

while a prominent officer at the Denver meeting thought it should be 10,000. However this may be, the work of the past year has demonstrated clearly that an effort to increase membership, when wisely directed and persistently followed up, is sure to be successful.

The financial side of the Association is also becoming impressive. The report of the permanent secretary for 1900, which does not include the still larger income accruing thus far during 1901, shows receipts amounting to \$12,321.60. Of this amount the sum of \$1,300 was paid over to the treasurer for endowment, and a balance of \$4,741.60 carried over to the next year. To meet the numerous expenses of so large an organization, and also to set aside more than \$1,000 towards the permanent endowment for grants is an achievement for which the administration of the Association is to be congratulated. The same outcome will appear in the next report, for the Council has already set aside \$1,000 from the receipts of 1901 for the permanent fund.

In regard to this permanent fund the treasurer's report showed that it now amounts to over \$11,000, having doubled in seven years. This is gratifying because the income is used for grants to special committees to aid in the prosecution of research. The reports of these committees form an interesting part of the proceedings. With an organized effort for an increase in the number of members, and with the frequent communication among members secured by the relationship with this Journal, there seems to be no reason why the Association should not include in its

membership all those who are engaged or interested in scientific work in this country and thus represent completely the organization of science in America.

The steady progress toward this end is demonstrated by the signal success of the Denver meeting. Heretofore the Association has been an organization expressing chiefly the scientific activities of the eastern states, no previous meeting having been held west of the immediate banks of the Mississippi river. Henceforth the Association is in fact as well as in name an organization expressing the scientific activities of the entire continent. This first Denver meeting, therefore, must be regarded as a noteworthy event in the history of American science.

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*PROCEEDINGS OF THE FIFTIETH ANNUAL  
MEETING OF THE AMERICAN ASSO-  
CIATION FOR THE ADVANCE-  
MENT OF SCIENCE.*

THE first general session of the Denver meeting was called to order in the auditorium of the High School Building at 10 o'clock in the morning of August 26 by the retiring president of the Association, Professor R. S. Woodward, of Columbia University, who introduced the president-elect, Professor Charles S. Minot, of Harvard University. President Minot introduced the Hon. J. B. Grant, president of the local committee, who, after some remarks welcoming the Association to Denver and to Colorado and the reading of a letter from the Governor of the State, introduced the Hon. R. R. Wright, Jr., Mayor of Denver; Mr. Charles F. Wilson, President of the Chamber of Commerce; General Irving Hale and Professor Aaron Gove, Superintendent of Schools, all of whom made addresses of welcome. To these addresses

President Minot replied in the words published below.

At the closing session the permanent secretary read the following report:

The fiftieth annual meeting of the A. A. A. S., which will be known in the future as the 'Denver Meeting,' or possibly, and let us hope, as the '*first* Denver Meeting,' has been a most successful one. There have been in attendance 306 members and associates, making the meeting in this regard rank as the 22d largest meeting. What may be termed the geographic distribution of the members in attendance has been interesting. From the Atlantic Coast region there have been 92, or nearly one-third, from the Pacific Coast 11, and from foreign countries 6, leaving two-thirds from the great interior of the country.

The distribution by States has been as follows:

Colorado heads the list with	79
New York	30
District of Columbia	28
Iowa	15
Missouri	14
Massachusetts	13
Penn'a., Illinois	12 ea.
Kansas	17
California	10
Nebraska	9
Indiana	8
Wisconsin	7
Minnesota, Ohio, Connecticut, N. Mexico	5 ea.
Wyoming, Canada, Michigan	4 ea.
Texas	3
West Virginia, Montana, Arizona	2 ea.
Georgia, North Dakota, South Dakota, Oregon, Nevada, Oklahoma, New Hampshire, Tennessee, New Jersey, North Carolina, Arkansas, Louisiana, England, Ireland	1 ea.

It must be borne in mind, however, that the number registered, 306, includes only the actual members and associates of the A. A. A. S., and that the great national affiliated societies of specific aim which have met with us have drawn many more sci-

entific men and women to Denver within the past week, so that it has really been a scientific congress of much importance.

The papers which have been read before the Association proper and in joint sessions with the more closely affiliated societies have been numerous and of a high order. About 220 in all have been presented.

A number of important measures concerning the future of the Association have been considered. An amendment to the constitution providing for the representation in the Council of the affiliated societies seems one of the most important steps taken by the Association of recent years, while other amendments looking towards a more stable membership in the Council have been introduced and will be considered later.

About 50 new members have been elected during the meeting; and 186 members have been made fellows.

Denver and its vicinity have provided visiting points of great scientific interest, and the facts just stated, together with the great courtesy and warm-hearted hospitality of the citizens of Denver, have combined to make the meeting now coming to a close a memorable one in the annals of the old Association.

