

tary of the Smithsonian Institution would be pleased to be advised by letter or, in urgent cases, by telegraph. The Secretary would also be glad to correspond with officers who expect to visit regions where interesting animals occur.

Public recognition of gifts is made, the names of donors being placed upon the labels attached to the cages or pens, and a notice of the gifts, with the names of the donors, is also made a part of the annual report of the Secretary of the Smithsonian Institution.

A list of the most important animals that can be collected in different countries is appended hereto, and concise directions for boxing, shipping and feeding are given.

SCIENTIFIC NOTES AND NEWS.

A CABLEGRAM from Cairo dated July 27th states that Mr. N. R. Harrington, instructor in Western Reserve University, has died at Atabara of typhoid fever. Mr. Harrington was a member of the Senff zoological expedition of Columbia University, which was on its way to the upper Nile for the purpose of studying the embryology of *Polypterus*.

REPORTS from the *Elder*, carrying the party of men of science taken to Alaska by Mr. E. H. Harriman, state that the trip has been in every way successful. The steamship is now returning from Kodiak to Sitka.

MAJOR MARCHAND is to be presented with the grand gold medal of the French Geographical Society for 1900. Silver replicas will be given to all the officers of his mission. Major Marchand has been appointed to the 4th Regiment of Marines and his subordinates have also been reincorporated in the army.

MR. H. N. DICKSON, of New College, Oxford, has been given the Johnson Memorial Prize of the University for his work on 'The Currents in the North Sea.'

DR. E. A. DE SCHWEINITZ, Director of the Bio-chemic Laboratory of the U. S. Department of Agriculture and Dean of the Columbian Medical School, Washington, and Dr. R. de Schweinitz, professor of ophthalmology, of Jefferson Medical College, Philadelphia, attended a meeting of the Paris Academy of Medicine on June 12th.

DR. E. PFLÜGER, professor of physiology at Bonn, well known for his physiological researches and as editor of the *Archiv für die gesammte Physiologie*, commonly known as Pflüger's Archiv, recently celebrated his 70th birthday.

DR. V. VON LANG, professor of physics in the University of Vienna, has been elected General Secretary of the Vienna Academy of Sciences.

THE Linnæan Society of London has elected the following foreign members: M. Adrien Franchet, of Paris; Dr. E. C. Hansen, of Copenhagen; Professor Seichiro Ikeno, of the University of Tokyo; Dr. Eduard von Martens, of the University of Berlin, and Professor G. O. Sars, of the University of Christiania.

THE Liverpool Section of the Society of Chemical Industry proposes to collect £300 for the establishment of a lectureship to commemorate the services to applied chemistry of the late Dr. Ferdinand Hurter.

THE Right Rev. Charles Graves, F.R.S., Lord Bishop of Limerick, has died at the age of 87 years. He was formerly professor of pure mathematics at Trinity College, Durham, and has made many contributions to mathematics.

THE *American Anthropologist* publishes an obituary notice, by Mr. A. R. Spofford, of Mr. Manning F. Force, who died at Sandusky, Ohio, on May 8th, at the age of 75. He was one of comparatively few Americans who, while engaged in other pursuits—he was a Judge in the Superior Court—took an interest in science and contributed to its advancement. His work on the Mound-Builders of the West is a standard authority on this subject.

THE annual meeting of the corporation of the Marine Biological Laboratory will be held at the laboratory at Woods Holl, Mass., on Tuesday, August 8, 1899, at 12 o'clock, noon, for the election of officers and trustees, to act on an alteration of the by-laws and to transact such other business as may come before it.

AN International Hydrographic and Biological Congress for the discussion of the conditions of the North Sea and North Atlantic Ocean met at Stockholm on June 16th.

THE German Anthropological Society and

the Anthropological Society of Vienna will meet together at Lindau on September 4th.

At the International Congress of Zoology, which is to be held in 1901 at a place in Germany yet to be determined, the prize founded by the Czar of Russia will be awarded for the third time. The subjects proposed are: 'Influence of light in the development of colors in Lepidoptera: the causes determining the differences of color, form and structure of parts covered during the resting position in insects.' The papers may be either printed or in manuscript. There are two conditions, the grounds for which it seems somewhat difficult to understand. The papers must be written in French, and those living in the country in which the Congress is held may not compete.

MESSRS. WARNER & SWASEY, of Cleveland, the well-known telescope makers, have presented to Western Reserve University a telescope and dome and other astronomical apparatus. The telescope is a ten-inch instrument. Of its size it will probably be the best which Warner & Swasey have made. The telescope and dome will be placed on the tower of the Physical Laboratory, and will be erected, probably, early in September. Frank P. Whitman, professor of astronomy and physics, is the successor of the late Professor Elias Loomis, of Yale University, and Professor Charles A. Young, now of Princeton University.

