brate the event on October 16, 17 and 18 by an intersectional meeting participated in by the Lehigh Valley section, the New York section, the Philadelphia section, the Wilmington section and the South Jersey section of the American Chemical Society. This time is chosen because it immediately follows the centennial celebration of the founding of Lafayette College with a pageant on October 15.

On Thursday afternoon the general theme "Fifty years of chemistry in America" will be discussed by Dr. Edgar F. Smith, Dr. Harvey W. Wiley, Dr. William H. Nichols and Dr. Bradley Stoughton. In the evening there will be a dinner in honor of Dr. Hart. Friday will be devoted to a plasticity symposium during the entire day. Our knowledge of plasticity is very defective, but the science of the flow of matter is fundamental to an understanding of colloid chemistry and many industries have plasticity problems which urgently demand solution, so it is hoped that the conference will be of benefit. On Saturday there will be excursions to different points of the Lehigh Valley: (1) Cement and slate industries and the Delaware Water Gap. (2) Chemical and metallurgical industries of Easton and Philipsburg. (3) Lehigh University of the Bethlehem Steel Company. (4) The New Jersey Zinc Co., at Palmerton, Pa.

Correspondence should be addressed to Professor Eugene C. Bingham, Lafayette College, Easton, Pa.

SCIENTIFIC NOTES AND NEWS

IN recognition of his nomination for the presidency of the American Society of Mechanical Engineers, and of his imminent retirement from the position of head of the department of mechanical engineering at Stanford University, Professor William F. Durand was entertained with a dinner in his honor on June 18, under the auspices of the Stanford branch of the American Society of Mechanical Engineers.

DR. ALBERT F. BLAKESLEE, plant geneticist at the Carnegie Station for Experimental Evolution, Cold Spring Harbor, N. Y., has been elected a corresponding member of the Dutch Botanic Society.

PROFESSOR MICHAEL I. PUPIN has received the honorary degree of doctor of science from Princeton University.

DR. FRANK BILLINGS was awarded the honorary degree of LL.D. at the recent convocation at the University of Cincinnati.

THE *Journal* of the American Medical Association reports that as a result of the general election in Japan held on May 10 fifteen medical candidates secured seats in the lower house. These include Dr. Milzinosuke Miyajima, director of the Kitasoto Institute for infectious diseases.

DR. EDWARD MELLANBY, professor of pharmacology at the University of Sheffield, has been awarded the Stewart Prize of the British Medical Association for work on the relation between rickets and dietetic deficiency.

CHARLES M. UPHAM, state highway engineer of North Carolina, has been recently appointed director of the advisory board on highway research of the National Research Council, to succeed Dr. W. K. Hatt, who has resigned in order to resume his work at Purdue University.

DR. C. W. LARSON has been appointed chief of the new bureau of dairying of the Department of Agriculture created under an act of the last session of congress. The work of the bureau was formerly carried on by the dairy division of the bureau of animal industry of which Dr. Larson was chief.

DR. CHARLES N. GOULD has been appointed director of the Oklahoma Geological Survey.

THORNTON T. MUNGER has been appointed director of the Northwest Forest Experiment Station now being organized in the United States Forest Service.

DR. FRANK D. KERN and Professor H. H. Whetzel have sailed for a two-month stay in the West Indies for the purpose of studying the plant rusts of that region.

PROFESSOR WILHELM STEPP, director of the university polyclinic at Giessen, has been given a six months' leave of absence to study vitamins in the United States, on the invitation of the Rockefeller Foundation.

NORMAN TAYLOR, curator at the Brooklyn Botanic Garden, is spending the summer at Montauk, Long Island, studying the effect of wind on the transpiration and growth of plants. A temporary laboratory has been erected on an exposed part of the Montauk Downs, where the wind movement is among the greatest recorded for any part of the Atlantic Coast.

DR. KAZUMI KAWAMURA, professor of soils and agricultural geology at the Imperial University of Tokio, is spending a five-month period of investigational work in the department of soils, University of Wisconsin. He has been appointed to an honorary fellowship and is pursuing his researches under the direction of Professor Truog.

C. P. LATHROP, junior chemist of the Food Control Laboratory, has resigned from the Bureau of Chemistry, to accept a position as technical adviser of the National Preservers and Fruit Products Association, with headquarters in Washington.

