

Observations on the Dalmanites of the early Devonian are introduced in the text which throw light upon race characteristics, debility as exemplified in ornamentation of different parts of the organism. *Gaspelichas forillonis*, a new species, is indeed "the most extravagant instance of the development of spines among the trilobites."

This monumental work by Dr. Clarke only serves to enhance his deserved fame as a distinguished paleozoic paleontologist. The plates are all that can be desired, the text likewise is satisfactory, as to both quality and precision. References are made to the good work done in the peninsula by Logan, Billings, Ells, Low and others whom the author does not forget in bestowing names on the new forms met with. Nor does he forget those intrepid missionaries and early French explorers like Lejeune, Jumeau, Lescarbot, Leclercq and de Thune, and the Jersey men and other settlers of the district who have in any measure contributed to the history and development of Gaspé.

The geology of the "Forillon" with map, is given in which the Gaspé sandstones, the Grande Grève limestones, the Cape Bon Ami beds and the St. Alban beds are separated on paleontological and stratigraphical grounds. This remarkable point juts out into the Gulf of St. Lawrence "like an index finger," from the broad fist of Rosier Cape and Cove, and two of the four geological formations constitute the narrower portion of the slender point, with Cape Gaspé to the north and Shiphead to the south. The vertical distribution of species and the faunas of the different formations and their mode of occurrence are given, together with a special chapter on the "Geology of Percé" in which a geological map in detail is presented giving the succession of the strata, including formations from the Carboniferous down to the Lower Silurian. They comprise the Bonaventure conglomerate (Carboniferous and Devonian in age), the "Percé massive" (Lower Devonian), the Cap Barré massive (Lowest Devonian), Mt. Joli massive, north flank (Upper Silurian), Mt. Joli massive, south flank (Lower Silurian), Cape Canon

massive, including limekiln beds (Lower Silurian). The faults noted by Dr. Clarke appear to be of the same character as those of the "Quebec Group" and "Appalachian" folded region, a series of thrust faults, very much like those movements so characteristically described by Lugeon of Switzerland, where strata seem to play leap-frog one over the other. The reproduction of a number of old historic maps and early illustrations of this most interesting and picturesque as well as easily reached region forms no inconspicuous portion of the volume, nor can the delightful water-color reproduction of Percé rock forming the frontispiece go unnoticed. The excellent drawings by Barkentin illustrating the extinct faunas are exquisitely reproduced.

H. M. AMI

GEOLOGICAL SURVEY OF CANADA,  
OTTAWA, ONT.

#### SOCIETIES AND ACADEMIES

##### THE MICHIGAN ACADEMY OF SCIENCE

THE academy held its fourteenth annual meeting at Ann Arbor, Mich., April 2, 3 and 4.

The following officers were elected for the coming year:

*President*—Charles E. Marshall, East Lansing, Mich.

##### *Vice-Presidents:*

*Section of Agriculture*—A. C. Anderson, East Lansing, Mich.

*Section of Botany*—Wm. E. Praeger, Kalamazoo, Mich.

*Section of Geography and Geology*—Wm. H. Hobbs, Ann Arbor, Mich.

*Section of Sanitary Science*—E. C. L. Miller, Detroit, Mich.

*Section of Science Teaching*—S. D. Magers, Ypsilanti, Mich.

*Section of Zoology*—D. B. Casteel, Ann Arbor, Mich.

*Secretary-Treasurer*—Walter G. Sackett, East Lansing, Mich.

*Librarian*—G. P. Burns, Ann Arbor, Mich.

On the evening of April 3 the members of the academy were very pleasantly entertained at a smoker given by the Research Club of the University of Michigan.

The titles of the papers presented at the meeting are given below:

Presidential address by Professor Mark Jefferson, of the State Normal College, Ypsilanti. Subject, "Man in West Norway" (illustrated).

