

SCIENCE:

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THE AMERICAN ASSOCIATION AT ROCHESTER.

BY D. S. MARTIN.

THE recent meeting of the American Association for the Advancement of Science was in all respects a pleasant and successful one. The beauty of the city of Rochester, the absolutely perfect weather that lasted through the entire session, and the careful and systematic arrangements of the local committee all combined to favor the attending members. The number present was in all 455, larger than at any meeting in the past ten years, save the exceptional ones at Philadelphia, New York, and Washington, and ranking seventh in the entire series of forty-one meetings.

The sessions were held in the University of Rochester, whose handsome and commodious buildings are surrounded by a large and very beautiful campus. This latter was a constant source of enjoyment, like the university grounds at Toronto in 1889, where the midday interval could be passed under noble trees and on velvety grass, with the lake breezes to refresh the air. No pleasanter "environment" has ever been enjoyed than at Rochester; while the fine collections of the university in Sibley Hall and the proximity of the celebrated "Ward's Natural History Establishment" and the Warner Observatory gave added scientific interest.

A large number of local geological trips were made to points of interest in the neighborhood. Among these may be mentioned the great gorge of the Genesee and the Lower Falls, where the Clinton and Niagara rocks are so grandly exposed in section; the glacial deposits of the Pinnacle Hills, south of the city, which present some problematical features; and last, but not least, the rock-salt mines at Leroy and Livonia, some twenty to thirty miles southward of Rochester, where the great deposits of solid salt are reached at 1,010 and 1,369 feet of depth, respectively, and immense works are in process of construction. The age of these beds, as is well known, is salina, or perhaps more strictly waterlime.

The regular Saturday excursions arranged by the local committee had also much of a geological character, some going to Niagara, others to the Portage Gorge of the upper Genesee, and others to Stony Brook Glen, all of these being magnificent examples of stream-erosion.

Another matter of local interest was the opening to the members, by courtesy of the family, of the mansion and library of the late Hon. Lewis H. Morgan, president of the association in 1880 and eminent as a writer and student in archæology and ethnology. The visit to his library and collection was an occasion of gratification to many.

To specify or enlarge upon particular papers among the many and valuable ones presented, would be difficult and perhaps invidious. It is, however, but fair to say that especial interest, in sections E (geology) and H (anthropology), was developed in the active discussions that arose regarding two subjects—that of Comparative Geological Chronology as presented by Professor W. J. McGee, and Aboriginal Quarries of Flakable Stone by Mr. W. H. Holmes—both of Washington. Professor McGee's general doctrine is that, using erosion as a measure of time, it is possible to fix somewhat definitely the relative lengths of certain recent geological epochs, and then (as generally admitted on the basis of sedimentation, as by Dana and others) of the older and greater periods. Then, by fixing a date in years for the last glacial epoch, it becomes possible to estimate somewhat the duration of geological time. This last date, based partly on Croll's astronomical theory and partly on various strictly geological data, he would place at about 7,100 years ago. Using this as a unit of estimate, the relative time indicated by erosion, etc., to the "Columbian" deposits, is to this date as 30 ± 1 , giving about 200,000 years to the Columbian (early Quaternary); while the same process will require some fifty times as much, or 10,000,000 years, to the "Lafayette," late Tertiary. It is easy to see from these figures, when compared with the time-ratios for the geological ages as given, e. g., by Dana, how stupendous a time is demanded by Professor McGee's view, and how extreme is the difference between the geological requirements on the one hand and the duration allowed by the physicists and astronomers on the other. The discussion that arose was naturally active, and the subject is one likely to be prominent for some time to come.

Mr. Holmes has been investigating aboriginal quarries extensively, and presents the view that immense quantities of merely unfinished and rejected material at these points exhibit all the characters of so-called "palæolithic" work. He therefore questions strongly the palæolithic age of much that has been so regarded, certainly in this country. The discussion of this and other papers in the section showed a strong tendency to demand more proof, and that strictly stratigraphical, than has often been given in describing "palæolithic" implements and drawing inferences therefrom. Those who accompanied Mr. Holmes a year ago to his aboriginal quarry in the Potomac gravels at Piney Branch, near Washington, will remember that visit with increased interest in view of this important discussion.

Much else might well be mentioned, but space forbids. As a whole, it may be said that few meetings of the association have been more agreeable or more profitable than the one just closed at Rochester.

The decision to hold the next session at Madison, Wis., rather than at Chicago, is generally approved. The place is near enough to give the members opportunity to visit the World's Fair before or after the association meeting, and far enough away to escape the crowd and the distraction; while the provision made for a permanent headquarters for each section of the association during the entire period of the Fair, in rooms set apart for that purpose, is a most happy and desirable arrangement for the comfort and convenience of members visiting Chicago.

AMERICAN BOTANISTS AND NOMENCLATURE.

BY JOHN M. COULTER, PRESIDENT OF INDIANA UNIVERSITY.

THE Rochester meeting of the American Association was a notable one for American botanists. They had so burdened section F with papers in the years that are past that nothing was left but to organize them into a separate section, under the letter left vacant by the deceased Section of Microscopy. This calls for congratulation as testifying to the growing numbers and activity of botanists. Among botanists, however, the meeting was still more notable from the remarkable merging of all differences of opinion into an agreement concerning nomenclature.

This subject has not only brought botanists into conflict with each other, but into disrepute with fellow-scientists. Force seemed to be wasted in upholding varying personal opinions. So far as American botany was concerned, there seemed to be two hostile camps with