

level of the plain on northern and eastern sides of the dome. These are the canyons of Lostine River, Hurricane Creek, Wallowa River, Big Sheep Creek (perhaps) and Imnaha River. The alpine sculpture is magnificent. To the physiographer, the unusually perfect state of preservation of the moraine which encloses Wallowa Lake is most impressive. The lateral moraines reach a height of 700 feet above the water level of the lake and the steepness of the inner slope is quite unbelievable. Professor Smith finds the outer slope records five advances of the ice. Only at the outlet of the lake is any part of the moraine disturbed since the recession of the ice.

To the ecologist this oasis in the midst of semi-desert (Upper Sonoran), with lush temperate vegetation in lower valleys, extending upward to alpine, is a paradise for exploration.

As mountaineering goes, one reaches all these charming possibilities with absurd ease from the friendly little agricultural villages of Enterprise, Joseph, Lostine and Wallowa. The car is parked at the end of a good forest road two thirds of the distance between the entrance of the mountain valley and the base of Eagle Cap. Nine miles of good foot or horse trail reaches the lake basin at about 8,000 feet elevation and surrounding peaks reach about 9,800.

THOMAS LARGE

SPOKANE, WASHINGTON

THE SCHOOL OF ENGINEERING OF YALE UNIVERSITY

THE Yale Corporation has authorized the existing division of engineering to assume the status of a school with the title of the Yale School of Engineering. The school will include the functions and activities in civil engineering (including drawing), chemical, electrical and mechanical engineering, metallurgy and engineering mechanics.

This organization is the result of a proposal made by a committee which for over a year has been studying the teaching of science and engineering at the university. It has long been desired by the departments of engineering, and the recommendation has the ap-

proval of the Board of Permanent Officers of the Sheffield Scientific School.

Dean Charles H. Warren, of the Sheffield Scientific School, in explaining the organization of the Engineering School, said in part:

Previous to 1919 all instruction at Yale in engineering was given in the Sheffield Scientific School. After the reorganization of the university in that year undergraduate instruction in engineering remained in the Scientific School, but the graduate work was transferred to the Graduate School.

Believing that engineering work of all grades, together with research and other activities in the engineering departments, constitutes a distinctive unit within the university requiring a unified control for its administration and the satisfactory coordination of its parts, the Division of Engineering, which includes the several engineering departments, has for some years performed what are virtually the functions of a faculty of engineering. Their recommendations have, however, been subject to the approval of the boards of the Scientific School and the Graduate School, respectively, and the activities of the engineering departments have in general been under the dual control.

While this arrangement has worked reasonably well, it is from the administrative point of view needlessly cumbersome, and furthermore it has been felt by the engineers that the interests of engineering would be advanced more rapidly if the engineering departments were given the status of a school of engineering under its own dean and board of permanent officers, a form of organization which has long since been followed by every other university in the country.

Under this new arrangement all students of engineering will from now on be under the jurisdiction of an engineering faculty, and the engineering degrees will be conferred upon its recommendation. This change will not, however, modify in any essential particular the general conduct of the instructional work, nor the other activities of the engineering departments. Undergraduate students will be admitted, as in the past, to the freshman year and from it will enter the undergraduate department of the engineering school. Their relations with other undergraduates, and in regard to all social and extra-curricular activities, will remain exactly as at present.

SCIENTIFIC NOTES AND NEWS

A DINNER in honor of Dr. Ernest W. Brown, Gibbs professor of mathematics at Yale University, who becomes professor emeritus at the end of the academic year, was held at the New Haven Lawn Club on May 24. The dinner was given by members of the three university departments with which Professor Brown has been associated: astronomy, mathematics and physics. Dean Clarence W. Mendell was toastmaster. Addresses were given by Dr. Frank Schles-

inger, director of the University Observatory; Professor Oystein Ore, director of graduate studies in mathematics; Governor Wilbur Cross, dean emeritus of the Graduate School, and President James Rowland Angell.

THE degree of honorary doctor of veterinary medicine was conferred upon Dr. Theobald Smith, of the Rockefeller Institute for Medical Research, by the

University of Giessen at the hundredth anniversary of the granting of veterinary degrees.

At the sixty-ninth commencement of the University of California, the degree of doctor of laws was conferred on Dr. Joseph Erlanger, professor of physiology in the Washington University (St. Louis) School of Medicine.