The members of the Council in attendance were:

*Past President*—R. S. Woodward, New York.

*Vice-President of the Columbus Meeting*—Marcus Benjamin, Washington.

*Vice-Presidents of the New York Meeting*—Wm. Trelease, St. Louis; Amos W. Butler, Indianapolis; Calvin M. Woodward, St. Louis.

*Officers for the Denver Meeting*—Charles Sedgwick Minot, Boston; James McMahon, Ithaca; D. B. Brace, Lincoln; John H. Long, Chicago; H. S. Jacoby, Ithaca; C. R. Van Hise, Madison; D. S. Jordan, Leland Stanford Jr. University; B. T. Galloway, Washington; J. Walter Fewkes, Washington; John Hyde, Washington; L. O. Howard, Washington; J. M. Coulter, Chicago; D. T. MacDougal, New York; G. A. Miller, Ithaca; John Zeleny,

Minneapolis; Wm. McPherson, Columbus; C. W. Comstock, Golden; H. B. Ward, Lincoln; Ernst Bessey, Washington; G. G. MacCurdy, New Haven; R. A. Pearson, Washington; R. S. Woodward, New York.

*From the Association at Large*—A fellow from each section: G. B. Halsted, Austin; E. L. Nichols, Ithaca; C. S. Palmer, Boulder; C. A. Waldo, Lafayette; T. C. Chamberlin, Chicago; F. M. Webster, Wooster; D. H. Campbell, Stanford; L. M. Underwood, New York; W. J. McGee, Washington; E. T. Peters, Washington; J. McK. Cattell, New York.

*From the Affiliated Societies*—American Chemical Society: F. W. Clarke, A. C. Hale. Geological Society of America: N. H. Winchell, H. L. Fairchild. Botanical Society of America: C. E. Bessey, B. D. Halsted. Society for the Promotion of Agricultural Science: W. J. Beal, Agricultural College.

The address of the retiring president was published in the last issue of this journal and the addresses of the vice-presidents and abstracts of the papers read before the sections are in course of publication. The more important business transacted by the Association was as follows:

An amendment to Article 18 of the constitution, submitted at the New York meeting in 1900, was reported at general session from the council for favorable action and adopted. The amendment is as follows:

In Art. 18, after the words 'The Treasurer of the current meeting,' omit 'with the addition,' and after the words 'by ballot on the first day of its meeting' insert 'of one fellow elected by each affiliated society and one additional fellow from each affiliated society having more than twenty-five members who are fellows of the Association.'

The following amendment to Article 20 of the Constitution was also adopted:

Add to the end of Art. 20 the words, 'But if suitable preliminary arrangements cannot be made, the council may afterward change the time and place appointed by the general committee, if such change is believed advisable by two-thirds of the members present.'

The following amendments to the constitution were read before the council and at the general session and will be acted on at the next meeting:

In Article 9, after the words 'with the exception of the Permanent Secretary' omit 'and,' and after the words 'the Treasurer' insert 'and the Secretaries of the Sections; and after the words 'The term of office of the Permanent Secretary' omit 'and,' and after the words 'the Treasurer' insert 'and of the Secretaries of the Sections.'

In Article 18, after the words 'who are fellows of the Association,' insert 'and of nine fellows elected by the Council, three being annually elected for a term of three years.'

In Article 23, after the words 'of a Section there shall be' omit 'three members or fellows' and insert 'a member or fellow,' and after the words 'Vice-President and Secretary of the preceding meeting' insert 'and the members or fellows elected by ballot at the four preceding meetings.'

Reports of standing and special committees were presented and their recommendations adopted as follows:

#### COMMITTEE ON THE POLICY OF THE ASSOCIATION.

The Committee on the Policy of the Association presents the following recommendations to the council in regard to certain matters which have been referred to it for consideration:

1. The Committee recommends that owing to the great increase of engineers in the membership of the Association, it would be inexpedient to consider the question of the discontinuance of Section D.

2. The Committee recommends that the proceedings of the annual meetings, including the addresses of the Vice-Presidents, the reports of committees and officers, and abstracts of all papers, be published immediately in *SCIENCE*, and further that the addresses of the Vice-Presidents, titles of all papers and reports of officers and committees, the constitution and lists of officers, members and fellows, be published by the Permanent Secretary in a volume as soon thereafter as possible. The Committee further recommends that authors wishing to make alterations in abstracts of their papers shall do so before the close of the meeting and that abstracts shall not exceed 400 words in length. It further recommends that the Secretaries of Sections shall forward these abstracts with an account of the work of the meeting to the responsible editor of *SCIENCE* within a week after the close of the meeting.

3. The Committee recommends that Section K organize at the present meeting by the formation of a Sectional Committee and that papers submitted for

this Section at this meeting be referred in accordance with their character to Sections H or F.

