

SCIENTIFIC DEPARTMENT.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—COLORS OF LEAVES.

The meeting of the American Association for the Advancement of Science, at Montreal, which closed August 30th, was in every respect one of the most successful meetings in the history of the Society. The attendance—nine hundred and thirty-seven—was but little short of that registered at Boston two years ago, and constituted it one of the large meetings. Three hundred and twenty-four new members were elected, and more than two hundred and fifty papers were accepted. The meeting was opened on the 23rd of August with a brief address by the President elect, Dr. Dawson, of Montreal, who spoke of his (a Canadian's) election to the Presidency as significant of the Society's extension over the continent and its disregard of national boundary lines. Dr. Sterry T. Hunt, who followed the President as the special representative of the city of Montreal, also spoke of the expansion of the Society, and expressed the hope that it might yet meet in the city of Mexico, as the French had already carried their "war of science" into Africa at Algiers.

The nine sections into which the Association is now divided were severally opened with addresses by their respective vice-presidents. Prof. Bolton, in the Chemical Section, spoke of "Chemical Literature;" Prof. Harkness, in the Mathematical and Astronomical Section, on the Transit of Venus; Prof. Brush, the retiring President of the Association, gave, as his official address, a comprehensive view of "The Progress of American Mineralogy;" Dr. Asa Gray gave an address on the "History of the Study of the North American Flora," and expressed the hope that the work of examination and classification might be completed in his lifetime, if it could not all be guided by his hand.

The other papers were too numerous even to be catalogued here. We mention only a few which seem to be of general interest or importance. They are those of Prof. Mason, unfolding a scheme of Anthropology; of Dr. John Rae, of London, on "Arctic Exploration and Ethnology;" of Commander Bartlett, on "The Gulf Stream;" of Dr. F. B. Hough, on "Plantations of the Eucalyptus;" of the Rev. Dr. Haughton, of Dublin, embodying a new theory of the "Evolution of the Planets;" of Prof. Cook, of New Jersey, on "Evidences of Coast Depression;" of Prof. Newberry, on the "History of Plant Life in America;" of the Hon. Horatio Hale, on "Indian Migrations, as evidenced by their Language;" and of Mrs. Erminnie A. Smith and Miss Alice Fletcher, on topics relating to Indian Ethnology.

Excursions were made to Quebec, Ottawa, Lake Memphremagog, Lachine Rapids and the Harbor and Grand Trunk Workshops. Several visitors of distinction were present from abroad. Among them, besides those already mentioned in connection with their papers, were Dr. W. B. Carpenter, of London, who read a technical paper in the Microscopical Section; Dr. Valdemar Kowalevski, of Moscow; M. Koenig, of Paris; Mr. Fitzgerald, of Dublin, and Dr. Szabo, of Buda-Pesth, who had a paper in the Chemical Section. A good financial exhibit was made, with the announcement of generous special gifts. A memorial to Prof. Rogers was agreed upon. The Association decided to hold its meeting for 1883 at Minneapolis, Minn., under the presidency of Prof. C. A. Young, of Princeton.

At this season of the year, when the leaves of many of our trees are changing their green color for more brilliant hues, some of our readers may ask what is it that causes the leaves to assume such beautiful colors. The colors of leaves is a subject that has of late attracted considerable attention and from recent experiments it would seem that there is but one coloring substance in leaves—chlorophyll, which is normally green. White leaves are those from which chlorophyll is absent, whilst those of other colors have the chlorophyll acted upon by acids and alkalies that are found in the plant.