

ABSTRACT OF MINUTES
—OF THE—
Colorado Scientific Society
For the years 1883 and 1884.

MEETING OF ORGANIZATION.

On the evening of December 8th, 1882, a number of gentlemen interested in the formation of a scientific association met in the rooms of the United States Geological Survey, in Denver, at the invitation of Mr. S. F. Emmons.

Mr. Emmons, in stating the object of the meeting, said that it seemed to him that the time had come for those persons in Colorado who were interested in true science to unite in forming an association or society, whose immediate object should be to facilitate the interchange of scientific observations and ideas, and promote intercourse among the observers themselves. There should be some means of recording and publishing the many interesting and valuable facts which are daily observed in different parts of the State. This could be done through the medium of a society, and the opportunity thus afforded would no doubt act as a stimulus to some to pursue investigations in directions specially open to them.

An informal discussion ensued in which the advisability of such a step was advocated, and it was agreed to proceed at once to form a permanent organization.

The following named persons were unanimously chosen as officers for the first year:

President—S. F. Emmons.
Vice-President—Richard Pearce.
Secretary—Whitman Cross.

It was further agreed that the association should be called "The Colorado Scientific Society," and the following named persons, all residents of Denver, were enrolled as members :

HERMAN BERGER,	WHITMAN CROSS,
P. H. VAN DIEST,	ANTON EILERS,
S. F. EMMONS,	J. B. GRANT,
REV. H. M. HART,	HON. N. P. HILL,
W. F. HILLEBRAND,	A. H. LOW,
RICHARD PEARCE,	A. VON SCHULZ.

A Committee on Constitution and By-Laws was appointed consisting of the President, Vice-President and P. H. Van Diest, who were requested to report on the next Friday evening, the 15th instant, at the same place, to which date the meeting adjourned.

SECOND MEETING OF ORGANIZATION

DECEMBER 5TH, 1882,

In Rooms of the United States Geological Survey.

The President, S. F. Emmons, in the Chair.

The following Constitution and By-Laws as presented by the Committee, were unanimously adopted :

CONSTITUTION.

NAME.

ARTICLE I. This association shall be called "THE COLORADO SCIENTIFIC SOCIETY."

OBJECT.

ART. II. Its object shall be the promotion of scientific intercourse, observation and record in the State of Colorado.

MEANS FOR ATTAINING THIS OBJECT.

ART. III. Among the means for attaining this end shall be periodical meetings of the Society, the reading of papers, the discussion of scientific subjects, the collection of scientific books and periodicals, special investigations into matters of public and scientific interest, and the publication of such parts of the proceedings as may be deemed expedient.

MEMBERS.

ART. IV. Persons of recognized attainments in some branch of natural science shall be eligible as members of the Society.

OFFICERS.

ART. V. The officers of the Society shall consist of a President, Vice-President, Secretary, Treasurer and Standing Committee of four.

AMENDMENTS.

ART. VI. Proposed amendments to the Constitution may be submitted in writing at a regular meeting of the Society, signed by not less than three members. If approved by a majority of those present, they shall be sent in writing to each member and shall be voted upon at some subsequent regular meeting of the Society, the vote of two-thirds of the members of the Society being necessary to confirm. Members who are not able to be present may vote by letter.

BY-LAWS.

REGULAR MEETINGS.

SECTION 1. The regular meetings of the Society shall be held on the first Monday of each month. When this day falls on an official holiday, the meeting shall be held on the next following Monday.

ORDER OF PROCEDURE.

SEC. 2. The order of procedure at meetings shall be:
First—The reading of the records of the last meeting.
Second—Balloting for candidates for admission.
Third—Reports of Committees.

Fourth—Other business.

Fifth—Reading of papers.

Sixth—Discussion and debate.

RULES OF PROCEDURE.

SEC. 3. The proceedings of the meetings shall be governed by the ordinary rules of parliamentary practice.

QUORUM.

SEC. 4. At any regular meeting of the Society five shall constitute a quorum for the transaction of business; but the action of a less number at any monthly meeting may be entered on the journal, provided such action does not affect the rights of the Society.

PROPOSALS OF MEMBERS.

SEC. 5. Nominations and proposals for admission to the Society shall be endorsed by at least three members, one of whom shall certify that he personally knows the candidates, and that he is worthy of acceptance. Such nominations shall be passed upon by the Standing Committee before being presented to the vote of the Society. The Standing Committee shall have authority to reject such nominations or to postpone action upon the same.

ELECTION OF OFFICERS.

