

SCIENCE

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MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

THE DENVER MEETING.

THE Denver Meeting of the American Association for the Advancement of Science is an important event in the history of

science in America, giving as it does official recognition to the development of science in the west. The scientific men of the country have been mostly collected together on the Atlantic seaboard between Boston and Washington, and the membership of the scientific societies has been chiefly in this region. The American Association has not hitherto met further to the west than St. Louis, and at the meeting in that city, twenty-three years ago, there were only 134 members in attendance, while two years later at Boston the attendance was 997.

During its first hundred years the nation was in scientific matters somewhat in the relation of a colony to Europe. Our students went abroad for study; we depended on Europe for our journals and books, and did not contribute our share to the work of the world. During the subsequent twenty-five years great progress has been made. The opening of the Johns Hopkins University in 1876 marked and helped to create a new epoch in university education. In the same year, the American Chemical Society was organized, leading the way in the establishment of our national societies devoted to special sciences. At about the same

time our special scientific journals were first established. In the intervening period the scientific work under the Government has remarkably expanded. The membership of the American Association increased from 867 in 1876 to 2,033 in 1883.

But this period of scientific activity has been to a large measure confined to the Atlantic seaboard. Even at the present time, we find that of the 86 members of the National Academy only one lives west of Chicago, and of the 864 fellows of the American Association only about 60 live west of that city. The central and western states have been in the colonial relation to the Atlantic seaboard that it had previously held to Europe. Students have come to the eastern universities, and the scientific men for the central and western States have been drawn from the east. But the establishment of Chicago and Stanford Universities and the development of the State universities represent the same movement that occurred earlier in the east. Within a few years the center of population — slowly moving westward and now in southern Indiana — may be the center of scientific men and scientific activity. Omens and coincidences may not appeal to men of science, but it is perhaps worth noting that the fiftieth meeting of the Association in the first year of the new century should celebrate an epoch in the development of science in America.

A little while since (June 21) there was published in this journal an article calling attention to the importance of the American Association for science in America, and it is not necessary to repeat now what was

then said. We wish, however, to emphasize the significance of the approaching meeting and to urge the need of a large attendance and of a representative scientific program. The responsibility here rests with each member individually. It is not easy to say anything except the trite on such a subject, for we all know that scientific work, like everything else, depends on the willingness of all to unite for a common cause. The trip to Denver, either from the east or from the scientific centers of the west, is certainly long and expensive. When, however, the National Educational Association met recently in that city there was an attendance of 10,000 members, the largest in its history. The members of the American Association should at least aim at making the same record.

The permanent secretary informs us that many prominent scientific men from the east have signified their intention to be present, and that the representatives of science in the central and western states guarantee a large attendance. It cannot be expected that as many affiliated societies will meet at Denver as last year at New York, but the names of nine will be found on the preliminary program. We published last week a list of forty-five papers offered in chemistry, and other sciences are correspondingly well represented. The address of the President, Professor Woodward, of Columbia University, entitled 'The Progress of Science,' is certain to be an event of more than ordinary importance; and one of our most eminent students of the physical sciences will be succeeded in the chair by one of our most eminent students of the

biological sciences, Professor Minot, of Harvard University. The Association is promised a welcome by the Governor of the State, the Mayor of Denver and other dignitaries, and the people of the city are noted for their hospitality.

A few words in regard to routes may be of service to members in the East. The way to Denver is either by Chicago or St. Louis, the former being the quicker. Chicago may be reached from New York in about twenty-four hours by the Pennsylvania and New York Central Railways. For example, a train leaving New York at 7:55 A. M. by the Pennsylvania reaches Chicago at 7:45 the next morning, or a train leaving New York at 5:30 P. M. by the New York Central and Lake Shore reaches Chicago at 4:30 the next afternoon. The best train from Chicago leaves at 10 A. M. by the Chicago and Northwestern; at 1 P. M. by the Rock Island Route and 4 P. M. by the Burlington, reaching Denver at 1:40, 4:45 and 6:30, respectively, the next afternoon. Those who leave Chicago on Saturday, the twenty-fourth, by one of these trains will doubtless travel in good company. The rate from New York to Denver and return at one and one-third fare would be about \$65; the ordinary fare to Chicago and return is \$40, and the return ticket from Chicago to Denver is \$31.50. The latter method is not much dearer than the former and may be cheaper to members living west of New York. It is more convenient, as the tickets from Chicago may be purchased as early as August 10 and are good for return until October 31, and the route to Chicago may be varied and a stop may be made at

Buffalo or elsewhere. The headquarters of the Association are at the Brown Palace Hotel, and those wanting rooms should engage them in advance. There are, however, a number of good hotels at Denver.

Everyone knows that Denver is one of the great centers for excursions of scientific and general interest. The geologists, under the leadership of Professor Van Hise, have planned a ten days' excursion before the meeting. Other excursions of interest to chemists, engineers, geologists, zoologists, botanists, anthropologists and indeed to all members of the Association may be made during the meeting or at its close. It is sufficient to mention Pike's Peak, the Garden of the Gods, and the Grand Canyon of the Colorado, to all of which excursions have been planned. The trip to Colorado should be made by everyone and should be made now by all members of the American Association for the Advancement of Science.

REGENERATION AND LIABILITY TO INJURY.*

THERE is a widespread belief amongst zoologists that a definite relation exists between the liability of an animal to injury and its power of regeneration. It is also supposed that those individual parts of an animal that are more exposed to accidental injury, or to the attacks of enemies, are the parts in which regeneration is best developed, and conversely, that those parts of the body that are rarely or never injured do not possess the power of regeneration.

Not only do we find this belief implied in many ways, but we find this point of view definitely taken by several eminent

* One of a course of lectures on 'Regeneration' delivered at Columbia University, and shortly to be published in the Columbia University *Biological Series*.