

TWENTY-THIRD ANNUAL MEETING

The twenty-third annual meeting of the South Dakota Academy of Science was held at Yankton College, Yankton, South Dakota, April 29-30, 1938. In the absence of both the President, Dr. Charles A. Hunter, and the first Vice-President, Professor Carl G. Watson, the meeting was presided over by the second Vice-President, Dr. Ward L. Miller.

The first session was held in the Physics lecture room in Forbes Hall and was opened precisely at 1:30 P. M., Friday, April 29, 1938, by an address of welcome by Vice-President G. H. Durand of Yankton College.

The chairman appointed the following committees:

Resolutions—Dr. Edwin H. Shaw, Jr., Chairman, Dr. A. V. Arlton and Dr. A. P. Larrabee.

Auditing—Dr. A. R. Kendall, Chairman, Dr. W. H. Jordan and Dr. E. R. Binnewies.

After some general announcements by the chairman of the local committee, Dr. Gregg M. Evans, papers were read by members of the Academy until 5:00 P. M.

At 6:30 P. M., members of the Academy, members of the Social Science Group and friends of both organizations attended the annual Academy dinner, which was held in the Yankton Hotel.

The second session, which was open to the general public, was held in the Yankton College auditorium at 8:00 P. M. The speaker was Dr. David D. Whitney, Professor of Zoology at the University of Nebraska, who gave an excellent address on the subject "Heredity in Man."

The third session was held at 9:00 A. M. in the lecture room of Forbes Hall. Papers were read until 12:10 P. M., at which time the annual business meeting was held.

BUSINESS SESSION

The annual business meeting was opened in Forbes Hall at 12:10 P. M. with Dr. Miller presiding.

On account of the lateness of the hour the reading of the minutes of the last meeting was dispensed with.

The report of the Secretary-Treasurer was read and on motion approved.

The auditing committee made the following report:

We have examined the books of the Secretary-Treasurer and find them correct.

Committee:

A. R. Kendall
W. H. Jordan
E. R. Binnewies

The resolutions committee made the following report which was accepted on motion:

Be it resolved:—

1. That the South Dakota Academy of Science express its sincere appreciation for the hospitality extended to it by Yankton College, the welcoming address of Vice-President Durand, and the efficient and effective arrangements of the committee under the direction of Profs. A. P. Larrabee and Gregg M. Evans.

2. That the South Dakota Academy of Science express its thanks to Dr. David D. Whitney, Professor of Zoology at the University of Nebraska for his excellent presentation of the public address "Heredity in Man."

3. That the South Dakota Academy of Science express its gratitude to the University of South Dakota for publication of the Proceedings of the South Dakota Academy of Science.

4. That the South Dakota Academy of Science take this opportunity of expressing to our Secretary, Prof. A. L. Haines, our appreciation of his continuing service in the interest of the Academy, and to Professor E. P. Churchill for his activity on the committee on publications.

5. That the South Dakota Academy of Science feels deeply the loss of our fellow member, Dr. B. B. Brackett, a charter member of the Academy and a faithful contributor

to our meetings, and instructs the Secretary to convey our sympathy to the bereaved family.

Committee:

Edwin H. Shaw, Jr.
A. V. Arlton
A. P. Larrabee

The Secretary read the applications of the following persons for membership in the Academy:

Barbara Bailey, Textile Research, State College.

H. Clyde Eyster, Assistant Professor of Botany, University.

Russel W. H. Gillespie, Instructor in Bacteriology, University.

Ernest Hedberg, Professor of Mathematics, University.

Einar Leifson, Professor of Bacteriology, University.

John Manter, Assistant Professor of Anatomy, University.

H. Douglas McEwen, Instructor Biochemistry, University.

Oscar E. Olson, Station Analyst Chemistry, State College.

H. Morrow Sweeney, Professor of Physiology, University.

Robert E. Toczek, Teacher Yankton High School, Yankton.

Richard C. Tollefson, Graduate Student, University.

Wm. H. Waller, Professor of Anatomy, University.

Donald G. Ward, Graduate Student, University.

On motion the candidates were elected to membership in the Academy by a unanimous vote.

