

minerals of New Spain. His 'Natural History' was printed in 1651 and is a storehouse of the knowledge of the Aztecs on that subject. In describing a plant he always gave its native name and how employed by the Indians.

In the *Anales del Instituto Medico Nacional*, Tom. II., No. VI., 1898, is an article by Dr. F. Altamirano, in which he endeavors to identify the plants mentioned by Hernandez and give their modern botanical names. He quotes fifty-one, assigning most of them to genera and species, and adds the modern uses to which they are applied. The article forms a useful appendix to Hernandez.

SEXUAL DIMORPHISM IN MAN.

In a pamphlet of about forty pages Prof. Dr. Giuseppe Marina sums up the results of his measurements of 22,755 adults, Italians, Slavs and Germans. His studies tend to diminish the value of the skull-form as a criterion and to cast doubt on the 'criminal type.' But the most novel of his results relate to the relation of the sexual characteristics in general to the pelvic diameters. He formulates the law that in proportion as the pelvic index in the one sex approaches that of the other, this similarity will be correlated to a cranial form and capacity, and to a number of traits, physical and mental, which belong to the other sex. Feminilism in the male, for example, is displayed by the length of the iliac crests, the shortness of the inferior extremities, a wider pubic angle, ampler cotyloid cavities, greater distance of the umbilicus from the pubis, development of the mammæ, etc. Dr. Marina points out that these traits are racial, sexual dimorphism being much more marked in some than in other stocks. The point is of wide-reaching significance. (*Studi Antropologici sugli Adulti*. Torino, 1897. Fratelli Bocca.)

HEREDITY ; A CONTRAST.

In the *Revue Scientifique* for April last Dr. Cesare Lombroso, in an able discussion of the relative influence of heredity and environment, announced the conclusion that "the influence of environment is potent enough to annihilate all ethnic traits."

At the meeting of the German Anthropological Society in August of this year Professor Kollmann, of Basel, in an address on the same subject, stated the dictum of science to be that "the influence of heredity is far stronger than that of environment. The ethnic traits are immortal and persist, though the peoples who bear them may disappear from history." (*Globus*, Aug. 27, 1898.)

These are two of the most eminent authorities among European anthropologists. As the traditional circus man said: "You pays your money and you takes your choice."

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SCIENTIFIC NOTES AND NEWS.

THE CONFERENCE ON AN INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE.

THE Second Conference on an International Catalogue of Scientific Literature began its sessions in the rooms of the Royal Society on October 12th. On the preceding evening the President and Council of the Society gave an 'At Home' to meet the delegates, and a dinner followed on the evening of the 12th. The foreign delegates in attendance at the opening of the Conference were: France, Professor Darboux and M. Deniker; Austria, Professor Weiss and Professor Boltzmann; Hungary, Dr. A. Heller and Dr. Theodore Duka; Holland, Professor Korteweg; Belgium, M. Descamps, M. Otlet and M. Lafontaine; Switzerland, Dr. J. Henri Graf and Dr. Jean Bernoulli; Japan, Professor Einosuke Yamaguchi; Norway, Dr. J. Brunchorst; Sweden, Dr. E. W. Dahlgren; United States, Dr. Cyrus Adler. Men of science throughout the world are greatly interested in

the plan of an international catalogue of scientific literature, and it is to be hoped that an opportunity will be given for full discussion and careful consideration before the final arrangements are made. We regret to state that no such opportunity has been hitherto offered. SCIENCE, as other scientific journals, was unable to secure satisfactory information regarding the first Conference at the time, though we were fortunate in being able to publish (Vol. VI., pp. 184-201) a year later an admirable account of the Proceedings, based upon official documents, by Dr. Cyrus Adler, the delegate from the United States to the present Conference. No similar accounts, so far as we are aware, have been given in other scientific journals, nor is this surprising, as the Proceedings of the last Conference were not distributed, only two copies, it is said, having been sent to America. Scarcely any mention has been made of the schedules of classification which have recently been drawn up, and which will doubtless be discussed by the present Conference. These schedules have apparently not been sent to scientific journals nor to men of science. The schedule on anthropology has, however, been severely criticised by Dr. Brinton (SCIENCE, p. 375). At the last Conference a decimal system of classification was practically rejected, but it appears that the Committee on Organization have adopted a new system of decimal classification, and it is by no means certain that this system is better than Dewey's. We find in the English press full accounts of the reception and dinner, but as yet nothing regarding the scientific proceedings of the Conference.

