

F—Zoological Sciences: W. A. Riley, the University of Minnesota
 G—Botanical Sciences: E. J. Kraus, the University of Chicago
 H—Anthropology: Carl E. Guthe, the University of Michigan
 I—Psychology: Edwin G. Boring, Harvard University
 M—Engineering: Frank B. Jewett, the Bell Telephone Laboratories
 N—Medical Sciences: Louis B. Wilson, the Mayo Foundation
 O—Agriculture: W. C. Coffey, the University of Minnesota
 Q—Education: L. V. Koos, the University of Chicago

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SCIENTIFIC NOTES AND NEWS

A BUST of Henri Poincaré, the great mathematician, will be placed in the hall of the Academy of Sciences, Paris.

It is proposed, according to an Associated Press despatch from Paris, to confer on Mme. Curie the order of Commander of the Legion of Honor.

DR. WILHELM OSTWALD has been elected an honorary member of the Chemical Society, London.

PROFESSOR W. H. HOFFMANN, of the Finlay Institute, Habana, has been elected a member of the International Institute of African Languages and Cultures in London.

DR. ELMER A. SPERRY, at a meeting of the Engineering Association of Hawaii on December 13, was elected an honorary life member of that organization. Dr. Sperry was *en route* from Japan, where he had attended the World Engineering Congress, to the United States.

AN Associated Press dispatch announces that Orville Wright, "for the design and construction, with his brother, now deceased, of the first successful engine-propelled airplane," will be the recipient of the first Daniel Guggenheim Medal for notable achievement in the advancement of aeronautics. The award will be presented on the fiftieth anniversary of the American Society of Mechanical Engineers in Washington.

DR. LEE DE FOREST has been elected president of the Institute of Radio Engineers for 1930 to succeed Dr. A. Hoyt Taylor. Colonel A. G. Lee, radio engineer attached to the British Post Office in London, was elected vice-president. John V. L. Hogan and R. H. Marriott were reelected managers of the institute.

DR. HERBERT S. LANGFELD, professor of psychology and director of the laboratory at Princeton Univer-

sity, has been elected president of the American Psychological Association. Professor John F. Dashiell, of the University of North Carolina, and Dr. Arnold Gesell, professor of child hygiene and director of the psychological clinic at Yale University, have been elected directors.

ON account of the retirement of Dr. F. E. Smith, Professor F. J. M. Stratton, professor of astrophysics in the University of Cambridge, has been appointed acting general secretary of the British Association for the Advancement of Science for the period before the meeting of the association in Bristol in the autumn.

DR. R. L. KING, of the University of Pennsylvania, has been appointed associate professor of zoology in the State University of Iowa. Professor King will take up his work at the beginning of the second semester of the present school year.

WILLIAM EMBRY WRATHER, consulting geologist and petroleum engineer, of Dallas, Texas, has been appointed lecturer on the geology and economics of oil and gas at Yale University for the balance of the academic year.

DR. B. W. WEINBERGER has been appointed to the newly established chair of dental history and literature in New York University.

THE chair of geology in the University of Glasgow, recently vacated by Professor J. W. Gregory, has now been filled by the appointment of Mr. E. B. Bailey, of the Geological Survey.

PROFESSOR H. J. FLEURE, D.Sc., at present professor of geography and anthropology in the University College of Wales, has been appointed professor of geography in the University of Manchester.

PROFESSOR SYDNEY HOWARD VINES, who retired from the Sherardian chair of botany in the University

of Oxford in 1919, after serving for thirty-one years, celebrated his eightieth birthday on December 31.

THE title of emeritus professor has been conferred by the University of London on Dr. E. A. Gardner on his retirement from the Yates chair of archeology at University College, and on Dr. F. W. Oliver on his retirement from the Quain chair of botany at the college.

DR. LOUIS A. BAUER, director of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington since the establishment of the department on April 1, 1904, retired from this position on January 1, 1930, with the title of director emeritus. Provision is also made whereby if his health permit he may carry on studies during the coming year as a research associate of the institution. Mr. John A. Fleming, associated with Dr. Bauer as chief assistant in the Department of Terrestrial Magnetism since 1904, as assistant director for observational and administrative work during 1922 and 1923, and as assistant director in charge of operations since 1924, continues in charge of the work of the department with the title of acting director.

