

Emmet R. Blake, Chicago; Ivan R. Tomkins, Savannah, Ga.; Louis W. Campbell, Toledo; Owen J. Gromme, Milwaukee.

The meeting in 1940 will be held at Boston in Oc-

tober; the following meeting will be held in Denver. The 1942 meeting will be a joint meeting with the eleventh International Ornithological Congress in Philadelphia in May, 1942.

## SCIENTIFIC NOTES AND NEWS

A PORTRAIT of Dr. H. Gideon Wells, professor of pathology and director of the Otho S. A. Sprague Memorial Institute of the University of Chicago, has been presented to the university. The portrait, which was painted by Wayman Adams, was placed on public view on June 23, in the auditorium of the Pathology Building.

THE City of Ithaca has presented to Dr. Emile M. Chamot, professor emeritus of chemistry of Cornell University, an engrossed scroll expressing appreciation of his services to the city since 1905 as advisory chemist of the water department. He resigned on June 1.

AT the commencement exercises of Purdue University the degree of doctor of laws was conferred on Josiah K. Lilly, Indianapolis, chairman of the board of the Eli Lilly Company, a trustee of the university from 1927 to 1938. The doctorate of science was conferred on Dr. George N. Hoffer, of West Lafayette, director of the mid-west office of the American Potash Institute, and for many years a member of the teaching staff in the School of Science and of the research staff of the Agricultural Experiment Station, and on Dr. Rodney B. Harvey, professor of plant physiology at the University of Minnesota and head of the section of plant physiology at the Experiment Station.

THE South Dakota School of Mines at its commencement exercises on June 1 conferred the honorary degree of doctor of engineering on Dr. Harrison E. Howe, of Washington, D. C., editor of *Industrial and Engineering Chemistry*.

AT the graduation ceremony of the University of Aberdeen held on July 6, the honorary degree of doctor of laws was conferred on Dr. C. L. Burt, professor of psychology in the University of London, and on Dr. A. Low, from 1925 until 1938 professor of anatomy in the University of Aberdeen.

THE University of Oxford has conferred the honorary degree of doctor of science on Sir Edward Mellanby, secretary of the Medical Research Council.

It is reported in *Nature* that the following have been elected to the physical mathematical class of the Prussian Academy of Sciences: Professor A. Butenandt, director of the Kaiser-Wilhelm Institut für Biochemie in Berlin; Professor K. Meyer, director of the Institut für Ackerbau und Landbaupolitik, Berlin; Professor A. Ludin, professor of hydraulic and

agricultural hydraulic engineering, Berlin; Dr. F. Seewald, director of the Deutsche Versuchsanstalt für Luftfahrt, Berlin, and Professor J. Bartels, professor of geophysics, Berlin.

DR. DONALD C. BALFOUR, of the Mayo Foundation, and Professor Peter Bull, of Oslo, were admitted as honorary fellows of the Royal College of Surgeons, England, at the quarterly meeting of the council on July 13.

DR. CARL CORI, professor of zoology at the German University at Prague, celebrated the fiftieth anniversary of his doctorate on July 7.

THE Goethe Medal for art and science has been conferred on Dr. Eugen Fischer, professor of anthropology at Berlin.

THE following members of the faculty of Cornell University have retired with the title of professor emeritus: Vladimir Karapetoff, electrical engineering; Heinrich Ries, geology; Albert E. Wells, mechanic arts, and Edward A. White, floriculture and ornamental horticulture.

DR. FRANK A. WAUGH, for thirty-seven years professor of landscape architecture and horticulture at the Massachusetts State College, retired with the title of emeritus at the end of the academic year. A dinner was recently given by his friends and former students at which it was announced that a fund had been established in his honor to provide financial aid for students in the department. Assistant Professor Raymond H. Otto has been made head of the department.

DR. RAYMOND B. ALLEN, since 1936 dean of the Wayne University College of Medicine, has been appointed executive dean of the Chicago colleges of the University of Illinois. He will coordinate the educational and research activities of the medical, dental and pharmacy units.

DR. HARVEY E. JORDAN, professor of histology and embryology and assistant dean of the department of medicine of the University of Virginia, has been appointed dean to succeed the late Dr. James Carroll Flippin.

HARRY J. REED, acting director of the Agricultural Experiment Station of Purdue University, a member of the staff for twenty-two years, has been appointed

dean of the School of Agriculture and director of the Agricultural Experiment Station and of the Department of Agricultural Extension. He succeeds Director J. H. Skinner, who has been on leave for some months because of illness and who has retired.