GENERAL.

PROFESSOR BOWDITCH, President of the American Society of Naturalists, called a meeting in Boston and gave a dinner to the Executive Committee on the 22d ult. Professor Dean was appointed a delegate to represent the New York Local Committee. The American Society of Naturalists and affiliated societies will, it will be remembered, meet in New York during the last week of the present year. We hope to be able to give full announcements regarding the meetings at an early date.

THE class of 1893 of Williams College has es-

tablished a prize of \$25 in memory of the late Franklin Story Conant, who, it will be remembered, sacrificed his life to scientific work in Jamaica. The money is to be used for a scholarship at the Woods Holl Marine Biological Laboratory.

THE Civil Service Commission announces that on December 6, 1898, the examination may be taken at any city in the United States where the Commission has a board of examiners, for the position of Chief of the Bureau of Statistics, Treasury Department, at a salary of \$3,000 per annum. The examination will consist of the subjects mentioned below, which will be weighted as follows :

Science of Statistics —	
(a) Topical,.....	10
(b) Textual,.....	5
Mathematics,	5
Literature of statistics,	10
Practical statisticism—	
(a) Tabulating,	5
(b) Analysis and graphics,.....	5
(c) Commercial statistics,.....	10
General and technical education,	20
Administration—	
(a) Positions held and experience,....	15
(b) Essay,	15
Total,	100

THE Commission also invites attention to the fact that no applications were filed for the examination scheduled to be held in New York September 21, 1898, for Assistant Engineer, first-class, in the custodian service in that city, at a salary of \$1,080 per annum, and that another examination is scheduled to be held on November 15, 1898.

WE learn from *Nature* that, by a decree dated August 30th last, the Belgian government has separated the astronomical from the meteorological service, each of these departments being placed under a responsible scientific director; while administrative duties, care of instruments, library, etc., are to be under the control of an inspector. The astronomical service is placed under M. C. Lagrange, and meteorology under M. A. Lancaster, each of whom will submit a report quarterly to the Minister of the Interior upon the work of his department.

THE Thompson-Yates Laboratory of the Liverpool University College was formally opened by Lord Lister on October 8th. We have already described the laboratories of pathology and physiology presented to Liverpool University College by Mr. Thompson-Yates, which, under Professors Boyce and Sherrington, are certain to make important contributions to science. Before the opening of the laboratories, Lord Lister was invested with the honorary doctorate of science of the Victoria University, and made an address. There was further a banquet given by the Lord Mayor, at which speeches were made by the Lord Mayor, Lord Lister, Earl Spencer, Mr. Edward Lawrence, Sir William Turner, Professor Foster, Principal Glazebrook, Professor Sherrington and Professor Virchow.

It is proposed to erect a suitable memorial to James Clerk Maxwell, in the parish church of Corsock, of which he was a trustee and elder. Subscriptions may be sent to the Rev. George Sturrock, The Manse, Corsock by Dalbeattie, N. B.

A MONUMENT to the memory of Sigismondo Boldoni, physician, poet and philosopher, has been erected in Milan, where he was born in 1597.

THERE will shortly be dedicated a monument to the physiologist Ernst von Fleischmarxow. It consists of a bust in profile by Emil Fuchs and will be unveiled with appropriate ceremonies.

BUSTS of General Champion de Nansouty and of M. Vaussenat, the engineer, founders of the National Meteorological Observatory on the Pic du Midi, have been recently unveiled. Addresses were made by M. Mascart and M. Bailaud, Directors of the Toulouse Observatory.

It is announced that Sir Andrew Noble will give to the Kew Observatory the installation needed to make direct comparisons with the gas thermometer. This has been hitherto lacking, although Kew is the British station for standardizing thermometers. The entire endowment of the Kew Observatory, it appears, is only £470 and the free use of a building. It is to be hoped that the government will follow the advice of their Committee on a National

Physical Laboratory, and provide the adequate endowment for a laboratory at Kew.

THE vacancy in the Assistant Directorship of Kew Gardens, says *Nature*, caused by the appointment of Mr. D. Morris as Commissioner of Agriculture for the West Indies, will not be filled. Mr. S. T. Dunn has been appointed Secretary to the Director. Upon the nomination of the Director, Mr. C. A. Barber has been appointed Government Botanist at Madras, in succession to the late Mr. M. A. Lawson.

