

which have long figured in school "readers," and the others, though less familiar in this rôle, are none the less fitted for it. The book is nicely illustrated, and concludes with a short glossary of the rarer words and phrases found in the extracts. It may be recommended for class purposes.

#### THE BOSTON MEETING OF THE AMERICAN ASSOCIATION.

THE sixty-first meeting of the American Association for the Advancement of Science and of its affiliated societies was held in Boston, Mass., December 27, 1909, to January 1, 1910, under the presidency of Dr. David Starr Jordan, of Leland-Stanford University, California. The meeting was a large one, nearly 1100 members of the association being registered, and the total number of men and women of science in attendance was not far from 2000. The number of affiliated societies was larger than usual, numbering thirty in all. The meetings were held in the buildings of the Massachusetts Institute of Technology, in certain of the buildings of Harvard University, Cambridge, and the new Harvard Medical School in Boston. These three groups of buildings are rather widely separated, and for this reason it was difficult to bring together the exact registration.

The opening session was held in Huntington Hall, Massachusetts Institute of Technology, on Monday morning, December 27. Addresses of welcome were given by President McLaurin, of the Institute of Technology, and by Dean W. C. Sabine, of the Graduate Scientific School of Harvard, representing the president of Harvard University. On Monday night the address of the retiring president, Prof. T. C. Chamberlin, of the University of Chicago, was delivered in Sanders Theatre, Harvard University. His subject was a geologic forecast of the future opportunities of our race. The address was preceded by an address of welcome at Harvard University by Prof. F. W. Putnam, a past-president of the association, and who, from 1873 to 1898, was its permanent secretary. After the address a reception was held by the corporation of Harvard University in Memorial Hall. During the week the addresses of the vice-presidents (or chairmen) of the sections were given on the different afternoons as follows:—

Vice-President Keyser, before the Section of Mathematics and Astronomy, the thesis of modern logic; Vice-President Guthe, before the Section of Physics, some reforms needed in the teaching of physics; Vice-President Kahlenberg, before the Section of Chemistry, the past and future of the study of solutions; Vice-President Swain, before the Section of Mechanical Science and Engineering, the profession of engineering and its relation to the American Association for the Advancement of Science; Vice-President Willis, before the Section of Geology and Geography, the principles of paleogeography; Vice-President Herrick, before the Section of Zoology, evolution of intelligence and its organs; Vice-President Richards, before the Section of Botany, the nature of response to chemical stimulation; Vice-President Woodworth, before the Section of Anthropology and Psychology, racial differences in mental traits; Vice-President Holt, before the Section of Social and Economic Science, the gold question; Vice-President Howell, before the Section of Physiology and Experimental Medicine, chemical regulation in the animal body by means of activators, kinases, and hormones; Vice-President Dewey, before the Section of Education, science as a method of thinking and science as information in education.

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The meeting was marked by a series of joint meetings between sections of the association and corresponding affiliated societies. By virtue of a resolution adopted by the council at its April meeting, sectional committees arranged in almost every case one or more sessions of general interest, conducted under the auspices of the sectional officers, while programmes of papers of a strictly technical character and of interest limited to specialists were read under the auspices of the affiliated societies. This arrangement was particularly happy in the cases of Section A and the American Mathematical Society; Section B and the American Physical Society; Section C and the American Chemical Society; Section E and the Geological Society of America; Section F and the American Society of Zoologists; Section G and the Botanical Society of America; and Section H and the American Anthropological Association. Under Section K an important symposium on the subject of internal secretion was held, at which the following papers were presented:—A general review of the chemical aspect of internal secretion, by R. H. Chittenden; the internal secretion of the pancreas, by W. G. McCallum; our present knowledge of the thyroid function, by S. P. Beebe; metabolism after parathyroidectomy, by J. V. Cook; and physiological consequences of total and of partial hypophysectomy, by H. Cushing.

