

at once broad and deep did not pass with Leonardo da Vinci or even with Benjamin Franklin. Men of our profession—we teachers—are bound to be impressed with the tendency of youths of strikingly capable minds to become interested in one small corner of science and uninterested in the rest of the world. We can pass by those who, through mental laziness, prefer to be superficially and casually interested in everything. But it is unfortunate when a brilliant and creative mind insists upon living in a modern monastic cell. We feel the results of this tendency keenly, as we find men of affairs wholly untouched by the culture of modern science, and scientists without the leavening of the humanities. One most unfortunate product is the type of engineer who does not realize that, in order to apply the fruits of science for the benefit of mankind, he must not only grasp the principles of science, but must also know the needs and aspirations, the possibilities and the frailties, of those whom he would serve. There are students who may realize this fallacy only when it is too late. To those we would say: "There is one of your professors to whom we would call your attention. He exemplifies that combination of breadth with a definiteness of

grasp of the affairs of this world to which we may humbly aspire. He has made significant advances in many diverse branches of engineering, represented by many inventions relating to such things as the uniflow steam engine, the lightning arrester, the cream separator, the electric meter, the resistance welder, x-rays, the automobile muffler, the use of helium in diving, the heat treatment of steels and various chemical processes. He has written of such matters as the nature of comets, the light of the firefly and the aurora. He has organized and guided business and one of the great electrical companies of the world bore his name. He has many, many friends. May some of you follow in his distinguished footsteps that the world may be brighter and more replete with the opportunity which comes with material advance! May you make many friends, as he has, that those who inherit these benefits may know and understand each other better. May you grasp his kindly philosophy, that you may be happy as you create."

I bring you, sir, not only the salutations of your colleagues, but also their heartfelt gratitude that you have dignified and enriched the title of professor, and that we may hail you as friend and colleague.

## SCIENTIFIC EVENTS

### INDUSTRIAL RESEARCH LABORATORIES

We learn from Science Service that while over 55 per cent. of the research laboratories serving America's industries have either maintained their staffs of investigators at the same level or actually increased their workers, there has been a decrease of over 12,000 in the staffs of other industrial laboratories in the past three years. However, at least 90 per cent. of the concerns reporting have maintained at least a skeleton research organization. This is shown in a survey just completed by Dr. C. J. West and Miss Callie Hull, of the Research Information Service of the National Research Council.

This year 1,467 laboratories reported 21,464 scientists on their staffs, while in 1930 there were 33,596 scientists on the staffs of 1,420 laboratories. This is taken to mean that at least 10,000 highly trained industrial research scientists are not engaged in scientific research due to the economic depression. The potential value of the lost services of these scientists must run into millions of dollars annually. Some of these scientifically trained workers have been transferred to plant and sales jobs, it is believed.

The 500 laboratories that reported decreases in staff employed 23,783 in 1930 and now have at work only 9,686. The 628 laboratories that reported no change employ 5,268 investigators. In 186 laboratories the

staffs were increased from 3,768 in 1930 to 5,338 in 1933. The number of laboratories discontinued during the three-year period between the National Research Council surveys numbered 106 and they employed 775 scientists in 1930. In the course of the survey 153 laboratories now employing 1,172 scientists were included in the survey for the first time. Some of these may be new laboratories, but most are small research organizations that were not discovered in the course of the 1930 survey.

### THE FIELD MUSEUM OF NATURAL HISTORY

The annual report of the director of Field Museum of Natural History to the board of trustees, a book of 141 pages with nine photogravure illustrations, has been published by the Field Museum Press. In this book Director Stephen C. Simms outlines the activities of the museum during the year 1932.

The fact is emphasized that the museum has been able to continue its full service to the public, and has even extended its educational influence to a greater number of persons (attendance in 1932 having been 1,824,202) than in any previous year, despite having, like other endowed institutions, suffered a heavy decline in revenue. With income in 1932 \$267,000 less than that in 1931, the museum reduced its expenses

by \$273,000 through calling expeditions home, making payroll adjustments, and putting economies in force throughout the institution.