[Signed.] CHARLES S. MINOT.  
R. S. WOODWARD.  
L. O. HOWARD.

#### COMMITTEE ON THE RELATIONS OF THE JOURNAL, SCIENCE, WITH THE ASSOCIATION.\*

This committee is able to report that the arrangement by which SCIENCE has this year been sent to the members of the Association has been satisfactory in every respect. It has been generally approved and has apparently strengthened the Association and the organization of science in America. The membership of the Association has greatly increased, the fees of new members sufficing to pay the entire expense of sending SCIENCE to all members of the Association. We recommend that we be authorized to renew for the year 1902 the present contract with The Macmillan Company. We also recommend that the treasurer of the Association be added to this committee.

[Signed] SIMON NEWCOMB, *Chairman*,  
R. S. WOODWARD,  
L. O. HOWARD,  
J. MCK. CATTELL, *Secretary*.

#### COMMITTEE ON CONVOCATION WEEK.

The plan of setting aside the week in which New Year's Day falls as a convocation week for the meetings of scientific and learned societies has met with almost universal approval on the part both of societies and of institutions of learning. At the instance of this committee, the Association of American Universities passed unanimously a resolution recommending the establishment of a convocation week, and the thirteen universities composing the Association have with one exception either left the week entirely free from academic exercises, or will give all officers leave of absence. We have now begun correspondence with about fifty additional universities, colleges and technical schools.

In view of the favorable reception of the plan for a convocation week we recommend :

1. That this Association and its affiliated societies meet in Washington in the week in which New Year's Day of 1903 falls, without, however, committing ourselves at present to the abandonment of summer meetings.

\* Mr. G. K. Gilbert, the remaining member of this committee, was absent in the field and unable to sign this report, but it is known that he concurs in its recommendations.

2. That the Council meet in Chicago during the Convocation Week of 1901-2, and that the Sectional Committees may organize meetings of their respective Sections, the expenses of each of which shall not exceed \$25, to be paid from funds in the hands of the Permanent Secretary.

3. That this Committee be continued.

[Signed] CHARLES S. MINOT,  
R. S. WOODWARD,  
EDW. L. NICHOLS,  
L. O. HOWARD,  
J. MCK. CATTELL.

#### NINETEENTH ANNUAL REPORT OF THE COM- MITTEE ON INDEXING CHEMICAL LITERATURE.

The Committee on Indexing Chemical Literature, appointed by your body in 1882, respectfully presents its Nineteenth Annual Report, embracing the fourteen months from June 1, 1900, to August 1, 1901.

#### WORKS PUBLISHED.

*A Select Bibliography of Chemistry, 1492-1897.* By HENRY CARRINGTON BOLTON. Section VIII., Academic Dissertations. City of Washington, published by the Smithsonian Institution. 1901. 8vo. Pp. vi + 534.

This forms No. 1253 of the Smithsonian Miscellaneous Collections, Vol. XLI.

This Bibliography of Academic Dissertations is a second part of the work published in 1893, and with the 'First Supplement,' issued in 1899, completes (if the term can be applied to bibliography) the undertaking begun by Dr. Bolton in 1888. The three volumes comprise about 25,000 titles. The dissertations found in the libraries of the Smithsonian Institution and of the U. S. Geological Survey are indicated by appropriate initials. There is a full subject-index.

The completed manuscript of a 'Bibliography of the Analytical Chemistry of Manganese,' by Professor Henry P. Talbot and John W. Brown, has been carefully examined by your Committee, and they have recommended it for printing to the Smithsonian Institution to which it has been presented.

#### WORKS IN PROGRESS.

Mr. Frank R. Fraprie reports progress on his manuscript 'Index to the Literature of Cæsium, Rubidium and Lithium,' which is to be completed within a twelve-month.

Mr. G. A. Smith, of Cornell University, reports that his 'Index to the Literature of Selenium and Tellurium' will be completed by the close of the academic year.

Dr. M. D. Sohon is preparing for the press a 'Subject-Index to the Journal of the American Chemical Society.'

Dr. H. Carrington Bolton has in preparation another 'Supplement to the Select Bibliography of Chemistry,' intended to cover the period beginning with 1897, and to include omissions.

Dr. Alfred Tuckerman has revised and prepared for the press the continuation of his 'Index to the Literature of the Spectroscope'; the MS. has been presented to the Smithsonian Institution.

#### NOTES.

During the last twelve months there have been published the following bibliographical works on chemical subjects:

*Bibliographia Lactaria.* Bibliographie générale des travaux parus sur le lait et l'allaitement jusqu'en 1899. Paris, 1900. 600 pp. 8vo.