SEC. 6. Officers of the Society shall be elected at the first meeting of the year, to hold office during that year. They shall be voted on by ballot, and a majority of members of the Society shall be necessary for an election. Members not able to be present may vote by letter.

DUTIES OF PRESIDENT.

SEC. 7. The President, and in his absence the Vice-President, shall preside at all meetings of the Society, and in the case of their absence, a chairman *pro tempore* shall be appointed by a majority of the votes of the members present. The President shall be an honorary member of the Standing Committee, and shall have a vote in the case of a tie.

DUTIES OF SECRETARY.

SEC. 8. The Secretary shall keep the records of the Society, shall have charge of all papers, books and collections of the Society, and shall issue notices of meetings to members before each meeting.

DUTIES OF TREASURER.

SEC. 9. The Treasurer shall have charge of the funds of the Society, receive all assessments, and pay all bills and orders approved by the Standing Committee.

DUTIES OF STANDING COMMITTEE.

SEC. 10. The Standing Committee shall have general control of all expenditures of the Society; shall pass on members proposed for admission; shall see that papers and discussions are prepared for the regular meetings, and shall determine what, if any, part of the proceedings of the Society shall be published.

ELECTION OF MEMBERS.

SEC. 11. Persons who have been formally proposed and favorably passed upon by the Standing Committee shall be balloted for at the next regular meeting. Two contrary votes shall be sufficient to prevent their election. Members not able to be present may send their ballots by mail. Neglect to vote shall have the force of an affirmative vote. In the case of persons proposed not being elected, no notice of the same shall be entered on the records of the Society.

ENTRANCE FEE AND DUES.

SEC. 12. The amount of Entrance Fee and Annual Dues shall be determined by the Standing Committee, subject to approval of a majority of members present at any regular meeting of the Society.

EXTRAORDINARY MEETINGS.

SEC. 13. Extraordinary meetings may be called by the Standing Committee.

INTRODUCTION OF NON-MEMBERS AT MEETINGS.

SEC. 14. Members shall have the right to introduce at any regular meeting of the Society persons who may be interested in the subject to be discussed at the meeting, Residents of Denver shall, however, be restricted to one visit during the year.

EXCHANGE OF PUBLICATIONS.

SEC. 15. In case it shall be determined to issue a publication of the proceedings or papers of the Society, it shall be the duty of the Secretary to exchange such publications for those of kindred societies, and secure as far as possible the gifts of scientific books from any available source.

FILLING OF VACANCIES.

SEC. 16. Any vacancy among the officers of the Society may be filled for the unexpired term at the next regular meeting after notice of such vacancy has been given to the Society.

EXPULSION OF MEMBERS.

SEC. 17. Upon the the written request of three or more members, that for cause therein set forth, a person belonging to the Society be expelled, the Standing Committee shall consider the matter, and if there is sufficient reason, shall advise the person that his resignation will be accepted.

AMENDMENTS.

SEC. 18. Additions or amendments to the by-laws shall be proposed in writing and recorded at a regular meeting, and be voted upon at the following meeting, either by personal or letter ballot. A majority vote shall be necessary for the adoption of such addition or amendment.

The following named persons were elected members of the Standing Committee.

RICHARD PEARCE, HERMANN BEEGER,
A. EILERS, W. F. HILLEBRAND.
MR. WHITMAN CROSS was also elected Treasurer.

The Society then adjourned to hold its first regular meeting January 2nd, 1883.

FIRST REGULAR MEETING

JANUARY 2ND, 1883,

In Rooms of the United States Geological Survey.

The Vice-President, Richard Pearce, in the chair.

The minutes of the meetings for organization were read and approved.

The Standing Committee reported the following list of candidates for admission to the Society, who were elected, by unanimous consent, by a viva voce vote :

C. A. MARTINE, Georgetown, Colorado.
 E. L. NEVE FOSTER " "
 PROF. ALBERT C. HALE, Golden, "
 PROF. MILTON MOSS, " "
 PROF. ARTHUR LAKES, " "
 R. C. HILLS, Denver, "
 WM, MCCREE " "

The Standing Committee recommended that the amount of annual dues be fixed at \$10, payable in advance. Adopted.

The address of the President, S. F. Emmons, was then read in his absence by the Secretary.

SECOND REGULAR MEETING,

FEBRUARY 5TH 1883.

In Rooms of the United States Geological Survey.

The Vice-President, Rich. Pearce, in the chair.

The following were elected members :

J. G. RIDGLEY, Denver, Colorado.
 HENRY WILLIAMS, Butte City, Montana.

THIRD REGULAR MEETING,

MARCH 5TH 1883.