On Tuesday evening, December 28, a public lecture complimentary to the citizens of Boston was given by Dr. C. W. Stiles, of the United States Public Health and Marine Hospital Service, on the subject of the hookworm problem in the United States in reference to public health. This lecture, the subject of which is brought prominently into the public eye at this time on account of Mr. Rockefeller's gift of 1,000,000 dollars to be devoted to an effort to stamp out the hookworm in the south, was attended by a large audience.

On Thursday evening, December 30, an interesting lecture was given by Dr. John B. Smith, on the subject of insects and entomologists, their relation to the community at large.

On Wednesday evening, December 29, the Society of American Naturalists and the biologists in attendance at the meeting held their annual dinner, at which the address of the retiring president of the naturalists, Prof. T. H. Morgan, was given. His subject was "Chance or Purpose in the Evolution of Adaptation." The American Chemical Society gave its annual dinner on the Thursday evening. Other dinners of special organisations were scattered through the week.

At the meeting of the general committee, Minneapolis was chosen as the place of the next meeting, beginning December 27, 1910. The following officers were elected:—

President:—Prof. A. A. Michelson, University of Chicago. Vice-Presidents (or presidents of sections):—Section A, Prof. E. H. Moore, University of Chicago; Section B, Dr. E. B. Rosa, Bureau of Standards, Washington; Section C, Prof. G. B. Frankforter, University of Minnesota; Section D, Prof. A. L. Rotch, Blue Hill Observatory, Boston, Mass.; Section E, Dr. J. M. Clarke, State Geologist, Albany, N.Y.; Section F, Prof. J. Reighard, University of Michigan; Section G, Prof. R. A. Harper, University of Wisconsin; Section H, Prof. R. B. Dixon, Harvard University; Section I, Dr. T. E. Burton, Cleveland, Ohio; Section K, Prof. F. G. Novy, University of Michigan; Section L, the Hon. A. Ross Hill, president, University of Missouri. Secretary, Section I, Fred C. Croxton, Washington, D.C.; permanent secretary, Dr. L. O. Howard, Smithsonian Insti-

tution, Washington, D.C.; general secretary, Prof. F. E. Clements, University of Minnesota; secretary of the council, Prof. J. Zeleny, University of Minnesota.

Grants were made to the Concilium Bibliographicum Zoologicum at Zürich, and to individuals as follows:—To Prof. T. D. A. Cockerell, to assist in an investigation of the microscopic structure of the scales of different genera of fishes; to Dr. W. D. Hoyt, to assist in an investigation upon environic relations of the alga Dictyota, which develops a rhythm in fruiting coincident with every alternate springtide; to Prof. G. J. Peirce, to assist in investigations of organisms inhabiting the alternately filling and drying salt-water pools along the coasts of central California. The last two grants are to be expended under the supervision of the standing committee upon the relation of plants to climate.

#### THE MEAN HEIGHT OF THE ANTARCTIC CONTINENT.

PROF. W. MEINARDUS gives the results of an estimate of the mean elevation of the central core of the Antarctic land mass, based on the distribution of atmospheric pressure and consequent exchange of air between the two hemispheres, in the November and December numbers of Petermann's *Mitteilungen*. Extending Spitaler's results with the help of Mohn's discussion of the *Fram* observations, and Baschin's maps of the southern oceans, Prof. Meinardus finds that, while the mean pressure (not reduced to sea-level) is 0.85 mm. higher in January than in July between latitudes 0° to 80° N., in the zone 0° to 50° S. it is 2.14 mm. lower. In higher southern latitudes, as far as 60° S. lat., the January pressure is 0.73 mm. less than the July, and from 60° S. to the Antarctic circle the relation is almost one of equality. Hence, allowing for proportional areas, it follows that within the Antarctic circle the true atmospheric pressure must be 11 mm. higher in January than in July.

