

Marked progress in this direction is taking place, but until the cooperation of authors and publishing bodies has been secured it will always be difficult for the bureaux to deal effectively with the literature which they are required to index. The collection of the necessary subject-matter should become automatic in proportion as effective action is taken to secure the proper indexing of papers at the time of issue; at the same time the cost to the regional bureaux should be reduced in a corresponding manner.

At the meeting of the International Association of Academies in London last year, it was resolved to ask the several constituent academies to cooperate in the production of the catalogue in their several countries by securing the indexing of scientific journals at the time of issue. The central bureau is satisfied that it is imperative that the several regional bureaux should in every way exert their influence in order to bring about such cooperation between publishing bodies generally and the International Catalogue of Scientific Literature.

Assuming the catalogue to be established as a permanent enterprise, it can not fail to exercise an influence in various directions on the work of scientific inquiry. The suggestion has already been made to the central bureau that it should be prepared to give information as to the state of knowledge in particular subjects—as is already done, for example, by the authorities of the *Bibliographia Zoologica* in Zurich. The inclusion on the staff of the central bureau of persons able to collate such information would add much to its efficiency, and it is to be hoped that it may be possible at no distant date.

For such a purpose and in the general interests of scientific workers, it is desirable, moreover, not only that the central bureau should be provided with lists of new species but also that physical constants should be recorded on special slips in order that complete lists of such data may be tabulated.

Another suggestion which has been made to the central bureau is that at the end of ten years a decennial index of each subject should be prepared, which, if not a reproduction of the ten separate volumes, should be at least a key to them.

The present price of each annual issue is fixed at seventeen pounds to contracting bodies. Although it is most important that the price should be reduced, it is not possible, at present, to take any steps in this direction. But it will be de-

sirable to authorize the executive committee to make reductions whenever this becomes possible.

The originators of the catalogue always looked forward to the amalgamation of their enterprise with some of the existing agencies by which scientific literature is indexed, often at a considerable cost and with far more limited opportunities for collecting the necessary material than are now at the disposal of the International Catalogue. The executive committee have, therefore, great pleasure in recommending that during the period 1906–1910 the publication of the zoology catalogue be carried out in conjunction with the Zoological Society of London, by whom, during the past forty years, the well-known index of zoological literature, *The Zoological Record*, has been issued.

The agreement would be that the volumes are issued with a double title page, as volumes of the International Catalogue and as volumes of the *Zoological Record*, in both cases appropriately numbered in continuation with the volumes already issued. The cost of printing and publishing would be charged to the International Catalogue, together with a sum equal to that hitherto expended by the central bureau on special expert assistance. All further costs on account of the revision and arrangement of the material would be borne by the Zoological Society. The International Catalogue would receive the proceeds of all subscriptions and sales. The Zoological Society would appoint a committee of experts to prepare for press the material supplied by the central bureau. The committee of experts would be responsible for the scientific accuracy of the volume, whilst the central bureau would see that the volumes are produced in general accordance with the principles adopted in the catalogue as a whole.

#### SCHEDULES.

The schedules accepted for use during the first period of five years have been found in practise to answer remarkably well, except in the case of physics, which has proved to be far too narrow in its provisions.

A proposal to issue the zoology volumes in parts has been made. It appears desirable to adopt this proposal; the experience gained in connection with this subject will be of value in determining whether a similar course should be adopted in regard to other volumes.

#### SCIENTIFIC NOTES AND NEWS.

THE British Association for the Advancement of Science will meet next year at Lei-

chester, beginning on July 31. The meeting the following year will be in Dublin, and in 1909 the association will for the third time visit Canada and meet in Winnipeg.

THE University of Leeds has conferred the degree of D.Sc. on the following in connection with the York meeting of the British Association: Professor Ray Lankester, F.R.S., president of the association; Professor Alfred Grandilier, of Paris; Professor Paul Pelseuer, of Ghent; and Professor Heinrich Ruebens, of Berlin. It has further conferred the degree on the following in connection with the meeting of the association and also with the coal-tar color jubilee: Sir W. H. Perkin; Dr. Heinrich Caro, of Mannheim; Professor Albin Haller, of Paris; Professor C. Liebermann, of Berlin, and Dr. C. A. von Martins, of Berlin.

