadership of the tribe occurs among horses, bulls, and stags. The new arrivals in the monkey-cages have their teeth and muscles examined by the others; and, if these are lacking, they are maltreated with impunity. Cannibalism is common among rats, mice, and fish; and serpents, porpoises, and rabbits are also known to devour one another. Infanticide and parricide occur among crocodiles, birds, and monkeys, and even among cats, dogs, and rabbits. Ingenious thefts are common among apes and cats; the kidnapping of minors among the red ants; and the substitution of the young with the cuckoo, which lays its own eggs in the nest of the sparrow.

"All these actions," says Lombroso, "which we look on as misdeeds are, in reality, the necessary results of heredity and of organic structure, or are imposed by vital necessity (as in the murder of drone bees), by sexual choice, by the need of allaying discord (murder of chiefs), and by the need of food among voracious animals, such as wolves. A very remarkable criminal tendency, due without doubt to congenital alterations of the head, is found among the most docile of domestic animals. Some horses are rebellious to discipline, go directly contrary to command, and retain a vivid remembrance of harsh treatment. Horsemen always maintain that these bad instincts are determined by a vicious organization of the brain, and so confident are the Arabs of the hereditary transmission of these instincts that they will not admit in their stud the descendants of these affected individuals. The same thing is observed among elephants, and the *rogues* are familiar to us through their many tricks, and the impossibility of trusting them. Murders through antipathy are common among the females of the anthropoid apes and of the ourang outang, whose animosity leads them to beat, and even to kill one another. Uncontrollable attacks of rage, crimes through passion, murders from love, and even associations of animal malefactors are well-known occurrences in the life-history of animals, and we even find crimes committed under the influence of alcohol. We see thus that there is a continuity, an insensible passage from several of these acts that we have called criminal to those that only constitute a crime for man. Thus the robberies of apes, the animosities of dogs, and the murders of ants, may, up to a certain point, enter into the category of murders done on the field of battle, or that which is done for obtaining food, or which results from the struggle for existence. Even the murders with cannibalism, and the parricides and infanticides which are observed among some species (as bears and wolves) are determined, as in

our own necessities, by the sharp competition, for the excessive fecundity would, in the end, be hurtful to the race. In this case, the destruction of the individual serves to maintain the species. It is the same as in the cases where the ill-nourished new born, who show little chances of living, are sacrificed. The frequency of these acts among some species proves that they are not always abnormal. Even that unprovoked ferocity, which corresponds, among domestic animals, to the type of so-called *brutal obduracy* of criminals, may be explained very well by the reproduction of atavistic tendencies, or, by an effect of the organic conditions of the brain, such as shows itself in the bad dispositioned horse. And what difference can there be between these acts and the murders that sensitive plants commit because of their organic structure? May we not conclude, then, from its first manifestation that *crime is inherent in the conditions of the organism, and that it is the direct effect of these?"*

I have quoted at length the preceding passages from Lombroso, because they touch, at once, on his fundamental proposition,—that crime is the mark of an atavistic tendency, and that, in the process of evolution, crime has been one of the necessary accompaniments of the struggle for existence.

When we come to study crime among savages and our first ancestors, the same difficulty presents itself as in the study of animals; for, as with these, crime among savages is not the exception, but the general rule.

Homicides are not only committed with impunity but are often ordained by morality and religion, and furnish a title to glory. Premeditated abortion, unknown among animals, is very common among savages. The excessive increase of population, compared with the natural means of subsistence, is in savage life a continual peril. The same causes render infanticide common among savages; and the killing of old people, of women and of the sick, and the abandonment of individuals incapable of working, such as takes place among animals, is again the result of an excessive population. Homicides through anger or caprice, for sacrificial purposes, or from brutality or futile motives, from a desire for glory or from a thirst for vengeance, are all to be met with among savages.

To pass from the savage to the children of a civilized community may seem an unwarrantable proceeding, but it is demanded in the present case in the minds of those whose theories we are considering. According to present ideas of evolution, the child

in its growth represents in epitome the life history of the race; if the natural growth of the child is stopped, his intelligence, such as it is, represents the maximum of the intelligence of his remote ancestors in some period of their evolution; and as Moreau, Perez, and Bain have shown (Lombroso, p. 99) with great clearness, the germs of moral insanity and of crime are present in the child during its first years, not as an exception but as a general rule; just as in the embryo certain forms constantly recur which in the adult are monstrosities. If then the child would represent a man deprived of moral sense, this would be what the alienists would call a case of moral insanity, and the criminologists a congenital criminal.[1]

The frequency and precocity of anger in children have been shown by Perez; and in the same way vengeance, jealousy and lying often occur at some period of the child's growth. We may not follow Lombroso through his study of the lack of moral sense in children and the similarity of these perversions to the manifestations of so-called moral insanity, but one instance may be cited that he quotes (p. 126) from Esquirol.

"It is a curious case, where by the side of obscene tendencies and partly caused by them, there was a fixed idea of parricide. The child had a clear and precocious intellect and furnishes us with a complete example of moral insanity, and of criminality in its nascent state, as the chemists would say. The girl was bright and intelligent and from her fifth year had the fixed idea of killing her mother in order to associate more freely with young boys. The discovery of these ideas made her mother sick, at which the child told her that she hoped she would not get well, as she would then have her mother's clothes, or would buy others with her money; that in case her mother lived she would hide in the forest and kill her; that if she did not go into the woods she would kill her with a knife while she slept, and that she would kill her father too, so that he could not put her in prison. She had a good understanding, a clear idea of crime and a wonderful cunning."

"If you were to ignore the age," says Lombroso, "who would doubt for a moment that he was dealing with an insane person

[1] This is Lombroso's distinction; the present writer does not wish to touch here on the mooted question of *moral insanity*, and when the term is mentioned hereafter it is to preserve the continuity of Lombroso's argument.

See also the comment of Prof. Emile Acollas on Lombroso's system, in *Les Delits et les Peines*, p. 15. (Paris, Ch. Delagrave, 1887.)

and not with a criminal? Give a little more force to the muscles, and a little more strength to these instincts and you would have the most cruel forms of impulsive and reasoning mania, always united with a most intelligent mind. This case may properly be called one of insanity, but such cases among adults would rightly be called crimes. From every side, then, it appears that in their first manifestations crime and moral insanity do not offer any difference."

A small number of anecdotes, however, will not suffice to prove that the instinct of crime occurs among children to the same degree or even greater than among adults. Consequently the following examinations were made in houses of correction and children's schools, to see if young criminals present the physical anomalies found among adults. Among 79 children, under 12 years of age, confined in houses of correction, among whom were 40 robbers, 27 vagabonds, and 7 homicides the following anomalies were found in the order of their frequency:—

30 had deformed ears.
21 had a small and retreating forehead.
19 were plagiocephalic (with oblique asymmetrical skull).
16 had projecting cheek bones.
15 had raised sutures.
14 had prominent jaws.
7 had a raised frontal sinus.
6 were hydrocephalic.
5 had oblique vision.
5 had strabismus.
5 had arrested development.
4 had very thick hair.
4 had the senile physiognomy.
4 were ultra dolichocephalous.
3 had projecting forehead, as well as the orbital angle.
3 had large and elongated ears.
3 had scars on the head.
2 were ultra brachycephalous.
2 had deformed mouths.
14 had asymmetrical faces.
10 had the forehead covered.
10 had the physiognomy of cretins.
9 were goitrous.
9 had deformed noses.
8 had small and glassy eyes.
2 were prognathous.
2 had deflected noses.
2 had retreating chins.
2 had sombre aspect.
2 had cardiac disease
2 were scrofulous.
2 had the frontal suture remaining
1 was platycephalic.
1 was oxycephalic.
1 had premature white hair.
1 had enormous face.
1 had superposed teeth.
1 had exophthalmia.
1 nystagmus.
1 unequal pupils.

Of this whole number only 7 (or 8.9 per cent.) had no abnormality of constitution, and, as regards heredity, 46 per cent. had distinct hereditary anomalies. For the purpose of comparison, 160

children of the communal schools were examined with the following results :—

- Examined 160.
  - Normal 89.
    - With normal physical characteristics, ... 62
      - With parents honest, . 64
      - " " unknown, . 18
      - " " immoral, . 7
    - With abnormal physical characteristics, ... 27
  - Abnormal 71.
    - Masturbators, 11
      - Without physical anomalies, 3
        - With parents honest, . 3
        - " " unknown, . 1
        - " " immoral, . 7
      - With physical anomalies, 8
    - Semi-Idiotic, 11
      - Without physical anomalies, 4
        - With parents honest, . 4
        - " " unknown, . 2
        - " " immoral . 5
      - With physical anomalies, 7
    - Robbers, 6
      - Without physical anomalies, 1
        - With parents honest, . 2
        - " " immoral, . 4
      - With physical anomalies, 5
    - Vagabonds, 43
      - Without physical anomalies, 14
        - With parents honest, . 21
        - " " unknown, . 5
        - " " immoral, . 17
      - With physical anomalies, 29

The most noticeable feature of this table is the excessive number of moral anomalies among these children; and we shall see that the only supposition that can be held regarding them is that *with time these would have disappeared*. Among the criminal children the morbid physical characteristics were 69 per cent. or more than double the number among those who had no moral anomaly, with whom the physical anomalies only reached 30 per cent. The same thing is seen in the cases of morbid heredity among the immoral children, where the bad heredity reaches 52 per cent., while among the others it reaches only 15 per cent. This difference would appear even more striking if the children who are called semi-delinquents are studied (*i. e.*, the masturbators and robbers), among whom the physical anomalies reach the numbers respectively of 72 and 83 per cent., and bad heredity 70 and 66 per cent. The conclusion that Lombroso feels justified in drawing is the following (p. 138) :—

The moral anomalies which in the adult would constitute crimi-

nality show themselves in children in very much larger proportions and with the same signs, due especially to hereditary causes; these same anomalies are likely to disappear later, owing to the help of proper education, for without this disappearance it would not be possible to explain the small proportions of the criminal type among adults, even reckoning the difference resulting from mortality and the number of those who escape the laws. The psychical anomalies are in double proportion and even reach a higher number among the young persons tainted with immorality, the ratio being 69 per cent. among these, to 30 per cent. among the normal,— and heredity raises this proportion to triple, or 52 per cent. to 15 per cent.

But there is a well established fact that psychical anomalies and heredity may occur together, although in less proportion, in perfectly normal individuals, just as we may see honest children that are the issue of bad parents.

Arrived now at the study of the full grown criminal,— wherein does he differ from his more honest neighbor? The lines along which we may expect to find a divergence from the normal type have already been foreshadowed in our study of children and savages. Beginning with the cranium, the capacity, circumference and angles have been subjected to the most minute measurements, but of these only the bare results can be set down here. Assuming, then, that all the conclusions which follow are based on the most carefully constructed tables, what do we find? As regards cranial capacity, the weight of authority is that it is inferior to the normal, although this one point is not so well established as the other physical anomalies. Criminals are marked by extremes of cranial capacity; the greatest numbers being of small crania, and perhaps also of the very largest is one of their characteristics. It is certain that in the intermediate and normal capacities they are wanting.

We cannot follow out all the details of the measurements, but may record at once the conclusions from the anthropometrical measurements upon the cadavers which show the inferiority of criminals, especially robbers, in cranial capacity (which is on the contrary enormous in certain assassins), and in the circumference of the cranium; they are also inferior in the exaggerated cephalic index, in the orbital capacity, in the marked development of the jaw, and in the increase of the diameter and of the height of the face.

The brain shows abnormalities of an analogous order; in

general the volume is inferior to the normal except in a few cases of hypertrophy; and the convolutions show frequent atavistic anomalies, as in the separation of the calcarine fissure from the occipital, the formation of an *operculus* of the occipital lobe, and in certain absolutely atypical deviations in the frontal lobe.