THE honorary degree of doctor of science was conferred upon Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, on the occasion of the thirty-third commencement of Clarkson College, Potsdam, New York. Dr. Compton made the principal address.

ACADIA UNIVERSITY, Wolfville, Nova Scotia, at its ninety-fourth commencement, conferred the honorary doctorate of science on Laurie D. Cox, professor of landscape engineering at the New York State College of Forestry, Syracuse, and the honorary degree of doctor in civil law on Merritt Lyndon Fernald, Fisher professor of natural history in Harvard University.

At the commencement exercises of the Worcester Polytechnic Institute on June 17, the honorary degree of doctor of engineering will be conferred on four graduates of the college. They are: Leon P. Alford, vice-president of the Ronald Press Company, New York; John J. Donovan, vice-president of the Bloedel-Donovan Lumber Mills; Alfred D. Flinn, director of the Engineering Foundation, New York, and George W. Patterson, powder expert at the Naval Powder Factory. Mr. Donovan will deliver the commencement address.

HONORARY degrees conferred by Columbia University at commencement included the doctorate of science on Dr. Dugald C. Jackson, professor of electric power production and distribution at the Massachusetts Institute of Technology. The citation by President Butler read: "Dugald Caleb Jackson, professor in the Massachusetts Institute of Technology, native of Pennsylvania, and trained at Pennsylvania State College and at Cornell University; closely uniting industrial experience with scientific research, and, after sixteen years of service at the University of Wisconsin, passing a quarter-century ago to the department of electrical engineering at the Massachusetts Institute of Technology, active in a score of ways as engineer, as educator and as administrator; honored at home and abroad for distinction of mind and of service marked by broad vision, boundless energy and vigorous leadership; a true ornament of our country's scientific endeavor and of its educational force."

THE Roosevelt medal for distinguished service has been awarded to Dr. Robert A. Millikan and will be presented to him at a dinner to be given on the sev-

enty-fourth anniversary of President Roosevelt's birthday, on the evening of October 27. Heretofore since the establishment of the medal in 1923 three awards have been made annually. In a statement announcing the single award this year, Dr. James R. Garfield, president of the Roosevelt Memorial Association, said: "Dr. Millikan combines in a striking degree the qualities of a scientist, an administrator, a teacher, a philosopher and public servant. He has been conspicuous in the movement of scientific speculation away from the materialistic and mechanistic theories of the nineteenth century toward spiritual conceptions in harmony with the aspirations of religion."

THE Lamme medals of the Ohio State University, for "meritorious achievements in engineering and the technical arts," will be presented to Albert V. Bleining, chemist to the Homer Laughlin China Company, and to Ralph D. Mershon, consulting engineer and chemist, New York, at the fifty-fifth commencement on June 13.

PROFESSOR DOUGLAS JOHNSON, of Columbia University, has been elected a corresponding member of the Geological Society of Belgium.

THE Jacksonian Prize for 1931 of the Royal College of Surgeons has been awarded to J. Paterson Ross, of St. Bartholomew's Hospital, for his essay on the surgery of the sympathetic nervous system. A certificate of honorable mention for an essay on the same subject was granted to Lambert Charles Rogers, of the Royal Infirmary, Cardiff.

PROFESSOR GIUSEPPE PIANESE, professor of anatomy and pathological histology at the University of Naples, was recently appointed an academician of Italy.

DR. ROBERT A. MILLIKAN, of the California Institute of Technology, was reelected president of the board of directors of the National Advisory Council on Radio in Education at the second annual assembly in Buffalo, New York, held from May 18 to 20. Other officers reelected were: *vice-presidents*, Livingston Farrand, Meta Glass, Robert M. Hutchins, Michael I. Pupin, Walter Dill Scott; *chairman of the board*, Norman H. Davis; *vice-chairman*, William J. Donovan; *treasurer*, Ralph Hayes; *secretary and director*, Levering Tyson.

THE Botanical Society of New Orleans has elected the following officers for the year 1932-33: Dr. L. J. Pessin, associate ecologist, Southern Forest Experiment Station, *president*; Miss Anna Haas, *vice-president*; Philip C. Wakeley, associate silviculturist, Southern Forest Experiment Station, *secretary*, and Paul V. Siggers, Bureau of Plant Industry, *treasurer*.

At the annual dinner of the society on May 10, Dr. Miriam L. Bomhard, assistant professor of biology at Newcomb College, spoke on "Palms in New Orleans."