THE London correspondent of the *New York Evening Post* cables: "The sudden compulsory retirement of Ray Lankester from the directorship of the Museum of Natural History on an inadequate pension arouses general condemnation. Mr. Lankester, as testified by his presidency this year over the British Association, has rendered conspicuous services to science. The *Times* says that in any country but this it would be thought grotesque that a distinguished man of science should be treated on the same footing as an ordinary civil service clerk. No explanation has yet been vouchsafed of the cavalier treatment which Mr. Lankester has received."

WE learn from *Nature* that Sir William Crookes, Professor Eduard Suess, Professor Luigi Palazzo and Professor Orazio Marucchi were elected honorary members of the Royal Academy of Acireale (Sicily) at a meeting on July 24.

PROFESSOR CHARLES FLAHAUT, of Montpellier, has been elected an honorary member of the Zoological and Botanical Society of Vienna.

DR. GUSTAV TSCHERMAK, professor of mineralogy and petrography at Vienna, has retired from active service.

MR. GERRIT S. MILLER, JR., assistant curator, division of mammals, U. S. National Museum, has been granted a year's furlough from the

museum in order to engage in a biological survey of southwestern Europe. Dr. M. W. Lyon, Jr., has been appointed temporarily assistant curator during Mr. Miller's absence.

DR. ARTHUR HOLLICK, of the New York Botanical Garden, and Professor Edward C. Jeffrey, of Harvard University, have been making studies of the Cretaceous fossil flora of New Jersey and Marthas Vineyard for a joint work on the subject.

DR. FRANK P. WHITMAN, professor of physics at Western Reserve University, will represent the university at the celebration of the University of Aberdeen in September. He attended the York meeting of the British Association.

MR. ALFRED MOSELY will sail for New York on October 10, to assist in making arrangements for the reception of the parties of English teachers that will come to this country during the winter under his auspices. The first party of teachers, numbering about thirty, will sail for the United States on November 30, and thereafter similar parties will sail weekly.

PROFESSOR SAMUEL LEWIS PENFIELD, head of the Department of Mineralogy in the Sheffield Scientific School of Yale University, died at Woodstock, Conn., on August 14, aged fifty years.

MR. GUSTAV WILLIAM LEHMANN, chemist of the U. S. government since 1878 and chief chemist of the Baltimore Board of Health since 1896, died on August 5. Mr. Lehmann was born in Wiesbaden in 1844, and was known for his work on the electrolytic deposition of copper and on the chemistry and bacteriology of food products. He was a fellow of the American Association for the Advancement of Science and a member of the American Chemical Society and the American Institute of Mining Engineers.

DR. WALTER NGON FONG, president of the Li Shing Scientific and Industrial College of Hongkong, died of the plague at Hongkong on May 12 of this year. Dr. Fong was the first Chinese graduate of Stanford University, and was for a time instructor in the University of California. He was one of the ablest

of the Chinese who have been educated in America, and as the head of this new college was exerting a very great influence toward the modernization of Chinese education. He will be remembered as the author of an article on 'Education in China' in the *Popular Science Monthly* in 1905.

SIR JOHN BRUNNER has given £5,000 towards the completion and equipment of the additional buildings for engineering, metrology and metallurgy now in course of erection at the National Physical Laboratory.

DR. R. C. BROWN, of Preston, Lancashire, has placed at the disposal of the committee for the study of special diseases of the University of Cambridge the sum of £150 per annum for two years, for a pathological scholarship in connection with the investigations now being carried out by the committee on rheumatoid arthritis and allied diseases.

THE government steamer *Arctic* has sailed from Quebec for northern latitudes via Greenland. She will winter in Lancaster Sound.

THE series of stereoscopic cards to accompany the exercises in Titchener's 'Experimental Psychology' has now been published and may be obtained of the Chicago Laboratory Supply Company. Indicative of the interest in this topic as an aid to instruction in psychology is the announcement in the catalogue of Henry Holt and Company of a manual with accompanying photographic illustrations, on 'The Psychology of Stereoscopic Vision.' The author is Professor Jastrow, of the University of Wisconsin.

WE learn from the *Geographical Journal* that a schedule has been drawn up by the International Statistical Institute, which is intended to serve as a guide to those who may be in a position to undertake demographical research in uncivilized countries. The principal points on which information is desired are grouped under thirty-five sections, while useful hints are given whereby the inquiry may be carried out to the best advantage. It is suggested that, where possible, enumera-

tions of the population of suitably selected areas may be made, and forms are drawn up for the record of the data on the basis either of the household or the individual. When such inquiries are carried out by individuals, it is asked that the returns be sent to the office of the institute at Rome.