As regards the other parts of the body, the delinquent has a taller figure, a greater stretch of arms, a more ample thorax, a darker head of hair, and a greater weight than in the normal man or in the insane; the cranial index compared with the ethnic index is exaggerated; and there are frequent cranial and facial asymmetries, especially in ravishers and robbers, but these are not so common as in the insane; less frequently than in the insane, too, he has atheroma of the temporal arteries, abnormal implantation of the ears, lack of beard, nystagmus, mydriasis; prognathism, inequality of the pupils, deformed nose, and projecting forehead occur in equal proportions with the insane; more frequently than in the insane or in normal individuals, the delinquent has an extraordinary development of the zygomatic apophyses, and of the jaw; the sombre eye, the coarse, black hair,—these last being especially common among highway robbers. Incendiaries and robbers always have a figure, a weight, and a muscular force inferior to that of brigands and homicides; blond hair is common among ravishers and black among robbers, murderers, and incendiaries. A study of the photographs of criminals shows that they are sufficiently characteristic; that the physiognomical type of the criminal can be fixed in twenty-five per cent. with a maximum of thirty-six per cent. for assassins, and a minimum of six to eight per cent. for bigamists. Photographs also show the frequency of the feminine aspect among certain robbers and paederasts, and of virility among certain female criminals, especially murderers. A study of 800 free men showed that there were sometimes found among them degenerative physiognomical characteristics, but these usually occurred in the same persons, and were many times justified by latent criminality or by cretinic degeneration. The study of living subjects confirms, although less exactly and less constantly, this frequency of microcephalies, of asymmetries, of oblique orbits, of prognathism, and of developed, frontal sinuses. It shows new analogies between the insane, the savage, and the delinquent class.

The prognathism, the abundant black and crisp hair, the scanty

beard, the common brown skin, the oxycephalous head, the oblique eyes, the small cranium, the developed jaw and zygomas, the projecting forehead, the large ears, the increased stretch of the arms,— these are the new characteristics which, joined to the necroscopic characteristics, ally the European criminal to the Australian or Mongol type; while the strabismus, the cranial asymmetry, and the grave, histological anomalies, the osteomata, the meningeal and cardiac lesions, show us, in the criminal, a man abnormal before his birth, either by the arrest of development, or by acquired disease of different organs, especially of the nervous system, as in the insane; and, in fact, the delinquent is a veritable *malade*.

Before leaving the physical anomalies of the criminal class, reference may be made to one or two more recent researches than those we have been considering. "At the first Congress of Russian alienists, within the year (1887), Dr. Prascovia N. Tarnovskaia, of St. Petersburg, communicated the results of the anthropometric examination of fifty habitual prostitutes, who had all been inmates of brothels for a period of not less than two years. For the sake of comparison, she examined, in the same way, fifty peasant women of the same age, and, as far as possible, of the same intellectual development, etc. The result of this, probably, unique investigation may be summed up as follows: 1. The prostitutes presented a shortening amounting to half a centimetre of the antero-posterior diameter of the skull. 2. As many as eighty-four per cent. of habitual prostitutes showed various signs of physical degeneration, such as irregularity in the shape of the skull, asymmetry of the face, anomalies of the hard palate, teeth, ears, etc. 3. In eighty-two per cent. of the prostitutes, the parents were habitual drunkards. 4. In eighteen per cent. of cases, the prostitute examined was the last survivor of a large family of eight to thirteen children, all of whom had died at an early age. 5. These facts afford ground for the belief that prostitutes, as a class, furnish the largest contingent of subjects predisposed to nervous and mental affections.[1]

The second observation comes from Italy again, which has been so fertile in these studies. "A study has been made by Dr. Peracchia of the differences between criminals and law-abiding

[1] Medical Record, July 16, 1887. Quoted from British Medical Journal.

citizens as exhibited by their walk. The author first made a number of observations to determine the conditions of normal progression, and found that in good people, the right pace is longer than the left, the lateral separation of the right foot from the meridian line is less than that of the left, and the angle of deviation of the axis of the foot from a straight line is greater on the right side than on the left. Comparing these results with those obtained from the study of forty criminals, he found that, in the latter the pace was shorter than the normal, a fact which did not seem to coincide with the greater robustness, or 'toughness,' of these individuals. The left pace was longer than the right, the lateral deviation of the right foot was greater than that of the left, and the angle formed by the axis of the foot with the straight line was greater on the left side than on the right. It would thus seem that, in general, the gait of the criminal betrays a marked preponderance of power of the left foot over the right,—a true sinistrality. Dr. Peracchia has not only distinguished criminals in general, but has laid the beginnings of the differential diagnosis between various sorts of evil-doers, and asserts that he finds a characteristic gait by which he is able to distinguish from others and from each other, thieves, assassins, and ravishers."[1] This sinistrality of gait is in accordance with another fact not hitherto mentioned, that there is a much larger proportion of left-handed individuals among criminals than among honest people; and there is also an extraordinary proportion of ambidexters among them, the number being three times greater among male criminals and four times greater among female criminals than among honest people.

Although the anatomical and physiological peculiarities of the criminal naturally claim the chief consideration, yet they are by no means the sole evidences of atavistic degeneration, but a detailed consideration of the others will not be possible in the present paper.

If the criminal is a degenerate, we ought to find distinguishing traits of savagery in his habits and customs. In brief, such is the case. Chief among these customs is that of tattooing, which occurs much more frequently among them than among honest people of the same amount of development. Again, their sensibility is much more obtuse, all the sense being duller than in their

[1] Medical Record, Sept. 3, 1887. Quoted from *La Riforma Medica*, No. 147, 1887.

honest neighbors. Their physical insensibility accords well with that of savages, who are able in their initiations at the time of puberty, to endure tortures that a white man could never support.[1]

To the student of morbid psychology, nothing can exceed in interest an inquiry into the sentiments and passions of these unfortunates; their instability, their vanity, their thirst for vengeance, their cruelty, their love of wine and gambling, all are set forth at length for him who cares to read. Even in their writing, they are not as honest people are; and, in the frequency with which they use hieroglyphics, it is possible to see a marked sign of atavism.

Thus we have seen that in every community, there is a class which wages persistent war against civilization. They are in the world but not of the world, and they are a twin relic of barbarism as much as ever slavery was.

In his remarkable study, *The Jukes*, Mr. R. L. Dugdale has shown what a force for evil one woman was, and the misery and crime she and her descendants fastened on this State through many long years. Every city is raising up *Jukes* innumerable to fill our prisons and insane asylums, so that the social waste of modern civilization is a spectacle terrible to contemplate. Through many struggles and with many haltings, it has now come to be generally conceded that when a man has certain anomalies in his intellectual sphere, he has no individual rights, but is an enemy to civilization and must be cared for as such in an asylum. He is not given the benefit of the doubt that, if left to himself, he will do no harm either to himself or others, but the possession of certain intellectual faults and vices is *prima facie* evidence that he must not be given the chance.

Will the time ever come when the possession of certain *physical* anomalies will also be evidence that the person in whom they occur is an enemy of the race? Will the law ever say that an individual such as those we have been studying, must give bonds, as it were, that the community shall suffer no harm from him?

The temptation to dwell on such a pleasing solution of present evils is great, but it is not my part to indulge in dreams that only others can bring to realities. The problem is one for Social Economy to solve, and Science can but point the way.

[1] Lombroso, p. 319.

V. IMMIGRATION AND NERVOUS DISEASES.

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(Read Wednesday Evening, September 7, 1887.)

There are few sanitary questions more fundamentally important to a nation than those which concern the mind and nervous system. Infectious fevers cause waste of life and money, consumption decimates the rising generations. From all this society speedily recovers. No plague ever destroyed a nation. But on the health of mind and the nerves depend the moral strength, the intellectual progress, the social order and the very integrity of national institutions. So far as the matter was related to public health, it was not consumption, or cancer, or fevers, that caused the decadence of Rome; but the fact that the frames of its ruling classes became rank with degenerative taints and that morbid passions, criminal impulses, mania and convulsive neuroses sapped the strength of the nation. The nervous system alone has failed to reach its ultimate development and completest differentiation. It is still growing, still plastic, and subject, therefore, most sensitively to the influences of heredity and environment. We have the same stomach as arboreal man, but the brain grows larger with every century, or its intimate structure becomes more finely and delicately organized.

A nation, especially a young nation, should, therefore, watch with anxious care the development and increase in the number of persons suffering from the chronic neuroses or psychoses. Where these prevail excessively it means that a nation's youth is tainted, that its degeneration and decline have begun, or that it is withering in a neurotic old age, like China with its millions of meconomaniacs.

I have said enough to justify an interest in the problem, one phase of which I present tonight. There is no fact more well-established than that the American nation possesses a very high

degree of nervous sensitiveness, and that its percentage of chronic nervous and mental diseases is greater than the average. Further, there is now no more striking social feature than that of the immense tide of foreigners which swells upon our shores.

Do the two facts bear any relation of cause and effect? Is this a conservative or injurious factor in our national health?

Let me, to begin with, cite a few of the facts now quite well known, regarding the matter of immigration.

The number of immigrants which have come to this country since the foundation of the Government is 14,266,760, the annual average being now about 400,000. In the last 13 years the number has been 5,396,416.

In 1880, the percentage of foreign-born population was 15.3 or over one-eighth of the total population, the actual numbers being:

Natives,	43,475,840.
Foreign-born,	6,679,943.

The number of native and foreign-born adults is shown in the following:

	Above 21 years old.
Native whites,	15,900,000
Foreign-born,	5,600,000

In other words the foreign-born make up over one-fourth of our adult white population, and nearly one-fourth of the total adult population.

There are in all 13,011,646 persons of foreign parentage.

The percentage of foreign-born is greater in the north and west where it ranges from 45 to 52; it is high in New England and the Middle States (10 per cent. to 36 per cent.) and it is practically nothing in most of the Southern States. The Germans form the largest proportion (29.44 per cent.), the Irish next (27.76 per cent.), English and Welsh 11.17, British American 10.74, Scandinavian 6.59. The Irish percentage is decreasing, the German continues about the same, that of all other countries is decidedly increasing.

The census of 1880 shows that, while foreign-born citizens were $15\frac{1}{3}$ per cent. of the population, they furnish more than $28\frac{1}{2}$ per cent. of our insane, nearly 22 per cent. of our prisoners, more than 34 per cent. of our paupers in almshouses, and nearly 44 per cent. of the inmates of workhouses and houses of correction.

I shall consider in this paper:

1. The relation of immigration to the mental diseases.
2. Its relation to mortality from nervous diseases.
3. Its relation to the sick-rate of nervous diseases.

I. Immigration and Insanity.

With regard to the subject of immigration and insanity, there has been a diligent collection of statistics and some very forcible writing to show that the class of persons in question contributes immensely to swell the numbers of our insane. This impression has become almost a popular belief.

In 1883 Dr. Pratt (*Journal of the American Medical Association*, Vol. 1), read a paper upon this subject, in which he gave the statistics and drew conclusions of the kind just referred to.

The following tables give the main facts on this point:

	1850.	1860.	1870.	1880.
Native insane, ...	13,559	18,258	26,205	65,651
Foreign-born insane, . .	2,051	5,784	11,227	26,346

Ratio of insane to sane.

	1850.	1860.	1870.	1880.
Native, . . .	1 to 1545	1 to 1559	1 to 1258	1 to 662
Foreign-born, . .	1 to 1093	1 to 717	1 to 497	1 to 250

From these tables the deduction is made that our foreign-born population, which forms one-eighth of the aggregate population, contributes one-third of the cases of insanity. Further investigation, we are told, shows that the largest part of the foreign-born insane belongs to the pauper class. In connection with this there are placed the facts that the proportion of persons of unsound mind is greater in the United States than in any other known country (except Ireland), being in 1880 in the proportion of 1 insane and idiotic to 297 persons of sound mind.

