

At the beginning of the year, the permanent collection contained 124,539 books, 4,535 pamphlets, 6,290 maps and 4,552 searches, a total of 139,916. During the year 3,410 books, 4,145 pamphlets, 208 maps and 94 searches were added, and 3,680 pamphlets withdrawn. On December 31, 1931, the collection numbered 127,949 books, 5,000 pamphlets, 6,498 maps and 4,646 searches, a total of 144,093.

The loan collection contained 1,215 books at the beginning of the year. Additions were made as they were needed. Thirteen volumes were sold, and some no longer in demand were withdrawn. The duplicate collection now contains about 9,000 volumes. During the year, 3,681 volumes were added, 1,800 were sold and 1,721 presented to other libraries.

Books, pamphlets and maps received during the year numbered 12,134. Of these, 9,834 were gifts, including 237 volumes of the minutes of *Proceedings* of the Institute of Civil Engineers, from the American Society of Civil Engineers; *Proceedings* of the World Engineering Congress, Tokyo, from Mr. George D. Barron; a collection of pamphlets on petroleum, from Mr. F. G. Clapp; a collection of standard works on engineering, from the *Engineering News-Record*; sets of the *Electrical World* and *Power*, from Mr. Andrew Kidd; 243 volumes of the *Annales des Ponts et Chaussées*, from Mr. Ralph Modjeski.

Also, 130 volumes and pamphlets on railroad and public works, from Mr. F. A. Molitor; a collection of treatises upon automotive engineering, from the Society of Automobile Engineers; a collection of Russian periodicals, from the Russian Association of Engineers.

The books acquired included many already in the library. After examination, 7,857 were added to the permanent collection, 150 to the loan collection, and 3,681 were placed in the duplicate collection.

Two hundred and eighty-six maps, 248 searches and 3,943 volumes, representing 5,051 titles, were catalogued. The catalogued material now comprises 6,321 maps, 3,872 searches and 127,949 volumes, or 138,142 items in all. The number of titles or separate works, as distinguished from volumes, is 69,400. The index to the catalogue contains 37,591 subjects and the catalogue contains 450,939 cards.

The periodical index now contains 27,000 references to important articles. More than 13,000 entries were added in 1931.

One hundred and seventeen searches and 242 translations were made during the year. The number of photoprints was 41,614 for 4,585 persons. Inquiries from 5,946 members were answered by telephone and 3,620 others were assisted by mail.

## SCIENTIFIC NOTES AND NEWS

DR. W. C. MENDENHALL, acting director of the U. S. Geological Survey, after the retirement of Dr. George Otis Smith to become chairman of the Federal Power Commission, has been appointed by President Hoover director of the survey.

DR. W. W. KEEN, emeritus professor of surgery in the Jefferson Medical College, Philadelphia, president of the American Philosophical Society from 1908 to 1917, celebrated his ninety-fifth birthday on January 19.

THE eleventh award of the Faraday Medal has been made to Sir Oliver Lodge by the British Institution of Electrical Engineers. The medal is awarded not more than once a year, irrespective of nationality, for conspicuous service rendered to the advancement of electrical science.

THE Melchett Medal of the British Institute of Fuel for 1931 was presented to Professor William A. Bone, of the Imperial College of Science and Technology, South Kensington, by the president, Sir Hugo Hirst, at the Institution of Electrical Engineers, on February 1. After the presentation Professor Bone delivered the Melchett Lecture, his subject being "A Cen-

tury of Fuel Economy." Immediately afterwards Professor Bone was the guest of honor at a dinner given by the institute.

DR. ALEXANDER PETRUNKEVITCH, professor of zoology at Yale University, has been elected an honorary member of the Entomological Society of Belgium.

DR. BERTHOLD LAUFER, curator of anthropology at the Field Museum of Natural History, was elected president of the History of Science Society for the year 1932 at the meeting held in Minneapolis on December 29.

MR. HARRY A. KIDDER, superintendent of motive power of the Interborough Rapid Transit Company, has been elected president for 1932 of the United Engineering Trustees, joint agency of the four Founder Engineering Societies.

DR. B. S. PICKETT, head of the horticultural department of the Iowa State College, was elected president of the American Pomological Society at the recent meeting in Columbus, Ohio, on February 3.

DR. JAMES S. STEVENS, for forty-one years professor of physics at the University of Maine and for

thirty-seven years dean of the College of Arts and Sciences, has retired from active service.