DR. H. M. LEAKE, late director of agriculture of the United Provinces, India, and late principal of the Cawnpore Agricultural College, has been appointed

principal of the Imperial College of Tropical Agriculture, Trinidad, to succeed Sir Francis Watts.

DR. HARRY V. HARLAN, of the United States Department of Agriculture, spoke at Kansas State Agricultural College on June 25 on "Agricultural and social conditions in Abyssinia."

DR. F. W. UPSON, chairman of the department of chemistry at the University of Nebraska, will spend the week of November 17 to 22 at the University of Arizona, where he will deliver a series of lectures in the department of chemistry and before the Arizona section of the American Chemical Society.

A MEMORIAL, in the form of an endowment of the department of biology, is to be created at Whitman College for Dr. Robert Clark Yenney, at the time of his death professor of medicine at the University of Oregon Medical School.

SIR F. W. DYSON, the Astronomer Royal, in the presence of a large gathering of British and oversea astronomers, recently unveiled a tablet in the Berkshire County Council school, Wallingford, to commemorate the services to astronomy of the late Mr. T. H. Astbury, headmaster of the school for many years.

BENJAMIN G. LAMME, chief engineer of the Westinghouse Electric and Manufacturing Company, known for his researches and inventions on power problems, died on July 8.

DR. F. W. IVES, professor of engineering at Ohio State University, died on July 5, aged thirty-nine years, from injuries sustained in the wreck of a passenger train.

WILFRED CAMPBELL, one of the leading turbine engineers in the United States, died on July 7, at the age of forty years.

DR. ANDREW R. ROBINSON, formerly professor of dermatology at the New York Polytechnic Hospital, died on July 8, aged seventy-eight years.

DR. CHARLES HUNTER STEWART, professor of public health at the University of Edinburgh, has died in his seventieth year.

THE next meeting of the French Association for the Advancement of Science will be held in Liége from July 28 to August 2.

THE seventy-second annual meeting of the American Pharmaceutical Association will be held in Buffalo, from August 25 to 31, under the presidency of Professor H. V. Arny, of the Columbia University College of Pharmacy.

THE Indian Universities Conference has recommended to the government the appointment of a central advisory board for scientific research.

ORLANDO RANGEL, a pharmacist of Rio de Janeiro, has endowed a fund for a quadrennial prize to be awarded by the Academia de Medicina at Rio de Janeiro for distinguished work in medicine or pharmacy. The prize is to be conferred for the first time on the centennial anniversary of the academy in 1928.

THE collection of tenthredinoidea or sawflies, formed by the late Professor Alexander D. MacGillivray, of the University of Illinois, has been purchased by that institution. It includes some four hundred types and one thousand species.

WITH a record enrollment and new living quarters, the summer session of the Puget Sound biological station of the University of Washington has opened at Friday Harbor for a six-weeks' term. Two laboratory buildings of tile construction and a kitchen and dining hall have been completed in time for the opening of this session. Dr. Theodore C. Frye, of the university, is in charge of the station. He is assisted by Professors Trevor Kincaid and John E. Guberlet, of the university, and three visiting scientists: Professors Harold Kylin, of the University of Lund, Sweden; V. E. Shelford, of the University of Illinois, and E. J. Lund, of the University of Minnesota.

REPRESENTATIVES of the various executive departments and scientific establishments of the government opened a conference at the Navy Department July 1, for the purpose of formulating plans for a naval expedition to undertake investigations in all phases of the science of oceanography. The meeting was opened by Secretary Wilbur and Dr. G. W. Littlehales, hydrographic engineer of the Navy Department, explained the purpose of the projected expedition as serving the varied interests of the navy, commerce and navigation as well as numerous sciences.

A MEETING of the research advisory committee of the American Electroplaters Society was held at the Bureau of Standards in June. The status of the various researches on nickel deposition was discussed and suggestions were received for further work in this field. Special emphasis was laid upon the desirability of bringing the manufacturers themselves into closer contact with the results of research, and it was suggested that at some future conference the manufacturers be invited to send their managers or superintendents.