*Bulletin de la Société chimique de Paris. Tables des années 1889 à 1898, dressées par Th. Schneider.* Paris, 1900. Two Parts.

*Zeitschrift für physikalische Chemie, Stöchiometrie, und Verwandtschaftslehre.* Namen und Sach-Register über Band I.-XXV., bearbeitet von T. Paul. Leipzig, 1900. 8vo.

And Professor A. K. Krupsky, of St. Petersburg, announces a 62-page 'Bibliography of Chemistry' in Russian, which your committee is as yet unable to describe more accurately.

H. CARRINGTON BOLTON (in Europe),  
F. W. CLARKE,  
A. R. LEEDS,  
A. B. PRESCOTT,  
ALFRED TUCKERMAN,  
H. W. WILEY,

Committee.

#### COMMITTEE ON ANTHROPOMETRIC MEASUREMENTS.

At the New York meeting of the Association physical and mental measurements were made of about forty fellows of the Association, under the auspices of this committee. The number is not sufficient to permit of the publication of the results, but some points of interest were disclosed. We are anxious to continue these measurements, but cannot do so at Denver owing to the difficulty of transporting instruments and securing skilled assistance. We hope to overcome the former difficulty in future by the construction of instruments that can be packed in a dress-suit traveling case. The sum of \$50 appropriated last year for the committee has been used in constructing instruments with this object in view, a balance and measuring rod having been made that

can be readily transported. A traveling set of instruments of this character would be of value in anthropological expeditions.

The members of the committee resident in New York have continued anthropometric work, measuring the mental and physical traits of students of Columbia and Barnard Colleges, and of children in the schools. A thesis has been accepted for the degree of doctor of philosophy in Columbia University by Mr. Clark Wissler on 'The correlation of mental and physical traits.' This thesis, which has been published as a supplement to the *Psychological Review*, is the first full treatment by quantitative methods of the interrelation of mental and physical traits. Professor E. W. Thorndike has also at Columbia University carried on experiments on the correlation of mental ability, which will shortly be published.

For the completion of the traveling set of anthropometric instruments referred to, the committee asks a further grant of fifty dollars.

[Signed] J. MCK. CATTELL,  
FRANZ BOAS,  
W J MCGEE.

#### REPORT OF THE COMMITTEE ON THE QUANTITATIVE STUDY OF VARIATION.

The grant of one hundred dollars to this Committee was used to help defray the expenses of Mr. C. C. Adams, incurred in collecting for study molluscs of the genus *Io*, found in the headwaters of the Tennessee River. A preliminary report has been made by Mr. Adams, and this was printed in the *Proceedings* of the Association for 1900. Mr. Adams submits at this time a second report covering the results of study on the material collected last summer, but prefers to postpone further publication until after his final expedition, which he is making this summer. The main results so far are that he has shown by the aid of an elaborate series of measurements that the numerous species of *Io* run into each other in a very complete way, and that the differences between the shells are associated with their position up or down stream. Nevertheless there is in most streams a more or less marked discontinuity between the smooth, globular, up-stream shells and the spiny, elongated down-stream shells. The meaning of the discontinuity (which justifies, in a way, a division of the shells into two species) is still not perfectly clear. To test certain hypotheses in respect to this discontinuity, Mr. Adams has returned to the field this summer. This piece of work is, we believe, the largest and most thoroughgoing quantitative study of the variation of a species in nature that has yet been reported upon.

The committee requests the Council to grant it one

hundred dollars additional, to aid Mr. Adams in this his final summer's work on this topic.

The Committee is glad to report an increasing interest in the quantitative study of variation, and especially the establishment by Professors Pearson and Weldon of a new journal—*Biometrika*—devoted to the results of such study.

[Signed] FRANZ BOAS, *Chairman*,  
CHARLES S. MINOT,  
J. MCK. CATTELL,  
C. H. EIGENMANN,  
C. B. DAVENPORT, *Secretary*.

#### REPORT OF THE COMMITTEE ON THE RELATION OF PLANTS TO CLIMATE.

The investigations conducted under the guidance of the committee have been directed toward a study of the thermal relations of vegetation; an examination of the prevailing methods of meteorological observation in obtaining thermometric data has been made, and it is found that the data so obtained are incapable of direct application in the consideration of the seasonal development and distribution of plants.

As the result of two seasons of thermographic observation in the New York Botanical Garden and in the field in Montana and Idaho, a new method of calibration of the temperature exposures of plants has been formulated. This method is based upon a proposed hour degree-unit of temperature. Such unit of temperature may be defined as consisting in a departure of one degree Centigrade above or below zero for the period of one hour. The estimation of the number of such units affecting a plant in any given locality is obtained by the measurement of the areas enclosed by the thermographic curve above and below the zero line.