The acting President appointed a committee consisting of Dr. Arthur M. Pardee, Chairman, Professor J. Gladden Hutton and Dr. Austin P. Larrabee, to prepare a brief tribute to the late Dr. B. B. Brackett to be entered on the minutes of the Academy, published in the Proceedings of the Academy and a copy sent to Mrs. Brackett.

The acting President also appointed the following membership committee:

Dr. A. L. Haines, Chairman, Professor Minerva Kellogg, Dr. Clyde L. Eyster, Dr. A. R. Kendall and Professor John A. Froemke.

By unanimous vote Dr. Edw. P. Churchill was made a member of the publications committee.

The acting President appointed the following nominating committee:

Dr. L. A. Moxon, Chairman, Dr. A. R. Kendall, Professor John A. Froemke.

Dr. Henry Lowsma extended an invitation to the Academy to meet at Eastern State Teachers' College, Madison, next year. On motion this was accepted.

It was moved and seconded that the Secretary send a message to the President of the Academy, Dr. Charles A. Hunter, expressing the regrets of the Academy that he was unable to attend the annual meeting.

Dr. Ward L. Miller commented on the number of papers that were presented by students this year and requested that the heads of the departments in which these students were registered carry this expression of commendation to them.

The committee on nominations recommended the following members as candidates for the various offices of the Academy for the year 1938-1939:

President, Dr. Ward L. Miller, State College.
 First Vice-President, Dr. Walter V. Searight, University.
 Second Vice-President, Dr. A. L. Moxon, State College.
 Secretary-Treasurer, Dr. A. L. Haines, University.

On motion the candidates as nominated by the committee were unanimously elected.

On motion the Academy adjourned sine die.

A. L. HAINES, Secretary.

IN MEMORIAM

Byron Briggs Brackett

It is with profound sorrow that we, the members of the South Dakota Academy of Science, note the death of Professor Byron Briggs Brackett at Vermillion on December 12, 1937.

Dr. Brackett gave twenty-eight years of the prime of his life to the State of South Dakota, fourteen years at the State College at Brookings where he was head of the Electrical Engineering Department and fourteen years at the University of South Dakota, the faculty of which he joined as Professor of Electrical Engineering in 1923.

With the spirit of the broad scholar and of the dignified gentleman of rich culture and unflinching devotion, he gave himself with liberality and without stint to his work.

That he was eminently recognized in the scientific world is attested by the fact that his name was on the distinguished list of the American Society for the Advancement of Science and of the National Institute of Electrical Engineers and by the associate fact that his students were sought for preferable positions by the Westinghouse Company of Pittsburgh and the General Electric Company of Schenectady and also by the fact that for a number of years he was secretary-treasurer of the National Association of Educational Broadcasters. Moreover, he was a charter member of the South Dakota Academy of Science, founded in November, 1915, and he was continuously active in the work of that Academy, of which he was the president in 1931-1932. In addition to that his influence in the class room and beyond its confines has been written ineffaceably upon the lives of succeeding generations of students.

His scholarship, culture and tradition are sufficient though selectively signified in the fact that he was a member of Phi Beta Kappa, Sigma Xi, Phi Kappa Phi and the General Society of Colonial Wars.

Dr. Brackett was genial and companionable. He was kindly in manner, tolerant in spirit and broad in his views.

He was a sincere Christian gentleman and a living example of the faith which he accepted as the guiding light of his life. He served on the vestry of St. Paul's Episcopal Church of Brookings, South Dakota and St. Paul's Episcopal Church at Vermillion. His many contributions in time and effort toward the work of beautifying the church to which he was devoted were finely and notably characteristic.

Dr. Brackett's unflinching devotion to his chosen interests may be signified in two facts. He directed the construction of the first radio station built in South Dakota and he was a pioneer in the origination of the radio station KUSD of the University of South Dakota, laboring constantly to improve the facilities and programs of that station until the time of his death.

Truly he was indeed an earnest scholar, a thorough scientist, and an admirable educator, and he was faithfulness personified. We shall miss him.

Therefore, be it resolved that, in honoring the memory of the late Dr. Byron Briggs Brackett, we, the members of the South Dakota Academy of Science, do ourselves honor in acknowledging our appreciation of his services, character, ability and faithfulness, and that, as a token of our esteem, we direct that this tribute be spread upon our records, published in our proceedings, and also that a copy of this tribute be sent through the courtesy of the Secretary of the South Dakota Academy of Science to Mrs. Brackett.

