

cases the saving is much greater. If any zoologist familiar with the best bibliographical resources considers how he should go to work to ascertain what has been published in the past five years in regard to some comparatively minute question, such as the fauna of Sumatra, a minute's reflection will suffice to show that it would be a task of many weeks to obtain a complete answer to such a question. Yet a subscriber to the faunistic part of the bibliography of the Concilium would require only a few seconds to find the 85 publications dealing with the subject. Some of the latter, indeed, bear titles which would appear to preclude any reference to Sumatra and thus be likely to be missed by the student altogether. These 85 references would have cost the subscriber sixteen cents. Surely no argument is necessary to prove the value of the work nor the extreme cheapness of the service.

The general statement contains a key by which subscribers can verify their subscriptions and rest assured that they have received all that has been last published on any subject. The zoological and anatomical subjects include 760, 8,371 and 2,007 cards respectively during 1901. There are 263 cards on microscopic technique and 155 on general biology.

American subscribers will find it convenient to remit to Mr. Edwin S. Field, 427 Broadway, New York City, and also copies of the general statement for 1901 can be secured.

SCIENTIFIC NOTES AND NEWS.

LORD KELVIN is expected to arrive in New York on April 19. A reception will be given in his honor on the evening of April 21 by Columbia University, the American Institute of Electrical Engineers, the New York Academy of Sciences and other scientific societies.

LORD LISTER and Professor Virchow are among those who have been elected honorary members of the Ghent Medical Society.

DR. N. L. BRITTON, director of the New York Botanical Garden, expects to visit Cuba at the end of the present month, with a view to securing collections for the Garden. Dr. D. T. MacDougal, assistant director, is at present

in Arizona and New Mexico, making collections, particularly of giant cacti.

MR. WILLIAM T. PALMER, of the U. S. National Museum, has been engaged in investigations of the natural history of Cuba.

DR. BRANDES has been appointed scientific director of the Zoological Gardens in Halle and has resigned his position as assistant in the zoological laboratory of the University.

PROFESSOR HERMANN KOBOLD, astronomer in the Observatory at Strassburg, has removed to the Observatory at Kiel.

PROFESSOR H. BECQUEREL lectured in French before the Royal Institution on March 7. His subject was 'Radio-active Bodies.'

DR. SIMON FLEXNER, professor of pathology in the University of Pennsylvania, gave a lecture on March 18 before the Yale Medical Alumni Association on the subject 'Bubonic Plague.'

AN address on 'Immunity' was delivered on March 7 before the students of Jefferson Medical College, Philadelphia, by Dr. W. H. Welch, of the Johns Hopkins University.

At the meeting of the Michigan Academy of Science to be held at the University of Michigan on March 27, 28 and 29, a public lecture will be given by Major Walter Reed, of the Army Medical Museum, at Washington, chairman of the U. S. Yellow Fever Commission. His subject will be 'Yellow Fever.'

C. N. BROWN, professor of civil engineering in the Ohio State University and dean of the College of Engineering, died on March 6 from nervous prostration. He was forty-four years of age and had been connected with the Ohio State University as instructor and head of the department of civil engineering for the past twenty years.

DR. EMIL SELENKA, honorary professor of zoology and comparative anatomy at the University of Munich, died on January 21.

THE House Committee on Coinage has directed a favorable report to be made on the bill providing for the adoption by the United States of the metric system. It provides that after January 1, 1904, all the departments of the government, in the transaction of all busi-

ness requiring the use of weight and measurement, except in completing the survey of public lands, shall employ and use only the weights and measures of the metric system; and after January 1, 1907, the weights and measures of the metric system shall be the legal standard weights and measures of and in the United States.

THE Entomological Society of Western Pennsylvania was organized at the Carnegie Museum in Pittsburgh on the evening of March 8. Dr. W. J. Holland was elected president, Mr. F. A. Merrick, of New Brighton, secretary, and Dr. D. A. Atkinson, of Pittsburgh, Treasurer. Twenty-three persons participated in the organization. A committee with Herbert H. Smith as chairman was appointed to prepare a constitution and by-laws. The next meeting will be held on April 5.

