

of eastern America to the diseases of spruces and poplars. Professor Karl Sax will continue plant breeding work. A considerable number of crosses have been made between different species of apples, cherries, lilacs and other ornamental trees and shrubs.

Professor I. W. Bailey, of the Bussey Institution, will spend the summer at the Biological Laboratory of the Carnegie Institution, Palo Alto, California. He has recently developed methods for removing tissue cells from trees, for keeping them alive and for studying them in the living condition. Professor E. M. East was at the Bussey Institution until July 15, carrying on investigations in the genetics of the genera *Fragaria*, *Nicotiana* and *Linaria*. He now goes to the Jackson Memorial Laboratory at Bar Harbor, to prepare microscopical slides of hybrids in the genus *Nicotiana*. He also has under way experiments which seek to determine whether or not plants have immunological reactions comparable to those shown by animals.

In the department of botany, Professor E. C. Jeffrey will spend the summer collecting material for investigations on the relation of parthenogenesis to intimate processes in the cell. He will be in Cape Breton Island most of the time, gathering experimental and other material for this work. Professor W. H. Weston will remain in Cambridge most of the summer, engaged in research and keeping in close touch with the graduate students and National Research fellows, and Assistant Professor R. H. Wetmore and Dr. R. H. Woodworth will conduct the summer school courses in botany. During that pe-

riod Professor Wetmore will continue the cytological investigations of the genera *Aster* and *Soledago* which he has been carrying on for some time. Dr. Woodworth will give attention to genetical and cytological studies with birches.

Dr. C. W. Dodge, curator of the Farlow Herbarium and Library, will spend the summer in Vermont, dividing his time between the manuscript of a book that he is writing on medical mycology and work on the mushroom flora of New England, undertaken by a committee of the Boston Mycological Club, of which he is chairman. Professor Roland Thaxter, of the Farlow Herbarium, will continue the preparation of drawings and manuscript for the next volume of his monograph of the Laboulbeniaceae, at his summer home in Kittery Point, Maine.

Professor M. L. Fernald, of the Gray Herbarium, accompanied on some trips by C. A. Weatherby, assistant at the herbarium, and on others by President A. S. Pease, of Amherst College, will visit localities in eastern America to study and collect little known plants. Ernst C. Abbe, graduate student, representing the Gray Herbarium, will join Noel E. Odell, a former lecturer on geology at Harvard University, as guests of Professor Alexander Forbes, in a scientific survey of the high Torngat Mountains about Ryan's Bay in northernmost Labrador. Dr. Lyman B. Smith, research fellow in botany, will continue, partly at the Gray Herbarium and partly in field work, his research for the Harvard Medical School on pollen flights and its relation to hay fever. He is collaborating with Dr. Francis M. Rackemann, instructor in medicine at the school.

## SCIENTIFIC NOTES AND NEWS

DR. CHARLES FABRY, professor of physics at Paris; Dr. Emmanuel de Margerie, professor of geology at Strasbourg, and Dr. Heinrich Wieland, professor of organic chemistry at Munich, have been elected foreign members of the Royal Society.

At the meeting of the International Union for Scientific Investigation of Population Problems, held in London on June 15, Colonel Sir Charles Close, formerly director-general of the British Ordnance Survey, was elected president to succeed Professor Raymond Pearl, of the Johns Hopkins University. The next general assembly of the union will be held in Germany in 1934.

THE Electrochemical Society has awarded the Edward Goodrich Acheson Medal for 1931 to Dr. Edwin Fitch Northrup; it will be presented at the society's meeting in Salt Lake City on September 3. From 1903 to 1910 Dr. Northrup was secretary of the

Leeds and Northrup Company, and from 1910 to 1920 assistant professor of physics at Princeton University. Since 1916 he has devoted himself chiefly to the development of high-frequency furnaces used for the melting of metals and alloys.

THE Pharmaceutical Society of Great Britain announces that the Hanbury Memorial Medal for 1931 has been awarded to Professor Hermann Thoms, of Berlin. The medal was founded in 1875 to commemorate Daniel Hanbury, a distinguished British pharmacist, and is awarded for "high excellence in the prosecution and promotion of original research in the chemistry and natural history of drugs" by a committee consisting of the presidents, for the time being, of the Chemical, Linnean and Pharmaceutical Societies, the chairman of the British Pharmaceutical Conference and one pharmaceutical chemist.

At the commencement exercises of the College of

Wooster the honorary degree of doctor of science was conferred on Professor C. G. Williams, director of the Ohio Agricultural Experiment Station.