HENRY HARRISON HENLINE, assistant national secretary of the American Institute of Electrical Engineers since 1927, has been appointed acting national secretary of the institute. Mr. Henline was appointed to fill the vacancy created by the death in February of F. L. Hutchinson who had been national secretary for twenty years.

PROFESSOR LEON B. RICHARDSON, of the department of chemistry of Dartmouth College, has succeeded Professor W. S. Messer as president of the college chapter of the American Association of University Professors.

DR. MORRIS SCHERAGO, head of the department of bacteriology at the University of Kentucky, has been elected an associate member of the American Society of Clinical Pathologists.

DR. GEORGE S. BEL, emeritus professor of theory and practice of medicine and clinical medicine, Tulane University of Louisiana School of Medicine, New Orleans, has been appointed professor of the principles and practice of medicine in Louisiana State University Medical Center, succeeding the late Dr. James Birney Guthrie.

THE department of zoology at the University of Minnesota announces the appointment of Dr. Clarence P. Oliver as assistant professor of zoology. Dr. Oliver will give the courses in genetics.

DR. ROBERT F. MEHL, assistant director of research for the American Rolling Mill Company, Middletown, Ohio, has been appointed as director of the bureau of metallurgical research at the Carnegie Institute of Technology. Under his direction and through a grant from the Carnegie Corporation the work of the laboratory will be extended.

DR. F. B. MUMFORD, dean of the University of Missouri and director of the Agricultural Experiment Station, has returned from six months' absence in European countries, where he made a study of agricultural education and research, and of what governments are doing to aid agriculture. Dr. A. E. Murneek, associate professor of horticulture, has returned from a similar absence spent in studying the work being done by institutions in eastern and central Europe and in Russia in the field of plant physiology.

DR. GEORGE DOCK, Pasadena, California, formerly head of the department of medicine at the University of Michigan, will be this month the honor guest of the 1907 medical class at its twenty-fifth reunion. Dr.

Dock will give a medical clinic at the University Hospital on June 18, to which former students and alumni are invited.

DR. HENRY J. GERSTENBERGER, professor of pediatrics in the School of Medicine of Western Reserve University, gave on May 24 the annual address before the Case Chapter of the Society of the Sigma Xi. His subject was "Studies in Human Rickets."

DR. W. F. G. SWANN, of the Bartol Research Foundation; Dr. Saul Dushman, of the General Electric Company; Professor Debye, of the University of Leipzig, and Professor Charles A. Kraus, of Brown University, are the special lecturers this summer in the department of physics of the Ohio State University. In the issue of SCIENCE for May 27, it was stated erroneously that the lectures were to be given at the University of Illinois.

A GRANT of \$250.00 from the Committee of Scientific Research of the American Medical Association has been made to the department of physiology of the University of Cincinnati to further the work of Dr. Esther Bogen Tietz on pseudo-pregnancy in rabbits.

THE University of Maryland celebrated the one hundred and twenty-fifth anniversary of its founding on June 3. The exercises were held in Baltimore and at College Park. Speakers included Dr. William H. Welch, director emeritus, of the Johns Hopkins University Institute of the History of Medicine, and John H. Finley, associate editor of *The New York Times*.

WE learn from *Nature* that the Fifth International Congress of Scientific Management will be held at the Koloniaal Instituut, Amsterdam, from July 18 to 23. The subjects to be discussed include costing, markets, technical and mental education of foremen for rationalization, systems of promotion, rationalization as a part of education, costs of retail distribution, agricultural labor and rationalization in various types of industry. Papers from many countries have been contributed through the national associations or committees and are being published in two volumes in advance of the meeting; summaries only will be read at the sessions of the congress. Excursions in Amsterdam, to Eindhoven, the Zuider Zee and to Rotterdam are being arranged, and continental railways are giving special facilities for those attending the congress. The general secretary for the congress is Mr. V. W. van Gogh, Herengracht 209, Amsterdam.