THE thirteenth session of the International Congress of Americanists will be held in the halls of the American Museum of Natural History, New York City, October 20-25, 1902. The object of the congress is to bring together students of the archeology, ethnology, and early history of the two Americas, and by the reading of papers and by discussions to advance knowledge of these subjects. Communications may be oral or written, and in French, German, Spanish, Italian or English. All debates are expected to be brief, and no paper must exceed thirty minutes in delivery. The papers presented to the congress will, on the approval of the bureau, be printed in the volume of proceedings. Members of the congress are expected to send, in advance of the meeting, the titles and, if possible, abstracts of their papers, to the general secretary. The subjects discussed by the congress relate to: (1) The native races of America, their origin, distribution, history, physical characteristics, languages, inventions, customs and religions, and (2) The history of the early contact between America and the Old World. All persons interested in the study of the archeology, ethnology and early history of the two Americas may become members of the congress by signifying their desire to Mr. Marshall H. Saville, general secretary of the com-

mission of organization, American Museum of Natural History, New York, and remitting either direct to the Treasurer (Mr. Harlan I. Smith, American Museum of Natural History) or through the general secretary, the sum of three dollars. The receipt of the treasurer for this amount will entitle the holder to a card of membership and to all official publications emanating from the thirteenth session of the congress. Mr. Morris E. Jesup is president and the Duke of Loubat vice-president of the commission of organization.

THE American Social Science Association will hold its general meeting in Washington, beginning Monday, April 21, and closing Friday, April 25. Dr. Oscar S. Straus, president of the association, will deliver his address on the first day. The program for April 22 will be devoted to the department of social economy, of which Mr. John Graham Brooks is chairman. The department of jurisprudence, of which Dr. Francis Wayland is chairman, will hold its sessions on the 23d. General George M. Sternberg, chairman of the department of health, will preside at the session on Thursday, April 24. Dr. W. C. Woodward and Professor George M. Kober will make addresses at the morning session and General Sternberg and Mr. Charles F. Weller will be the speakers at the evening session.

THE convocation of the University of the State of New York is to be held at Albany on June 30 and July 1. On Monday evening, June 30, Dr. Nicholas Murray Butler, president of Columbia University, will deliver the principal address, on 'Fundamental Principles of Education in the United States'; on Tuesday President Schurman of Cornell University will open a discussion on 'The Elective System and its Limitations.'

THE Jefferson Memorial and Interstate Good Roads Convention will be held at Charlottesville, Virginia, on April 2, 3 and 4 under the auspices of the Office of Public Road Inquiries of the Department of Agriculture, the National Good Roads Association and the Jefferson Memorial Road Association. The

Southern Railway good roads special train, carrying twenty-two engineers and road experts and equipped with fifteen car loads of the latest improved road-making machinery, will arrive at Charlottesville on March 24, and begin the construction of the Jefferson Memorial Road which will connect the home and tomb of Thomas Jefferson with the University of Virginia, which he founded.

THE managers of the New York Botanical Garden have authorized the purchase in Berlin for \$1,600 a collection of botanical works all dated prior to 1800.

THE *Osprey* states that an interesting and valuable collection of northeast African birds has been recently received by the U. S. National Museum from Dr. A. Donaldson-Smith of Philadelphia, the well-known African explorer.

AN anonymous gift of \$20,000, for the benefit of the Harvard College Observatory, has been received from a friend of the director, Professor Edward C. Pickering, who in announcing the gift says: A very urgent need of the observatory will be relieved at once by this gift. The building provided, nine years ago, for the astronomical photographs, has become wholly inadequate to contain them, owing to their continual and rapid growth. It is proposed to expend about one half of this fund in extending the present building, by the erection of a wing to the east, which will provide for the adequate storing of this collection with its probable increase for many years. These photographs furnish a history of the entire stellar universe for the last twelve years, which is not duplicated elsewhere. Whenever a new object is discovered in any part of the sky, we are therefore able to study its past history during this period. Evidently, provision should be made for extensive use of this collection by large numbers of astronomers. A much larger building, staff and endowment, than our present means permit, would be required for this purpose. Accordingly, the new wing will be so constructed that when these plans are carried out, it can be used for holding the valuable collection of astronomical books (one of the most complete in the world) belonging to the obser-

vatory. These books are now contained in a wooden building fifty years old, and are in danger of destruction by fire at any time. The remainder of the fund will be expended from time to time as urgent needs occur. It is proposed to employ a portion of it at once in studying new objects of interest on the photographs, since without it we have hitherto only been able to examine those of special importance. The value of a fund which will provide for such emergencies must be obvious. The larger plans described above, I hope, indicate the healthy and insatiable appetite of an institution which is always attempting to reach out into untrodden fields, and in which each accession suggests opportunities of still further extending its work into the unknown.