In Rooms of the United States Geological Survey.

The Vice-President, Rich. Pearce, in the chair.

The name of a candidate for admission to the Society was reported by the Standing Committee, and, upon motion made, action was postponed to the next meeting.

The Committee also presented for the consideration of the Society an amendment to Sec. 11, of the By-Laws, relating to the election of members. The amendment proposed read as follows : Amendment to Sec. 11, of By-Laws.

“ Names of persons who have been formally proposed and favorably passed upon by the Standing Committee shall be read at the next meeting of the Society, and balloted upon at the next succeeding regular meeting.”

Action upon this amendment was deferred, in accordance with a provision of the By-Laws, until the next meeting.

FOURTH REGULAR MEETING,

APRIL 2ND 1883,

In Rooms of the United States Geological Survey.

The Vice-President, Rich. Pearce, in the chair.

Prof. Magnus C. Ihseng, of Golden, Colo. was elected to membership.

Names of candidates for admission to the Society were reported by the Standing Committee.

The amendment to Sec. II, of By-Laws, proposed at the previous meeting, was unanimously adopted.

FIFTH REGULAR MEETING,

MAY 7TH 1883,

In Rooms of the United States Geological Survey.

The Vice-President, Rich. Pearce, in the chair.

The following were elected to membership :

CARLTON H. HAND, Silver City, New Mexico.

RUDOLF KECK, Denver, Colorado.

F. F. CHISOLM, “ “

SIXTH REGULAR MEETING,

JUNE 4TH 1883,

In Rooms of the United States Geological Survey.

The Vice-President, Rich Pearce, in the chair.

Owing to the fact that many members of the Society

would be absent from the city during the summer months, it was deemed advisable to adjourn after the reading of communications until October, and a motion to this effect was carried.

SEVENTH REGULAR MEETING,

OCTOBER 1ST 1883,

In Rooms of the United States Geological Survey.

The President, S. F. Emmons, in the chair.

The following candidates were elected to membership

ROBERT STICHT, South Pueblo, Colorado.
 OSCAR J. FROST, Argo, "
 SHERMAN G. SACKETT, Denver, "

Mr. Van Diest broached the subject of holding a social gathering and dinner at some time before the close of the year, in order to give the members an opportunity for becoming better personally acquainted with each other. After some remarks it was moved and carried that the President appoint a committee of two to confer with the members in regard to such a gathering and report at the next meeting.

The President appointed Mr. Van Diest and the Secretary as such committee.

EIGHTH REGULAR MEETING,

NOVEMBER 5TH 1883,

In Rooms of the United States Geological Survey.

The President, S. F. Emmons, in the chair.

The President stated that there had been an irregularity in the proceedings of the previous meeting, in that Messrs. Sticht, Frost and Sackett had been elected to member-

ship at the same meeting in which their names had been reported from the Standing Committee, contrary to the amendment to Sec. 11 of By-Laws, adopted April 2nd 1883. Upon motion duly seconded the election of the above named gentlemen was then unanimously confirmed viva voce.

Names of candidates for membership were reported by the Standing Committee.

The Secretary read the resignation of M. C. Ihlseng, of Golden, Colorado, which was accepted.

Mr. Van Diest, from the special committee on the matter of the social gathering and dinner, reported in favor of holding a dinner early in December. After discussion it was resolved that the President appoint a committee of three to make arrangements for a dinner upon a date to be determined after further consultation. The President appointed as members of this committee Messrs. Von Schulz, Cross and Van Diest.

NINTH REGULAR MEETING,

DECEMBER 3RD, 1883,

In Rooms of the United States Geological Survey.

The Vice-President, Richard Pearce, in the chair.

The following candidates were elected to membership.

L. D. RICKETTS, Leadville, Colorado.

W. S. WARD, Denver, "

L. G. EAKINS, " "

GREGORY BOARD, " "

Names of candidates for admission to the Society were reported by the Standing Committee.

Mr. Van Diest from the committee on "Dinner" reported that arrangements had been made for a dinner at Charriot's Hotel, in Denver, on the evening of Dec. 10th.

TENTH REGULAR MEETING,

JANUARY 7TH, 1884,

In Rooms of the United States Geological Survey.

In the absence of both President and Vice-President, the Secretary called the meeting to order.