DR. R. T. CRAWFORD, chairman of the astronomical department of the University of California at Berkeley, has been made director of the Students Observatory.

DR. JOSEPH HINSEY, professor of physiology and head of the department at the Cornell University Medical College, New York City, has been appointed professor of anatomy and head of the department of anatomy.

DR. EDMOND J. FARRIS, associate in anatomy in charge of operations at the Wistar Institute of Anatomy and Biology, Philadelphia, has been named executive director. He succeeds Dr. Milton Jay Greenman, who died on April 7, 1937.

MORRIS E. LEEDS, founder and president of the Leeds and Northrup Company, Philadelphia, known for his work in the development of electrical and heat measuring apparatus, has become chairman of the board of the company. He is succeeded in the presidency by C. S. Redding, vice-president in charge of engineering research. Mr. Leeds is president of the Board of Education of Philadelphia and of the Board of Managers of Haverford College.

PROFESSOR LELAND E. WEAVER, of the extension department of poultry husbandry at Cornell University, will spend next year at the University of Hawaii, in an exchange of professorships with Professor C. M. Bice.

DR. FRANKLIN S. HARRIS, president of Brigham Young University, has been given a leave of absence to accept a commission of the Government of Iran to reorganize its Department of Agriculture and to plan for the rehabilitation of the agriculture of the country. Prior to becoming president of Brigham Young University in 1921, Dr. Harris was director of the Utah Agricultural Experiment Station and was earlier professor of agronomy at the station. During his absence Dr. Christen Jensen, dean of the Graduate School, will serve as acting president of the university.

AMONG the investigators stationed this summer at the Scripps Institution of Oceanography at La Jolla, Calif., and the subjects on which they are working are: W. C. Jacobs, U. S. Weather Bureau, possible relations between slow changes in sea level and variations in meteorological conditions; Dr. F. P. Shepard, University of Illinois, and his assistant, Kenneth Emory, analyzing data on submarine geology and obtaining new facts; Dr. Victor Schechter, the Col-

lege of the City of New York, marine biological problems; Dr. Roy W. Drier, Michigan College of Mining and Technology, the possibility of spectrographic analysis of bottom sediments; Dr. R. H. Tschudy and W. F. Whedon, studying for the United States Navy the organisms which cause fouling growth on ships' bottoms; Otis Barton, inventor of the bathysphere; Granville Ashcraft, University of Southern California, analysis of sea water; Dr. D. W. Johnson, Columbia University, study of old shore lines; H. B. Holmes, U. S. Bureau of Fisheries, temperature distribution in reservoirs and lakes, and E. Palmer, Federal Bureau of Fisheries, Stanford University.

DR. CARLOS E. CUMMINGS, director of the Buffalo Museum of Science, New York, who is chairman of a committee to make a special report to the Rockefeller Foundation on the scientific and educational exhibits of the world fairs in New York and California, recently visited San Francisco to make a survey of the Golden Gate Exposition. He was accompanied by Chauncey J. Hamlin, president of the Buffalo Society of Natural Sciences; Trevor Thomas, Liverpool, England; Dr. Hu, Shanghai, China; Francis Young, Boston, Mass.; Harry Geiger, Los Angeles, and Stanley Stubbs, New Mexico.

PROFESSOR ERNEST B. BABCOCK, of the College of Agriculture of the University of California, has been invited to serve as president of the section of genetics of the seventh International Botanical Congress.

DR. B. J. C. TE HENNEPE, bacteriologist of the State Serum Institute at Rotterdam, arrived in New York on July 21 as the head of a European delegation to the World Poultry Congress to be held in Cleveland, Ohio, from July 28 to August 7. The delegates were from Holland, Belgium and France.

SIR THOMAS LEWIS, physician to the University College Hospital, London, specialist in heart disease, has been appointed to the annual Edward K. Dunham Lectureship for the Promotion of the Medical Sciences in the Harvard Medical School for the coming academic year.

PROFESSOR J. BJERKNES, director of the Geophysical Institute, Bergen, Norway, will give a series of lectures and seminars on various phases of modern meteorology at the Meteorological Office, Toronto, from August 10 to 26. These lectures will be given daily, and all meteorologists are invited to attend and take part in the discussion. A number of rooms are available in one of the university residences at a nominal rate on application to J. Patterson, controller, Meteorological Service of Canada, 315 Bloor St., W., Toronto. These lectures are made possible by a grant from the University of Toronto.

