

The annual election of officers then took place, resulting as follows: Chairman, C. H. Perrine, Chicago, Ill.; Vice-chairman, R. F. Ratcliffe, Danville, Ill.; Secretary, V. D. Hawkins, Joliet, Ill.

Adjourned.

REPORT OF THE MEETING OF THE EARTH SCIENCE SECTION,  
C. A. S. and M. T.

The eighth annual meeting of Earth Science Section of the Central Association of Science and Mathematics Teachers, was held at the Englewood, Chicago, High School, November 27 and 28, 1908.

The meeting was called to order by the chairman, Mr. James H. Smith, of the Austin, Chicago, High School, there being about fifty persons present.

The chairman appointed a nominating committee consisting of Dr. C. E. Peet, of Lewis Institute; Mrs. J. P. Cooke, of the Chicago Normal School, and Mr. C. E. Spicer, of Joliet, Illinois.

The first paper was read by Prof. Mark Jefferson, of the State Normal College, Ypsilanti, Michigan, on "Facts and Principles of Meteorology that are Essential to Physiography". This paper appears printed in full in the January number of this journal.

The second paper was read by Prof. R. D. Salisbury, of the University of Chicago, on the subject "Fundamental Topics in a Physiographic Study of the Land". In the opinion of Prof. Salisbury high school pupils should get certain big ideas and should also do some intensive work on a few subjects. One of the first big facts to be taught about the lithosphere is that about one-third of its surface is about three miles above the other two-thirds. The origin of continents should be discussed whether geologists know the cause or not. Land areas should be roughly divided into plains, plateaus and mountains. Clear ideas of these three forms are most essential, yet the pupil must understand that exact definitions and sharp lines of demarcations are not always possible. Pupils should have a broad view of the work of gradational forces and should understand clearly the relation of diastrophism to gradation.

As subjects for intensive work pupils may profitably study the manner in which gradational forces operate. Prof. Salisbury here outlined in some detail the manner in which river valleys become wider and deeper and longer. The development of a river system upon a plain with the consequent disappearance of swamps and lakes and the development of hills was also sketched. No teacher of physical geography can afford to be without Prof. Salisbury's new book. It is published by Henry Holt & Co.

Methods of Teaching by which Fundamental Parts of Physiography may be Emphasized was discussed by Ralph E. Blount, of the Waller High School, Chicago, and George A. Barker, Normal, Illinois.

Mr. Blount's paper contained a number of excellent points based on his experience in teaching land forms. Mr. Blount uses the sand tray to show processes and to test the pupil's knowledge. He finds pupils more ready to perform experiments than to make observations. His experience has shown that for many reasons a wet laboratory is better than observation work in the field. In experimental work the pupil is working and in observational work he is merely looking on.

The best rain making apparatus yet tried is a common spraying nozzle used in applying whitewash. For delta making fine and coarse sand

mixed is found better than sand and clay, as the water remains clear enough to allow the pupils to see what is going on beneath the surface of the water.

A paper on the Practical Value of Geology was given by Prof. U. S. Grant, Northwestern University, Evanston, Illinois.

Prof. Wm. H. Hobbs, of the University of Michigan, gave a talk on the subject, "Instruction in the Use of Topographic Maps". An ingenious apparatus was shown by which students can measure the altitude of points on a model, these altitudes to be used in constructing a topographic map of the region shown in the model.

The officers elected for next year are: President, Miss Marion Weller, State Normal, De Kalb, Ill.; Vice-president, W. M. Gregory, Central High School, Cleveland, Ohio; Secretary, Mr. Harry Gillett, School of Education, University of Chicago.

W. S. MCGEE.

#### MEETING OF THE CHEMISTRY SECTION

The first session of the Chemistry Section of the C. A. S. & M. T. was held in the chemistry lecture room of the Englewood High School at 2 o'clock Friday afternoon. It was well attended and much enthusiasm was manifest. The first topic, "How May Elementary Chemistry Be Made More Efficient?" was presented by E. B. Hutchins, Jr., Professor of Chemistry, Carroll College, Waukesha, Wis. He emphasized the importance of making chemistry a thought study and not one for the cultivation of memory alone; that the student should gain the power to do things rather than simply to acquire facts. He also emphasized the importance of studying the chemistry of everyday life and took the view that we should attempt less of the theoretical: further, that it is important to give more personal or individual attention to each student than we are doing at present.

A general discussion followed the reading of the paper.

Mr. J. L. Welter, of the department of chemistry of the Wilkesbarre, Pa. High School, read the next paper, subject, "Difficulties to be met in Secondary School Chemistry". The subject was closely akin to the preceding, but the method of treatment was entirely different and the one supplemented the other, as if so intended. Five points were considered:

- a. Applied Chemistry rather than College Requirements.
- b. Differentiation along different lines.
- c. Too much in our text-books.
- d. Drudgery of laboratory housekeeping.
- e. More time needed in laboratory.

These points were discussed at length at the close of Mr. Welter's talk.

After the discussion the committee on "Fundamentals in Secondary School Chemistry" made a preliminary report. To carry on and complete the work thus begun, Geo. A. Abbott, of Indianapolis; Dr. A. L. Smith, of the Englewood High School, Chicago, and F. T. Jones, of Cleveland, were appointed a committee with instructions to make full report at the next meeting.

Saturday morning was given up to a round table. The two topics, "Chemical Theory, What and How", and "Practical High School Chemistry" were introduced by Geo. A. Abbott, of Indianapolis, and C. M.