PROFESSOR ROBERT ROBINSON, of the University of London, has succeeded the late Professor W. H. Perkin as Waynflete professor of chemistry at the University of Oxford.

THE promotion has been announced by the U. S. Forest Service of District Forester C. M. Granger, of the Pacific Northwest District, to the position of head forest economist in charge of the nation-wide Forest Survey now being initiated by the Forest Service. Certain phases of the survey, such as the forest resource inventory and the study of growth, will be carried out by the regional forest experiment station under the general direction of Mr. Granger.

DR. LUCIUS HERBERT MERRILL, professor of biological and agricultural chemistry at the University of Maine, has been granted leave of absence and will devote a large part of his time to the work of state geologist, a position to which he was appointed last year by Governor Gardner. Dr. Merrill is a member of the class of 1883 and has served the university for 42 years, first as chemist in the Agricultural Experiment Station, and later as head of the department of biological and agricultural chemistry in the College of Agriculture. He is a brother of the late Dr. George Perkins Merrill, former head curator of geology of the National Museum at Washington.

PROFESSOR EMANUEL FRITZ, of the forestry division, College of Agriculture, the University of California, has left for Cornell University where he will be during the spring session exchange professor of

lumbering in the forest school. The exchange is with Professor A. B. Reeknagel, who has just completed a semester at the University of California.

DR. LEWELLYS F. BARKER, professor emeritus of medicine of the Johns Hopkins University School of Medicine, who has been lecturing at the University of California, expects to return to Baltimore in February by way of Panama, where he will attend the second annual congress of the Pan-American Medical Association.

DR. JAMES G. NEEDHAM, professor of entomology and limnology at Cornell University, will have charge of the work in field zoology at West Virginia University for twelve weeks, beginning about June 7. Transportation will be by motor cars and camps will be established, for a week or more each, at various parts of the state. The work will be carried on in cooperation with the field courses in botany so that a student may take one or both subjects during the summer.

THOMAS ADAMS, general director of plans and surveys of the Regional Plan of New York and its environs, begins during the second half of the academic year a study for the new Harvard School of City Planning. He will conduct research on the optimum densities for residential distribution in English garden cities and suburbs. During the last part of the second half of the academic year Mr. Adams will give before the School of City Planning several lectures on the subject of his investigation.

DR. H. DE FOREST, professor of botany at the University of Southern California, will be on sabbatical leave during the second half of this year. He will devote some six months to an investigation of the vegetation of southern California.

PROFESSOR ERNEST E. JUST, head of the department of zoology of Howard University, sailed on January 2 for Berlin where he will spend six months as guest investigator in the Kaiser Wilhelm Institut für Biologie, Berlin-Dahlem. Dr. Just was recently elected to the vice-presidency of the American Association of Zoologists.

DR. JOSEPH H. BARACH, for nineteen years a member of the staff of the Presbyterian Hospital of Pittsburgh, has been appointed director of the Falk Clinic, a free dispensary where eight hundred persons may be treated daily. The clinic, now under construction, is to be part of the medical center of the University of Pittsburgh and has been established by a gift of \$900,000 from Maurice Falk and the late Leon Falk and Leon Falk, Jr., business men of Pittsburgh. Plans for the building were drawn by E. P. Mellon, architect, assisted by W. L. Smith. Dr. Michael

Davis, a member of the staff of the Rosenwald Foundation of Chicago, was consultant. The clinic will be the clearing house for the entire hospital group. Every department represented in the hospital group will be included in the clinic.

PROFESSOR G. H. PARKER, of Harvard University, addressed the Mayo Foundation of Rochester, Minnesota, on January 2, 1930, on the "Secretary Action of the Nervous System."