W. F. Hillebrand was elected chairman pro tem.
 The following named were elected to membership.
 PROF. REGIS CHAUVENET, Golden, Colorado.
 J. H. E. WATERS, Silverton, " "

The following proposed amendment to Art. V of the Constitution was then read for the first time. "The Standing Committee shall consist of six members instead of four as at present." Signed by Whitman Cross, W. F. Hillebrand and R. C. Hills. Mr. Hillebrand stated that the object in increasing the membership of the committee was to facilitate the transaction of business, for, as at present constituted, a majority of its members were sometimes unavoidably absent from its meetings, thus preventing action upon the business before the Committee.

The proposed amendment was unanimously approved.

BUSINESS OF THE ANNUAL MEETING.

The Secretary presented the following report :

Report of the Secretary Colorado Scientific Society for the year 1883.

MEMBERSHIP.

Number of members at organization,	-	-	-	12
" " " admitted during year,	-	-	-	20
				<hr/>
				32
" " " resigned,	-	-	-	1
Membership Jan. 1st, 1884,	-	-	-	31

MEETINGS.

No. of meetings since organization,	-	-	-	9
Lowest number present at any meeting,	-	-	-	5
Largest " " " " "	-	-	-	14
Average attendance,	-	-	-	9

PAPERS.

During the year papers containing original material were read by Messrs. Pearce, Low, Van Diest, Hills, Hil-

lebrand and Emmons. A quite full abstract of a paper by Mr. Hills upon the Ore Deposits of Summit District in Rio Grande Co., was published in the *New York Engineering and Mining Journal*, and others have been shortly noticed in *Science*. The paper by Mr. Hillebrand read at the last meeting is about to appear in the *American Journal of Science*.

COLLECTIONS.

Mineralogical.—In this department the Society is chiefly indebted to Mr. Wm. McCree, who has donated a large number of specimens, both from Colorado and from other parts of the country. Mr. R. C. Hills, R. Pearce, W. F. Hillebrand, Milton Moss, Van Diest, Hand and Eilers have also contributed valuable specimens.

Furnace products, etc.—Under this head are to be grouped a number of interesting substances, either produced in the regular process of smelting or of accidental origin. The most of these were brought in by Mr. Pearce.
(Signed) WHITMAN CROSS, Sec.

The Treasurer presented the following report :

Report of the Treasurer Colorado Scientific Society for the year 1883.

To amount of dues rec'd...	\$200	00	By expenses during year...	\$..61	00
“ “ paid in advance	...10	00	By deposit Colo. National	.....	...
.....	.....	.....	..... Bank.....	.....	150 00
.....	.....	.....	By cash in personal posses-	.....	.....
.....	.....	.....	..... sion.....	.....	19 00
.....
.....	\$210	00	.....	.....	\$210 00

Estimate of Funds available for 1884.
Balance in Bank and personal possession.....\$149 00
Dues still unpaid..... 55 00
Estimated dues for 1884.....380 00

Signed WHITMAN CROSS,
Treasurer.

The address of the retiring President was then read by the chairman.

The Society then proceeded to the election of officers for the ensuing year.

President.—Nominations being called for, Mr. W. S. Ward nominated Mr. Richard Pearce, saying that, while recognizing the eminent fitness of Mr. Emmons for the position he had filled during the past year, he thought that the custom prevailing in most scientific societies of changing the President each year should be adopted, and the precedent established at this time.

Mr. R. C. Hills renominated Mr. S. F. Emmons, saying that he thought it inadvisable to establish as yet the precedent advocated by Mr. Ward, and that he desired to pay Mr. Emmons, as one of the chief movers in the organization of the Society, the compliment of a re-election.

No further nomination being made, a ballot was taken, resulting in the election of Mr. Richard Pearce.

Vice-President.—Prof. Milton Moss was nominated by L. G. Eakins; Mr. Cross renominated the Rev. H. Martyn Hart. There being no further nominations, a ballot resulted in the election of the Rev. H. Martyn Hart.

Secretary and Treasurer.—Mr Whitman Cross was elected by acclamation to fill both positions.

Standing Committee.—Messrs. P. H. Van Diest, A. von Schulz, W. F. Hillebrand and W. S. Ward were placed in nomination. On motion of F. F. Chisolm, the above named gentlemen were elected, viva voce, as the Standing Committee for the year.

Mr. Ward moved that the recommendations contained in Mr. Emmons address be referred to the Standing Committee with instructions to report at the next meeting upon the advisability or possibility of carrying them into effect. Seconded and carried.

ELEVENTH REGULAR MEETING,

FEBRUARY 4TH, 1884,

In Rooms of the United States Geological Survey.

The President, Richard Pearce, in the chair.

Names of candidates for membership were reported by the Standing Committee.

The Committee then rendered a report upon the suggestions contained in the Address of the retiring President, read at the previous meeting, whose consideration had been entrusted to them.