Ratio of sane to insane and idiotic in 1880:

	United States.	Eng. and Wales.	Scotland.	Ireland.
	1 to 297	1 to 362	1 to 326	1 to 260
Natives, . .	1 to 314			
Foreign-born, .	1 to 220			

While our aggregate population has increased two-thirds in the past 20 years, the insane population has, it is said, increased four-fold. The immigrant is largely blamed for this.

I propose to show that while there is some justice in this view, the true facts have not been yet fairly presented.

To begin with, the statement that the foreign-born, while form-

ing one-eighth of the aggregate, furnishes one-third of the insane population, is misleading. Nine-tenths of all insanity occurs in adults, less than one per cent. occurs in persons under 15; and the foreign-born population, as is shown above, makes up over one-fourth of our adult population. The real facts are, then, that about one-fifth of the persons of the age susceptible to insanity are foreign-born, and these furnish a little over one-fourth of the insane, or a little over their just proportion.

The ratio of foreign-born insane to the foreign-born adults is .047% and the ratio of native insane to native adult whites is .041%, and to total native adults .036%.

A concrete illustration of this line of reasoning is shown in Massachusetts, in a study of the nativity of 7963 cases of insanity admitted to State asylums from 1871 to 1880, inclusive (Folsom, *Pepper's System of Medicine*, Vol. V., p. 117).

This shows that the percentage of foreign-born population in the total population above the age of 15 is 37%, while the percentage of foreign-born insane in State asylums is 43%, a difference of 6% against the foreign-born.

When it is remembered that these figures are for State asylums and that in the private asylums and in families the natives have a larger preponderance, the figures become still more significant.

The following table gives statistics for nearly all the northern States (compiled from U. S. Census, 1880).

STATE.	Per cent. of total foreign-born pop.	Per cent. of adult foreign-born pop.	Per cent. of foreign-born insane to total insane.	Total insane.	Ratio of insane and idiotic to sane.
Maine	10	12	12	1,542	1–226
Vermont	15	18	18	1,015	1–182
Massachusetts	33	34	35	5,127	1–249
New York	31	39	44	14,111	1–251
Connecticut	26	31	30	1,723	1–245
New Jersey		33	40	2,405	1–326
Pennsylvania	16	25	25	8,304	1–289
Ohio	14	23	27	7,286	1–232
Illinois		35	40	5,134	1–330
Indiana	8	14	14	2,530	1–239
Maryland	10	17	13	1,857	1–294
Missouri	11	22	24	3,310	1–324
Iowa	19	30	33	2,544	1–334
Minnesota	52	57	66	1,145	1–416
Wisconsin	14	23	27	7,286	1–305
California	36	49	64	2,503	1–286

This table, of which the statistics are trustworthy, shows that the immigrant population contributes only a little above its fair share in many Eastern and Middle States, and a somewhat larger excess in Western States. In some States (Connecticut, Maryland), the proportion of foreign-born is even below the number that would be expected from the adult population.

The table also shows that States having a large proportion of immigrants do not necessarily have a large proportion of insane.

For example, Maine has ten per cent. foreign population, and a ratio of sound to unsound minds of 1–226. Minnesota has a per cent. of 52 of foreign-born, and a ratio of 1–416, or five times as many foreign-born and one-half as many insane proportionately.

There can, of course, be no doubt that immigrants do increase the amount of insanity somewhat, because they, as a class, suffer from poverty, exposure, venereal disease, and the effects of alcoholic indulgence, or, in other words, from the exciting causes of insanity; and because certain races of immigrants, probably, come to this country unequal to the struggle for existence in America. For there is no doubt a racial element, as I shall show later, in the production of the excess of insanity and nervous disdisease in America. Insanity is the product, almost equally, of environment and hereditary tendency. Some races, owing to inferiority of nervous constitutions, are especially susceptible to the influence of environment, and propagate and accumulate morbid tendencies.

Nations and races in their development also appear like individuals to have physiological crises of birth, adolescence, climacteric and senility when decay is present. All races develop mental disease in excess during these times. America is in its adolescent crisis, and in its social life there are more exciting causes of insanity than among the maturer nations of Europe.

On the other hand, France seems to be in a climacteric period, for she develops an extraordinary number and variety of the degenerative, nervous disorders. It has seemed to me that England is nearing this period. The Irish have an abnormally excitable, nervous system and a phenomenal amount of insanity. Certain portions of the Hebrew race appear to be in the degenerative stage of racial life.

I am sure, however, that the majority of our foreign-born population brings with it no psychopathic tendencies.

The exact influence of different immigrant people in modifying the forms (not the total amount) of insanity is difficult to estimate exactly. According to Mr. Wines's statistics (U. S. Census, 1880), the foreign-born increase the proportion of mania, and, perhaps, of general paresis and alcoholic insanity in our asylums. In particular, according to Spitzka, the Anglo-Saxon race develops general paresis, the Germans melancholia, the Jews hebephrenia, and epileptic insanity.

II. As to the Question of Immigration and Nervous Diseases.

The vital statistics of the last United States Census give us the mortality-rate from nervous diseases in the different States, in the principal cities and in persons of Irish and German parentage. The only way in which we can arrive at conclusions regarding the foreign-born is by comparing the death-rates in cities where the percentage of foreign-born is great with that of cities, and in the country where it is small; also by comparing the rates in different States; as, for example, in certain New England States, where the percentage of foreign-born is only ten with that in other Northern States, where it is over fifty. In order to exclude the error due to the fact that there is smaller proportion of foreign-born minors, and that a large part of nervous mortality occurs in children, we can compare the mortality ratios of certain special nervous diseases which cause death chiefly among adults.[1]

Finally, in a few cities of which New York is an example. We have the mortality-rate from different diseases and the nativity given also.

A few words may be said first with regard to the general prevalence of nervous diseases.

In England the percentage of mortality from these diseases, on the total death-rate, is 13.4; in the United States, 15.4. So far as I have been able to collect the facts, they show that the percentage has been gradually increasing in both countries in the past thirty years, and that this country has an unusually high as well as progressively increasing death-rate from these disorders. This rate is a poor index, however, of the actual amount of nervous diseases which affects native Americans, since a great proportion of this class of troubles are functional in character, and are not fatal.

[1] Four-fifths of deaths from epilepsy and 99.7 per cent of deaths from apoplexy and paralysis occur in adults. 60 per cent. of deaths from nervous diseases occur in persons under ten years of age.

Since over half of the nervous mortality is from convulsions and meningitis occurring in children, it is only a study of the death-rates of special diseases such as occur in adults, that will furnish much direct help, in the matter under consideration.

The following table, compiled from the U. S. Census, shows the percentage of foreign-born population, the percentage of deaths from nervous diseases in the total deaths, and the percentage of deaths from apoplexy and epilepsy in the total deaths from nervous diseases.

States having a per cent. of foreign-born 16 or below.	Per cent. of foreign-born population.	Per cent. of deaths from nervous diseases.	Per cent. of deaths from apoplexy and epilepsy.
Maine	10	12.5	25
New Hampshire	15	12	25
Vermont	16	12	25
Pennsylvania	16	10	23
Delaware	8	10.9	15
Indiana	8	10	11
Ohio	14	12.6	15
Maryland	10	12	12
Missouri	11	10	9
States having a per cent. above 16.			
Connecticut	26	16	24
Minnesota	52	8	13
Massachusetts	33	12.5	20
New York	31	13	20
Rhode Island	36	13	13
California	51	10	20
Wisconsin	45	.9	15

These figures have no great claim to accuracy and can only be looked upon as suggestive. So far as they go, they appear to show that the death-rates from all nervous diseases, and from special diseases like apoplexy and epilepsy, is not much greater, on the whole, in States with a large foreign population than elsewhere.

The census statistics show a larger proportion of deaths from nervous disease in the country than in large cities, a fact due to the larger number of adults proportionately in cities.

The only functional nervous disease which causes death very often is epilepsy. Mr. Wines's tables show that epileptic insanity is common in native Americans, they furnishing five-sixths of the

mortality from this disease. (See later.) The reports of the New York City Board of Health show that the mortality from this disease and chorea is rather less proportion among natives than among the foreign born of this city. The mortality from serious organic diseases of the nervous centres, such as inflammations, degenerations, and apoplexies has been steadily greater in this city among the foreign-born.

The only conclusions to be reached regarding this part of our subject are (1) that evidence exists showing a greater proportional mortality in large cities from nervous diseases of adults among foreign-born than native adults; (2) in the whole population, the death-rate from all nervous diseases is much greater among natives, because of the excess of such deaths among children; (3) the data on which to draw further conclusions are, as yet, meagre; but, so far as they go, they indicate that outside of large cities, the death-rate from the nervous diseases of adults among immigrants is proportionately low.

III. Immigration and the Sick-Rates of Nervous Diseases.

In studying this part of my subject, I have tried first to determine the ratio of natives to foreign-born among those who seek medical help in our northern hospitals and dispensaries.

The following table shows the relative proportion of native and foreign-born patients among 25,169 patients in general hospitals in Cincinnati, Boston, and New York.

Hospital.	Year.	Native.	Foreign-born.
Cincinnati Hospital	1886	2288	1354
Massachusetts General Hospital	1865	718	893
	1870	584	718
	1886	1313	1267
Roosevelt Hospital	1871	212	517
	1873–4	490	920
	1879–80	659	960
Presbyterian Hospital	1872–4	95	197
	1883–4	490	684
Bellevue Hospital	1886	4000	7000
		10,849	14,320

This gives a ratio of native to foreign-born of about five to seven.

This ratio is for in-patients only. The nativity of out-patients at the Out-patient Department of the Massachusetts General Hospital and at six large dispensaries in New York City embracing 245,013 cases, and covering the years 1860 to 1886 is

Natives.	Foreign-born.
108,232.	136,781.

This gives a ratio of about seven to nine; if we were to exclude children, it would be as high as seven to ten. (It may be said incidentally that all the reports show a rather rapid increase in late years of native medical paupers, this increase being due largely, I believe, to the presence of the children of the foreign born.)

The figures above given show that among the sick poor there is a considerable excess of the foreign born. The fact that a great many dispensary patients are children lessens the apparent number of foreign-born very considerably.

Does the same ratio hold for those sick with nervous disorders?

This is a very difficult question to answer positively. I have, however, collected the statistics of nativity of 4217 cases of nervous disease, as follows:

	Native.	Foreign-born.
North Eastern Dispensary, 1881–86,	544	1060
Post Graduate School, 1883–86,	702	732
Bellev. Hosp., Out Pt. Dept., 1877 and 1886,	425	750
	1675	2542

This gives a ratio of a little over two to three, a proportion slightly in excess of that for general diseases. The difference, considering the smaller number of children in this class, is small. In other words, more foreign-born patients, proportionately, seek treatment for nervous disorders than for general diseases, and there is a slight special tendency to nervous disorders among the poorer immigrants.

I should place very little value on such statistics, though laboriously and carefully collected, if they were not in accord with my own personal observations, with the results of other inquiries and with *a priori* considerations. In my own practice it is true that the bulk of my patients are Americans, but, considering the number of the foreign-born who can afford to seek private medical advice, the proportion of it is decidedly large.

Furthermore, the Americans suffer much more from functional nervous disease and immigrants from organic. Whether or not this is due to the relatively better social condition of natives, it is a fact in which, I think, all neurologists will agree.

But though immigrant population is at first less subject to functional disease and more subject to organic nervous diseases, in the succeeding generation when they have accumulated sufficient to live better, the functional diseases appear, and in some classes in excess.