The number of such units of exposure to which the plants of two localities are subjected have already been estimated, and with incidental results will be presented to this Section at an early session. Thus, for instance, a meadow carpet in the New York Botanical Garden received 78,836 hour-degrees of heat during the year ending April 1, 1901, while the carpet in an adjacent hemlock forest received 68,596 hour-degrees of heat during the same period.

It is believed that the method of procedure outlined above will afford an exact method of dealing with the relation of plants to the temperatures of their environment, but it will be necessary to extend the observations over a number of years in the same locality in order to establish its usefulness and define incidental amendments.

The work involved in such observation entails constant observation by means of thermograph and much time in the calibration of thermographic curves.

Your committee asks a further grant of \$50 for the furtherance of this work, it being proposed that the sum named should be expended in clerical and mechanical assistance. A further sum of \$10 is asked for the repair of a thermograph wrecked in some recent field work in this connection, making a request for a total grant of \$60.

The following items of expenditure are presented against the grant of \$50 made by the Association to this committee at the meeting of 1900.

To freight charges on outfit from New York to Priest River, Idaho.....	\$24.86
To hauling same to camp on Priest River, to Priest Lake and return.....	25.00
To making temporary instrument shelters (partial account).....	.14
Total .....	\$50.00

[Signed] WM. TRELEASE,  
JOHN M. COULTER,  
D. T. MACDOUGAL,  
*Committee*.

#### REPORT OF THE COMMITTEE ON THE TEACHING OF ANTHROPOLOGY IN AMERICA.

To the Council of the A. A. A. S.: Your committee beg to report careful consideration of the matter committed to them. Two meetings have been held since the last report, and one of the committee (Dr. George Grant MacCurdy) has, by authority, prepared an account of anthropologic teaching in America during the past year to be presented as a paper before Section H. It is recommended that the committee be continued and empowered to issue circulars relating to the introduction of anthropology in American universities and colleges, *provided* such circulars have the approval of the Permanent Secretary and be issued without cost to the Association.

[Signed] W J MCGEE, *Chairman*,  
GEORGE GRANT MACCURDY,  
FRANK RUSSELL.

August 27, 1901.

#### COMMITTEE ON THE 'EMMONS HOUSE MEMORIAL.'

The American Association for the Advancement of Science was organized in 1847. It was the organic descendant and enlarged outgrowth from the Association of American Geologists and Naturalists. The latter body was created in 1842 by the incorporation of the Naturalists within the Association of American Geologists. The Association of American Geologists is therefore to be looked upon as the legitimate organic ancestor of the American Association for the Advancement of Science.

The circumstances which led up to the organization of the Association of American Geologists are as follows:

During the prosecution of the Geological Survey of the State of New York the need of the geologists for consultation and interchange of view with others engaged in official geologic work led to the suggestion of an organization of a body of American Geologists. It appears that Lieutenant W. W. Mather, one of the New York geologists, suggested the subject of such a meeting to the Board of Geologists in November, 1838. He wrote :

Would it not be well to suggest the propriety of a meeting of the geologists and other scientific men of our country at some central point next fall, say in New York or Philadelphia? There are many questions in our geology that will receive new light from friendly discussion and the combined observation of various individuals who have noted them in different parts of our country. Such a meeting has been suggested by Professor Hitchcock and to me it seems desirable. It would undoubtedly be an advantage not only to science, but to the several surveys that are now in progress and that may in future be organized. It would tend to make known our scientific men to each other personally, give them more confidence in each other and cause them to concentrate their observations on those questions that are of interest either in a scientific or economical point of view. More questions may be satisfactorily settled in a day by oral discussion in such a body than in a year by writing and publication. (Letter from W. W. Mather to the Geological Board of New York, dated November 9, 1838, and addressed to Professor Emmons.)

It appears herein that the suggestion of this meeting was originally made by President Edward Hitchcock, of Massachusetts, who was the first to receive the appointment as geologist of the First District of New York from Governor Marcy. President Hitchcock has said in regard to the suggestion made by Lieutenant Mather : " As to the credit he has here given me of having previously suggested the subject I can say only that I had been in the habit for several years of making this meeting of scientific men a sort of hobby in my correspondence with such." (Address of President Edward Hitchcock at the inauguration of Geological Hall, at Albany, August 27, 1856. Tenth annual report New York State Cabinet of Natural History, 1857, page 23.)

Lieutenant Mather's letter to the Board of Geologists was taken up for consideration at a meeting held November 20, 1838, at the house of Dr. Ebenezer Emmons, corner of High street and Hudson avenue, Albany. (See documents herewith appended being A, a statement dictated by Professor James Hall, August 24, 1896, and B, a statement dictated by Ebenezer Emmons, Jr., February, 1900.) The action taken by the geologists was one of unanimous approval of the proposition, and Lardner Vanuxem of the Third District was commissioned to open com-

munication with other geologists, especially with President Hitchcock, with reference to carrying this project into effect.