MR. C. S. PARSONS has been appointed Director and Irrigation Engineer of the Arizona Agricultural Experiment Station.

THE British Astronomer Royal (Mr. W. H. M. Christie, C.B.) has been elected junior warden of the Clockmakers' Company, which received its charter in 1631 from King Charles I. The late Astronomer Royal (Sir George B. Airey) was also closely associated with the Clockmakers' Company.

WE regret to record the death of Professor Arzruni, mineralogist, in the Polytechnic Institute at Aix, and of the geologist de Windt, while on a scientific expedition to Lake Tanganyika.

THE 'Harben Lectures' in connection with the Institute of Public Health, London, will be delivered by Sir Richard Thorne Thorne, on November 2d, 9th and 16th. The subject will be 'The Administrative Control of Tuberculosis.'

SIR DOUGLAS GALTON, K.C.B., will give, on October 17th, an address introductory to the twenty-sixth course of lectures and practical demonstrations in sanitary science arranged by the Sanitary Institute of Great Britain for sanitary officers and students at the Parkes Museum.

THE third annual meeting of the New York State Science Teachers' Association will be held at the Teachers College, Columbia University, New York City, on December 29th and 30th. The President of the Association is this year Professor Charles W. Hargitt, of Syracuse University; the Secretary is Dr. Franklin W. Barrows, of the Buffalo High School (45 Park St., Buffalo, N. Y.), from whom information regard-

ing the important work of the Association may be obtained.

WE learn from *Nature* that the banquet of the Chemical Society to those of its past-Presidents who have completed fifty years' fellowship of the Society, which was postponed last June owing to the lamented death of the senior past-President, Lord Playfair, is now arranged to take place on Friday, November 11th, at the Hôtel Métropole. The past-Presidents who will then be entertained are: Sir J. H. Gilbert, F.R.S.; Sir Edward Frankland, F.R.S.; Professor Odling, F.R.S.; Sir F. A. Abel, Bart., F.R.S.; Dr. A. W. Williamson, F.R.S., and Dr. J. H. Gladstone, F.R.S.

FOREIGN scientific journals state that Professor P. Knuth, of Kiel, is starting this month on a scientific expedition round the world, extending over from eight to ten months. He proposes a considerable stay in Buitenzorg, Java, visiting India on his way, and afterwards China and Japan, Honolulu and North America. Professor K. Goebel, of Munich, is also starting, this autumn, on a botanical journey to Australia and New Zealand.

MR. N. R. HARRINGTON gave a lecture, on October 24th, at Columbia University on the Senff Zoological Expedition, reported in the last issue of this JOURNAL.

THE University of Pennsylvania and the Academy of National Sciences have received valuable collections of specimens from Alaska, secured near Point Barrow, as the result of a scientific expedition under the management of E. A. Mearns, of Louisiana, fitted out and conducted by N. G. Buxton, of Ohio, and W. E. Snyder, of Wisconsin. The Boston *Transcript* states that there are nearly 13,000 specimens in all. The zoological, botanical and ornithological specimens, which constitute the largest part of the collection, have been disposed of to the Academy of Natural Sciences, while the ethnological and anthropological portion will enrich the already large collection in the Museum of Archaeology and Paleontology at the University of Pennsylvania.

THE city of Bombay has provided for the establishment of a laboratory under the Directorship of Dr. Galeotti, professor of pathology in

Florence, for the preparation of Professor Lustig's curative serum for the plague.

THE California State Board of Health has appointed Dr. C. A. Ruggles, President of the Board, to visit the Hawaiian Islands, to learn the extent of the presence of leprosy and report measures to prevent its introduction into California. Since the annexation of Hawaii its inhabitants are free to come to the United States, and it is the intention of the Board of Health to prepare a report for submission to the Legislature which will suggest safeguards against the spread of leprosy in California.

THE following figures regarding the relative cost of the military and educational establishments of four leading nations deserve careful consideration at the present time:

	Army and Navy.	Education.
Great Britain . . .	£40,650,000	£10,140,000
Germany	32,840,000	12,120,000
France	36,570,000	7,920,000
United States . . .	16,700,000	36,890,000

In round numbers France spends seven times as much in preparation for war as in preparation for peace, Great Britain four times as much and Germany two and a-half times as much, whereas America has hitherto spent more than twice as much for education as for armaments. If the military expenditures of the United States must be increased, let the expenditures for education be increased in at least the same ratio.