Such views above stated are quite in accord with the fact that the immigrant has, as a rule, duller and more insensitive nerves. He belongs to the class that works most with the body and that lives an animal life. It is not the nervous system which gives out first under conditions of poverty and bad living, but rather the vascular, digestive and eliminative organs. Later, when the stomach and general nutrition are better cared for, the nerves yield to the stress of competition work.

It will be seen, I think, that I have taken a conservative view of the relation of immigration to insanity and nervous diseases. I think that the figures which have heretofore been given exaggerate the share of immigrants in increasing insanity.

The influence exists and is important, but it is not immediately and directly a large one.

Similarly, the direct influence of immigration in increasing nervous disease is not great, and it acts in a peculiar way. It increases organic nervous diseases. The chronic functional nervous disorders occur mostly among natives, and the children of immigrants. But — and here is an important point — certain classes of immigrants in the second and third generation develop I believe, the functional neuroses as well as insanities to a large extent. Not all do this in the same degree, and the variations depend upon the races which are imported here. Some mix with the native population, improve, and grow strong. Others do not seem to thrive, but rapidly develop nervous and mental disorders.

Besides this, it is to be remembered, as Dr. Kiernan has pointed out, that our country attracts a considerable number of errabund lunatics of criminal, artistic and socialistic types.

With regard to their racial tendencies to nervous and mental disease, I speak with much caution; but I venture to suggest that the following facts are approximately true:

The Celtic, including the Gaelic, Welsh, Irish and North French races represent an early offshoot of the Indo-Germanic peoples. They left their home in Asia early and travelled to the shores and islands of north-western Europe before they had reached the maturity that would enable them to earn a livelihood and at the same time make intellectual progress. They were never able to reach a full development. These races, unless they have mixed with others, have never furnished the ripest and noblest examples of human or national development. Witness the history of the Highlanders, the Irish, the Welsh, and of the Celts of Northern France. These are relatively immature races. They have never organized stable government or contributed largely to human progress. Brought to this country and placed in contact with the whirl of an intensely active civilization, they succumb to nervous disorders. The Irish are not an introspective race and do not easily become hypochondriacal, or neurasthemic. But they do develop insanity and organic nervous diseases largely.

The French, though a race to whom national genius has been given by mixture of Celtic, Gallic and Roman blood, has become intensely neurotic. Originally developed from an excitable race, it seems to be burning itself out and to be nearing now a premature climacteric. The Iberian race of Spain, and perhaps Portugal, is apparently decadent. The Portuguese in this country seem to suffer excessively from nervous disorders. (Putnam.)

Of the Arabic-African race, two branches, the African Semites, including the Egyptians, Nubians, and Abyssinians, and the Asiatic Semites, including Syrians, Hebrews and Phœnicians have made a name in the world's history. They have, for the most part, staid near their place of origin; there they have had full opportunities in a salubrious climate to mature, to accomplish national work, and then to decline. These races are now in an apparent decadence, the more surely, the more pure the blood has been kept.

Certain branches of the Hebrew race, and the Syrians and Egyptians, show this very distinctly. The Hebrew race has by inter-breeding produced some of the most brilliant minds the world has known, but many branches of it are rank with neuroses.

The foregoing will suggest, what, to my mind are the factors that are to be considered in studying the subject of our nervous hygiene in relation to immigration. Keep out inferior races,

immature races, decadent races as much as possible. Restrict immigration sufficiently to prevent our having an undue proportion of paupers and of the lowest classes.

The mixture of races who are on the same plane makes a stronger race; witness Anglo Saxon and low German. The mixture of higher races with the inferior makes a product worse than either. The mulatto's brain for example is smaller than that of the negress or the white man. (Quatrefages.)

The Negro and the Mongolian are inferior races; we cannot make them better by intermixture with the Indo-Germanic. Keep out the African and the Chinese and Turks, therefore.

Of the Caucasian race the Asiatic and African Semites are most remote from us racially and most difficult to mix with safe results.

The Celtic race, whether found in Ireland, Scotland, Wales, North France, is an immature one, and of highly sensitive organization. It is not a good one to introduce into this country in large quantity.

I have already in the last pages of this paper practically summarized my conclusions. To repeat they are:

1. The statements as to the excessive influence of immigrants in increasing nervous disease are based on an incorrect study of statistics.

2. The immigrants do slightly and directly increase the amount of insanity out of proportion to this native population.

3. Immigration increases insanity indirectly through influence on social life and through introduction of poor nervous stock.

4. Only a portion and certain special races have these tendencies to nervous and mental disease.

5. The portion probably includes all Mongolians, the Asiatic and African Semites, Celts and Iberians.

6. Immigrants develop a slight excess of organic nervous diseases, but fewer functional nervous diseases proportionally than natives.

7. Portions (the neuropathic races), however, soon develop functional nervous diseases to excess in their children.

8. In studying the subject of regulating immigrations, racial tendencies to disease should be considered.

DISCUSSION OF DR. DANA'S PAPER.

[It should be remarked, before giving an abstract of the debate on this interesting Paper, that its statistical portion has been re-written to some extent since it was read, and therefore that the criticisms then made do not fully apply now. But there are still discrepant and perplexing statistical assertions,— as, for example, this: "The ratio of foreign-born insane to the foreign-born adults is 7.5 per cent., and the ratio of native insane to native adults is 7.2 per cent." The figures previously given do not show this, for while the whole adult population (over fifteen years) in 1880 was about 30,212,000, and the foreign-born adults less than 6,200,000, the foreign-born insane are given as 26,346, out of a total of 91,997 insane persons. The ratio of this aggregate to the whole adult population is, therefore, .00304; while the ratio of the foreign-born is .00425, and that of the native born only .00273. The ratio of the foreign-born insane to the native is, therefore, 425 to 273, or nearly double. In fact, however, the relation to insanity of the persons of foreign *parentage*, is nearly the same as that of the foreign *born;* and, as the latter, in 1880, were only 6,679,943, while the former were estimated by the census-bureau at 13,011,646, or nearly twice as many, it is evident that ratios based only on the distinction between *American* born and *foreign* born cannot have much statistical value. And herein lies the tendency to error in the calculations, both of Dr. Dana and of Dr. Pratt. THE EDITOR.]

ABSTRACT OF THE DISCUSSION.

Mr. F. B. SANBORN: The valuable paper to which we have just listened, deals with a subject of extreme statistical difficulty, and it is doing Dr. Dana no injustice — I appeal to you, Mr. President, if I am wrong — to assure this audience that, if he will examine his figures carefully and comparatively, he will find that they do not bear out all his conclusions. The Census of 1880, although more accurately taken and tabulated than any other, cannot be depended on to give the exact percentage of native and foreign population in any single State, much less in the whole country. When we come to the vital statistics of this census,— those which relate to disease and death,— we shall find them so imperfect, from the very nature of the case, that no important conclusions, except of the most general nature, can be drawn from them. If it should be

asserted in opposition to Dr. Foster Pratt (whose statements, I think, are quite as extreme as any which have been made tonight), that the alien races in this country are *less* subject to insanity and nervous diseases than those persons who can properly be called natives of the United States,— then I should say that the whole experience of persons familiar with insanity in this country would contradict such an assertion. It is well known that certain nationalities in Europe — the Irish and Scandinavian, for example — exhibit much more insanity than other nationalities, for example, the Germans and Hollanders. In Massachusetts (with the condition of which, in this respect, I am well acquainted), there is much more insanity among persons of Irish parentage than among those of the old New England stock ; and the accumulation of the insane in Massachusetts, Rhode Island, Connecticut, and New York, is very largely owing to the accumulation there within forty years, or since the great Irish famine, of persons of Irish origin and descent. The Scandinavians, also, in New England, show a greater tendency to insanity than the native New Englanders. If Dr. Dana will refuse to take statistics for more than they are really worth — and on this subject they are really worth very little, so far as the census of 1880 is concerned — I think he will revise some of his statements, and will find himself more nearly in agreement with Dr. Hoyt of New York, and other experts, who have been dealing officially with the insane of many races for the last twenty years.

President Wright : In my opening Address, I had occasion to point out the defects of census-taking in all countries, and particularly in the United States; and I must repeat, in connection with Dr. Dana's figures, what I then said,— that minute accuracy on most subjects, and even an approach to exactness on some subjects, has not yet been reached in our census-taking. Perhaps Dr. Dana relies too much upon these figures ; and he might also arrange his own figures more correctly than they stand now in the Paper just read.

Dr. Peckham : In the absence of Dr. Dana, it does not seem to me quite fair to criticize statements, which, if he were present, he could, no doubt, explain and defend. Before his Paper is printed, I am sure he will desire to make it as exact as possible in facts, figures and conclusions.

Other speakers took part in the debate, but no abstract of their remarks was made.

PAPERS OF THE EDUCATIONAL DEPARTMENT.

I. THE OPPORTUNITIES OF AMERICA.

A REPORT BY THE GENERAL SECRETARY, F. B. SANBORN.

(Read Tuesday, September 6, 1887.)

The silent flow of time has brought our Association almost to the 22d anniversary of its formation, for it was early in October, 1865, that some hundreds of us organized in Boston, with hopes and aims that the many years since elapsed have done much to modify. We have seen, indeed, most of the objects which we then had in view vigorously promoted, and many of them so far accomplished that it does not seem necessary even to mention them. The basis of suffrage has been extended; the extreme taxation induced by the civil war has been abated one-half; our paper currency has been largely reinforced by gold, and is so strong in the solid credit of the nation, that it cannot be much weakened even by the depreciation and needless coinage of silver; the question of two races in the South, which in 1865 seemed a dangerous one, has lost its most threatening aspect; the charities of our fast-growing republic have been organized, and are assuming the proportions of a system; and a great advance has been made both in the higher and lower education of our people. The generation which in 1865 was directing our affairs in the several States, and in the nation, has almost wholly passed away; of the statesmen and generals, the financiers and philanthropists, who bore the burden of the great civil war, but few remain, and those few are enfeebled, if enlightened, by age. It is no less so with our own members; death, sickness, or old age deprives us of the presence of almost every person, except Col. Higginson and your Secretary, who joined with enthusiasm in the conference of 1865 which formed our Association.

It is fortunate that we have since enlisted younger members, by whom our work, such as it is, has been carried on of late years: but we are warned by the decrease in our list of names that these recruits do not make good, in number, those whose place they

take. This is partly because we have allowed the seamless garment of Social Science to be divided among a swarm of societies, each doing its special work, but, in doing it, withdrawing from our parent society those who once stood with us, or who would have rallied to our standard, had not these new banners been set up.

We cannot regret this; for the Conference of Charities, the Prison Association, the Public Health Association, the Civil-service Reform Society, and the other bodies to which we have lent a hand, or of which we laid the frame, are all doing our work better than a general society like ours could do it. But the vigor of the parent body should be kept up, that it may hereafter, as heretofore, bring forth children as the occasion shall call for them. New emergencies will occur, when new societies must be formed, and there has seldom been found any such prolific breeding-ground of new organizations as the American Social Science Association has been. The National Prison Association, which was our child in 1870, and which we took in out of the cold in 1884, and warmed into new life, will hold a prosperous session at Toronto next week, which some of our members will attend; the National Conference of Charities, which was our child in 1874, has just held a most prosperous session at Omaha, from which some of us have but lately returned; and scarcely a month passes in which some scion of our planting does not spread its grateful or fruitful branches to the sunlight of our national life.