#### SECTION OF AGRICULTURE

(A. C. ANDERSON, VICE-PRESIDENT)

"Some Michigan By-products," by Frank S. Kedzie.

"Mutual Interaction of Plant Roots," by J. B. Dandeno.

"Bird Protection and the Farmer," by Walter B. Barrows.

"The Claims of the Michigan Academy of Science," by W. J. Beal.

"The Cost of Weeds to the Crop," by J. A. Jeffery.

"Studies in Insect Control," by R. H. Pettit.

"Unsolved Problems in Incubation," by J. G. Halpin.

"Variations in the Proteid Content of Corn as shown by Analyses of Single Kernels from the Same Ear," by Andrew J. Patten.

#### SECTION OF BOTANY

(W. E. PRAEGER, VICE-PRESIDENT)

"More about the Botanical Terra Incognita in and around Ann Arbor," by S. Alexander, Ann Arbor.

"Some Interesting Variations of Common Plants," by Chas. A. Davis, Ann Arbor.

"An Iris New to Michigan," by Chas. A. Davis.

"Seedlings of *Ranunculus Purshii*," by Chas. A. Davis.

"Additional Notes on *Chara*," by Ellen B. Bach, Ann Arbor.

"A Botanical Trip to Thunder Bay Island," by C. K. Dodge, Port Huron.

"Temperature Variations in Peat Bogs," by G. P. Burns, Ann Arbor.

"Problem of the Causes of the Formation of Mechanical Tissues in Plants," by F. C. Newcombe, Ann Arbor.

"Effect of Longitudinal Traction in the Formation of Mechanical Tissue in Stems," by John A. Bordner, Ann Arbor.

"Response of Tendrils to Traction," by Warren D. Bush, Ann Arbor.

"Effect of Swaying by the Wind on the Formation of Mechanical Tissue," by Maude Gilchrist, Agricultural College.

"Poisonous Excretions of Roots," by Richard M. Zeeuw, Ann Arbor.

"Mychorhiza on Michigan Trees," by D. M. Matthews and G. A. Duthie, Ann Arbor.

"Some Mycorrhiza-forming Basidiomycetes," by L. H. Pennington, Ann Arbor.

"Can *Fusaria* assimilate Free Nitrogen?" by L. H. Pennington.

"Is Brown-rot of Stone Fruits in Michigan due to *Sclerotinia fructigena* or *S. cinerea*?" by J. B. Pollock, Ann Arbor.

"The Ascus Stage of *Sclerotinia fructigena*," by J. B. Dandeno, Agricultural College.

"Capillarity of Cellulose," by J. B. Dandeno.

"Toxic Action of Bordeaux Mixture and of Certain Solutions on Spores of Fungi," by J. B. Dandeno.

"Unreported Michigan Fungi for 1907, with an Outline of the Gasteromycetes of the State," by C. H. Kauffmann, Ann Arbor.

"The Development of *Secotium acuminatum* Mont.," by C. H. Kauffmann.

#### SECTION OF GEOLOGY AND GEOGRAPHY

(E. H. KRAUS, VICE-PRESIDENT)

"Pleistocene Beaches of Saginaw County," by W. F. Cooper, Lansing.

"Note on the Intercalated Devonian Bed (Anderson Limestone) of the Detroit River Region,"<sup>1</sup> by W. H. Sherzer, Ypsilanti.

"The Nature, Distribution and Origin of the Sylvania Sandstone,"<sup>1</sup> by A. W. Grabau, New York, and W. H. Sherzer, Ypsilanti.

"The Decomposition of a Boulder in the Calumet and Hecla Conglomerate," by A. C. Lane, Lansing.

"Some Possible Uses for Peat in Michigan," by C. A. Davis, Ann Arbor.

"Peat Deposits as Geological Records," by C. A. Davis.

"On the Discovery of Permian Reptiles in Pennsylvania and the Bearing of this Discovery on the Pennsylvanian-Permian Border-line," by E. C. Case, Ann Arbor.