THE degree of D.C.L. has been conferred by the University of Durham on Dr. Robert Muir, professor of pathology at the University of Glasgow.

SIR SIDNEY F. HARMER, formerly director of the natural history departments of the British Museum, has been elected an honorary member of the French Zoological Society.

DR. HERMANN STIEVE, professor of anatomy at Halle, has been elected to membership in the Academy of Sciences at Upsala.

PROFESSOR W. H. HOFFMANN, of the Finlay Institute, Havana, has been elected a member of the International Leprosy Association.

DR. SAMUEL W. STRATTON, chairman of the corporation of the Massachusetts Institute of Technology, formerly director of the Bureau of Standards, celebrated his seventieth birthday on July 18.

DR. PETER MÜHLENS, professor of tropical medicine and hygiene at Hamburg, has been named professor *honoris causa* of the National University of Mexico.

DR. RUDOLF LADENBURG, of Berlin, has accepted an invitation to spend the next academic year at Princeton University.

DR. W. W. JAMESON, professor of public health in the London School of Hygiene and Tropical Medicine, has been appointed dean of the school, in succession to the late director, Sir Andrew Balfour.

DR. CECIL EDGAR TILLEY, of Emmanuel College, has been elected professor of mineralogy at the University of Cambridge.

DR. CARL VON FABER, director of the Buitenzorg Botanical Institute, Java, has been called to the University of Vienna.

DR. HERBERT F. PRYTHERCH was recently appointed director of the station of the Bureau of Fisheries at Beaufort, North Carolina, and aquatic biologist in charge of South Atlantic oyster investigations. In June, 1931, he received the degree of doctor of philosophy at the University of Pennsylvania after completing graduate research work under Dr. C. E. McClung.

DR. WILLIAM GERRY MORGAN, past president of the American Medical Association, and professor of gastro-enterology in Georgetown University School of Medicine for twenty years, has been appointed a member of the board of regents of the university.

DR. ALICE HAMILTON, assistant professor of indus-

trial medicine at the School of Public Health of Harvard University, who recently received an Oberlaender Trust award, will study communicable occupational diseases in Germany.

THE Board of Scientific Directors of The Rockefeller Institute for Medical Research announces the following appointments on the scientific staff: *Associate*, Irvine Heinly Page; *Assistants*, Newell M. Bigelow, Albert Claude, J. Theodore Geiger, Harry S. N. Greene, Stanton A. Harris, John L. Jacobs, Esben Kirk, Douglas A. MacFadyen, David K. Miller, Ronald S. Saddington, Henry W. Scherp, Francis F. Schwentker, Wendell M. Stanley, Edward E. Terrell; *Fellows*, James H. Jensen, C. William Lacaille, Jr., Ralph G. Schott, Lester W. Strock, John E. Stumberg, Peter S. Yang. The following promotions have been made: *Associate to Associate Member*, Oskar Seifried; *Assistant to Associate*, George P. Berry, Elmer E. Fleck, Thomas Francis, Jr., Raymond C. Parker, Robert E. Steiger.

DR. CHARLES A. WATERS, associate professor of roentgenology at the Johns Hopkins Medical School, and Mrs. Waters have sailed to participate in the third International Congress of Radiology in Switzerland.

DR. FRANCIS F. LUCAS, metallurgist of the research staff of the Bell Telephone Laboratories, was the recent guest lecturer of the Henry Marion Howe Memorial, delivered under the auspices of the American Institute of Mining and Metallurgical Engineers, Iron and Steel Division, at the Engineering Societies Building.

THE summer meeting of the American Astronomical Society will be held at the Perkins Observatory, Ohio Wesleyan University, Delaware, Ohio, on September 7, 8 and 9.

THE American Public Health Association will meet from September 14 to 17, in Montreal. Special sessions will be devoted to toxoid immunization, health education, training of personnel, rural sanitation and British public health administration.

AT the recent meeting of the American Society of Agronomy at Lafayette, Indiana, it was decided to hold the annual summer meeting at the University of Wisconsin in 1932. The present officers of the society are Dr. W. W. Burr, dean of the Nebraska College of Agriculture, Lincoln, *president*, and Dr. P. E. Brown, of the Iowa State College of Agriculture, Ames, *secretary*.

THE Second International Congress of Comparative Pathology will be held in Paris under the presidency of Professor C. Achard from October 14 to 18.