The undertaking was not immediately successful and at a meeting held in the autumn of 1839 the purposes of the geological board were reiterated. This meeting was also held at Dr. Emmons' house, the four geologists and the paleontologist being present, and also Ebenezer Emmons, Jr., who still survives. As a result of the second undertaking on the part of the New York geologists a meeting was called in Philadelphia for April, 1840, where and when the organization of the Association of American Geologists was carried into effect. The following year the Association again met in Philadelphia, at which time the membership of the body was largely increased, and in 1842 the place of meeting was Boston and then, as already rehearsed, the name and the scope of the Association were, at the solicitation of the naturalists, both enlarged. President Hitchcock, addressing the New York public interested in the outcome of the work of their geologists, makes the following statement in the address already quoted :

It may be thought that the New York geologists in their invitation and the members of that first Philadelphia meeting had no thought of extending their Association beyond geologists ; but Professor Mather's language just quoted speaks of ' a meeting of the geologists and other scientific men of our country,' thus showing what were his aspirations, and they were shared by all of us who had anything to do with that first meeting. But we knew that only a short time previous the American Academy of Arts and Sciences at Boston had directed a request to the American Philosophical Society as the oldest of the kind in the country, that it would invite the scientific men of the land to such a meeting as the one we are now enjoying ; but the distinguished men of that Society decline through fear that the effort would prove a failure. Surely then it did not become us to announce any such intentions or expectations ; yet we did talk of them and could not but hope that what might fail if attempted on a large scale at first might be accomplished step by step. *Had not the New York geologists issued that modest invitation and confined it at first to the State surveyors probably even yet we might have been without an Association for the Advancement of Science.* (President Hitchcock's address, ut. cit.)

The committee appointed by this Association to consider the matter of placing a memorial tablet upon the Emmons' house in Albany, N. Y., begs to submit the foregoing as evidence of the prenatal history of the American Association and to recommend that this house, the home of the late Ebenezer Emmons, a man of eminence in his profession, of untiring diligence and enduring patience, be permanently marked by a tablet setting forth the interest of that spot to the history of the Association. It is suggested that such tablet bear the following inscription :

In this house, the home of  
 Dr. EBENEZER EMMONS  
 the first formal efforts were made, in-  
 1838 and 1839, toward the organization of the  
 ASSOCIATION OF AMERICAN GEOLOGISTS  
 the parent body of the  
 American Association for the Advancement of  
 Science  
 by whose authority this tablet is erected  
 1901

The committee further reports that the cost of this tablet will constitute no claim upon the treasury of the Association, but will be borne individually by one of its members, Dr. T. Guilford Smith.

JOHN M. CLARKE,  
 C. H. HITCHCOCK,  
 J. MCK. CATTELL,  
 W J MCGEE.

A. Statement dictated to John M. Clarke, by Professor James Hall, August 24, 1896.

The organization of a body of American Geologists was proposed by the four geologists at Dr. Emmons' house at the corner of Hudson avenue and High street. It was during the fall of 1838. Vanuxem was asked to see or communicate with the Rogerses concerning it, but nothing came of it that year. The next year we reiterated our purpose as the intention was to get some means of comparing our results with those of other geologists in other States, especially in Pennsylvania. This meeting was held at Dr. Emmons' house, the four geologists being present and perhaps also Conrad. Ebenezer Emmons, Jr., was also there. We then decided to communicate again with the Rogerses and others for the end already suggested and to organize a Society of Geologists for this especial purpose. We wanted to compare our results with those of others and make up our nomenclature, and we had to do it soon, as we were required to publish. As a result of this unanimously expressed purpose a meeting was called for April, 1840, in Philadelphia. I was present then but not at the second Philadelphia meeting in 1841, as that year I was off in May and June with D. D. Owen on a flat boat sailing down the Ohio, sleeping on a box and collecting fossils all along from Louisville to New Harmony. As far as Rogers was concerned the meeting came to naught. He was not ready with his results and gave them only at the third meeting at Boston in 1842. It was here that the Naturalists proposed to join us and we agreed thereto, but the Boston meeting was called as the meeting of the Association of American Geologists and in the course of that meeting the name was changed to that of Association of American Geologists and Naturalists.

B. Statement dictated to John M. Clarke by Ebenezer Emmons, Jr., February, 1900.

I was present at the meeting of the four geologists at my father's house, in 1838. I was then about 16 years old, and had assisted my father in his

field work and making drawings and sketches. Mr. Conrad, the paleontologist, was also present. I recollect that the board of geologists then authorized Mr. Vanuxem to open correspondence with others for the purpose of effecting an organization.