APPLICATIONS must be on file with the United States Civil Service Commission at Washington, D. C., not later than August 14 for the positions of senior engineer with a salary of \$4,600 a year; of engineer, with a salary of \$3,800 a year; of associate engineer, with a salary of \$3,200 a year, and of assistant engineer, with a salary of \$2,600 a year. Vacancies in these positions in Washington, D. C., and in the field, and in positions requiring similar qualifications will be filled from these examinations, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer

or promotion. The salaries given above are subject to a deduction of  $3\frac{1}{2}$  per cent. toward a retirement annuity.

THE National Research Council has continued for the fiscal year 1939-40 its subscription to a table in the Naples Zoological Station. Qualified investigators wishing to enjoy the facilities of the Naples Laboratory should make application to the office of the Division of Biology and Agriculture, National Research Council, 2101 Constitution Avenue, Washington, D. C.

## DISCUSSION

### PRESENT-DAY BOTANY IN ITALY

A MUCH-BELATED number of the *Nuovo Giornale Botanico Italiano* (Vol. 45, No. 1) celebrates the fiftieth anniversary jubilee meeting (1938) of the founding of the Italian Botanical Society and the two hundredth anniversary of the death of the distinguished Florentine botanist, Pier Antonio Micheli (1679-1737). Addresses by the president of the Botanical Society, Professor Napoleone Passerini, and by the secretary, Professor Alberto Chiarugi, describe the founding of the organization and its fifty years' accomplishments. The society now has 209 members, most of them in the neighborhood of Florence and Pisa and in northern Italy, but some in every province of the kingdom. The published "commemorative oration" by Professor Giovanni Negri is an appreciative twenty-five-page account of the life and work of Micheli, "father of mycology," author of "Nova Plantarum Genera."

The publication includes about thirty contributions in various fields, as: morphology, anatomy, physiology, mycology, ecology and geographical botany. Among the longer articles is one by Rodolfo P. Sermolli, describing and illustrating with three full-page plates some features of the vegetation in higher mountain districts of Italian East Africa. Adriano Fiori lists the plants of a number of the Italian Aegean Islands. Raffaele Ciferri gives an account of the rediscovery of *Emericella varicolor* (Eurotiaceae), a fungus on rotting olive fruit. Ciferri and Giglioli propose a "formula"—based on a definite schedule of description—for describing varieties and forms of wheat. Roberto Corti reports upon collections of plants from Cufra and other oases in southeast Libya and farther south in Tibesti.

This jubilee publication gives some idea of present-day botanical activity in Italy, although it must not be forgotten that there are other Italian botanical journals, besides special publications of some of the universities. The work of Italians in horticulture, agri-

culture and forestry is somewhat well known in the United States, but their botany has generally received less attention from Americans than it deserves.

FRANCIS RAMALEY

UNIVERSITY OF COLORADO

### THE PRODUCTION OF UNFERTILIZED SEEDS IN TRILLIUM

TRILLIUM has always been used as an admirable object for cytological investigations on account of the huge size of its chromosomes. This genus, which is found in North America and in Asia, presents cytological peculiarities in both continents. The descriptions of its meiotic divisions reveal extreme irregularities and a large amount of sterility. It has been supposed that these abnormalities were due to the intolerance on the part of the genus to cultivation. The present authors have satisfied themselves that this is not the cause of the irregularities, since they are present just as strikingly in material gathered from normal wild plants as in those under cultivation. As a result of the investigations of the processes leading to the formation of the embryo, in certain species of the genus it became clear that in contrast to the dandelions and hawkweeds (*Hieracium*) apomixis rather than parthenogenesis is present. The reduction division in the embryo sac mother cell is quite normal in contrast to the situation in the pollen mother cells, and five chromosomes are present. One of the derivatives of the mother cell survives, as is usually the case, and gives rise to an embryo sac. Ordinarily this contains only four nuclei, a situation paralleled by the *Onagraceae* and allied forms, as well as by certain orchids. Of the four nuclei one becomes the egg and another an abortive synergid. The remaining two nuclei fuse together and form the endosperm nucleus. The pollen tubes usually do not penetrate the ovary and in the rare cases that this happens, they do not effect fertilization. There is as a consequence no fecundation of either the egg or the endosperm as a result of