DR. IRVING W. FAY, for thirty-five years professor of chemistry at the Polytechnic Institute of Brooklyn, will become professor emeritus on September 1. Professor Fay has been invited by the corporation of the institute to assume charge of the chemical museum and collections, and at their request he will spend a considerable part of the year in Europe visiting museums and collections in foreign universities.

MR. RALPH HOWARD FOWLER, fellow of Trinity College, Cambridge, has been elected to the John Humphrey Plummer Professorship of Mathematical Physics in the university.

DR. WOLFGANG HEUBNER, professor of pharmacology at Heidelberg, has been called to Berlin.

DR. CHARLES H. RICHARDSON, professor of mineralogy and head of the department at Syracuse University for more than twenty-five years, has been appointed director of the Natural Science Museum. He has been relieved of a large part of his teaching so as to have time for research and museum work.

MR. C. F. HOBAN has been made director of the Pennsylvania State Museum at Harrisburg to succeed Mr. Frederic A. Godcharles.

MR. ERNEST G. HOLT has been appointed director of sanctuaries for the National Association of Audubon Societies.

DR. MARION R. HARRIS, recently of the University of Wisconsin, has been appointed associate plant pathologist in the State Department of Agriculture, Sacramento, California.

DR. J. G. DAVIDSON was elected vice-president of the Carbide and Carbon Chemicals Corporation at a meeting of the Board of Directors on January 14. Dr. Davidson, who has specialized in hydrocarbon chemistry, was fellow of the Mellon Institute until he entered in 1923 the employ of the donor of his fellowship, the Carbide and Carbon Chemicals Corporation.

PROFESSOR MADISON BENTLEY, of the department of psychology of Cornell University, has partial leave of absence to enable him to direct a study of the present state of the subject of mental disorders. The study is being made under the auspices of the National Research Council and is supported by a grant from the Carnegie Foundation.

DR. JAMES HENRY BREASTED, director of the Oriental Institute of the University of Chicago, left on February 4 to visit the Mayan excavations being conducted under the direction of Dr. Sylvanus Morley by the Carnegie Institution of Washington at Chichen Itza, Dzitas, Yucatan. Dr. Breasted expects to return to Chicago early in March.

MR. H. W. KRIEGER, curator of ethnology in the U. S. National Museum, has left for the West Indies, where he will investigate shell heaps and other aboriginal remains on the islands of San Salvador and Cuba.

DR. W. D. FUNKHOUSER, dean of the Graduate School and head of the department of zoology at the University of Kentucky, has completed arrangements for a collecting trip around the world in the search for insects of the family Membracidae, a group on which he has been working for many years.

DR. TERENCE T. QUIRKE, professor of geology at the University of Illinois, is spending his sabbatical year in Canada, where his address is in care of the Victoria Museum, Ottawa.

DR. LESTER W. SHARP, professor of botany at Cornell University, will be on sabbatical leave during the spring semester.

DR. WEBSTER G. SIMON, professor of mathematics at Western Reserve University, sailed for Europe on February 3. He will work at Cambridge and in German universities, attending in September the International Congress of Mathematicians.

DR. GUSTAV BUCKY, director of the x-ray department of the Virchow Hospital, Berlin, arrived in New York on January 31. He plans to make a study of the new developments in high-tension x-ray apparatus.

DR. J. J. GALLOWAY, professor of geology and paleontology at Indiana University, is giving a series of fourteen lectures on stratigraphy, paleontology and micropaleontology at Columbia University.

DR. A. C. IVY, head of the department of physiology and pharmacology at the School of Medicine, Northwestern University, will deliver the fifth Harvey Society Lecture at the New York Academy of Medicine, on February 18. His subject will be "Factors concerned in the Evacuation of the Gall Bladder."

DR. F. F. FISH, of the bureau of fisheries of the Department of Commerce, spoke on February 1 to the departments of medical zoology of the School of Hygiene and Public Health of the Johns Hopkins University on the fungus infection of fishes in the Gulf of Maine.

DR. O. E. WHITE, director of the Blandy Experimental Farm of the University of Virginia, gave on January 7 an address on "Genetics" before the Virginia Chapter of Sigma Xi.

PROFESSOR E. G. CONKLIN, head of the department of biology at Princeton University, recently delivered the annual Somerville Lecture at McGill University.

DR. WILLEM DE SITTER, of the University of Leiden, delivered on January 26 an address at Stanford University on "The Size of the Universe." The lecture was sponsored jointly by the university and the Society of Sigma Xi.