THE Stanford University Medical School announces the forty-eighth course of popular medical lectures to be given on alternate Friday evenings, beginning on January 10. These are: "Diabetes, the Cause and Cure," Dr. Horace Gray; "Some Sanitary Sins of the Orient," Dr. Alfred C. Reed; "Dental Caries as Viewed by the Bacteriologist," Dr. T. D. Beckwith; "What Medicine has to Offer the Nervous Patient," Dr. Henry G. Mehrtens; "Lessons from the Biography of Genius," Dr. Lewis M. Terman, and "Poisonous Animals," Dr. Karl F. Meyer.

EDWARD STEPHEN HARKNESS, of New York, has given to Yale University funds for the construction of dormitories on the lines of the colleges of the English universities. Five new quadrangles will be built and three existing groups reconditioned with the funds. Under the house plan from 200 to 250 students will live together under the leadership of a member of the faculty. The gift, it is understood, also provides for an endowment fund to be used as salaries for residential heads and for the establishment of the tutorial system of teaching. The amount is reported to be larger than the \$12,000,000 that Mr. Harkness recently gave to Harvard University for the same purpose.

HARVARD UNIVERSITY will receive an unrestricted bequest of nearly \$5,000,000 under the will of the late Stuart Wyeth, of Philadelphia.

THE Commonwealth Fund will give this year and in 1931 and 1932 \$35,600 to the Columbia Dental School to study the causes of dental disease. The study will be made in cooperation with a group at Yale University engaged in a similar project under a grant from the Rockefeller Foundation, and also with other research workers in this country and Europe.

PLANS for the development of the department of chemistry of the University of Chicago, made possible by the new George Herbert Jones Laboratory, were outlined by Professor Julius Stieglitz, chairman, at a dinner which concluded the recent dedication program. The laboratory, gift of the Chicago citizen whose

name it bears, provides facilities for more than a hundred research workers in chemistry. The cost was \$665,000. The Rockefeller Foundation and the General Education Board have contributed \$300,000 in endowment for the development of the staff of the department and for the purchase and maintenance of equipment necessary for their research work. In addition, the Chemical Foundation appropriated the sum of \$10,000 a year for five years for research in chemistry applied to medicine. Pierre S. du Pont has given \$10,000 a year for two years, to be expended in research in cancer from the chemical end, under the direction of Associate Professor Morris Kharasch. Strengthening of the staff, in anticipation of the improved opportunities afforded by the new laboratory, has already been achieved. Dr. Kharasch, of the University of Maryland, was brought to the University of Chicago a year ago. On January 1 Professor T. R. Hogness, now of the University of California, joined the staff as a permanent member. He will enable the department to develop more rapidly and intensively the application of light to the solution of chemical problems, especially those in connection with molecules and atoms. Dr. Preston Harris, at present of the department of physics, will join the staff in the spring quarter. His field of research is the application to chemical problems of the X-ray.

THE fourteenth annual meeting of the Pacific Division of the American Association for the Advancement of Science will be held at the University of Oregon, Eugene, June 18-21, 1930. It is five years since a meeting of the association has been held in the Pacific Northwest, the last having been held at Portland in 1925. An attendance of approximately five hundred representatives of many of the associated societies and of several groups not formally associated is expected. The dormitories of the university will accommodate about four hundred. According to preliminary plans, a symposium on trees will be one feature of the program. Members proposing to present papers are reminded that titles must be sent in to secretaries of societies not later than May 1. Preliminary announcements will be sent out in the middle of March.

THROUGH its applied mechanics division, The American Society of Mechanical Engineers will participate in the Third International Congress of Applied Mechanics to be held in Stockholm from August 24 to 29. The division has appointed a special committee, of which Dr. S. Timoshenko is chairman, to take care of the details, in connection with its part in this congress. The field of interest of this coming convention lies in hydrodynamics and aerodynamics, theory of elasticity,

and rational mechanics. The applied mechanics division of the society is also arranging a tour of the most important European laboratories in mechanics. Following the Stockholm Congress there will be a congress on general mechanical engineering to be held in Liège, Belgium, from August 31 to September 7, which is being held at the same time as the Belgium International Exposition.