The subscription is 100 francs. Further information can be obtained from the General Secretary, M. C. Grollet, 7, Rue Gustave Nadaud, Paris, XVIe.

THE *British Medical Journal* reports that the Ninth Congress of the International Society of Surgery will be held in Madrid from March 15 to 18, 1932, under the presidency of Professor de Quervain, of Berne, with Professor Recasens, of Madrid, as vice-president. Delegates from Austria, Germany and Hungary will again attend this congress. The scientific program includes discussions on the diagnosis and treatment of intraspinal tumors, non-tuberculous pulmonary suppuration, the surgery of the esophagus, and recent progress in the various forms of surgical anesthesia. It is proposed to arrange a tour starting from Irun on March 13, and visiting Madrid for the congress, thence proceeding to Toledo, Seville, Cordova, Granada, Valencia and Barcelona, with an excursion from the last-named to Monserrat. The inclusive cost of this tour will be just under 4,000 francs; inquiries should be addressed to L'Agence Belge de la Compagnie Française du Tourisme, 29, Boulevard Adolphe Max, Brussels. Further information about the congress will be supplied in due course by the general secretary, Dr. L. Mayer, 72, Rue de la Loi, Brussels.

ACCORDING to *Nature* the Museums Association held its annual conference this year at Plymouth from July 6 to 11. All meetings of the association were held in the Abbey Hall. July 6 was spent in committee meetings, and the president, Sir Henry Miers, delivered his presidential address on July 7. The president's address included some indication of a proposed survey of all the museums in the British Empire, to be financed by the Carnegie Corporation of New York. Among the papers read were: "A Suggested System of Museum Registration," by Mr. K. de B. Codrington, and "Paper for Museum Labels," by Dr. L. J. Spencer, on July 8; "Taxonomy in the Museum," by Dr. W. T. Calman, "Present-day Problems of Provincial Museums," by Mr. H. J. M. Maltby, and "The Preservation of Marine Life, Wet or Dry Specimens," by Dr. E. J. Allen, on July 9, and "Museum Problems in Canada," by Professor J. H. Iliffe, "A Simple Way to Test Museum Value," by Dr. Hay Murray, and "Why do we Use Plate-Glass in Museums?" by Mr. Frank Loney, on July 10. All communications concerning the conference should be addressed to the local honorary secretary, Mr. A. J. Caddie, Museum and Art Gallery and Cottonian Collection, Plymouth.

THE opening of the aviation wing of the New York Museum of Science and Industry was marked on July 13 at an informal luncheon in the aviation room.

Officials and representatives of the technical press attended. Alexander Klemm, head of the Guggenheim School of Aeronautics of New York University and technical adviser on the aeronautics section of the museum, was toastmaster and Dr. Charles R. Richards, executive vice-president of the museum, outlined the general purposes of the industrial exposition. The luncheon was concluded with an informal discussion of the problems of the new section of the museum and a preview of the exhibits.

DR. VICTOR G. HEISER, director for the East of the International Health Board of the Rockefeller Foundation, conferred recently in Tokyo with Dr. Grand, of the foundation, and Dr. M. Miyajima, of the Kitasato Institute for Infectious Diseases, in regard to the endowment of a new school of Hygiene and Public Health in Tokyo. The following special organization committee has been appointed: *Advisers*, Dr. Hayashi, dean of the medical department of the Tokyo Imperial University; Dr. Kitajima, dean of the Keio Medical College, and Dr. Teusler, chief of St. Luke's International Hospital; *Chairman*, Mr. Akagi, chief of the Sanitary Bureau; *Commissioners*, Drs. Nagayo and Miyagawa, of the Imperial University of Tokyo, and the Government Institute for the Study of Infectious Diseases, Drs. Miyajima and Hata, of the Keio Medical College and the Kitasato Institute, Dr. Sato of St. Luke's International Hospital, and Drs. Kusama and Noheji, of the Sanitary Bureau of the Home Ministry.

THE will of the late Dr. John Osborne Polak, professor of obstetrics and gynecology at the Long Island College Hospital, leaves \$350,000 to the hospital, \$100,000 for the erection of a science laboratory and \$250,000 for a building for private patients for maternity and gynecological cases.