"Interpretation of the Chemical Composition of the Mineral Benitoite," by E. H. Kraus, Ann Arbor.

"Cobalt-nickel-silver Deposits of the Cobalt District of Ontario," by R. E. Hore, Ann Arbor.

"Models for the Practical Solution of Problems in Structural Geology," by W. H. Hobbs, Ann Arbor.

"A Deduction from the Study of Bridges which

<sup>1</sup>With the permission of the State Geological Survey.

have been disturbed by Earthquakes," by W. H. Hobbs.

"Daily Range of Temperature," by M. S. W. Jefferson, Ypsilanti.

#### SECTION OF SANITARY SCIENCE

(JAS. G. CUMMING, VICE-PRESIDENT)

"Present Scope of the National Red Cross," by B. S. Rowland.

"Urticaria Following the Second Administration of Anti-diphtheritic Toxin," by Alexander W. Blain, Jr.

"A Course in Practical Pathology," by F. P. Rouse.

"Blood-sucking Flies," by F. G. Novy.

"The Water Supply of Detroit," by E. H. Hayward.

"Medical Inspection of Schools," by Guy S. Kiefer.

"Sanitation as a Business Proposition," by Frank W. Shumway.

"The Development of Certain Milk Bacteria at a Low Temperature," by W. S. Sayer.

"Bacteriological Studies of Dry and Moist Soil," by Otto Rahn.

"Different Forms of Immunity," by V. C. Vaughan, Sr.

"Opsonic Technique with Lantern Demonstration," by E. C. S. Miller.

"Spirilla of Relapsing Fever," by F. G. Novy.

"Sensitization and its Application to Practical Medicine," by V. C. Vaughan, Jr.

"Bacteria in Ann Arbor Water," by H. D. Boyles.

"The Hydrolytic Cleavage Products of *B. coli communis*," by J. H. Agnew.

"Syphilis of the Placenta," by R. Genung Seland.

"Rabies-hydrophobia," by Jas. G. Cumming.

#### SECTION OF SCIENCE TEACHING

(S. D. MAGERS, VICE-PRESIDENT)

Biological Conference of Schoolmasters' Club and Science Teaching Section of the Michigan Academy of Science.

"Parental Care of Michigan Fishes" (illustrated with lantern slides), by Jacob Reighard, University of Michigan.

"The Just Claims of Biology in the Curriculum of Secondary Schools," by Otis W. Caldwell, University of Chicago.

"Shall the Study of Botany and Zoology in Secondary Schools take the Form of the Study of

Types?" by Nathan A. Harvey, State Normal College.

"Shall the Study of Botany and Zoology in Secondary Schools take the form of Natural History?" by W. P. Holt, Toledo (Ohio) Central High School.

Discussion of second paper, Wm. E. Praeger, Kalamazoo College.

Discussion of third and fourth papers, Miss Grace Ellis, Grand Rapids, Mich., and H. M. MacCurdy, Alma College.

#### SECTION OF ZOOLOGY

(ALEXANDER G. RUTHVEN, VICE-PRESIDENT)

"A Case of Consecutive Hermaphroditism in the Killifish, *Fundulus majalis*," by H. H. Newman.

"The Bird Environment of the Ann Arbor (Michigan) Quadrangle, with Notes on the Rarer Species," by N. A. Wood.

"Permian Glaciation and the Distribution of Permian Reptiles; a Study in the Geographic Distribution," by E. C. Case.

"Reptiles of Michigan," by Frances Dunbar.

"Additional Experiments on Color Vision in Fishes," by Jacob Reighard.

"Remarks on the Vertebrate Fauna of Northwestern Iowa," by A. G. Ruthven.

"The Ornithology of Northwestern Iowa," by Max M. Peet.

"The Bird Life of School Girls Glen (Ann Arbor, Mich.); a Local Ornithological Study," by A. D. Tinker.