THE tenth summer term of ten weeks of the American School of Prehistoric Research, under the direction of Professor George Grant MacCurdy, of Yale University, assisted by Mr. J. Townsend Russell, Jr., of the U. S. National Museum, will open in Paris on July 1. The field to be covered includes Paris museums, Valley of the Soame at Amiens, Brittany, northern Spain with excavations near Santander, the Pyrenees, Dordogne with excavations at St. Leon-sur-Vézère and Switzerland. In addition, the students will have opportunities to do field work in Czechoslovakia under the supervision of Messrs. V. J. Fewkes, of the University of Pennsylvania, and Robert W. Erich, of Harvard University. Applications for enrollment should be made as soon as possible to Dr. George Grant MacCurdy, Peabody Museum, New Haven, Connecticut.

AFTER a stay of four months the Oxford University

Expedition to British Guiana has decided to return to England. It is stated that the expedition, which is under the leadership of Major R. W. G. Hingston, has secured what is said to be the best botanical and bird collections yet made in the forests of British Guiana.

Industrial and Engineering Chemistry reports that a chemical research bureau, with American participation, has been established in Zurich, Switzerland, under the name of the Colloid Chemical Research, Inc. The purpose is not only to conduct chemical research, particularly in the colloid chemical field, but also to acquire patents and processes for commercial development and to erect laboratories in Switzerland and elsewhere.

THE U. S. Civil Service Commission announces examinations for associate and assistant agronomist, applications to be on file by February 12. The examinations are to fill vacancies occurring in the Bureau of Plant Industry, Department of Agriculture, for duty in the field. At present there is a vacancy in the associate grade at Bellingham, Washington, and there are vacancies in the assistant grade at Huntley, Montana, and Fort Collins, Colorado. The entrance salaries range from \$3,200 to \$3,700 a year for the associate grade and from \$2,600 to \$3,100 a year for the assistant grade.

DISCUSSION

THE MICROMETRIC MUDDLE

IN an article with this title published in a recent issue of *SCIENCE*,¹ Mr. John P. Camp discusses the use and the interpretation of the symbol μ . One might infer from the penultimate sentence of his article that he thinks that such questions might properly be settled by the simple process of counting the noses of those on the two sides. However such a method may work in politics, it scarcely accords with scientific ideals and, if adopted, would lead to ever-increasing disorder and confusion. It is a matter of common experience that new terms and new uses of old ones are most enthusiastically proposed and most avidly seized upon by those least qualified to decide what is needed and what accords best with established custom.

The confusion to which he refers seems to have arisen from a very common, but incorrect, definition of the micron (μ). It is commonly defined as a thousandth of a millimeter, and this suggests that μ indicates the one thousandth part. Neither is correct. The length of a micron is equal to the one thousandth part of a millimeter, but the proper definition of the

micron is the millionth part of a meter. In the metric system, all units of the same kind refer to the fundamental unit, in this case the meter. As we have the myriameter (10,000 m), the kilometer (1000 m), the hectometer (100 m), the dekameter (10 m), the decimeter (0.1 m), the centimeter (0.01 m), the millimeter (0.001 m), so we have the micro-meter—called the micron—(0.000,000,1 m). With but few exceptions, the symbol of each unit is the dyad formed from the initial letters of the prefix and the name of the fundamental unit. According to this rule, the symbol for the micron would be μ m, but μ has been used universally, I believe. Not only here, but in every case, in the metric system the prefix micro- and the symbol μ denote the one millionth part; for example, microsecond, microgram, microfarad, micro-microfarad, microhenry, microhm, microlambert. Consequently, consistency demands that $\mu\mu$ shall indicate the millionth of a millionth, and nothing else, and that $m\mu$ shall indicate the thousandth of a millionth. Furthermore, both must refer to the basic unit, not to a subsidiary one.

The unfortunate use of $\mu\mu$ to indicate a thousandth part of a micron seems to have been introduced by Kayser in 1883. It is well sponsored and probably

¹ *SCIENCE*, 70: 453, November 8, 1929.