AT the House of the Royal Society of Medicine on May 19, Sir Charles Sherrington, the recent Hughlings Jackson lecturer, was presented with the Hughlings Jackson gold medal together with an honorarium of 100 guineas. The presentation was made by Dr. T. Watts Eden, president of the Royal Society of

Medicine. The London *Times* recalls that the Hughlings Jackson lecture was founded in 1897 to honor Dr. Hughlings Jackson, and in recognition of his service to humanity by his work on the functions of the nervous system. For some time it has been felt that so important a commemoration lecture should not go unendowed. Subscriptions for an endowment were invited from neurologists all over the world, and with the money raised the Hughlings Jackson lecturers will receive a gold medal and an honorarium of 100 guineas. Sir Charles Sherrington is the first lecturer to receive the medal and honorarium. He also receives the diploma of honorary membership of the Section of Neurology of the Royal Society of Medicine. After the presentation Sir James Crichton-Browne gave personal reminiscences of Dr. Hughlings Jackson, and Mr. Leslie Paton (chairman of the Fund Committee) presented Dr. Watts Eden with two silver replicas of the medal for the Royal Society of Medicine. The design for the gold medal is the work of Mr. Percy Metcalfe, and the dies have been prepared by the Royal Mint.

A CORRESPONDENT writes: "The Brooklyn Botanic Garden has recently inaugurated a feature which is probably unique for botanic gardens, and possibly unique in the way of geological education. This consists in placing on about twenty-eight boulders in the Botanic Garden small bronze tablets, giving the composition of the boulder, the geological age to which it belongs, stating that it was transported to the Botanic Garden by the continental ice sheet during the Ice Age, and giving approximate location of the rock ledge from which the boulder was dislodged. In connection with these labels, the Botanic Garden has edited a "Guide to Our Boulders; Geological History of the Brooklyn Botanic Garden." This appears as the May issue of the Brooklyn Botanic Garden *Record*. The principal part of the guide is written by Dr. Ernst Antevs—one of the leading authorities on certain aspects of glacial geology. It is richly illustrated with maps and views."

Nature states that Sir Frank Dyson, Astronomer Royal, opened the new Mond photographic equatorial and dome at the Norman Lockyer Observatory, Salcombe Regis, Sidmouth, on May 28. The Norman Lockyer Observatory is the only astronomical observatory in Great Britain founded and maintained by a private corporation under the Companies (Consolidation) Act of 1908. Since it was started, nearly twenty years ago, it has been equipped and maintained entirely by private donations. The equipment includes two twin telescopes, one with a 10 in. object glass and a 12 in. prismatic camera, and the other with a 10 in. object glass and a 9 in. prismatic camera

for photographing the spectra of stars and other celestial bodies. A very large collection of such photographs, numbering 6,500, has already been taken at the observatory, affording valuable records of the nature and movements of objects in the stellar universe. Dr. Robert Mond, who has been a generous supporter of the observatory since it was founded, has now presented a unique photographic equatorial, with a separate building and dome to house it. The instrument consists of a battery of four cameras with clock mechanism, so that it will be possible to follow automatically movements of the heavens over a wide field of the sky.

A COLLECTION of Brazilian plants, gathered about a century ago by the Scandinavian naturalists, Eugene Warming and Wilhelm Lund, has been received at the Field Museum of Natural History from the University Museum of Copenhagen, Denmark.

SEVERAL members of the committee on fuels and lubricants of the American Society of Agricultural Engineers, of which R. B. Gray, chief of the division of mechanical equipment of the Bureau of Agricultural Engineering, of the U. S. Department of Agriculture, is chairman, recently visited a number of tractor and engine manufacturers in the Central West with a view to improving the performance and efficiency of tractors and engines.

A 50,000-ACRE national-forest tract in Montana has been set aside by the Forest Service as a "primitive area." The area, on the Gallatin-Madison County line in the Gallatin National Forest, abounds in flowers, trout and game, and includes the Spanish Peaks mountain group, widely known for its scenic grandeur, and about twenty beautiful, small alpine lakes. It is to be known as the Spanish Peaks Primitive Area.

CHINSEGUT HILL, a 2,082-acre tract in Hernando County, Florida, has been deeded by the owners, Colonel and Mrs. Raymond Robins, to the Department of Agriculture for use in the work of the department. The area will be used as a bird refuge; and also, in cooperation with the Florida Agricultural Experiment Station, in studies of problems relating to citrus fruits, livestock, feed and forage production and related problems. A diversity of cover and the existence of lakes and marshes lend additional value to the tract for the conservation of many species of wild life, including migratory birds. Great appreciation was expressed by Secretary Hyde and other officials of the department to Colonel and Mrs. Robins for their contribution to wild-life conservation and to the agricultural development of the South. The former owners will continue to live in the old mansion house on the area for such time as they desire.