#### COMMITTEE ON GRANTS.

The following grants are recommended :

1. To Committee on Quantitative Study of Biological Variation, \$100.
2. To Committee on Relation of Plants to Climate, \$60.
3. To Committee on Anthropometric Measurements, \$50.
4. To Committee on Determination of Atomic Weight of Thorium, \$50.

[Signed] R. S. WOODWARD,  
*Chairman.*

The report of the treasurer and the financial statement of the permanent secretary were as follows :

#### REPORT OF THE TREASURER.

In compliance with Article 15 of the Constitution, and by direction of the Council, I have the honor to submit the following report, showing receipts, disbursements, and disposition of funds of the Association for the year ending December 31, 1900.

Receipts have come into the keeping of the Treasurer from four sources, namely : First, from commutations of fees of life-members of the Association ; secondly, from excess of receipts over expenditures of the Permanent Secretary ; thirdly, from a contribution to the Association by Mrs. Phoebe Thorne, of New York City ; and fourthly, from interest on funds deposited in savings banks. The aggregate of these receipts is \$1,805.07.

Disbursements made in accordance with the directions of the Council amount to \$283.00.

The total amount of funds of the Association deposited in banks and subject to the order of the Treasurer, December 31, 1900, is \$10,189.18.

The details of receipts, disbursements, and disposition of funds are shown in the following itemized statement.

Dated June 1, 1901.

#### THE TREASURER IN ACCOUNT WITH THE AMERICAN ASSOCIATION FOR THE AD- VANCEMENT OF SCIENCE.

1900.	Dr.	
Jan. 1,	to balance from last account.....	\$ 8667.11
Oct. 20,	to amount received from L. O. Howard for 5 life-membership commutations.....	250.00



Oct. 20, to amount transferred from funds of L. O. Howard, Permanent Secretary .....	1000.00
Dec. 14, to contribution to the Association received from Mrs. Phoebe Thorne .....	250.00
Dec. 31, to interest on funds of the Association deposited in Savings banks, as follows:	
From Cambridge Savings Bank, Cambridge, Mass....	\$35.70
From Emigrant Industrial Savings Bank, New York, N. Y.....	82.88
From Institution for the Savings of Merchants' Clerks, New York, N. Y. ....	99.55
From Metropolitan Savings Bank, New York, N. Y. ....	86.94
	<u>305.07</u>
Total .....	\$10472.18

1900. Cr.

Feb. 6, by cash paid Professor C. H. Eigenmann of Committee on study of blind vertebrates.....	\$ 100.00
June 29, by cash paid Dr. D. T. MacDougal of Committee on study of the relations of plants to climate.....	33.00
Aug. 6, by cash paid Professor Chas. B. Davenport of Committee on quantitative study of biological variation.....	150.00
Dec. 31, by cash on deposit in banks as follows:	
In Cambridge Savings Bank, Cambridge, Mass.....	\$ 1047.36
In Emigrant Industrial Savings Bank, New York, N. Y.....	3030.85
In Institution for the Savings of Merchants' Clerks, New York, N. Y.....	2818.97
In Metropolitan Savings Bank, New York, N. Y.....	2889.80
In the Fifth Avenue Bank of New York, N. Y.....	402.20
	<u>10,189.18</u>
Total.....	\$10,472.18

I have examined the foregoing account and certify that it is correctly cast and properly vouched.

EMORY MCCLINTOCK,  
Auditor.

L. O. HOWARD, PERMANENT SECRETARY, IN ACCOUNT WITH THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, FROM JANUARY 1, 1900, TO DECEMBER 31, 1900.

Dr.

To balance from last account.....	\$4228.33
Admission fees previous to New York meeting.....	\$15.00
Admission fees New York meeting. ....	1275.00
Assessments for 1901.....	76.00
Assessments for 1900.....	4730.00
Assessments for previous years .....	1244.00
Associate fees.....	84.00
Life membership fees.....	300.00
Fellowship fees.....	134.00
Publications and binding....	194.80
Interest. ....	30.61
Miscellaneous receipts.....	9 86
	<u>235.27</u>
	\$12,321.60

Cr.