THE United States Civil Service Commission announces an examination for assistant entomologists, applications closing on August 12. The examination is to fill vacancies in the Bureau of Entomology, Department of Agriculture, at an entrance salary of

$2,400 a year. The duties of the position are to conduct experiments with insecticides in the control of the Japanese beetle grubs, and in the utilization of bacterial and fungus diseases against the Japanese beetle.

FIVE-YEAR courses in engineering and science will be instituted at California Institute of Technology, Pasadena, beginning next fall. The longer courses have been planned in order that students may be given a more thorough training. For classes entering next fall and thereafter, the present courses will be replaced by two four-year courses, one in engineering and one in physical science. Completion of either course will bring the degree of bachelor of science. These courses will be supplemented by fifth-year programs in civil, electrical, mechanical or chemical engineering, chemistry, physics, geology and mathematics, for the completion of which the degree of master of science will be awarded.

ACCORDING to the *Journal of Terrestrial Magnetism* a new magnetic observatory to replace Greenwich is under construction in the uplands of Surrey at Abinger on a site of 10 acres some 20 miles from London; the work is being financed by the Southeastern and Catham Railway, the electrification of which (the railway is within one half mile of the old observatory) made necessary the discontinuance of the work at Greenwich. The new station is in latitude 51° 11′ 03″ north and in longitude 0° 23′ 12″ west at an elevation above sea of 800 feet, the nearest approach of the railway line being 2¾ miles. The buildings include variation observatory, absolute observatory, residence, caretaker's quarters, offices and dynamo and accumulator rooms. Absolute observations at Abinger were begun March 24, 1924, simultaneous with those at Greenwich and will be continued until the electrification of the railway makes it impossible to observe at Greenwich; it is expected that the observations may be continued until the end of 1925.

WITH the additional appropriations that became available July 1, it will be possible for the Department of Commerce to expand several of its activities, one of which is its work on the non-ferrous metals. While considerable work has been done on these metals, that activity has not been accentuated as much as will be the case from now on. The section is to be reorganized as a division, and will be known as the Minerals Division, since work will be done on other minerals. The work will be under the immediate direction of James A. Stader, who has been chief of the minerals section of the iron and steel division.

WE learn from *Nature* that the council of the senate of the University of Cambridge has issued a report on the Jacksonian professorship of natural philosophy, which has been suspended since the death of Sir James Dewar. The professorship is only partly endowed and funds are not available to complete the stipend up to the normal scale. The council, in the hope of attracting a succession of distinguished men of science from outside Cambridge, proposes that the professor shall not necessarily be required to reside and that he should be appointed for one year, the same person not to be eligible for more than two years in succession. This proposal, if adopted, would involve the creation of a new class of professorships in the university not subject to the ordinary regulations governing the regular teaching professors.

AN investigation of safety conditions in the oil fields of the country is being made by the Department of the Interior, through the Bureau of Mines. Information will be obtained from the properties visited regarding safety experience and methods and devices used for increasing safety. It is planned to take photographs to illustrate safety articles and bulletins showing safe and unsafe practices; gather and publish accident statistics, and disseminate among operators, foremen and workmen, by personal visits and orally, with more concrete application than written communications would probably provide, the arguments for increased safety in the oil industry.

THE new educational unit recently established at the University of Chicago under the name of the Institute of Meat Packing, of which Professor Emery T. Filbey, dean of University College, has been appointed director, is under the general control of a joint administrative committee consisting of seven representatives of the university and four of the Institute of American Meat Packers. The members representing the University of Chicago include James Hayden Tufts, dean of the faculties and vice-president of the university; Leon Carroll Marshall, chairman of the department of political economy; William H. Spencer, dean of the School of Commerce and Administration; Emery T. Filbey, dean of University College; Hervey F. Mallory, secretary of the Correspondence-Study department; Julius Stieglitz, chairman of the department of chemistry, and Charles C. Colby, associate professor of geography. The members of the Administrative Committee representing the Institute of American Meat Packers include Thomas E. Wilson, chairman of the Institute Plan Commission; Oscar G. Mayer, chairman of the committee on educational plans, institute plan commission; William Whitfield Woods, vice-president in charge of the department of education and research, and Willard Eugene Hotchkiss, director of the bureau of industrial education.