ACCORDING to the *British Medical Journal*, on June 24 the Royal Society of Tropical Medicine and Hygiene, whose first president was Sir Patrick Manson, moved into its new home in the Manson House, 26, Portland Place, London. At present only the office and library are ready for occupation, but the other necessary alterations will be carried out as soon as possible, and a small hall for meetings is being erected at the rear of the building. As a result of the appeal issued last year by the president, Dr. G. Carmichael Low, and Sir Austen Chamberlain, nearly £12,000 has been raised, but a further £17,000 is required to equip Manson House as a suitable headquarters where fellows when on leave or visiting England can meet and discuss with those at home the problems of tropical medicine and hygiene. The society includes workers in tropical medicine in all

parts of the world, with representatives of all the well-known centers and schools of tropical medicine. Donations will be gratefully acknowledged by the president if sent to him at Manson House, 26, Portland Place, W.1.

THE Grenfell Association held a dinner at the Hotel Victoria, London, on July 2, when an appeal was made in aid of the endowment fund to carry on Sir Wilfred Grenfell's work in Labrador. Sir George Broadbridge, who presided, said that the funds necessary to maintain the schools and hospitals, industrial centers and agricultural stations which Sir Wilfred Grenfell had started had come almost entirely as the result of his own personal appeal on his lecturing tours. They felt that he should be relieved of the fatigue of these lecturing tours and so have greater freedom for the increasing claims of Labrador. The supporters of his work in Canada, Newfoundland and the United States had raised an endowment fund of £120,000, and it was hoped to raise a sum in Great Britain worthy of the man and his work. Their aim was to secure at least £50,000 within the next three

years as a fitting tribute to the life work of one of the most remarkable Englishmen of his day in the oldest British possession overseas.

THE General Assembly of Tennessee, the session of 1931, passed an act authorizing the Fish and Game Commission, which has jurisdiction and control of the lands and property on the shores of Reelfoot Lake, to set apart for the Tennessee Academy of Science some suitable building and such amount of lands adjacent to the Lake, not exceeding ten acres, for the establishment of a biological station for carrying on research work, the property and building to be under the management and control of the Academy of Science without the payment of rent or other payment to the state. The General Assembly also made an appropriation of \$2,500 to be expended out of the Fish and Game Fund and rentals for state property around Reelfoot Lake by the Department of Fish and Game, under the commissioner of agriculture, for necessary buildings, plant outfit and grounds for the biological station.

## DISCUSSION

### THE BASIC SCIENCES AT THE CHICAGO CENTENNIAL EXPOSITION, 1933

THE city of Chicago having been incorporated as a village in 1833, a group of its leading citizens decided, some two or three years ago, to celebrate the centennial of this event by holding an international exposition. This decision, however, was arrived at only after this group of gentlemen were thoroughly satisfied that they had a theme for an exposition which would make it not a mere repetition of other exhibitions, but a center to which people might come and discover for themselves a new view-point, a changed state of affairs. This theme was found in the ministrations of pure science to industry and to society. The dependence of commerce and manufactures upon the results obtained in laboratories of science was considered a fascinating story, and something worthy of celebration. The change from the covered wagon to the Pullman car, the substitution of the air-plane for the pony express, the increased leisure and the higher plane of living, all of which came in the wake of these advances in science, combine to make the story a fitting theme for a world's fair.

The achievements of pure science having been adopted as the central motive of the exposition, the president, Mr. Rufus C. Dawes, promptly invited the National Research Council to suggest what line of scientific results might best be shown in order to demonstrate this principal thesis of the fair. The response to this invitation was generous. It took

form in the appointment of an advisory committee and various subcommittees whose reports are now guiding the spirit and the arrangement of the exhibits in the field of pure science.

The division of basic sciences falls in the department of exhibits and, for convenience of operation, is subdivided into five sections as follows:

|                               |   |
|-------------------------------|---|
| Division of<br>Basic Sciences | 1—Astronomy   |
|                               | 2—Physics and mathematics                                     |
|                               | 3—Chemistry   |
|                               | 4—Biology, including psychology                               |
|                               | 5—Earth Sciences, including geology,<br>geography and geodesy |

Anthropology and psychology, each of them a biological science, will be grouped together as they are in the organization of the National Research Council; but they will probably be shown in a building other than the hall of the basic sciences. This separation is a mere matter of convenience in securing the proper space for these two large fields of investigation.

In presenting the basic sciences to the visitors of 1933, the plan of the administration is to forget questions of nationality and to make the entire exhibit thoroughly cosmopolitan and international. The important discoveries in each science are to be set forth in their proper sequence regardless of the places where and the men by whom they were made. Easily read legends will set forth not only the fundamental idea of each exhibit but also, in many cases, our indebtedness to the individual investigator.