

of Glacial Sand Plains." "Glacial Features of Parts of the Yukon and Mackenzie Basins" was the title of the paper submitted by Professor R. G. McConnell of Ottawa, Canada. Professor J. B. Tyrrell of Ottawa, Canada, read a paper on the "Post-Tertiary Deposits of Manitoba and the Adjoining Territories of Canada." Professor G. Frederick White of Oberlin College, Ohio, followed with a paper on "Terminal Moraine in Ontario;" Professor W. J. McGee of Washington, one on the "Southern Extension of the Appomattox Formation;" and Professor Charles D. Walcott of Washington defined the value of the term "Hudson River Group" in geologic nomenclature.

At the concluding sessions on Dec. 28 the number of speakers was so large that a general curtailment was necessary, and papers were withdrawn by the following members: Joseph P. Iddings and George H. Eldridge, Washington, D.C.; C. R. Van Hise, Madison, Wis.; Frank L. Nason, New Brunswick, N.J.; W. O. Crosby; Professor J. E. Wolff of Harvard University; Professor J. F. Kemp, Cornell University; F. J. H. Merrill, New York; H. M. Crump, Persifer Frazer, E. D. Cope, Philadelphia; and Peter McKellar, Ontario.

The paper which provoked the most discussion was read by Professor Alexander Winchell of Michigan University, Ann Arbor, the title of which was "Some Results of Archæan Studies." Those who took part in the discussion were Professor C. H. Hitchcock of Dartmouth, Professor Emerson of Amherst, Professor A. C. Lawson of Ottawa, Canada, and Professor C. R. Van Hise of Madison, Wis.

The first paper of the day was read by Professor H. S. Williams of Cornell, who set forth a new method of illustrating the relation of the history of different regions by graphic representation of the oscillation of sediments, and urged the study of fauna to bring out the relation of local fauna to their ancestors.

Professor G. H. Williams of Johns Hopkins University exhibited and described some specimens highly metamorphosed, but still containing fossils, collected in Norway. C. D. White of Washington claims to have found fossils showing rock on Martha's Vineyard to be middle cretaceous in place of middle tertiary, as supposed. J. S. Diller of Washington projected upon the screen photographs of dikes in California. In some cases the dikes were five feet wide and twenty feet high. Professor A. S. Richmond then projected some Alaskan views, and a diagram of the buildings that would be erected on the museum ground for the world's fair of 1892.

Professor C. H. Hitchcock of Dartmouth read an interesting paper on "Granitoid Oval Areas in the Laurentian," and Professor B. K. Emerson of Amherst spoke on "Porphyritic Granite." Professor A. C. Lawson of Ottawa read a paper on the "Archæan of Central Canada." Then followed papers by Professor Warren Upham, President James Hall, and F. J. H. Merrill.

The next meeting of the society will be in Indianapolis, Ind., August, 1890.

#### BOOK-REVIEWS.

*Scientific Papers of Asa Gray.* Selected by CHARLES SPRAGUE SARGENT. 3 vols. Boston and New York, Houghton, Mifflin, & Co. 8°. \$3 per vol.

THE general public will, we are sure, be much surprised to learn that Professor Gray was so voluminous a writer as these volumes show him to be. Indeed, Mr. Sargent, in his introduction, states that his contributions to science were so numerous and varied as to astonish those of his associates who were most familiar with his intellectual activity, his various attainments, and that surprising industry which neither assured position, the weariness of advancing years, nor the hopelessness of the task he had imposed upon himself, ever diminished. His first scientific paper was published in 1834, and his last was written in 1887, but a few weeks before his death. During this half-century it may truly be said that his pen was never idle. In the selection of Professor Gray's writings for republication, Mr. Sargent omits those contributions which are devoted to descriptive botany, and many of which form the best textbooks in the English language; nor does he attempt to reproduce the philosophical essays which grew out of the discussion of the

Darwinian theory. Reviews, biographical notices, and a few essays upon subjects of general interest to botanists, all of which have long been out of print, form the greater part of the volumes before us. It was doubtless a most difficult task to select from so much material that which was most desirable to publish. More than eleven hundred bibliographical notices and reviews, all of them from the hand of such a critic as Asa Gray, must indeed have been an *embarras de richesses*. Mr. Sargent's plan has been to present in his selection, as far as possible, a history of the growth of botanical science during a period which has been marked by the gradual change of ideas among naturalists upon the origin and fixity of the species which has broadened the field of all biological investigation, by the establishment and systematic arrangement of vast herbaria gathered from all parts of the world, by the introduction of improved and more philosophical methods of investigation in the laboratory, and by the growth of popular appreciation for the value of scientific training. The task which Mr. Sargent set out for himself was a most arduous one; but so well has he performed it, that the whole scientific world has been made his debtor. The future reputation of Asa Gray will be enhanced by the presentation of his writings; and the editor of them will always have the satisfaction of knowing that he has in no inconsiderable degree assisted in preserving the lustre of the name of Asa Gray.

#### AMONG THE PUBLISHERS.

ON Saturday, Feb. 1, 1890, the Illustrated American Publishing Company (New York) will issue the first number of a weekly news magazine, which, it is claimed, will "rival the most artistic periodicals of England, France, and Germany, and surpass those produced in this country." The illustrations will be the picturesque chronicling of contemporaneous history. A colored supplement will be the most conspicuous feature of every number. It will be a facsimile, in color, of the masterpiece of some celebrated painter, in the preparation of which the discoveries in the art of reproduction will be employed. *The Illustrated American* is designed for the home. It will be unsectarian, and free from political discussions and heavy debates. The serial novel and short stories will be illustrated, and other matter will be selected to afford amusement, entertainment, and valuable information.

— *St. Nicholas* for January is a second Christmas number. Walter Camp's foot-ball paper deals with the great games at the Polo Grounds, and is re-enforced by a study of "The Drop-Kick," contributed by Yale's famous expert, W. T. Bull, whose kicks won Yale a championship. A story of New-Mexican life, by Charles F. Lummis, gives the legend of the now inaccessible "Enchanted Mesa," upon which, tradition says, there is a deserted village just as it was left hundreds of years ago. A photograph of the mesa from nature is one of the illustrations.

— Messrs. Macmillan & Co. will shortly publish the first part of Professor Eimer's work on "Organic Evolution as the Result of the Inheritance of Acquired Characters according to the Laws of Organic Growth," translated by J. T. Cunningham, M.A., F.R.S.E., late fellow of University College, Oxford, England.

— After Mr. Gladstone, Pope Leo XIII. is the most vigorous man of his age of the day, says Edward W. Bok, in the January *Ladies' Home Journal*. The routine of his work would kill an ordinary man. There is no detail too small for him to pass over; and from daybreak until after midnight he devotes his time to the church and literature. Those who surround him know when he is particularly tired or worn out, for then he takes down a volume of Dante, and reads with the avidity of a school-girl enjoying her first novel. Of all the authors, Dante is the Pope's favorite, and it has been remarked that in physique he is not unlike the accepted idea of that great Italian. He reads Dante for pleasure; but, for keeping himself well informed on all that is happening out of the church as well as in it, he reads not only American books, but newspapers and magazines; and it may surprise American readers to know that he is well informed on all the topics of the day, political, religious, and social. He has taken a deep interest in the cause of labor in the United States, and reads every thing bearing on that