IN order to popularize the metric system, the introduction of which into Russia was provided for by a decree of the Council of Commissaries in 1918, an order has been issued making mandatory the sale of fresh milk in ¼, ½ and 1 liter containers, commencing January 1, 1924, and the sale of products widely used by the population in standard packages, in metric units, is now being organized according to *Economic Life,* Moscow. The decree for the introduction of the metric system was to have become effective January 1, 1922, but the date was subsequently deferred with the understanding that the transition to metric weights and measures by all state institutions and private organizations and persons should be carried out gradually and completed by January 1, 1927. Certain industries (textile, leather, sugar, tobacco, starch and glucose, oil-crushing, tea and coffee, chemical, confectionery, canning and yeast) adopted the metric system by January 1, 1924; the leather goods trade by June 1, and the electrical industry will adopt it by November. Metric units should be used in all technical plans and specifications, commencing October 1, 1925, and in all credit and banking accounting, as well as in budgetary specifications, after October 1, 1926. The number of scales and balances of various types now in use in the entire territory of the Soviet Union is estimated at 1,500,000, including 70 per cent. of even scales, which do not require any adjustment for metric weights; 20 per cent. of decimal beam scales; 8 per cent. of centimal lever scales, and 2 per cent. of miscellaneous devices. Thus only about 450,000 balances will have to be remodeled for the metric system. The total cost of the introduction of the metric system, including the casting of 30,000 tons of weights, popularization and instruction, is estimated at 11,200,000 gold rubles.

UNIVERSITY AND EDUCATIONAL NOTES

THE University of Wisconsin will receive $350,000 by the bequest of Thomas E. Brittingham.

GROUND was broken on June 17 for the State University of Iowa's new $4,500,000 medical building, made possible by the state appropriating funds to equal a gift of the Rockefeller Foundation.

PROFESSOR E. C. COKER, head of the department of mathematics of Winthrop College, has been called to the chair of astronomy and mathematics at the University of South Carolina.

MISS LILA SANDS, Ph.D. (Nebraska, '24), has been appointed an instructor in the department of chemistry at the University of Arizona.

DR. RICHARD HARTSHORNE, Ph.D. (Chicago, '24), has been appointed instructor in geography at the University of Minnesota.

CYRIL BATHO, D.Sc., associate professor of applied mechanics and hydraulics at McGill University, has been appointed professor of civil engineering at Birmingham University in place of Professor F. C. Lea, D.Sc., who has resigned.

PROFESSOR SYDNEY CHAPMAN, professor of mathematics and natural philosophy in the University of Manchester, has accepted the invitation of the governing body of the Imperial College of Science and Technology to undertake the chief professorship of mathematics, beginning in September, in succession to Professor A. N. Whitehead, who has been appointed to the chair of philosophy at Harvard University.

DISCUSSION AND CORRESPONDENCE

CORROSION OF POLISHED METAL SURFACES BY ULTRA VIOLET RADIATION

IN previous investigations of the reflecting power of metals no mention is made of the corrosion of polished surfaces by the action of ultra violet radiation which seems to accelerate atmospheric corrosion.

In the course of an investigation of the ultra violet reflecting power of metals and of sulphides having a high metallic lustre Mr. C. W. Hughes and I have observed that portions of the surface which are exposed to ultra violet light become tarnished, while the unexposed parts remain bright. This corrosion is best perceived by breathing lightly upon the surface. Its effect is to perceptibly lower the reflecting power in the spectral region of wave lengths less than 350 μ.

W. W. COBLENTZ

LOWELL OBSERVATORY

A QUESTION OF CLASSIFICATION

IN view of the extremely up-to-date attitude of the geneticists, cytologists and taxonomists, whose conclusions are changing almost from day to day, it is extraordinary to note how excessively conservative they seem to be when dealing with the larger questions of plant classification. In many current textbooks the same primary divisions, or sub-kingdoms, are accepted that were in vogue more than half a century ago. One is inclined to ask whether this is the result of ignorance or merely of indifference.

While it is true that a separation of the plant kingdom into properly coordinated primary divisions is by no means a simple matter, it is rather depressing to find, even in the latest texts,[1] excellent in many respects, no effort at the presentation of a classification more in keeping with our present knowledge of plant relationships. To find that great omnium gatherum of unrelated plant-groups, the

[1] For example, Sinnott's "Botany, Principles and Problems," recently reviewed in SCIENCE.