Happy the nation which rejoices in this broad sunshine of opportunity! It has often been my lot to mention what privileges are given us by our political and social institutions, but the topic is an inexhaustible one. Leaving others to bewail our dangers and warn us of the poison in our cup,—that—

> Sweet poison of misused wine,

sung by Milton—let me for the tenth or twentieth time dwell on our noble gift and heritage of opportunity. "With a scalp lock in front, opportunity is otherwise bald," says the Latin verse,—

> *Post est occasio calva.*

Americans may almost be excused for not taking time by the forelock, so many are the chances for "catching on" which that bald-pated expressman offers our countrymen, though he denies

them to other nations. We had involved ourselves in the meshes of chattel slavery, from which few nations ever cut themselves loose without a fatal or at least a bloody wound; yet here we are, but a quarter of a century from the first proclamation of emancipation in September, 1862, and not only is our long inheritance of negro slavery done away with, but we have a condition of society following which promises neither insurrection, nor anarchy, nor anything worse than will attend the settlement of the labor problem in those parts of the country where slavery was obliterated a century ago. In our war period we violated in several points that expressive mandate posted up in some work-shops, "Don't monkey with the buzz-saw." We monkeyed with the buzz-saw of finance, and introduced the great evil of an irredeemable paper currency, but so soon as we went to work in earnest to redeem it, the mischief of it passed away. We trifled with the sharp laws of nature concerning taxation, but we seem to have escaped the fitting penalties, unless our present enchanted condition,— when we are raising more revenue by a hundred millions a year than we want, and cannot stop the inflow,— when we desire foreign commerce under our own flag, and can scarcely find a vessel that will fly it,— unless these results are the penalty, as I suspect they are. And these wild experiments in municipal government which we are now carrying on, at so great a cost of money and reputation, no doubt seem to most of us, as I confess they appear to me, like the lively freaks of a youth just come into his property, and ignorant as yet what he ought to do with it, and how far it will go. One of these days we shall sober down to the business of governing great cities, and shall solve that puzzle, as we have solved so many others — thanks to the elastic frame-work of our politics, and the common sense of our people, who desire good government, without either the perpetual wrangling of anarchists, or the too frequent push of the bayonet, or the incessant ding-dong of good-natured political imbeciles, who clamor for the taxation of land, and the congressional repeal of poverty.

Nobody can witness, as I have just seen, the actual building up of new States within our broad borders, and not be convinced that Democracy is, at least, very favorable to material advancement, and the quiet control of new colonies by the mother country. I came last week from the State of Nebraska, which I first looked upon in 1856, only thirty-one years ago, when it was a treeless,

uninhabited monotony of bare plains and swelling bluffs, dotted here and there with a few cabins, a fort or two, and the roving bands of the buffalo and the Indian — one of them as incapable of civilization, apparently, as the other. Today that same barren region, in what used to be known as "the great American desert," is supplying the markets of the world with corn; a million of peaceful inhabitants, representing every race under the sun, occupy the boundless acres, and among them the civilized Indian, dwelling in houses and raising his own crops by the acre, is preparing to vote for county commissioner and for president as soon as the polls are opened. Cities are there now, with tens of thousands of people — one of them claiming 100,000, and soon to be larger than most of those in New York and New England; the newspaper is there, circulating its myriads of printed sheets daily; every form of trade and industry and invention is there,— and all peacefully, if rather noisily, submitting to a few hundred temporary rulers chosen from among themselves, and with scarcely a soldier or a cannon to be seen throughout a territory larger than the British islands.

All this is the work of Democracy in the last thirty years; and it took place in spite of the intervention of civil war, for four fatal years, and notwithstanding the fact that our whole country has been on the brink of ruin at least once in every four years since, or whenever a presidential election made national ruin a contingent necessity. And it is also to be considered that what Nebraska has thus been doing, half a dozen other States and territories have done in the same way, with results very similar; while the older States, enriched rather than impoverished by the upbuilding of these inland colonies, have in this period gone forward in the development of their own systems of Education, Public Health Finance, Jurisprudence and Social Economy, until some of these have become the admiration of the world.

It is but a century since that miracle of a social compact, the Federal Constitution of 1787, gave the formula and furnished the guiding chart for the extension of settled and self-adjusting government over waste or barbarous regions, and thus offered the first and greatest opportunity to our fortunate countrymen. Under its beneficent provisions, what privileges have been bestowed on the poor man and the patient, laborious woman! Freedom, in the first place, to toil for themselves, relieved from the

task-master's whip, and the iron yoke of rent and debt; then the education of their children at the public cost; then a measurable exemption from taxation and conscription, in a land where military service, religion, and the other associations of life were voluntary, and not imposed by the State; and thus, in every turn in life, a new opportunity appeared. Is it any wonder, then, that for such a country, in its hour of peril, its people offered themselves to death, by millions, rather than allow so noble a heritage to be lost to their children?

In such a nation the lot of our Association has been cast, and we have been enabled by one means or another to do our part in its development. Our latest effort, of which mention has been made at the last two annual meetings, has been to promote Social Science instruction in popular assemblies and the places of higher education, and it is on this point that I am specially to report this morning:

[The Secretary here read letters from Miss Coman, Secretary of the Education Department, from Prof. Wodrow Wilson, of Bryn Mawr College, and from others, to show how fast and systematically the work of collegiate instruction in Social Science was developing, and added:]

In this community of states our work as an Association has been done,—and from circumstances in part accidental, done chiefly in a few of the States. Now has come our opportunity to extend it throughout all the States by means of collegiate and popular instruction in social science, which has been spreading through the institutions of learning, in many States not before reached by our efforts.

It is by the introduction of systematic teaching of the social sciences in the lyceums, colleges, and universities of America that the objects of our Association are hereafter to be best promoted. That teaching has been well begun in Harvard, Yale, Columbia, Cornell, the universities of Pennsylvania, Michigan, and Wisconsin, the colleges for women, Vassar, Smith, Wellesley, Bryn Mawr, etc.; and in many another institution of learning of which we here know little more than the name, but which may have organized, since our last report was made, a better system than any of those that have here been mentioned. For it is among the boundless opportunities of our country that a new university — like that at Baltimore, or those which Stanford and Clarke are founding by either ocean that forms our enormous boundary — or,

perhaps, some obscure college of the prairie, the bayou, or the forest — may suddenly develop a method of instruction that the older institutions can take as their model. Thus our Democracy, which is the most lively vehicle of modern civilization, is vital in every part, and may send up anywhere a shoot that shall become a tree, both of life and of knowledge, whose fruit no man is forbidden to pluck.

II. Abstract of Colonel Higginson's Address.

Col. T. W. Higginson, Chairman of the Department of Education, opened his brief address by speaking of his long service in former years on school boards and similar organizations, from which he had lately been so much relieved that he was something like the other New England man, of whom his son said, "Father is a deacon, but he don't do much at it now." This independent position and his long residence in a university town (Cambridge) without any close connection with Harvard College gave him opportunities for impartial observation of educational questions which might, perhaps, be of some value to the Association. The office of teacher in all its grades, he thought, was still undervalued everywhere, although held in higher estimation than formerly. It is still, ordinarily, a temporary business, rather than a life profession, being taken up, especially by young men, while preparing themselves for some other profession. On two or three points in the present aspect of school questions remarks could be made — mainly on the use of free text-books in the public schools, and on the elective system in colleges and universities. Other topics of equal or greater importance will be treated in the papers following.

The progress of education in the United States, during the past year has been gratifying and full of promise. Not only have the means and appliances for public and private education been more ample than ever before, but the standard of the teacher's profession is constantly rising. That it is not yet up to the level of the other learned professions is evident from the fact that good teachers are constantly leaving the profession to become lawyers or clergymen, while those successful in these last occupations very rarely leave them to become teachers. Nevertheless, there is a marked progress to be seen. In the lower grades of public education, two problems are just now especially before the public — the introduction of manual instruction and the free supply of text-books. The former question may be very briefly stated. It is necessary to distinguish between manual education and industrial training. In my opinion, the introduction of industrial training would be a great calamity to the public schools, and that of manual education,— that is, the training of the senses with a purely educational purpose — a great benefit. This subject has been amply discussed before the Social Science Association in

other years, and it is not needful to dwell upon it. The other problem — that of the free supply of text-books — is comparatively new. I have been led to give some attention to it, and am satisfied that the present provision for an absolutely free supply of books, as existing in the State of Massachusetts and elsewhere, has great drawbacks, and should be either carried further or not so far. Massachusetts is, perhaps, the only State which, by law, provides that the school-books in public schools shall be furnished by the city or town without expense to the pupil, although, for several years, cities in different parts of the country had been introducing this practice. There is a minor evil involved in it, and a greater one. It accustoms children, otherwise of neat habits, to use books soiled by previous use on the part of others less careful. The more serious objection is, that the present system tends to deprive all humbler homes of books. As a rule, the farm-house library has heretofore consisted, almost wholly, of the cast-off school-books of the children, and although some of these have remained unopened, it was more common for them to be read over and over again by the younger children, and even by the parents. The old books on the little corner bookshelf — the arithmetic, the geography, the history,— became, in a manner, a liberal education to the whole household. An eminent American author, Edward Eggleston, has lately said that his first impulse toward literature came from poring over two old school readers of his mother. The evil of this change is so great that it can only be remedied by the additional step of giving to each child, at the end of the year, the books he has used. If it be said that this would be a step toward socialism, the answer is that it is only the logical consequence of the step already taken, wherever the free supply is adopted.

There are also two leading questions in higher education now pending in our colleges. One of these, the higher education of woman, is rapidly settling itself, and will be discussed later in the session. The other, the elective system in colleges and universities, is also rapidly settling itself, the whole progress being in the direction of the freer system. In all debates on the subject between representatives of different colleges, it is observable that each speaker goes in favor of the elective system, so far as his own college has tried it, and only distrusts it wherever some other college has gone a little farther beyond the ken of his own obser-

vation. Wherever it has been tried most extensively, the feeling in favor of freedom is usually the strongest. As a resident of one of the university towns, where the elective system has been most thoroughly tried (Cambridge, Mass.), I confess to a constantly increasing faith in it. From observing its influence both on teachers and pupils, I am more and more satisfied that it works best when left freest, and that all efforts to limit it by partial interference, such as the attempt to group together certain studies, do more harm than good. The main considerations at the bottom of the whole matter are two very simple ones. In the first place, no young man makes more blunders in selecting his own electives than his father or teacher would, probably, make for him. In the second place, every man learns something by his own blunders, while nobody gains any wisdom by the blunders made by his parents or teachers. These two considerations I have found conclusive in favor of the widest possible application of the elective system in our colleges.

III. Pedagogy in American Colleges.

BY PROF. E. J. JAMES, OF THE UNIVERSITY OF PENNSYLVANIA.

In the course of this paper, which is withheld from full publication by its author, Prof. James said:

"It was shown several years ago, in a masterly paper by Dr. C. K. Adams, President of Cornell University, that the attendance at our colleges was not growing in proportion to the increase of our population. It appeared from the statistics then presented that a continually decreasing per cent. of our young men are to be found at the centres of collegiate instruction. A number of reasons were assigned for this lamentable state of things. One of the most important, however, was not mentioned at all; and that is the unsatisfactory character of the teaching offered in our colleges.

"It is a fact, I think, which will not be denied by any one who has suffered for four years at the hands of the average college instructor, that much, if not most, of the teaching done in our colleges is of an exceedingly low grade. It will not compare favorably with the teaching in our best preparatory schools, and is certainly far inferior to that performed by the best trained teachers in our elementary public schools. I remember distinctly the sensation of disappointment — almost of disgust — which I experienced on entering Harvard College to find that the average instructor or professor, with whom I came in contact, was so decidedly inferior in teaching ability to the better masters whom I had known in the preparatory school. The fact is so patent that he who runs may read,— that of the twenty-five or thirty men who compose the faculty of our larger colleges, scarcely one-fourth can be reckoned as good teachers — that, too, using the word "teacher," not in the sense of drill master, but in the wider and truer sense in which Agassiz used it, when he signed himself, "Louis Agassiz, Teacher." The men engaged in the various departments of our so-called higher education, including the preparatory school and college, are, as a whole, inferior to the teachers in many parts of our elementary system, though they enjoy the vantage ground of a superior education. In this fact is to be found, I believe, a part of the reason why the public school system has been growing so much more rapidly than the college system of the country.