THE thirteenth session of the Biological Laboratory of the Brooklyn Institute of Arts and Sciences, located at Cold Spring Harbor, Long Island, will be held for six weeks beginning July 2, 1902. The following courses of instruction are announced: High School zoology, Drs. C. B. Davenport and S. R. Williams; comparative anatomy, Professor H. S. Pratt, of Haverford College; invertebrate embryology, Professor C. P. Sigerfoos, University of Minnesota; animal bionomics and variation, Dr. Davenport; investigation in zoology, by various instructors; cryptogamic botany, Professor D. S. Johnson, Johns Hopkins University; plant ecology, Mr. S. M. Coulter, Washington University, assisted by Louise B. Dunn, of Columbia University; seminar in the same; bacteriology, Professor F. N. Davis, Bucknell University; investigation in botany; microscopic methods, Mrs. Davenport; nature study, Mr. Roy S. Richardson, High School, Brooklyn, N. Y. Biological discussions, lectures and excursions are arranged for. The tuition is \$25 for the use of the laboratory. Board and room cost \$6 per week. The director of the laboratory, who may be addressed for further details, is Professor C. B. Davenport, the University of Chicago.

THE Ohio State University announces for the 1902 session of its Lake Laboratory at Sandusky, on Lake Erie, courses in zoology, botany, entomology, ornithology, ichthyology,

and vertebrate and invertebrate morphology. The courses of lectures and laboratory instruction open on July 7 and continue for six weeks, but the opportunities of the laboratory are open to investigators from June 15 to September 15. Investigators qualified to carry on independent research work are given the facilities of the laboratory free of expense, but persons desiring this opportunity should apply to the director as early as convenient with statement of the time during which table room is desired. A detailed circular may be had on application to the director, Professor Herbert Osborn, Columbus, Ohio.

A TELEGRAM has been received at the Harvard College Observatory from Professor Hussey at the Lick Observatory stating that from a recent Crossley photograph Professor Perrine finds no evidence of polarization in condensations *A* and *D* of the nebula surrounding Nova Persei.

Nature states that the Russian Geographical Society has awarded this year its Constantine medal to the geologist, K. I. Bogdanovitch, who has spent several years in the exploration of Central Asia and has contributed one large volume to the beautiful series of quarto volumes edited by the Society and devoted to this part of Asia. The Semenoff medal has been awarded to Professor Eduard Suess for his new classical work, 'Das Antlitz der Erde,' and the Prjevalsky medal to the zoologist, Professor Zarudnyi, the author of several most valuable works on the birds and also the geography of the Transcaspian region, and the author of a work, 'Journey to East Persia,' just published by the Society. The great gold medal of the section of statistics has been awarded to N. V. Slyunin, for his researches into the economical conditions of the inhabitants of the Okhotsk and Kamchatka coasts. Three small gold medals have been awarded to Messrs. N. P. Petrovsky, D. K. Zelenin and M. N. Kositch for ethnographical works published in the excellent ethnographical periodical of the Society, *Zhivaya Starina* (*Living Antiquities*). Professor Gordyaghin, of Kazan, has been awarded the Prjevalsky silver medal for his botanical work in East Russia, and the Sem-

enoff silver medal has been awarded to A. K. Balatovich for his journey to Lake Rudolph. A number of small silver medals have also been awarded, chiefly for meteorological work in connection with the Society's meteorological committee, or for expeditions.

Nature learns from the *Ceylon Observer* that Mr. Alexander Agassiz and his party have returned to Colombo, from their exploration of the Maldives. About three hundred photographs were taken, principally of coral-reef subjects. The principal work done was the sounding of the channels between the lagoons and the development of the plateau on which the atolls of the Maldives have been formed. The principal atolls are separated by comparatively shallow water in the central part of the group, while towards the south, between Hadumati and Suvadiva and Addu, the depths are very much greater—nearly a thousand fathoms. A line was run to the westward of Ari Atoll into fifteen hundred fathoms, and one to the southward of South Male into twelve hundred fathoms, showing that the plateau of the Maldives is much steeper on the west than on the east face. Soundings were also taken between the northern Maldives and Colombo, and they show that the Maldives are separated from the Indian continental slope by a deep bank of the ocean of more than fifteen hundred fathoms in depth. The atolls of the Maldives are said to exhibit the most simple and primitive conditions for the formation of atolls which are found anywhere except in some parts of the Yucatan plateau in the West Indies. Atolls can be found in all stages of growth, from a mere bank rising to a few feet above the plateau to banks within five or six fathoms from the surface or to banks which have just reached the surface and on which sandbanks or islets are beginning to form. Mr. Agassiz says that one reason for the success of his expedition is that the charts published more than seventy years ago are as accurate to-day as they were then. The only changes noticed were changes such as the washing away of banks or the formation of banks since the charts were published; but these are changes without any special importance.