

SCIENCE

EDITORIAL COMMITTEE: S. NEWCOMB, Mathematics; R. S. WOODWARD, Mechanics; E. C. PICKERING, Astronomy; T. C. MENDENHALL, Physics; R. H. THURSTON, Engineering; IRA REMSEN, Chemistry; J. LE CONTE, Geology; W. M. DAVIS, Physiography; O. C. MARSH, Paleontology; W. K. BROOKS, C. HAET MERRIAM, Zoology; S. H. SCUDDER, Entomology; N. L. BRITTON, Botany; HENRY F. OSBORN, General Biology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; J. McKEEN CATTELL, Psychology; DANIEL G. BRINTON, J. W. POWELL, Anthropology.

FRIDAY, JUNE 25, 1897.

CONTENTS:

<i>The American Association for the Advancement of Science</i>	965
<i>Internal Secretions Considered from a Chemico-physiological Standpoint</i> : R. H. CHITTENDEN.....	966
<i>A Case of Primitive Surgery</i> : FRANK HAMILTON CUSHING.....	977
<i>The Influence of Environment upon the Biological Processes of the Various Members of the Colon Group of Bacilli: an Experimental Study</i> : ADELAIDE WARD PECKHAM.....	981
<i>The Virginia Colony of Helix Nemoralis</i> : T. D. A. COCKERELL	985
<i>Current Notes on Meteorology</i> :— <i>Navigation in Fog; Hydrographic Cloud Types; Recent Publications</i> : R. DEC. WARD.....	986
<i>Current Notes on Anthropology</i> :— <i>The Antiquity of Bornholm; The Chaco Tribes; The Celts and their Wanderings</i> : D. G. BRINTON.....	988
<i>Scientific Notes and News</i>	989
<i>University and Educational News</i>	992
<i>Discussion and Correspondence</i> :— <i>Is the Loess of either Lacustrine or Semi-marine Origin?</i> J. E. TODD. <i>Monument to the late Buys-Ballot</i> : A. LAWRENCE ROTCH. <i>Organic Selection</i> : C. LLOYD MORGAN.....	993
<i>Scientific Literature</i> :— <i>Merrill's Treatise on Rocks, Rock-Weathering and Soils</i> : J. B. WOODWORTH. <i>Chapman on Bird Life</i> : HARRY C. OBERHOLSER.....	995
<i>Scientific Journals</i> :— <i>The American Journal of Science</i>	998
<i>Societies and Academies</i> :— <i>The New York Academy of Sciences</i> : J. F. KEMP. <i>Zoological Club of the University of Chicago</i>	999
<i>New Books</i>	1000

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE preliminary announcement of the forty-sixth meeting, to be held at Detroit, from the 9th to the 14th of August, has been prepared by the Permanent Secretary. The arrangements have in large measure been already announced in this JOURNAL, and we hope to print later the provisional programs of the Sections. The approaching meeting has aroused much interest in Detroit and throughout the State. Strong local committees have been appointed and excellent arrangements have been made for the meetings and for the entertainment of members.

The first meeting of the Council will be at noon, on Saturday, August 7th, at the Hotel Cadillac, which will be the headquarters of the Association. The offices of the local committee and of the Association, as well as the halls for the general sessions and rooms for all the Sections, will be in the Central High School of the city of Detroit. This new school building is most admirably adapted for the purpose, and has a large number of halls of a suitable size for the meetings of the Sections; while the Auditorium Hall accommodates over two thousand persons.

On the morning of Monday, August 9th, the first general session will be held at 10 a. m. Owing to the death of Professor Edward D. Cope, the President of the Asso-

ciation, Professor Theodore Gill, of Washington, D. C., as Senior Vice-President, will call the meeting to order and introduce the President-elect, Professor Wolcott Gibbs, of Newport, R. I. Addresses of welcome will be made by Mayor William C. Maybury and Hon. Thomas W. Palmer, and President Gibbs will reply. Announcements by the General, Permanent and Local Secretaries will be made and after adjournment the Sections will be organized.

On the afternoon of Monday, August 9th, the Vice-Presidents of the Sections will make addresses as follows:

At half-past two o'clock. Vice-President Barus, before Section of Physics: 'Long Range Temperature and Pressure Variables in Physics.' Vice-President McGee, before Section of Anthropology: 'The Science of Humanity.' Vice-President White, before Section of Geology and Geography: 'The Pittsburg Coal Bed.'

At half-past three o'clock. Vice-President Beman, before Section of Mathematics and Astronomy: 'A Chapter in the History of Mathematics.' Vice-President Colburn, before Section of Social and Economic Science: 'Improvident Civilization.' Vice-President Howard (nominated by Council to fill vacancy caused by the death of Dr. G. Brown Goode) will give by request of the Council an address before Section of Zoology, subject to be announced.

At half-past four o'clock. Vice-President Mason, before Section of Chemistry: 'Sanitary Chemistry.' Vice-President Atkinson, before Section of Botany: 'Experimental Morphology.' Vice-President Galbraith, before Section of Mechanical Science and Engineering: 'Applied Mechanics.'

On Monday evening Dr. Theodore Gill will give a memorial address on the life and work of the late President of the Association, Professor Edward D. Cope.

The meetings of the Sections will follow on the mornings and afternoons of Tuesday, Wednesday, Thursday and Friday. It is expected that on two days of the week the Geological Society of America and the American Chemical Society will hold meetings occupying the time of Sections E and C.

The usual receptions and excursions have been planned, including a visit to Ste Claire

Flats, on Saturday after the adjournment. It is expected that the members of the Association at Detroit will go in a body to Toronto to join in welcoming the members of the British Association to America. For this purpose special rates will probably be secured by steamer and train from Detroit to Toronto.

*INTERNAL SECRETIONS, CONSIDERED FROM A CHEMICO-PHYSIOLOGICAL STANDPOINT**

IN considering this subject from a chemico-physiological standpoint allow me at the outset to emphasize the fact, now well established, that the symptoms which follow the simple removal of a physiologically active gland from the body result wholly from the loss of the gland. You may recall that when attention was first drawn to the possibility of producing the typical symptoms of myxœdema in monkeys by removal of the thyroid gland there was a tendency to assume injury to the sympathetic or other nerves of the neck as an explanation of the phenomena, rather than to admit the possibility even of a general or limited disturbance of the metabolism of the body through chemical changes associated with removal of the gland. It was not until the experiments of Murray made clear the fact that the effects resulting from the removal of the thyroid in man could be overcome, in part at least, by administration of the gland-substance that scientific investigation took the proper turn and a full realization of the possible importance of the so-called ductless glands and their internal secretions began to dawn upon the mind. To-day, however, we recognize their functional activity as a necessary element for the welfare of the body. Their removal, or any impairment of their function, may produce even more disturbance of physiological equilibrium than a corresponding disarrangement of glands formerly consid-

*Read at the Fourth Triennial Congress of American Physicians and Surgeons, May 5, 1897.