"One of the most important reasons for this state of things is to be found in an almost total lack of any preparatory instruction in the art and science of education on the part of those who are to fill our academic and college positions. The remedy is to be sought in the establishment of chairs of pedagogy in our colleges and universities. All this will be changed — much to our advantage — when we shall have developed a set of American thinkers and writers on these topics. To this end, no one thing will contribute so much as the establishment of chairs for the promotion of the science and art of education, whose incumbents will find their chief scientific work in the investigation of these eternal problems from the standpoint of American experience and conditions. In a word, a four-fold advantage will flow from the establishment of such chairs.

"1. Opportunities will be afforded to those who wish to be teachers to prepare themselves better for their work than they otherwise could, whereby the teaching in our colleges and academies will be greatly improved.

"2. The possibility of obtaining professional training in this field will tend to develop teaching from a mere calling to the rank of a learned profession — much to the advantage of the teachers themselves, as well as of the community.

"3. The presence of such advantages will tend to attract to the business of teaching all those whose natural tastes would incline that way; and, on the other hand, to exclude those who have no taste for it, but would make it a mere stepping-stone to something else; since men would hardly care to spend the time and money to obtain this professional training which, under the altered conditions, would soon be required from all, unless they proposed to use it.

"4. A great impulse would be given to the investigation of educational questions which could not but result in valuable contributions to our present — alas! far too limited — stock of knowledge on such topics."

[Prof. James's paper was discussed by ex-President White, of Cornell University, and by others, but no full report of the debate was made nor of the entertaining address by Mr. William Blaikie, of New York, on the "Progress of Physical Education in Schools and Colleges." He showed himself thoroughly acquainted with the subject and with the general course of education, was brimful of anecdotes and humor, and kept his audience interested more than an hour.]

IV. THOUGHTS ON THE COLLEGIATE INSTRUCTION OF WOMEN.

BY ARTHUR GILMAN, OF CAMBRIDGE, MASS.

(Read September 6, 1887.)

It may be well for me to preface the remarks that I have to make by briefly defining my position. I do not, in the first place, advocate putting all our girls through the college course. So far as I am aware, no one makes so broad a claim for all men. I do not advocate the education of women in the same classes with men, nor even in the same institutions. I claim now, as I have always claimed, that to every woman who needs it, the collegiate education should be open, and that each woman must be permitted to decide what her own needs are. The form in which women shall be taught does not concern me so much as that they shall have the best educational advantages. The way in which the instruction shall be given may safely be left to be settled by experience. To settle it in any other manner would be revolutionary; and it seems to me that it is best to move slowly and surely in a matter of so much gravity as the education of the greater half of the race. I believe that there is not only no danger in following my views to their logical conclusion, but that great advantage must come to the community that practices upon them.

Few educational principles are more firmly settled than that it is of the utmost importance that the beginning of education should be the work of teachers thoroughly informed in the principles and practice of pedagogics. It is the province of the mother to lay, to a certain degree, the foundation of the education of her sons and daughters; and that she may do it well, she must, herself, have the best advantages. It is the mother and not the father who creates the home, and gives it its characteristic atmosphere, and education only will enable her to impart to her offspring a love for learning. As we think of the influence of educated women upon society, we cannot avoid noticing that, in any system of public instruction, woman is the natural teacher, not of her own children only, but also (as Froebel, Horace Mann, and the other masters of the science of pedagogics unite in asserting) of the children of others. In America, women actually outnumber men in the teaching guild, the Union through. In my own State, they comprise eighty per cent. of the entire number of teachers.

It is difficult to see how men can take the places of these women, and if they are not prepared in the best way, what is to become of our youth? The well-being of society — self-preservation, demands the thorough instruction of these teachers. "The question of woman's education is practically settled," says one of the late writers on the subject, and this may be accepted as true in a general way; but certainly, it is not true in regard to details. There is no doubt that woman is to be educated,— to go to college as well as to school,— in the future, but experience only will determine how and what she shall find it most profitable to study, and by experience only can the community learn what is to result from the equal instruction of both halves of the human unit.

It is not easy for one who has studied the steady advance of the efforts that have been made for the completest education of women to convince himself that there is any more profoundly important or significant movement now moulding our generation; and where the influence is to stop it would be difficult to tell. It must be limited only by the range of the activity of both man and woman; for the woman, educated after the new fashion, is still to be the mother of men, and the moulder of the character of the race. The scientist will not permit us to say in advance that the educated woman will be the mother of any better men — that she will be more thoroughly capable of forming the young character of her children; but what man who has had the privilege of companionship with such women, will hesitate to hazard an opinion on the subject? Only thirty years ago, it was truthfully said that there was no system in woman's education, and one has not to go far back in the history of the subject to reach the time when, so far as any advanced education whatever is concerned, woman was almost entirely overlooked.

In the Middle Ages, when education was the accomplishment of the very few, and was considered a necessity for no one except the professional clerics, and perhaps not always for them, women had a chance to get the same small modicum of learning that was within the reach of men. As men grew wiser, they forgot to give the advantages of learning to women, and we find that the weaker sex was soon left behind. For ages women were obliged to satisfy in private any longings that they may have had. They might sit illiterate in their towers and embroider shields for graceless Launcelots; they might sing "the song of love and of death," and when

their ignorant lives had dragged out their latest hours of sadness, they were at liberty to "float silently into Camelot," under the guidance of some dumb old servitor.

There lived in France at the time when our Chaucer was learning in Italy the story of patient Griselda,— in the year 1372,— a fond father, who had his attention turned to the education of women by thoughts of the condition of his three motherless danghters. We are fortunate enough to have, in convenient form, the story of this father's thoughts, and a plan for the education of his girls which resulted from them. The Early English Text Society has published the work of the Knight of La Tour Landry. It became one of the popular books of the times. It was translated into German and into English. It was, a critic tells us, a monument of mediæval literature. "It gives," says another, "a view of the simple and unaffected life of the Middle Ages." It is difficult to restrain one's curiosity in the presence of a book like this, and we open it with ardor, as we think of the possibilities. Our disappointment is in proportion to the enthusiasm of our expectations. This vaunted source of information on the subject of the education of women discloses to our astonished eyes tales, by the score, of such indecency that if, today, a copy were exposed on a bookstall, it would be in danger of being carried off by the police under the laws against indecent literature. It makes its readers acquainted with vice of which, without it, they could never have dreamed. It tells them how husbands deceived their wives, how wives were false to their lords, and tells it all under pretence of training the delicate mind of woman in the right way. It is, in fact, the best thing that at the time could be done in the way of woman's education.

The half-pennyworth of educational bread hidden in this intolerable deal of most bestial sack is something like this: woman may be taught to read, but not to write,— only this and nothing more. Woman was in those days supposed to be even more prone to do evil than the sparks to fly upwards, and too much education would, it was feared, only add to the evil tendencies of her perverse nature.

There was evidently much to be learned by the men of that age. If both to read and to write came by nature — and we have the authority of Dogberry for saying that they do—this good father would actually deprive his daughters, and all women at once, of one-

half of their rights in the way of education! Two centuries passed away, and it was said that no portion of this paragon of books could be repeated, for from it women would learn more vice and wickedness than they could in any other way.

Here, then, we have an early experiment in the education of women. It was a loving father's experiment. It confined the sex to reading, and to those housewifely duties that have always been thought so commendable in women. Let us not be hasty to say that the good Knight of La Tour Landry was a sinner above others. Let us think how many years,— yea, how many centuries it took the world to learn a better way. Let us ask if there are not those still living who believe that there will be an end of all proper domestic economy the moment that women are educated — that, to use the words of Sydney Smith, "If you suffer women to eat of the tree of knowledge, the rest of the family will be very soon reduced to the same kind of aerial diet." Are there not those who are fully convinced, or seem to be convinced, that the care and solicitude which a mother feels for her children depend upon her ignorance of Greek and mathematics, and that, as has been said, she is in momentary danger of deserting an infant for a quadratic equation? They think that woman ought to be "compassionate," for example, but then, as Sydney Smith says again, "women cannot be compassionate from eight o'clock in the morning till twelve at night." These are the timid persons who fear lest women will cease to be attracted by domestic life,— lest, as they become "cultured," they will cease to be "sympathetic,"— they will be learned, but not self-denying—that the nameless graces and charms of manner will not be evoked as they ought to be. These statements were actually made not long ago, by a philosophical lecturer, in a British capital.

On the contrary, it is from England, too, that we get the antidote to these slurs. It is Mrs. Sedgwick, of Newnham College, who writes: "Nothing that I have seen of them (women) either at the University or afterwards, has tended in the smallest degree to support the view that the adaptation of women to domestic life is so artificial a thing that a few years of free, unhampered study and varied companionship at the University has a tendency to impair it." "The women-students at Cambridge," she says, "have shown no inclination to adopt masculine sentiments or habits except in so far as they are related to hard mental work,

and the accomplishment of the educational objects that both sets of students in common set before themselves. The same is true of the American Cambridge."

I shall not insult an American audience by trying further to oppose the baseless statements of the mediævalists; but, if your experience has been anything like my own, you know how much they are worth. They are the forlorn efforts of the supporters of a lost cause to accomplish, by confident and repeated assertion, something that in truth and soberness they can hardly be supposed to believe possible. Perhaps they entertained fears lest, if woman were once made equal to man, she would be his superior, as Socrates declared.

The Nineteenth Century must not throw stones at the Fourteenth until we cease to find in journals, edited by otherwise intelligent persons, such statements as the following, which I take from the *Fremden Blatt*, published in the very capital of Prussia. The writer argues that though the prospective duties of citizenship demand that German boys should not only learn to read, write, and cipher, but also be in a position to understand one or two foreign languages, there is no reason why young women should be so far taxed; unless, indeed, they expect to become teachers, or are destined to be wives of diplomats. For all others the knowledge of foreign languages appears to this enlightened editor, in a centre of Nineteenth Century scholarship, entirely unnecessary. Not satisfied with this, however, he goes on, and exclaims, "What is one to say to the fact that in many of our higher girls' schools, mathematics even is taught,— that ambitious teachers, who would be more at home in a gymnasium or a *real schule*, want even to make their pupils acquainted with the Pythagorean proposition? Is one really to believe that through the knowledge of it, a woman will be helped in her future calling as a wife and a mother?" This editor is not far in advance of the Knight of La Tour Landry, certainly.

We shall not be surprised to find that the ideas of men have not advanced rapidly in the realm of woman's education, now that we have looked at two expressions on the subject five hundred years apart,— expressions representing the latest age alongside of the earlier. Let us turn, however, to the Seventeenth Century, and compare it with the Fourteenth. In the interval of time, mind had been enfranchised — the mind of man, mark you. The ages

called "Dark" had passed away. The learning of Italy and its art had spread over the continent of Europe. They had passed on to England. America had been discovered, our Pilgrims and Puritans had crossed the seas.

Such is the time to which we now look. John Milton, the lofty poet, the noble champion of a free press, prepared with much labor a work on education. We examine it with even more care than we felt as we opened the well-thumbed leaves of the book of the Knight of La Tour Landry. What place does woman hold among the classes which "that mighty orb of song, the divine Milton," thought could possibly be benefited by being taught? Perhaps, indeed, we ought not to expect to find anything provided for woman by a poet who could write, even in the person of his saddened and despondent hero, Adam, the words:

> "Oh! why did God,
> Creator wise, that peopled highest heaven
> With spirits masculine, create at last
> This novelty on earth, this fair defect
> Of Nature, and not fill the earth at once
> With men as angels?"