PROFESSOR CECIL H. DESCH, of the University of Sheffield, England, lectured at the Carnegie Institute of Technology, Pittsburgh, on January 15 and 18 on "Mosaic Structures in Crystals" and "Age Hardening in Alloys." Dr. W. F. G. Swann, director of the Bartol Research Foundation of the Franklin Institute, lectured on January 21 and 22. He spoke on "Philosophic Concepts in Modern Physics" and on "Atomic Structure."

A SERIES of Lowell lectures on "Radioactivity and Geology" by Professor Arthur Holmes, of the University of Durham, will open in Boston on March 4.

THE forty-eighth meeting of the American Association of Anatomists will be held in New York at the Medical Center of Columbia University on March 24, 25 and 26. An exhibit of preparations, models and methods will be held in connection with the meeting.

THE annual spring meeting of the New York Branch of the American Psychological Association will be held in Philadelphia, at the University of Pennsylvania, on April 9.

THE International Mathematical Congress will be held in Zurich from September 4 to 12. Titles of papers intended for presentation should be sent to the Secretary of the Congress, École Polytechnique Fédérale, Zurich. The president of the committee on organization is Professor R. Fueter. The International Mathematical Union, a distinct organization, of which Professor W. H. Young is the president, will meet during the time of the congress.

FORMAL notice has been received from Dr. L. Joulin, Paris, president of the permanent committee of the International Zoological Congress, that the twelfth congress will meet in Lisbon in the summer of 1935 under the presidency of Professor Artur R. Jorge, professor of zoology at the University of Lisbon.

THE Ninth Congress of the International Society of Surgery will be held at Madrid from March 15 to 18. At the same time there will be an exhibition of surgical instruments, orthopedic apparatus and pharmaceutical preparations, under the organization of Dr. F. Coca, Lagasca 38, Madrid.

By the will of the late Lewis Cass Ledyard the New York Public Library receives \$2,000,000 and the Morgan Library \$250,000.

THE estate of Miss Lydia Thompson Morris, the value of which is estimated at \$4,000,000, will be apportioned as provided under the will of her brother,

John T. Morris, who died some years ago. Mr. Morris's will provided that after his sister's death, Compton, a 170-acre estate regarded as one of the country's finest arboretums, should pass to a corporation to be known as "The Morris Botanical Garden, School and Museum." Its endowment will come from the residue of the estate. Mr. Morris also provided that after his sister's death the Philadelphia Home for Incurables should receive \$250,000 for a new building and the Historical Society of Pennsylvania \$10,000; two trust funds of \$25,000 each are to be established for the Pennsylvania Museum and School of Industrial Art and a similar one for the Academy of Natural Sciences; the Franklin Institute received \$20,000 and smaller sums are bequeathed to societies, schools, hospitals and libraries.

THE late Frederic S. Pepper, Jr., of Philadelphia, who lived for many years as a recluse, provided in his will for a memorial to himself in the form of a \$2,500,000 hospital for the "free care and treatment of sick and injured persons." Mr. Pepper directed his trustees to set aside a similar sum as an endowment to maintain the institution, which is to be erected as part of the University of Pennsylvania Hospital. Known as the Frederic S. Pepper Memorial, the hospital is to be erected and equipped when the principal and accumulated income of the residuary estate amounts to \$5,000,000. Upon completion of the building, title is to be conveyed to the trustees of the university.

THE Presbyterian Hospital of New York inherited \$1,168,278 of the estate of Mrs. Helen M. W. Swan, who died on October 19, 1928. The hospital will receive \$116,000 additional as the principal of five trust funds upon the death of the beneficiaries.

ACCORDING to the *Journal* of the American Medical Association plans for the new \$1,500,000 building for the University Hospital, University of Maryland, will be submitted to the board of regents at its next meeting. Funds voted at the last session of the general assembly will be made available in two instalments in February and August. Plans call for a 400 bed hospital in the shape of a cross, with provision for 250 training beds. The remaining accommodations will be for persons of moderate means, including a few private rooms. The building, which will be erected either on the site of the present hospital or in the vicinity of the other university buildings about Lombard and Greene streets, will be twelve or thirteen stories high.

THE Italian government is planning to establish a graduate school in colonial medicine at the University of Modena. The school will provide courses of instruction for graduates in medicine, surgery and veterinary science, and will grant specialist diplomas.

Instruction will be given in pathology of colonial diseases, colonial hygiene, protozoology, bacteriology and serology.