THE National Museum, through the Bureau of American Ethnology, has just received from California the entire Hudson collection of Indian basket work. This fine collection is one which never can be duplicated, as basket making is already a dying art among the Indians. The Hudson collection numbers about 325 pieces, of which many would sell at \$100 or more each in San Francisco. It was made by Dr. J. W. Hudson during about twenty years' intimate association with the Pomo and other Pacific coast tribes. Many of the specimens are sacrificial baskets, which are made with great labor, and are seldom obtained by collectors, being burned on the death of their owners. Foreign institutions have sought to secure this collection, but failed. Professor McGee, of the Bureau, and Professor Holmes,

of the Museum, obtained an option on it last year. The price to the National Museum was almost nominal, by reason of Dr. Hudson's desire to have the collection remain in this country.

THE *Electrical World* states that but few of the priceless relics associated with the name of Volta were saved from the buildings of the Volta Centenary Exposition destroyed at Como, on July 8th. Among the articles saved was one of Volta's early piles, about twenty manuscripts, a few of his letters and a few books that had belonged to his library. An irreparable loss was that of his laboratory notes and scientific correspondence. In the accounts of the destruction of relics the first electrophorus and first absolute electrometer are not mentioned among the articles saved. Among other losses were a number of Ferraris's models and some of his manuscripts and diplomas. Among the former was the first model of the rotary field. This is presumably the same that in 1893 was forwarded to the Chicago Exposition by a vessel which was sunk in the harbor of Genoa, but subsequently raised and the model recovered and sent to Chicago, where it was exhibited.

A PRELIMINARY report, says *Natural Science*, upon the results of the scientific expedition to the island of Socotra has been issued by Mr. Henry O. Forbes, Director of Museums to the Liverpool corporation, who, under the auspices of the Royal and Royal Geographical Societies of London, and of the British Association, and in conjunction with Mr. W. R. Ogilvie Grant, representing the British Museum, undertook the investigation of the natural history of the island. The expedition occupied a period of about six months, and the investigations were conducted amid considerable difficulties. At one time all the members of the party were laid down by a pernicious form of malaria, and they also suffered from frequent attacks of fever. The party was fortunate in discovering many new species of plants and animals, and a valuable collection has been brought home. According to the report the Socotrians are only poorly civilized Mahommedans, living in caves or rude cyclopean huts, and possessing but few

utensils, implements or ornaments, and no weapons. The ethnographical collection is consequently small. The plant specimens have been handed to a well-known student of the flora of Socotra, Professor I. Bailey Balfour, of Edinburgh University, who describes them as of high scientific interest and of great commercial value. The cultivation of some of them is being undertaken in the Royal Botanic Garden at Edinburgh. The report concludes by congratulating Liverpool on being the first provincial corporation to further the advancement and increase of knowledge by actively sharing in the investigation of unknown regions.

THE *Auk* reports the return of Mr. George K. Cherrie from his expedition to Venezuela, where he spent twenty-one months collecting for the Tring Museum. His field was the Valley of the Orinoco, from Ciudad Bolivar to the Ventuari River, above the falls and beyond San Fernando de Atabapo. He devoted his time almost exclusively to birds, but collected some insects and small mammals. Many nests and sets of eggs were forwarded with the birds. He reports that collecting between Ciudad Bolivar and the first falls of the Orinoco was rather disappointing and monotonous; while individuals were abundant the species were surprisingly few. Above the falls the fauna changed rapidly; the number of species increased, and with every move up the river new forms appeared. Fly-catchers, Wood-hewers and Ant-thrushes were the dominant forms, while there was a striking scarcity of Humming-birds. Mr. Cherrie's work was cut short by serious illness, which compelled his withdrawal from the country with his work only begun.

IN reply to a recent letter from the Liverpool School of Tropical Diseases in regard to the prospective research expedition to West Africa the Colonial Office write, according to the *London Times*, that "Mr. Chamberlain had learned with great satisfaction that the expedition of the Liverpool School is being sent, and appreciates the energy and public spirit shown by the Committee of the School in the matter. The authorities at Sierra Leone will be instructed to give every facility to the work of the expedition." The Colonial Office have also sent

for the use of the School valuable medical and sanitary reports of various tropical colonies, and the India Office have sent their medical publications. The British Museum directors have been invited to send with the expedition their dipterologist, Mr. E. E. Austen, offering to pay his expenses. The expedition is expected to throw an important light on the theory held by Major Ross and others as to the propagation of malaria by mosquitoes. The expedition was to start on July 29th and proceed direct to Sierra Leone, and will set to work at once in a district which then happens to be peculiarly unhealthy. It is intended afterwards to make investigations at Accra. The Belgian government have sent an officially-appointed delegate, Dr. S. Van Neck, to visit the Liverpool School of Tropical Diseases and accompany the expedition.