A poet who expected to find men only in heaven, may not be presumed to provide any culture for women on earth,— women whom he seems to have considered merely "fair defects of nature." We are scarcely disappointed to find in Milton's, in some respects, admirable scheme of education, no provision for women. If it be contended that John Milton's views on all subjects relating to women were influenced by his personal experiences and that he ought not to be taken as a representative of his age, I simply challenge the production of any educational scheme of the period that is wiser in its way, and at the same time more generous to women.

When we of New England wish to point out remarkable examples of care for education, we are apt to think of the Pilgrims and Puritans as pioneers. We picture them planting the school by the side of the meeting-house, and building the college while the air was still lurid with the smoke of their cabins, fired by savage Indians, and their lives in danger from the tomahawk; but, on close view, we discover that even they did not come to a knowledge of the truth that education was for woman as well as for man. Their notion seems to have been that it was something adapted to

fit a boy, first, to be a minister, and then to prepare him for some other liberal occupation in life. Their wives and daughters might sit and spin; they might cook and care for the household; they were at liberty to read, and to write letters (if they took care not to print anything); they might add to their labors the charming occupation of working "samplers," on which were depicted flowers and shrubs, such as no botanist ever dreamed of, trees and houses such as the world never saw, all as true to perspective as the blue bridges and disjointed women that barbaric hands had traced on their Chinese tea-cups and saucers. They were expected to be Elaines who, however, should never bestow a thought upon graceless Launcelots. They might take honest pride in these works of budding American art, they might cover them with all the letters of the alphabet, and add their own fair names,— "Deborah," or "Sophonisba," and lay them away in attic chests, to be preserved for the admiration, if not the astonishment of generations to come. Perhaps, forsooth, the fair dames of Plymouth and Boston had no time, in those pioneer days, to give to school learning. They were poor, and it was an axiom that we have not outgrown the effects of, that education, if a necessity for any one, was surely necessary for man only. If any member of the family were to be mentally starved, it was, of course, the mother or the daughter — never the husband or the son. Has this been outgrown? Who shall say?

Of course, no one thought, in the colonial days, of sending a girl to college. It is questionable if it was deemed necessary that she should have the more elementary education of the grammar school. We find in the laws of Massachusetts for 1647, it is true, that "all children" are to be taught the studies of the grammar and preparatory schools; but a careful examination arouses a strong suspicion that the only children then known as appropriate for such teaching, were those angelic creatures of the masculine gender, of which Milton dreamed as peopling heaven. The heaven of education in New England was certainly reserved for men. "Every child," was a Yankee euphemism for "every boy."

Come we now to the later times of Queen Anne. In her days a girl might learn to read — she might add writing (if as before, she gave no copy to the printer) and arithmetic — and, in rare cases, she received some instruction in music and dancing,—those dangerous accomplishments which were apt to make a demure Puritan mother shudder, as she contrasted the gaieties of the ball-

room with the songs of the sanctuary,— the lively melodies of the parlor, accompanied by the squeaking but stirring spinet, with the tunes to which Rouse's Psalms were droned out in the hillside meeting-house. In those "good old times," woman's learning was a subject of small but biting ridicule, and few there were who could bear it. As lately as when the University of Michigan was opened to women, those who took advantage of its privileges were jeered at as girls who "wanted to be men," and were subjected to most cruel and ungentlemanly satire. In the reign of George III, we find Mrs. John Adams, one of the most enlightened and favored of good women, writing that she "never was sent to any school," that she was always sick.

In the year 1789, schools for children of both sexes were established in Boston, but the girls were permitted to attend only one-half the year — from April to October, — either because they were brighter than the boys, and could learn as much as they in half the time, or because they did not need so much education. The boys were trained for college, of course, but the girls were taught the English branches only,— spelling, reading, and composition, besides the grammar of our language, all estimable accomplishments. Arithmetic, which is carried so far now that men are protesting against it on all sides, was at that time apparently not taught to girls at all. Here was progress; but it was not very great. It satisfied the public, however, for thirty-six years, and then, when the children of the first pupils were ready for such a school — in 1825, a high school for girls was established,— the first of its kind. There was great opposition to the innovation. In some way the girls seem to have learned, in the half time allowed them, that their daughters needed more instruction than their own frugal parents had provided for them. This school was kept open eighteen or nineteen months, and was then abandoned as "too costly." No expense was too great for the proper education of boys; Boston never used such an argument in their case; but any outlay was too much, if it were for the "girls." The experiment had cost $4,500, and that vast sum was completely wasted, so it was thought, on a few girls. The visit of Queen Kapiolani to Boston reminds me that we have lived to see larger sums than this expended by the city of Boston to strew flowers about the path of a woman for a few days,— and many times this amount wasted for material luxuries.

It was thirty years before the great city of Boston was able to recover from this frightful waste of the public funds. During that period, the forlorn girls foraged about as they could. They studied modern languages, and *belles lettres*, as it was called; they parsed "Paradise Lost," until it was worn to shreds,— but, probably, they never got so far as the tenth book, in which occurs the account of the masculine heaven, and the description of woman as the "defect of nature," albeit a "fair" defect. They went into private schools for these admirable advantages, perchance now and then looking hungrily over the fence that kept them from climbing into the High School with their brothers and cousins. Probably, the conservative fathers and mothers were saddened when they found that Mr. Ebenezer Bailey had opened a private High School; and when they learned that girls, who should have been exercising at the spinning-wheel, or recreating over the wash-board, were making excursions under his direction into the solid branches of human erudition, and really daring to learn some of the secrets of science!

The world did not stand still for the conservatives, however. The instinct of self-preservation wrought the next good work. It was found that, throughout the commonwealth, schools of various grades were taught by women, and that every year the number of such instructors increased. This came about through the influence of that educational enthusiast, Horace Mann. The question began to be asked,— Shall these women who are teaching our children, our boys, forsooth, as well as our girls, go on, without being themselves taught? Shall we risk the future of our precious boys in the hands of these women, who have themselves had but the most ordinary opportunites for instruction? It was plain that the trend of custom towards the employment of women in many schools could not be turned, because women would teach for less pay than men demanded. No amount of fulmination by the conservatives against the average school committee-man would influence him to employ men instead of women, because such a step, though it might be advantageous, would lead to the insertion of a larger sum in the list of moneys to be voted upon in town-meeting. A select-man or a member of a school committee would continue to buy brains in the cheapest market, and supply the schools at the lowest rates, in spite of any admonitions whatever. What should be done? There was but one thing practicable, and that Mr.

Horace Mann knew all the time. There must be normal schools in which women might be prepared for the profession of teacher. Men should be admitted, of course. Accordingly, such a school was established at Framingham, in 1839, and another a few months later at Westfield, under the inspiration still of Horace Mann, who was undermining ancient prejudices in a frightful way.

The Girls' High School of Boston awoke from its thirty years of slumber in 1855. The people had learned something by experience. They remembered the opposition that the institution had met before, and this time they were cautious. In 1852 they took the first step, and opened a Girls' Normal School, which looked innocent enough, but at the end of three years the authorities decided that the pupils of the Grammar Schools were not proper candidates for such instruction, and they changed the name of the school to the Girls' *High* and Normal School. In 1872, the two departments were separated, but lately they have been placed under the care of the same Principal. Thus the girls of Boston gained their High School, and they will probably never lose it again.

Let us trace the progress of events a little farther. In 1877, there was a great stir in Boston, for it was proposed in earnest, by busy women and men, who could not let well enough alone, that the Latin School should be opened to girls. I dare not say how many fair hands were held up in horror at the thought of this new act of desecration. Girls were still kept out of this training-school for college. Meantime, Boston University had been opened, and women were allowed to go into it. It was now claimed by the adventurous spirits that the law meant what it expressed when it spoke of instructing "all children," of supporting schools for the benefit of "all" the inhabitants, and of fitting "youth" for the university. The petitioners did not care to remember, or refused to be convinced, that in the good old times all children signified simply all "boy" children; that women and girls were not counted among "inhabitants" in the school laws; and that "youth" signified what we express by the English word "boy."

Thousands of benighted persons, ignorant of such facts as these, signed petitions asking that girls should be admitted to the Latin School; newspapers, the editors of which had forgotten the

legal meaning of the words "youth" and "children," stood up for energetic parents who clamored for what they were pleased to call "equal rights." There were other colleges to which women might go to pursue the under-graduate course: Vassar had opened its doors, and the women of Boston could not now be entirely cast off. It was decided to give the girls a chance, but by themselves,—a Girls' Latin School was founded for their convenience, and into it they flocked. There they still are, doing themselves credit.

Vassar had opened her doors, I said. That was a noteworthy step. It marks an epoch. It was in 1865. The plans had been laid with care during the previous years of civil war. While the armies of the Republic were engaged in the life and death struggle, and the fortunes of the nation hung in the balance, the millionnaire of Poughkeepsie was quietly preparing the foundation for the first fully endowed institution for the education of women that the world had ever seen. What Mr. Vassar's views were on some points we cannot, of course, discover. In general, he intended to found an institution that should accomplish for young women "what our colleges are accomplishing for young men." This is certainly broad enough. It was explicitly stated that it was not to be a "charity school" nor a "fashionable boarding-school," but a real college. Though it required some years for the infant institution to reach the position of an actual college, it is plain that the ideal was high and that efforts unsparing were put forth to attain the collegiate character.

It is charming to observe how deeply impressed these pioneers in the collegiate instruction of women were with the grandeur of their work, and how naïvely they expressed their sentiments. It was of "vital consequence," it was "a grand and novel enterprise;" the trustees were burdened with "responsibilities before the world," requiring "ample time for mature deliberation;" they were "clothed by the majesty of the law with power" to carry out the "generous purposes" of the "munificent donor;" whose act in founding the college was excelled by none among the memorable events in the moral world which signalized the early months of the year 1861,—a time certainly rich in events of profound interest. They said, and with good grounds, that they expected that the opening of Vassar College would "inaugurate a new era in the education of woman."

The power of the time-honored views of the sphere of woman is plain enough in their announcements. Deference to these views led the projectors to lay great stress upon the "domestic" "home influences" of the college, to warrant parents and the public that there would be "comfort," "abundant food," that the students were to be surrounded by "softening" and "elevating" influences — lest they should turn to barbarism perchance, — and the "home" idea was emphasized still more in the statement that there should be no day pupils, because there are no day pupils in the home! A protest was entered against some of the incorrect methods that were said to be thoroughly established in our old and venerable institutions, and a determination was expressed that Vassar, having no traditions to bind it, should begin aright. It was assumed that the women who were to come to the new college would not, like men, be "looking forward to the learned professions," — teaching was evidently not then looked upon as a profession, or if a profession, not a "learned" one. On this basis an argument was built by the first president and the founder against the usual order of studies, and especially against the required four years' course then nearly universal in colleges. Vassar was to follow "the order of nature," and to make "provision for a diversity of tastes, aptitudes and inclinations," — for "different conditions and circumstances as to age, health and property." The curriculum at the new college was to be no "bed of Procrustes, to which every girl must adjust herself, however great the violence done to her nature." The students were not to be told that there was a certain number of text-books to be studied through in each year, and encouraged to plod contentedly through them in the best way they should be able, whether the subjects proved attractive or repulsive.

Vassar was to be arranged in departments, and students were to study by subjects; they were to be largely left to their own choice, though required to accomplish a definite amount of work before graduating, and text-books were to be discarded from the lecture room. Thus the tendency towards elective courses, now so strong in most colleges for men, and so much more desirable for women, was anticipated. Thorough and vigorous cultivation, rather than too comprehensive and superficial training — the gaining of ability to "direct faculties with their utmost power to the accomplishment of any task" — these were the aims of the

founders of the new college for women. Time was not to be taken into account, and these students were to be free from feverish haste and able to cultivate the desired thoroughness without fear of falling behind, as they would be, in a race limited to four brief years. The diplomas were to show that certain work had been done and well done — to represent something real — and not simply to indicate that the young women had "been in college four years and paid her bills."