With reference to the matter of securing a permanent place of meeting for the Society, they reported that, through the courtesy of the Governor and Secretary of State, a room, small, but of size sufficient for most purposes, had been placed at their disposal in the State House, and that, if more room were needed for holding the meetings, the use of the Supreme Court room might probably be obtained. They recommended that this offer be accepted. They further recommended that the President be empowered to appoint a special committee to report upon the artesian wells of Denver. It was also recommended that a committee be appointed to revise the By-Laws.

The first and second recommendations were adopted. It was then moved and carried that the Standing Committee be charged with the revision of the By-Laws.

The amendment to Art. V of the Constitution, approved at the preceding meeting, increasing the membership of the Standing Committee, was then finally adopted. Messrs. Regis Chauvenet and Whitman Cross were elected additional members of the Standing Committee in accordance with the amendment just passed.

The following resolution was introduced by Mr. Ward and unanimously adopted:

Resolved, "That the thanks of the Society be tendered to Mr. S. F. Emmons for the kindness shown by him in permitting the free use of the rooms of the United States Geological Survey for meetings during the past year."

TWELFTH REGULAR MEETING,

MARCH 3RD, 1884.

In Chamber of the Supreme Court.

The President, Richard Pearce, in the chair

The following named persons were elected members :
 FRED. K. COPELAND, Denver, Colorado.

ROBT. E. BOORAEM, Leadville, Colorado.
 E. W. ROLLINS, Denver, “

Names of candidates for membership were reported by the Standing Committee.

The Committee then recommended, as a preliminary to the revision of the By-Laws, that Art. V of the Constitution be amended to read as follows :

ART. V.—“The officers of the Society shall consist of a President, Vice-President, Secretary, Treasurer and an Executive Committee of seven, of which the President and Secretary shall be ‘ex-officio’ members.”

Approved upon motion duly seconded.

The By-Laws as revised by the committee were then read, but action upon them was postponed until the next meeting. The President announced the following appointments on the Artesian Well Committee; Messrs. Chauvenet, Chisolm, Cross, Van Diest, Hillebrand and Ward.

Mr. Ward moved that the Secretary be instructed to transmit the thanks of the Society to the Secretary of State and to the Judges of the Supreme Court for their courtesy in placing the rooms in the State House at its disposal. Unanimously carried.

THIRTEENTH REGULAR MEETING,

APRIL 7TH, 1884.

In Chamber of the Supreme Court.

The President, Richard Pearce, in the chair.

The following named persons were elected members :

THEO. E. SCHWARZ, Denver, Colorado.

FRANK S. CRAVEN, Bald Mt. “

Names of candidates for admission were reported by the Standing Committee.

The amendment to Art. V of the Constitution, approved at the last meeting, came up for passage, but action upon the same was postponed until the next meeting. Consideration of the revised By-Laws was also postponed.

FOURTEENTH REGULAR MEETING,

MAY 5TH, 1884.

In Chamber of the Supreme Court.

The President, Richard Pearce, in the chair.

The following named persons were elected members of the Society.

MALVERN W. ILES, Denver, Colorado.

GEO. S. MCKENZIE, Golden, "

The amendment to Art. V of the Constitution, proposed at the March meeting, as also the revised By-Laws were submitted to final vote and adopted.

FIFTEENTH REGULAR MEETING,

JUNE 2ND, 1884.

In Chamber of the Supreme Court.

The President, Richard Pearce, in the chair.

The Executive Committee reported names of candidates for membership.

The Report upon the Artesian Wells of Denver was presented by the committee appointed for the investigation of that subject.

SIXTEENTH REGULAR MEETING,

JULY 7TH, 1884.

In Chamber of the Supreme Court.

The President, Richard Pearce, in the chair

Mr. Franklin Guiterman, of Silverton, Colorado, was elected a member.

Mr. Van Diest moved that when the meeting should adjourn it be until the first Monday in October. Carried.

SEVENTEENTH REGULAR MEETING,

OCTOBER 6TH, 1884.

In Chamber of the Supreme Court.

The President, Richard Pearce, in the chair.

The resignation of Albert C. Hale, formerly of Golden, Colo., now of Brooklyn, N. Y., was read and accepted.

The business of nominating officers being concluded, Mr. Van Diest broached the subject of a second annual dinner, and, after discussion, the President appointed a committee consisting of Messrs. Beeger, von Schulz, Van Diest, Low and Chisolm, with power to ascertain the sentiment of the Society members upon the subject, and if this were found favorable, to make all necessary arrangements for holding the dinner.