Natural Science states that the Indian Marine Service steamer, the *Investigator*, has recently closed a season of surveying, with important results both for navigation and zoology. The *Investigator*, starting from the Moulmein River, in Burma, last January, steadily surveyed—and her surgeon-naturalist, Captain Anderson, trawled—across the bay to the northern end of the great Andaman, and fixed the position of the island for the first time. Thence the longitudinal position of Port Blair, the capital of the penal settlement of the government of India, was fixed by running a meridian distance to Double Island, off Burma. When at work in the Middle Straits, between the two largest islands, the ship's staff had the assistance of forty tamed Adamanese pigmies against their as yet savage countrymen, who of late have killed several of the Indian convicts near Port Blair with poisoned arrows. The fifteen islands in the three groups of the Cocos, four Andamans and nine Nicobars, will henceforth be a help instead of a danger to the busy mercantile marine plying between Calcutta, Madras, Burma and the Straits Settlements. The deep sea trawl went down in some cases from 480 to 800 fathoms, from which Dr. Anderson brought up not a few valuable additions to his collections.

THE Seine below Paris is now free from sew-

age. A law of July 10, 1894, allowed five years for this operation, and it has been punctually accomplished with two days to spare. The great collector at Clichy has been closed, and henceforth half a million cubic meters of sewage daily will, instead of being discharged into the Seine, find an outlet at Achères, Méry and Gennevilliers, to be spread over 3,500 hectares of land.

UNIVERSITY AND EDUCATIONAL NEWS.

THE Ahearn bill, passed by the recent New York Legislature, allows \$96,000 to be spent on free lectures next year in New York City, being an increase of \$36,000 over last year. The lectures are largely on scientific topics and are doing much for the education of the people.

WE learn from *Natural Science* that the colonies of the west coast of Africa have adopted a scheme whereby picked boys shall be sent for training in horticulture and economic agriculture, first to Jamaica and afterwards to Kew Gardens. This scheme is due to the success that attended the experiment initiated by the then Governor, Sir A. Maloney, of sending in 1890 two native lads from Lagos to be trained as gardeners at the Jamaica and Kew Gardens. After spending two years and a half in Jamaica they were attached to Kew Gardens for some months, and are now in charge of branch botanic stations in Lagos, growing and preparing agricultural products and giving instruction.

DR. W. WACE CARLIER, in the University of Edinburgh, has been appointed professor of physiology in Mason University College, Birmingham.

DR. ADELBERT VON WALDENHOFEN, professor of applied electricity at the Vienna School of Technology, has retired, after more than fifty years of service.

PROFESSOR A. WILMER DUFF, now of Purdue University, Lafayette, Ind., has accepted the professorship of physics in the Polytechnic Institute, Worcester. Professor Duff received his B. A. degree in 1884 in New Brunswick, after which he went to Europe for advanced study in the University of Edinburgh. Here he studied with the distinguished physicist,

Professor Tait, and in 1888 received the master's degree, with first-class honors, in mathematics and mathematical physics, receiving also a fellowship in physics. In 1888 and 1892 Professor Duff studied in Berlin, having, in 1889 and 1890 filled temporarily the professorship of physics in Madras, India. Since 1893 he has filled the chair in physics at Purdue University with great success. He is a fellow of the American Association for the Advancement of Science, and has made a number of important investigations in physics which have been published in the *Philosophical Magazine*, the *Physical Review* and other leading scientific journals. At present he is engaged on some researches on sound, of great scientific and practical importance.

PROFESSOR A. W. FRENCH, formerly of the Thayer School of Civil Engineering, Dartmouth College, has been appointed professor of civil engineering in the Worcester Polytechnic Institute. Professor French was educated at Dartmouth College and at the Thayer School of Civil Engineering, from which he received the degree of C.E. in 1892. The Thayer School is well known to be of the first rank in the United States as a graduate school of civil engineering. Its courses are probably more exacting and extensive than those of any other institution. After his graduation Professor French spent two or three years in practice, serving as assistant engineer to Tower Brothers, of Holyoke, and as engineer in charge of the Platte River Paper Mills. Subsequently he was engineer in charge of the Denver and Platte Pumping Station, and this was followed by an appointment as assistant engineer on the Denver and Gulf Railway, especially in bridge designing. In July, 1895, he was called to an associate professorship in the Thayer School, from which he was graduated. He filled this chair most acceptably to the Director, Dr. Robert Fletcher, until 1897, when he resigned for the purpose of again taking up the practice of his profession with the object of obtaining a more varied experience in actual field and construction work. During the past two years he has been the principal engineer of the Niagara Engineering Works, Niagara Falls, New York, which position he leaves to come to Worcester.