In addition to all this, Vassar was to educate the religious side of woman and to care assiduously for her physical life. The trustees declared that they utterly loathed and repudiated the spirit of sectarianism, and in accordance with Mr. Vassar's emphatic wish, ordained that "all teaching of human creeds, dogmas and ceremonials, of sectarian views and denominational distinctions" should be "strictly and forever forbidden."

The foundation of Vassar was laid firm and broad. It began its work in 1865, and the examinations for admission showed that there was need for it, for it was found that the education of woman at the time was confused, barren, undisciplined, wasteful, and superficial. The candidates had earnestness of purpose and zeal for improvement, but they knew not what they needed. They declared that they were "passionately fond" of one study and "utterly detested" another, though they knew too little of either to be able to give intelligent reasons for their strongly expressed tastes. They thought that Chemistry was desirable, because, forsooth, it would help them in cooking, and French, in case of a tour abroad; but they knew little of educational discipline and thought less of it. No wonder that it took three years to regulate the heterogeneous medley; to bring any collegiate character into the work of the institution.

Some of the more mature among the students saw the difficulties under which the faculty labored, and supported them in their efforts to set up the highest educational standard, and by the end of the first year the public opinion of the college was entirely with them. In all colleges for women since that time the same sentiment has prevailed. Women have always demanded that the standard should not be lowered for them, and that all the tests of the fullest and strictest collegiate course should be applied to them.

Thus the collegiate instruction of women began in America. It

encountered the usual reception given to all innovations. Vassar College and its students became the objects of many a weak and ill-conceived joke. The penny-a-liners eked out their feeble columns with jibes at "the women who wanted to be men," and the name of Vassar was carried everywhere. It became a typical name, and the quarter-century that has passed since has not deprived it of its character. Other colleges have risen, but Vassar is still *the* woman's college at which the darts of small wits are hurled. The "Vassar girl" still stands for the girl who goes to college. It is about the "Vassar girl" that the newspapers circulate all sorts of more or less apochryphal stories, telling the world how many pounds of beef they consume in an academic year, how many potatoes and fish-balls; how they "bang their hair," how they walk and what they do in every line of activity. Grub Street has not forgotten that Vassar was the first woman's college.

When it began it was met by opposition on the part of many good people, with grave doubts from others, and with welcome by the select few. It went steadily on its way. It was followed by Wellesley, beautiful Wellesley, and by Smith College, and at last the Harvard "Annex" and Bryn Mawr, entered upon their successful careers. At Vassar the pupils were sheltered in one huge building, and were taught by both men and women. At Wellesley the same sort of a grand dormitory was erected, and the teaching was given by women only. At Smith, men and women taught together, as at Vassar, but the students were separated into small families under different roofs. The Harvard "Annex" differed from all previous efforts in that it did not seek the gathering of a new faculty, nor the erection of a new library, but simply the repetition to women of the instruction already given to men in an institution that had been in successful operation for near two centuries and a half. It carried out the "home" principle farther than either Vassar, or Smith, for it aimed to place its students by twos or threes in established families. Its teaching was done by men only, because it engaged no instructors who were not already employed by the University.

It is impossible in a paper like this to avoid reference to the fact that women were and are permitted to attend college with men, and that they are in considerable numbers found in such

institutions, but my purpose is rather, at present, to confine myself to establishments expressly founded for women.

Woman has certainly obtained the opportunity for the collegiate education. She has done herself credit in every college to which she has been admitted, and in all cases in which she has been allowed to compete on equal terms with man for intellectual honors. Nowhere has this been so emphatically true as in conservative England. The winds of last May wafted to our shores a paper in the *Nineteenth Century* on the mental inferiority of woman to man, in which it was shown that "the average brain-weight of women is about five ounces less than that of men," and by an elaborate and interesting argument woman's "marked inferiority of intellectual power" was proved in detail. We learned that women are more apt than men to break away from "the restraints of reason;" they have a greater fondness for "emotional excitement of all kinds;" in judgment their minds stand "considerably below" those of men; in creative thought and in simple acquisition there is a marked difference; women are less deep and thorough than men; their physique is "not sufficiently robust to stand the strain of severe study;" and so on.[1]

Scarcely had this argument for the general inferiority of women in "acquisition, origination, and judgment" reached us when the telegraph flashed the news that Miss Ramsay, a student at Girton College, Cambridge, England, had distanced all the men of the University in the race for classical honors, and that Miss Hervey, of the same college, had won a like distinction in the department of mediæval and modern languages. The *London Times* says: "Miss Ramsay has done what no Senior Classic before her has ever done. The great names of Kennedy, Lushington, Wordsworth, Maine, and more recently, of Butler and Jebb, have come first in the Classical Tripos. Miss Ramsay alone has been placed in a division to which no one but herself has been found deserving of admittance. . . . . No one has ventured to think that four

[1] The author of this paper, Mr. George J. Romanes, writes with calmness and self-restraint. He frankly confesses that he has, as a matter of fact, met "wonderfully few cases of serious break-down," which "only goes to show," he says, "of what good stuff our English girls are made." Since we observe the same phenomenon in our own country, we are at liberty to assert that it does *not* go to show of what good stuff our American girls are made, so much as to prove that the "physique of young women as a class" *is* sufficiently robust to stand the strain of severe study, and actually to improve under it.

years' work could be enough to make a Senior Classic. We have proof now that it is ample. Most of Miss Ramsay's competitors will have taken fourteen years to do less than she has contrived to do in four years. . . . Miss Ramsay's example suggests a possibility that men may have something to learn even in the management of a department of study which they have claimed as peculiarly their own." It ought to be added that Miss Ramsay kept herself in full health, did not "over-work," and accomplished her examinations easily.

In the face of facts like these, and many more that might be adduced, we cannot doubt that nature has not placed before woman any constitutional barrier to the collegiate life, but that so far as physical reasons are concerned, she may enter upon it with no more fear than a man may. That an increasing number of women will do it, and that so far as they are destined to be instructors of youth it is best for the State that they shall, is in my mind not at all doubtful.

What is to be the effect? That is the crucial question. On the physical health of the educated women it will be beneficial. I have myself learned by observation that the work of the full college course is favorable to health. The regularity of life, the satisfaction of attainment, the pleasant companionship, the general broadening of the girl's nature tends in that direction. There is high medical authority for saying that for "nervous" young women even "the higher education is a conservative, rather than a destructive force." On the lower schools its effect is, as I have said, very good. The grade of instruction in schools for girls has been raised materially since Vassar College began its career. Girls who go no farther than the preparatory school are greatly benefited. The influence is reflex, for the educated girls become in turn teachers, and they are better teachers than their predecessors. It was one of the aims of Vassar College at the beginning to train women to this profession. Wellesley has its normal and graduate department, and Smith, the Harvard "Annex" — and, in fact, all the colleges that teach women—are sending to our schools and colleges a constant stream of well-prepared teachers who will help the men to raise the grade of American scholarship higher than ever.

Many of the college-bred girls never teach. The same is true in equal proportion, at least, of college-bred men. These go out

into the world and raise the average of general intelligence in the country. Many of them marry and become teachers of children in their own households. The standard is raised at home, which is the fountain-head of so much that is good and influential.

It is doubtless true that women who marry after having been liberally educated make more satisfactory unions than they otherwise would have. Women were formerly trained to no outlook but matrimony and to cultivate such accomplishments only as would be most useful to that end. When, therefore, that end was reached, all was missed. There was no outlet of action by which the energies of her feelings might be discharged. The defective education, which was adapted to heighten woman's emotional sensibility, and to weaken her reasoning powers, tended to increase the predominance of the affective life; to lead her to base her judgment upon her feelings and intuitive perceptions rather than upon rational processes; and to cause her to direct her conduct by impulse, rather than govern it by will, which is desirable, in spite of the saying of Voltaire that "all the reasonings of men are not worth one sentiment of woman."

Educated women marry as naturally as those who are not educated; but the fact that mental training has led them to subject their impulses to the test of their reason in study, gives them an advantage in the choice of husbands. Ill-considered marriages have been properly inveighed against by moralists for ages. In the education of woman's mind we may discover a means of decreasing their number. The Rector of the University of Liége devoted his inaugural address in 1882 to the subject of the education of woman, and towards the close of it he remarked, "In Belgium and France most young persons in the higher classes — sons of the rich or of those who expect to be rich — are sunk in deplorable ignorance. They pursue no kind of higher studies, or, if they enter upon them, they are very soon discouraged. To what does this tend? It causes them almost always to be without any inspiration to the taste — without any habit of serious occupation. They live in an atmosphere in which intellectual labor is not honored, in which, far from considering it a glorious or even a worthy duty, it is placed below the satisfaction of the love of pleasure. As many profound moralists, priests and philosophers have remarked, this deplorable situation arises from the false education given to the women of the higher classes. As

a general rule they cannot comprehend what constitutes the true power and dignity of a man, and therefore they accept as husbands men as ignorant and as idle as themselves. As a natural consequence they cannot bring up their sons to be men; they cannot give to their country well-instructed, energetic and devoted citizens."

I have been told in cultivated intellectual circles that "a young woman had better be in the kitchen or the laundry than in the laboratory or class room of a college." "Women should be trained to be wives and mothers." The finger of scorn is pointed at the mentally cultivated mothers and daughters who are unable to cook and scrub — who cannot make a mince-pie or a plum pudding. We are told that young women have broken down in pursuance of advanced courses of study, and arguments like these are considered by some to be conclusive against collegiate instruction for the entire sex. Such persons forget with suspicious facility all the cases of women who leave the kitchen to indulge themselves in the love-sick sentimentality to which they have been trained — who think too much of their matrimonial chances to endanger them by scrubbing, or by giving ground for the suspicion that they cultivate any other faculty than the power to worship the moonlight and to long for a lover. They forget that men do not bear the confinement of the student's life even so well as women — that the students who break down in men's colleges every year outnumber those who are harmed by over-study among the women — that, in fact, as I have said, women can bear the work of a college course at least as well as men.

The very last entrance examination at an Eastern college was held during the sweltering days of the end of June. One of the men passing its ordeal actually fainted away, but not one of the women doing the same work at the same moment was overcome by the work or the warmth.

Those who tell women to find their sphere in the realms of the empty brain do not care to remember that it is no better to wither under the influence of ignorance or sentiment, to cultivate a fondness for "gush," than to dry up the sensibilities like a book-worm, or grow frigid and stiff like a pedant. It is as bad to stunt human nature as to over-stimulate it, to stop its progress in one way or another. The great mass of men choose the golden mean. The great mass of women will not do otherwise. Common sense will govern their conduct.

Let us trust woman with the torch of learning as we trust ourselves. Let us give her all the means of guiding her life that her brothers possess. It is no longer doubtful — it is plain that woman ought to be enfranchised — that the right to cultivate her intellectual nature should be hers, and that she should be the judge of how far she may go in exploring the mysteries of the natural world, the intricacies of the mind in its varied lines of action, and, in short, every branch of human knowledge.

It is *chivalric* for the stronger half of the human unit to give to the weaker her full opportunities in this respect,— it is *just* for man, trained through the ages in the use of his argumentative powers, to award this privilege to woman.

It is *patriotic* for the American to train his wife and his daughters in such a way that they can cultivate in their brothers and sons the highest traits of the noble citizen.

It is *Christian* for man to furnish to woman every opportunity for the improvement of her God-given talents, and to fit her as well as himself for immortality.

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