THE Observatory at Lake Angelus, near Pontiac, known as the McMath-Hulbert Observatory, has been presented to the University of Michigan. It is equipped with new instruments for making motion pictures of celestial bodies. The gift is made by three amateur astronomers, all honorary curators of the University of Michigan Observatories. They are Mr. Francis C. McMath, consulting engineer; his son, Mr. Robert H. McMath, president of the Motors Metal Company, Detroit, and Mr. Henry S. Hulbert, senior judge of probate in Detroit.

AT a meeting of the president and fellows of Harvard College on January 11 it was voted to establish the Botanical Garden in Soledad, Cuba, as a branch of the Arnold Arboretum, to be called the Atkins Institution of the Arnold Arboretum.

THE herbarium of Mr. Charles C. Deam, recently acquired by the Indiana State University, contains over 60,000 specimens, on which he has based his books on the trees, the shrubs and the grasses of Indiana.

A MEETING of horticulturists was recently held at the headquarters of the Royal Horticultural Society, London, to discuss the establishment of a central research station as an aid to securing the fullest benefits

of the tariff on imported horticultural products. Mr. H. A. Tipping, who presided, said the time was opportune, because of the "Buy British" movement, to establish such a station. If the matter were left to the government it would take a long time to get anything done, and it would be still longer before any results were obtained. There were well-equipped laboratories at Wisley which would make a very good beginning for such a project. Mr. J. W. Barr, who organized the meeting, explained how a central research station would be of value to the horticultural industry in dealing with problems which required research in the laboratory or in private culture, and in securing better and more economical methods of production. He pointed out that according to official figures the annual importation of bulbs alone exceeded £1,000,000 in value. With a few exceptions these could be produced in England, if the growers possessed more knowledge of culture and propagation. Sir William Lawrence suggested that the quickest way to achieve the desired result would be to get instructors from Holland and elsewhere to teach the growing and harvesting of bulbs and early vegetable crops. A resolution was carried recording that in the opinion of the meeting a central research station should be established and requesting Mr. Barr to approach the trade organizations with regard to the setting up of a working committee.

## DISCUSSION

### DISCOVERY AND DISCOVERERS

IN his spirited appreciation of Schaudinn, the discoverer of *spirochaeta pallida*, Professor John H. Stokes<sup>1</sup> makes a serious historical omission when he states that Metchnikoff with Roux "had accomplished the first successful transfer of syphilis to apes" in 1905, for this was done already in 1875 and 1877 by Edwin Klebs. His publications<sup>2</sup> on the subject can amply confirm this. The fact is generally accepted, at least by those who are not overawed by the clamors of certain "microbe hunters" who date all advance in etiologic research from Koch, relegating to the antiquarian rubbish heap what came before from the brains and hands of Pasteur, Lister, Klebs and others. Metchnikoff himself was one of those, for he told me some years ago that he had not the slightest doubt that Klebs was the first to have seen the

*spirochaeta* and the first to have successfully inoculated apes with syphilis.

On reading carefully the two reports which antedate by nearly thirty years Schaudinn's discovery, one comes to realize at once why Klebs held in those years the undisputed leadership in an entirely new field of research. He possessed to a far greater degree than his contemporaries and coworkers in the same field (notably Pasteur, Lister and Koch) an unrivaled experience in pathological morphology, a very keen eye for microscopic analysis combined with a versatile technical talent. Stokes is amazed by Schaudinn's "astounding eyesight," which allowed him to dispense with a satisfactory dark-field equipment, substage condenser, etc. Klebs' equipment was still simpler, and again simpler was that of a Leeuwenhoeck, of a Bichat, who all made brilliant contributions to our knowledge of microscopic life—so brilliant indeed that one sometimes wonders whether we are not getting spoiled by too much and too refined an equipment.

The report under consideration states: (1) that in syphilitic lesions there are regularly found spirillar organisms, slender motile rods 2 to 5 microns long, which seem to belong in Ehrenberg's botanical group

<sup>1</sup> SCIENCE, 74: 502-6.

<sup>2</sup> Edwin Klebs, "Ueber Syphilisimpfung bei Thieren und über die Natur des syphilitischen Contagiums" (Vortrag 51. Versamml. Deutsch. Naturf. u. Aerzte, Cassel), *Prag. med. Wochenschr.*, 3: 409, 1878; "Das Contagium der Syphilis; eine experimentelle Studie," *Arch. f. exper. Pathol. u. Pharmacol.*, 10, 161 (4 plates), 1879, Nachtrag: F. J. Pick: Mittheilung üb. d. z. Impfung verwendet. Fälle.