Observation, however, has so far failed to reveal the existence of this excess; the diminution of the southward temperature gradient and consequent weakening of easterly winds on the edge of Antarctica in summer render it probable that, as in the north polar region, the pressure at sea-level is actually lower in summer than in winter. The discrepancy can be explained by assuming a mean elevation for the area within the Antarctic circle, and taking  $-3^{\circ}$  and  $-26^{\circ}$  as the mean temperatures for January and July respectively. Prof. Meinardus gets a value for this of 1328 metres, or, as a second approximation with temperatures  $-6^{\circ}$  and  $-29^{\circ}$ , 1350 metres, with a probable error of  $\pm 150$  metres. Having regard to the proportion of the area known to be covered by sea, the land surface is taken as 14 millions of square kilometres (Bruce and Krümmel), and its mean height then becomes 2000 metres, with a probable error of  $\pm 200$  metres.

Recent explorations suggest that this value is not far from the truth, the covering of inland ice being, as in Greenland, an important factor. If it is approximately correct, Antarctica is the largest mass of raised land in the world; it is half as large again as Europe, and Asia, the highest of the known continents, has a mean elevation of less than half (950 metres). The accepted value of the mean height of the land surface of the world, 700 metres, is raised to 825 metres, and the mean level of the physical surface of the globe from 205 to 240 metres.

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#### THE NATURAL HISTORY MUSEUM.

IN NATURE of December 16 and 30 we reprinted from the *Times* some letters dealing with this subject. We were under the impression that the main point of contention was the complete separation of the Natural History Museum from the other collections in the British Museum, as recommended by the Duke of Devonshire's Royal Commission in 1874, to go no further back.

Sir Archibald Geikie has since pointed out to us that the questions put to him in the letter from the Speaker of the House of Commons to which he replied "were entirely in reference to the relations between the Trustees and the Museum," and that, this being so, we should have given a letter from Mr. Carruthers dealing with this point which had also appeared in the *Times*. We therefore now reprint the letter in question:—

Sir,—The President of the Royal Society, Sir Archibald Geikie, has expressed clearly his view on the questions in relation to the administration of the British Museum recently raised in your columns. A former eminent President, Prof. Huxley, was brought by his experience as Trustee, as Sir Archibald has been, to similar favourable conclusions.

It was notorious that Prof. Huxley severely criticised the governing body of the Natural History Departments of the British Museum. He had expressed this view to me personally, but, after he had been some time a Trustee, he spontaneously informed me that he had totally changed his opinion, and that he could not imagine a more efficient system of administration. This, I must add, was previous to 1898.

As Keeper of Botany for twenty-four years, I cannot recall a single occasion in which my department suffered from the action of the Trustees. I always found them intelligent and sympathetic in the affairs of the department.

WILLIAM CARRUTHERS.

#### NOTES.

THE council of the Royal Astronomical Society has awarded the gold medal of the society to Prof. F. Küstner, director of the University Observatory of Bonn, for his catalogue of stars, his pioneer determination of the aberration constant from motions in the line of sight, and his detection of the variation of latitude.

THE Geological Society of London will this year award its medals and funds as follows:—Wollaston medal, to Prof. W. B. Scott; Murchison medal, to Prof. A. P. Coleman; Lyell medal, to Dr. A. Vaughan; Wollaston fund, to Mr. E. B. Bailey; Murchison fund, to Mr. J. W. Stather; Lyell fund, to Mr. F. R. Cowper Reed and Dr. R. Broom.

PROF. R. MELDOLA, F.R.S., has been elected an honorary member of the Sociedad Española de Física y Química.

PROF. W. TRABERT has been appointed director of the k.k. Zentralanstalt für Meteorologie und Geodynamik at Vienna.

M. G. EIFFEL has been elected president of the Meteorological Society of France for 1910, and M. Teisserenc de Bort and Dr. de Valcourt vice-presidents.

THE death is announced, at the age of ninety-one years, of Dr. George Skene Keith, formerly a well-known Edinburgh physician. Dr. Keith was the author of the book "Plea for a Simpler Life," which had a wide circulation, and of other works.

By the will of the late Sir Alfred Jones, the sum of about 500,000*l.* will be at the disposal of the trustees "for