*By publications.*

Vol. 48.....	\$1131.45
Binding .....	94.55
Separates of addresses.....	74.01
Columbus pamphlet.....	109.85
Illustrations, Vols. 48 and 49. ....	58.01
Index, Vols. 48 and 49... ..	24.25
	<u>1492.12</u>

*By expenses New York meeting.*

Daily program.....	600.00
Preliminary announcements, sectional programs, etc....	101.78
Messengers, typewriters, placards, blanks, badges, etc. ....	94.16
Accounts of Secretaries of sections, and Gen. Sec.....	322.05
General expenses.....	107.11
	<u>1225.10</u>

*By general office expenses.*

Circulars, tickets, blank forms, letter heads, etc.....	155.75
Postage. ....	350.93
Express.....	318.41
Extra clerical help, typewriting, etc.....	26.37
Telegrams, check book and miscellaneous small expenses. ....	29.65
	<u>881.11</u>

*By salaries.*

Permanent Secretary.....	1250.00
Assistant Secretary.....	720.00
	<u>1970.00</u>

*By spreading information in order to increase membership (by order of Council).*

Postage. ....	105.90
Circulars and blank forms....	82.23

Typewriting, addressing envelopes, etc.....	110.50	298.63
<i>By miscellaneous expenses.</i>		
Storage on back volumes.....	154.50	
Moving same to N. Y. for free storage.....	204.15	
Moving office effects, North Andover to Washington ...	27.73	
Grant to committee (order of council).....	17.00	
Overpaid dues returned.....	9.50	
Cash paid Treasurer.....	1300.00	1712.88
By balance to new account.....		4741.76
		<u>\$12321.60</u>

I hereby certify that I have examined this account and that it is correctly cast and properly vouched for, and that the balance was on deposit in Washington banks as follows: Citizens National (as per statement Jan. 8, 1901), \$3229.62; National Safe Deposit (incl. interest credited Jan. 1, 1901), \$519.43; American Security and Trust (incl. interest credited Jan. 7, 1901), \$1034.58; in all, \$4783.63.

G. K. GILBERT, *Auditor*.

The following is a list of the officers elected to serve at the next meeting, including also the permanent secretary and treasurer previously elected for a term of five years:

*President*—Asaph Hall, U. S. N., retired.

*Permanent Secretary*—L. O. Howard, chief entomologist, Agricultural Department, Washington.

*Assistant Permanent Secretary*—Richard Clifton, Agricultural Department, Washington.

*General Secretary*—D. T. MacDougal, director of the laboratories, New York Botanical Gardens.

*Secretary of Council*—Professor H. B. Ward, of the University of Nebraska.

*Treasurer*—Professor R. S. Woodward, Columbia University.

#### OFFICERS OF SECTIONS.

A (Mathematics and Astronomy)—*Vice-president*, G. W. Hough, Northwestern University; *secretary*, E. S. Crawley, University of Pennsylvania.

B (Physics)—*Vice-president*, W. S. Franklin, Lehigh University; *secretary*, E. F. Nichols, Ohio State University.

C (Chemistry)—*Vice-president*, H. A. Weber, Ohio State University; *secretary*, F. C. Phillips, Western University.

D (Mechanical Science and Engineering)—*Vice-president*, J. J. Flather, University of Minnesota; *secretary*, C. A. Waldo, Purdue University.

E (Geology and Geography)—*Vice-president*, O. A. Derby, San Paulo, Brazil; *secretary*, F. P. Gulliver, Southboro, Mass.

F (Zoology)—*Vice-president*, C. C. Nutting, Iowa State University; *secretary*, C. W. Stiles, Department of Agriculture, Washington.

G (Botany)—*Vice-president*, D. H. Campbell, Leland Stanford University; *secretary*, H. Von Schrenk, Shaw School of Botany, St. Louis.

H (Anthropology)—Stewart Culin, University of Pennsylvania; *secretary*, H. I. Smith, American Museum of Natural History, New York.

I (Social and Economic Science)—Carroll D. Wright, commissioner of labor, Washington; *secretary*, W. F. Wilcox, Cornell University.

K (Experimental Medicine and Physiology)—*Vice-president*, Dr. W. H. Welch, Johns Hopkins University; *secretary*, Dr. F. S. Lee, Columbia University.

The recommendation of the general committee of last year that the Association meet at Pittsburg in the summer of 1902, was supplemented by Dr. W. J. Holland, Director of the Carnegie Institute, and it was decided to meet at Pittsburg from June 28 to July 3, inclusive, 1902.

The general committee recommended also that a meeting be held in Washington, D. C., during 'Convocation Week,' or the week in which the first of January falls, in 1903.

Professor Wm. Trelease and C. M. Woodward presented an invitation to the Association to meet in St. Louis during the time of the Louisiana Purchase Exposition in 1903. This invitation was referred, without formal recommendation, to the general committee of 1902.

JOHN M. COULTER,  
*General Secretary.*

#### REMARKS OF PRESIDENT MINOT.\*

I WAS impressed on my way here with the somewhat unexpected arrangements I found for securing my services as a visitor at Denver. We found it easy to get here because we paid for a night's journey upon the road and owing to the delay of the train we got two nights' journey instead of one, showing how attractive it is here and how liberally one is treated coming to Denver. But when I went to your ticket office to in-

\* Made at the opening general session, and reported stenographically.