Among contributions to the museum during the year were the following: from Marshall Field, a trustee of the museum, \$96,000; from Stanley Field, president of the museum, \$35,788; from Mrs. E. Marshall Field, \$50,000; from Mrs. Charles H. Schweppe, \$18,000; from Mrs. James Nelson Raymond, \$3,000; from Frederick H. Rawson, \$3,000; from the American Friends of China, Chicago, \$1,075; and various sums from Leon Mandel II, Fred Mandel, Jr., William J. Chalmers and Arthur M. Barnhart.

The report gives a full account of the work of the various scientific departments; the educational activities of the James Nelson and Anna Louise Raymond Foundation and the N. W. Harris Public School Extension, which are units of the museum organization for cooperative work with the schools of Chicago; a résumé of new exhibits; of gifts of material received for the collections, lists of the several thousand members of the museum, and other data on the institution's activities.

#### CENTENARY OF THE BRITISH ENTOMOLOGICAL SOCIETY

THE Entomological Society of London celebrated the centenary of its foundation at meetings held on May 3 and 4 in the rooms of J. G. Children, of the British Museum. According to the *London Times*, the society received a Royal Charter in 1885, and the King became patron of the society in 1914.

On May 3 a general meeting of the society was held in the rooms of the Royal Geographical Society, Kensington Gore, at which delegates from other learned bodies at home and abroad were received and presented addresses. A scientific conversazione was held in the evening in the house at 41, Queen's Gate, which the Entomological Society now shares with the Imperial Institute of Entomology, and fellows brought with them exhibits.

The following day an afternoon conversazione took place for the delegates at the British Museum (Natural History), and an evening reception at Lancaster House was given by the Government, the guests being received by Major Walter Elliot, minister of agriculture. The delegates from abroad were invited to spend the two following days visiting collections and entomological laboratories in the country, including in their tour Whipsnade and Lord Rothschild's collection at Tring.

Professor E. B. Poulton, who was president in 1903-04 and in 1925-26, has been elected president for the centenary year, while the vice-presidents are

Dr. H. Eltringham, Dr. K. Jordan and Mr. R. W. Lloyd. Dr. S. A. Neave, assistant director of the Imperial Institute of Entomology, is the honorary secretary. In addition to fellows of the society (now numbering nearly 700) delegates from about 140 learned institutions, universities and museums at home and abroad accepted invitations to be present.

Minute-books in the possession of the society show that an almost continuous history links the present Entomological Society of London with predecessors as far back as 1745, when the Aurelian Society held meetings at the Swan Tavern, 'Change Alley. The present Entomological Society of London occupied rooms in turn at 17, Old Bond Street, at 12, Bedford Row, and as tenants of the Medical Society of London at 11, Chandos Street. The move to 41, Queen's Gate, took place in 1920, and a meeting-room of great beauty, with panelling and decoration copied from the Bromley Room in the Victoria and Albert Museum, was subsequently constructed through the generosity of Mr. R. W. Lloyd and opened in May, 1930, by Dr. Addison.

#### AWARD OF THE LOUBAT PRIZES

AWARD of the Loubat prize of \$1,000 to Dr. Charles O. Paullin, of Washington, D. C., and Dr. John Kirtland Wright, of New York, author and editor, respectively, of the "Atlas of the Historical Geography of the United States," has been announced. The second prize of \$400 was awarded to Professor Walter Prescott Webb, of the University of Texas, for "The Great Plains."

The Loubat prizes, instituted in 1893 by a grant of Joseph Florimond, Due de Loubat, are conferred at the end of every succeeding five-year period for "the best work printed and published in the English language on the history, geography, ethnology, philology or numismatics of North America."

The work of Dr. Paullin and Dr. Wright, issued jointly by the Carnegie Institution and the National Geographic Society in 1932, is described by the Jury of Award as "the first major historical atlas of the United States and probably the most comprehensive study of its kind that has yet been published for any country." The purpose of the atlas is to illustrate cartographically the essential facts of geography and history that "condition and explain" the development of the United States. Presentation will be made formally at Columbia University on Commencement Day, June 6.

Dr. Paullin, formerly a member of the faculties of Johns Hopkins and George Washington Universities, was born at Jamestown, Ohio. He received his bachelor of science degree from Union Christian Col-