*Nature* states that the Institute of Chemistry has published a 'List of Official Chemical Appointments held in Great Britain and Ireland, in India and the Colonies.' The list has been compiled under the supervision of the proceedings committee of the institute by Mr. R. B. Pilcher, the secretary of the institute, and its price is 2s. net. The list is arranged in two main divisions: the first contains appointments under the departments of state and professorial appointments in the British Isles; the second section deals similarly with India and the colonies.

THE *Electrical World* states that a company has been formed at Berlin having for its object a series of experiments with motor airships. The Emperor's influence directly brought about the movement to make a systematic investigation of air navigation, and, with practically unlimited capital, to experiment with motor airships. Admiral von Hollman was elected president of the company. The directors are Herr Rathenau, Dr. Althoff, director of the Ministry of Public Worship and Instruction; Ernst Borsig, a manufacturer of locomotives; Baron von Brandenstein, Ludwig Delbrueck, Herr Schwabach, of the Bleichroeder Bank, Herr Loewe, of the Mauser Rifle Company, Wilhelm von Siemens, James Simon and N. T. Boettlinger. Captain Richard von Kachler, an engineer of repute, was elected business manager.

WE learn from *The Condor* that the Audubon Society of California was formally organized at the Los Angeles Chamber of Commerce on May 31, 1906. This regular state organization will cooperate with the National Committee of Audubon Societies at New York, and also have general supervision over the work of the local societies. An important meeting is planned for the early autumn, when

a definite plan of work will be decided upon. The officers elected at the initial meeting are: *President*, Dr. David Starr Jordan; *Vice-presidents*, Professor C. F. Holder and Dr. F. W. D'Evelyn; *Secretary*, W. Scott Way.

As we have already announced, the British Medical Association will hold its seventy-fourth annual meeting this year in Toronto. From the program, as published in the English journals, we note that thirteen scientific sections have been arranged, and will meet daily in the university buildings at 9:30 A.M., namely, anatomy, dermatology, laryngology and otology, medicine, obstetrics and gynecology, ophthalmology, pediatrics, pathology and bacteriology, physiology, psychology, state medicine, surgery, and therapeutics. On Tuesday, August 21, at 2:30 P.M., an address of welcome will be accorded to members, and the ceremony of introducing the distinguished guests and delegates will be performed. This will be immediately followed by the presidential address by Professor Reeve. At 4:30 P.M., in the university quadrangle, a reception and garden party by the president and Mrs. Reeve. At 8:30 an address in obstetrics will be delivered by Dr. W. S. A. Griffith, of London, while at 9:30 the lieutenant-governor will receive the members of the association. On Wednesday, at 2:30 P.M., an address in medicine will be delivered by Sir James Barr, of Liverpool; and in the afternoon various garden parties have been arranged. In the evening, at 8:30, an address in surgery will be delivered by Sir Victor Horsley, and this will be followed by a reception, at 9:30 P.M. On Thursday afternoon garden parties have also been arranged, while at 7:30 P.M. the president will preside at the annual dinner, when a most distinguished gathering is assured. On Friday afternoon extensive entertainments are promised to members and their friends, while in the evening will be held a grand *soirée*. On Saturday several excursions are arranged—to Niagara Power Company's plant, through the courtesy of Sir Henry M. Pellat; to Muskoka; and to Lambton, through the courtesy of the president, Mr. Austin.