Members of the Committee:

J. G. Hutton
A. P. Larrabee
Arthur M. Pardee

PROGRAM

- The following program was presented:
- Address of Welcome** Vice-President G. H. Durand,
Yankton College
- The Anatomy of the Digestive and Urogenital Systems
of the Amphiuma Leslie J. Weigart and Edw. P.
Churchill, University of South Dakota
- Graphical Solutions for the Constants in the first Order
Autocatalytic Reaction Velocity Equation
..... Edwin H. Shaw, Jr.,
University of South Dakota
- Loss of Selenium by various Drains during Storage...
..... Alvin L. Moxon and Morris Rhian,
South Dakota State College
- Chalk Rock. III. Gregg M. Evans, William E. Lenser
and William H. Harris, Yankton College
- The Fermentation of Rye A. R. Kendall,
Dakota Wesleyan University
- Genetics of the Cultivated Four O'Clock.... H. Clyde Eyster,
University of South Dakota
- The Movement of Selenium from Germinating Seleni-
ferous Grains Oscar E. Olson,
South Dakota State College
- Gamma Rays Emitted from Cadmium under Slow Neu-
tron Bombardment W. H. Jordan,
University of South Dakota
- The Vitamin D Content of Some South Dakota Rough-
ages G. C. Wallis and Henry Lardy,
South Dakota State College
- Sampling—A Basic Psychological Operation.....
..... Harold R. Fosler, University of South Dakota
- Manganese Content of Some South Dakota Feeds.....
..... Alvin L. Moxon and Henry Lardy,
South Dakota State College

** Denotes papers not submitted for publication in the pro-
ceedings.

- The Circulatory System of the Amphiuma.....
Vivian Lahti and Edw. P. Churchill,
 University of South Dakota
- A Partial Report on Duck Disease in South Dakota**..
Robert Hutton and E. R. Binnewies,
 South Dakota State College
- A Method for Preparation of Large Quantities of Wheat
 Gluten**....Kenneth DuBois, Robert Hutton and Alvin
 L. Moxon, South Dakota State College
- A Note on the Approximate Solution of Problems in
 Mass Action**Ernest Griswold,
 University of South Dakota
- Studies on the Micro Methods for Blood Sugar**.....
Richard Tollefson and Edwin H. Shaw, Jr.,
 University of South Dakota
- Factors Affecting the Extent of Dependency upon Old
 Age Assistance in South Dakota**....John P. Johansen,
 South Dakota State College
- Staining of Bacterial Flagella**.....Einar Leifson,
 University of South Dakota
- Micro Fauna of the Gregory Member of the Pierre**..
Walter V. Searight, University of South Dakota
- Sounds and Habits of Animals as Criteria of Relation-
 shipA. V. Arlton, Dakota Wesleyan University
- Anomalous Secondary Growth in the Wild Four O'Clock**
Ward L. Miller, South Dakota State College
- South Dakota as an Oil ProspectE. P. Rothrock,
 University of South Dakota
- Range Management....Robert Stewart and H. Clyde Eyster,
 University of South Dakota
- The Anatomy of an Abnormally Enlarged Stem of Wild
 Four O'ClockTillman Johnson and H. Clyde Eyster,
 University of South Dakota
- Fluoride Content of South Dakota Water Supplies....
Burton Jordan and Guy G. Frary,
 University of South Dakota

- Effect of Posture on Cardiac Output**..H. Morrow Sweeney,
 University of South Dakota
- Some Studies of the Acidity of Benzene Sulfonic Acid
 in Acetic Acid**.....Don Ward and Ernest Griswold,
 University of South Dakota
- Solvent Effect of Lithium Acetate upon Zinc Acetate in
 Acetic Acid**....Wm. Van Horne and Ernest Griswold,
 University of South Dakota
- The Effect of Tumor Growth on the Water Content of
 the Liver**..H. D. McEwen, University of South Dakota
- Some Problems Connected with the Euler Phi-function**
Earl Houseman and Ernest Hedberg,
 University of South Dakota