"The Distribution of *Lymnaea* in Michigan," by Bryant Walker.

"A Reflecting Water-glass," with a demonstration of the apparatus, by Jacob Reighard.

"On a Method of Sub-aquatic Photography," with a demonstration of apparatus and results, by Jacob Reighard.

"A Statistical Study of Mitosis and Amitosis in an Embryonic Tissue," by O. C. Glaser.

"Observations on the Habits and Life History of Notonectid," by S. F. Hull.

"A Preliminary Note on Insecticides," by R. H. Pettit.

"A Possible Parasitic Habit in the Lepidoptera," by R. H. Pettit.

"Notes on a Biological Survey of the Alma Area," by Hansford MacCurdy.

WALTER G. SACKETT,  
Secretary

## THE TORREY BOTANICAL CLUB

THE club was called to order on April 14, 1908, at 8:30 o'clock, by Vice-president John Hendley Barnhart. Seven persons were present.

The scientific program consisted of two papers, as follows:

*The Relation of Chemical Stimulation to Nitrogen Fixation in Sterigmatocystis:*  
MARION E. LATHAM.

This paper will appear in full in a future number of the *Bulletin* of the club.

*Some Forms of Protoplasmic Reaction:* H. M. RICHARDS.

The speaker reviewed the more recent literature and theories bearing on the subject of the stimulus and response of protoplasm.

Both of these papers were followed by an interesting discussion, and the meeting adjourned at ten o'clock.

C. STUART GAGER,  
*Secretary*

## THE AMERICAN CHEMICAL SOCIETY. NEW YORK SECTION

THE eighth regular meeting of the session of 1907-8 was held at the Chemists' Club, 108 West 55th Street, on May 8.

Professor Charles E. Munroe, of the George Washington University, addressed the Section on, "Explosions in Mines."

C. M. JOYCE,  
*Secretary*

## DISCUSSION AND CORRESPONDENCE

## THE GERMAN ANATOMICAL SOCIETY

TO THE EDITOR OF SCIENCE: During the recent meeting of the Anatomische Gesellschaft, at Berlin, I noticed several points of management and procedure which seemed to me of value in economy of time, and I send you my notes with the hope that their publication may interest those in charge of the meetings of similar organizations in America.

In the first place, the meetings of our societies often suffer by reason of overcrowded programs. There is not time to present all the papers presented and the chances

for discussion of those which are read are reduced to a minimum.

In the German society the number of papers to be presented at a single session is limited by statute to twenty-five and usually but about that number is printed on the preliminary program. This year, owing to the number of titles sent in at an early date, the number was increased to thirty-nine, those in excess to be read only in case others ahead of them were omitted for one reason or another.

This restriction of number of papers allows an increase of the time limit for each person to twenty minutes, but one person is allowed only one place on the program, although he may give two or more papers, provided that he do not overrun his allotted third of an hour. Only once did I notice that a speaker overran his time and he was called to order by the president.

As a rule, the speakers went at once straight to the pith of their communications; wasting no time in historical summaries of previous knowledge of the subject, details of technique or minutiae of diagrams or specimens exhibited, which only tire and confuse the listener who only wishes to know the new points and the broadest evidence upon which the conclusions are based. Knowing these, he can wait for details until the complete paper is published.

The sessions were announced to begin at 9 A.M. instead of ten o'clock, as is usual with us, and they lived up pretty closely to this schedule. This apparently was well understood, as when the meeting was called to order a goodly audience was present. Were the Americans ever to live up to their late program hour, calling the meeting to order at 10 o'clock instead of "dawdling" until most of the members had got together, the lesson of punctuality would soon be learned and considerable time would be saved.

With this limitation of the number of papers and the economy of time which has been alluded to, there was abundant time for discussion, and all must admit that discussion is frequently as valuable as, sometimes more valuable than, the paper itself. In these dis-