THE London *Times* states that Mr. Sinclair, M.P., secretary for Scotland, received in Edinburgh, on July 1, deputations from the Royal Society of Edinburgh and the Royal Scottish Geographical Society. The former urged the claims of science in the readjustment of grants in aid and in the allocation of national buildings contemplated in the National Galleries Bill. In the bill, it was maintained no mention whatever was made of science. The financial clauses of the bill might, and probably would, be limited in their application to art and to existing buildings. No direct provision was made for the representation of science on the new board of trustees, as was recommended by the departmental committee. The new trustees might allocate the whole of the buildings on the Mound to art and evict the Royal Society of Edinburgh. Lord McLaren, vice-president, stated the case on behalf of the society, and was supported by Mr. J. W. Gulland, M.P., Principal Sir William Turner, Principal McKay, Dundee University College; Professor Cash, Aberdeen University; Professor Gray, Glasgow University, and Professor Chrystal, secretary of the society. All pointed to the important place occupied by the Royal Society of Edinburgh as a national institution devoted to scientific research. The secretary for Scotland, in his reply, said he recognized most fully that the work of the Royal Society was a national one. The proposals of the government with regard to the buildings at the Mound were to use the south building as the National Gallery, and in the building next Princes Street, known as the Royal Institution, to house the Royal Scottish Academy. The effect of that rearrangement was that the Royal Society would no longer find accommodation in the Royal Institution buildings; but the government was prepared to meet the reasonable demands of the society in a liberal spirit. He asked them to prepare a scheme for his consideration. He refused to commit himself to an alternative scheme, whereby the Royal Society and other scientific bodies in Edinburgh would combine under one roof, though he was ready to consider any proposal put before him, provided the financial arrangements were reasonable. To the deputation of

the Royal Scottish Geographical Society, who asked for representation on the board of trustees for the National Gallery and a grant from the government, Mr. Sinclair said the bill was wholly concerned with national galleries, and had no reference to scientific bodies. Apart from the question whether government assistance was possible or probable, he stated that government assistance carried with it the disadvantage of government control.

#### UNIVERSITY AND EDUCATIONAL NEWS.

THE will of the late Horace M. Potts bequeathes \$5,000 to the Hospital of the University of Pennsylvania for the endowment of a free bed, and \$10,000 to the Orphans' Home and Asylum for the Aged Insane of the Lutheran Church. Most of the remainder of his estate, valued at \$75,000, is divided between the Philadelphia Academy of Natural Sciences and the University of Pennsylvania.

MR. ANDREW CARNEGIE has promised \$30,000 to Hamline University, St. Paul, Minn., for a library building, on condition that the same amount be raised for its maintenance, which amount is at the present time nearly in hand. The building will probably be begun in the course of the next month or two.

SUIT has been instituted in the Supreme Court of the District of Columbia to compel the Catholic University of America to relinquish securities aggregating \$876,168 said to have been given the university by the late Thomas E. Waggaman a short time before proceedings in bankruptcy were begun against him. The plaintiffs declare that Waggaman permitted the attorneys for the Catholic University, to which he was indebted to the extent of about \$900,000, to select choice securities to cover his indebtedness to the institution, although it was his duty to keep all securities intact so that the complainants, as well as the university and other creditors, might have an equitable lien without priority discrimination.

TOWARDS the cost of extending the Union buildings and the furnishing and equipment of the library of Edinburgh University Sir Donald Currie and Mr. Andrew Carnegie have

each offered to contribute £6,000, provided £6,000 more is raised locally.

THE senate of London University has received from Mr. Martin White two further donations—one to provide a salary of £200 a year for Dr. Edward Westermarek, university lecturer in sociology, for a further period of five years, the other an additional sum of £700 for the establishment for five years of two scholarships a year each of the annual value of £35 and tenable for two years. In connection with Mr. White's benefaction, special courses will be delivered during the session 1906-7 on ethnology by Dr. A. C. Haddon, F.R.S., and on psychology by Dr. J. W. Slaughter, Ph.D. (Clark).

THE Medical College of Indiana, the Central College of Physicians and Surgeons and the Fort Wayne College of Medicine have become one, and as such have become a part of Purdue University under the name, 'Indiana Medical College, the School of Medicine of Purdue University.'

It is proposed to establish a chair of geography in the University of Edinburgh.

A READERSHIP in meteorology has been instituted in London University.

THE council of Nottingham University College has decided to apply for a university charter. The college, which is now in its twenty-fifth year, has over 2,000 students.

THE new science buildings of Glasgow University will be opened in the spring of next year by the Prince of Wales.

MR. ALEXANDER MACKIE, M.A., assistant lecturer in education and in philosophy, Bangor University College, has been appointed assistant professor of education in Edinburgh University.

DR. JAMES P. HILL, late demonstrator in biology and lecturer on embryology in the University of Sydney, has been appointed to the Jodrell chair of zoology in University College, London.

DR. R. A. RAISS has been appointed associate professor of scientific photography at Lausanne.