DR. HERMANN NOTHNAGEL, professor of pathology in the University of Vienna, has been carrying out in his laboratory experiments on the bacillus of the bubonic plague, which have resulted disastrously. The assistant in the laboratory, Dr. Barisch, contracted the plague and died. The physician, Dr. Müller, and the two nurses who attended him have also contracted the disease and Dr. Müller has died. The lectures at the pathological institute have been suspended, and all Dr. Nothnagel's assistants and attendants have been isolated. The government has appointed a committee, containing representatives of national and municipal bodies, to devise measures to prevent the spread of the plague.

IRVING W. FAY, professor of chemistry in the Brooklyn Polytechnic Institute, while show-

ing an experiment to his class, it is said, with liquid air and red phosphorus, met with an accident, through a violent explosion, which may cause the loss of his eyesight. One of the students was also injured.

AN inquest has been held in London in regard to the cause of the death of Harold Frederick, the well-known novelist and newspaper writer, owing to the fact that he was attended in his illness by a 'Christian Scientist.' The physicians who had been dismissed testified that he had suffered from rheumatic fever and paralysis and declared their belief that he would have recovered with proper treatment. According to English law the 'Christian Scientist' may be prosecuted for manslaughter.

THE report of the principal chemist upon the work of the Inland Revenue Branch of the Government Laboratory of Great Britain for the year ended March 31, 1898, shows that the number of analyses and examinations made during the year amounted to 65,313, this being a slight increase over the previous year.

THE Navy Department is issuing to volunteers who passed examination for admission to the United States Navy during the late war with Spain, but who are not given commissions because of the early termination of the war, certificates stating the facts and the reason for their non-acceptance. The document, which is nicely got up, will be a helpful certificate for many of its recipients and a pleasant souvenir for all.

THE Museums and Lecture-rooms Syndicate, of Cambridge University, in their annual report for the past academical year, says the *London Times*, alludes to the loss the Science Schools sustained by the death of Professor Roy, the first professor of pathology. To his energy is due the establishment of one of the most successful of the departments connected with medical studies. He possessed the power of attracting workers to Cambridge, and many of his pupils now hold important posts, not only in Great Britain and the colonies, but also in the United States of America. The reports of the Woodwardian professor of geology, of the professor of botany, and of the Superintendent of the Museum of Zoology, draw at-

tention to the overcrowded state of their respective departments and the need, which is becoming increasingly urgent, for new and more spacious accommodation both for the students and the collections under their charge. The recently erected buildings for the department of mechanism have proved insufficient for the growth of the school, and the need for another lecture-room and more laboratory space has become pressing. The buildings devoted to medicine and surgery are not only in a bad state of repair, but are also inadequate and inconvenient. During the past year very considerable additions to the collections have been made. Numerous expeditions which have left Cambridge to prosecute researches in far-distant lands have returned, and the collections they have brought home are both valuable and extensive. Especial mention may be made of a series of lepidosiren and its embryos and a valuable collection of other specimens from South America, which have been presented to the Museum of Zoology by J. Graham Ker, B.A., Christ's College, and J. S. Budgett, Trinity College; of the large collections illustrating the fauna of the South Pacific coral reefs collected by J. Stanley Gardiner, M.A., Gonville and Caius College, during his recent visit in the coral-boring expedition to Funafuti, and presented by him to the same museum; and of the varied and valuable collections made by Dr. Willey (Balfour student) in New Britain and the neighboring islands. The collection of crania which Dr. Willey has presented to the Museum of Human Anatomy is mentioned by the professor, who also draws attention to the valuable donation of Egyptian skulls made by Professor Flinders Petrie. Part of the collections made by Dr. Haddon in Torres Straits in 1888-89 has been presented to the Museum of Zoology, which has been further enriched by a skeleton of the elephant seal presented by Sir W. L. Buller, K.C.M.G., and many other donations mentioned in the report of the Superintendent. The Rev. Professor Wiltshire has presented a very valuable and extensive collection of minerals to the Mineralogical Museum, and H. H. W. Pearson, B.A., Christ's College, has added to the Botanical Museum a collection of plants which he made during his recent journey to Ceylon.