the Department of Physics, they were accepted in behalf of the university by Regent J. E. Beal. The tablets were the gifts of former students and colleagues and were inscribed as follows:

THIS TABLET IS ERECTED BY FRIENDS AND FORMER STUDENTS OF JOHN OREN REED 1856-1916

PROFESSOR OF PHYSICS AND DEAN OF THE DEPARTMENT OF LITERATURE, SCIENCE AND THE ARTS, IN MEMORY OF HIS TWENTY-FOUR YEARS OF FAITHFUL SERVICE AS A TEACHER AND IN GRATITUDE FOR THE INSPIRATION GIVEN THEM BY HIS STAUNCHNESS OF CHARACTER AND BY HIS UNSWERVING DEVOTION TO TRUTH AND TO PROGRESS.

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KARL EUGEN GUTHE, PH.D., BORN MARCH 5, 1866. DIED SEPTEMBER 10, 1915. AN EMINENT PHYSICIST, A BELOVED TEACHER, PROFESSOR OF PHYSICS AND DEAN OF THE GRADUATE SCHOOL OF THIS UNIVERSITY THIS TABLET IS ERECTED BY HIS STUDENTS AND COLLEAGUES IN AFFECTIONATE REMEMBRANCE MDCCCCXVII

SCIENTIFIC NOTES AND NEWS

ADOLF VON BAEYER, professor of chemistry at Munich, distinguished for his work on synthetic indigo and in other directions, has died at the age of eighty-two years.

THE death is also announced of Eduard Buchner, professor of chemistry at Würzburg, who died from wounds while serving as major at the front. Dr. Buchner was distinguished for his work on the chemistry of fermentation, and was the recipient of the Nobel prize for chemistry in 1907.

Dr. G. MüLLER has been appointed director of the astrophysical observatory at Potsdam, in succession to the late Professor K. Schwarzschild.

THE Paris Academy of Sciences has elected the following eight members as a committee on scientific research: MM. A. Laveran, from the section of medicine and surgery; Th. Schloesing, from the section of rural economy; Edm. Perrier, from the section of anatomy and zoology; J. L. Guignard, from the section of botany, and MM. G. Lipmann, E. Picard, A. Gautier, A. Lacroix, from the academy at large.

THE Paris Academy of Sciences has awarded prizes in mechanics and mathematics as follows: The Bordin prize of 3,000 frs. has been awarded to M. Gaston Julia, now lieutenant in the army; the Francoeur prize of 1,000 frs. to M. Henri Villat, lecturer at Montpellier for his publications on hydrodynamics; the Montyon prize of 700 frs. to M. René de Sausseure, docent at Geneva, for his work in mechanics; the Poncelet prize of 200 frs. to M. Jules Andrade, professor at Besançon, for his work in applied mechanics, especially chronometry.

DR. HENRY J. WATERS, Manhattan, Kans.; Leon S. Merrill, Orono, Me.; Dr. Edwin F. Ladd, Fargo, N. D.; and David R. Coker, Hartsville, S. C., have been appointed state food administrators by the federal government.

FLOYD R. HARRISON, connected with the Department of Agriculture since 1906 in various capacities, has been appointed an assistant to the Secretary of Agriculture during the present emergency.

MR. F. F. LONGLEY, a member of the firm of sanitary engineers of Hazen and Whipple, has been made a major and sent to France to assume complete charge of the water supply for the American forces.

DR. HUGO DIEMER, professor of industrial engineering in the Pennsylvania State College, has accepted a commission as major in the Ordnance Section of the Officers' Reserve Corps.

THE American Red Cross has appropriated \$800,000 to meet sanitary emergencies in the civilian areas surrounding army cantonments. A bureau under the direction of Dr. W. H. Frost, of the Public Health Service, will have charge of the work. The Red Cross will undertake such sanitary management only by request of the local organization in charge.

DR. VICTOR G. HEISER, director of the Department of the East of the International Health Board of the Rockefeller Foundation, is a member of the commission of the Red Cross which is making a survey of conditions in Italy, preliminary to a possible appropriation for relief by the Red Cross. Dr. Heiser has also consented, if the matter is undertaken, to head the work of establishing Red Cross relief stations in seaports having military significance for the United States and its Allies.

PROFESSOR WALTER T. FISHLEIGH, of the University of Michigan, has been commissioned as major, to act as automobile engineer to the U. S. Medical Corps in charge of the engineering, testing, inspection, maintenance and repairs of all American ambulances in the army, both in this country and abroad. Professor Felix W. Pawlowski, also of the University of Michigan, is in the government service as aeronautical engineer in the signal corps with headquarters at the War Department at Washington.

DR. EDGAR T. WHERRY, for the past four years assistant curator of the division of mineralogy and petrology of the U. S. National Museum, has been transferred to the position of crystallographer in the Bureau of Chemistry of the U. S. Department of Agriculture.

DR. L. E. DICKSON, professor of mathematics in the University of California, has accepted an invitation to be a visiting professor at the University of California for the first half of the coming academic year. He will return to the University of Chicago on December 20.

DR. E. O. HOVEY, curator of geology in the American Museum of Natural History, has reached home safely after an absence of over two years with the Crocker relief expedition.

DR. A. W. GILBERT, professor of plant breeding at Cornell University, who has been on leave of absence for graduate work in rural economics at Harvard University, has resigned to accept an appointment with the Boston Chamber of Commerce. Donald K. Tressler, assistant in agricultural chemistry at the university, has also resigned to accept a position with the Bureau of Soils of the U. S. Department of Agriculture.

DR. MARK FRANCIS, of the Agricultural and Mechanical College of Texas, recently secured the vertebræ of some dinosaurs from the vicinity of Riesel near Waco. He has added these to the collection of Texas vertebrate fossils which he has been accumulating for some years and which includes the type specimens of Equus Francisii, named by Dr. O. P. Hay, of the National Museum, from material found near Eagle Lake, Texas.

THE surgeon-general's office desires the names, addresses and ages of men in each class of every reputable medical school who have been drawn and accepted for military service under the provisions of the selective draft, these names to be vouched for by the deans of the respective medical colleges.

THE board of health of Akron, Ohio, is seeking a health officer to take charge of the board of health, the salary of the position being \$3,500.

THE National Bureau of Standards has not vet obtained all the men needed to fill metallurgical positions with salaries varying from \$1,200 to \$2,000, depending upon the training and experience of the candidate. Men are desired with experience either in ferrous or nonferrous metallurgy. The duties in such positions will be almost entirely of an investigational nature, in connection with problems of military importance. Qualified men are urged to communicate to the Bureau of Standards at once a statement of training and experience, names of references, and minimum salary which would be accepted, so that they may be advised of appropriate civil service examination for which to file papers. Until further notice such papers are received by the Civil Service Commission at any time and rated promptly.

The Experiment Station Record states that as a result of experiments conducted by the department of chemistry of the South Dakota Agricultural College during the past twenty years, it is expected that sugar-beet factories will soon be established in both the eastern and the western part of the state. Information from western South Dakota, where sugar beets are being raised on a large scale, shows that the price of land has greatly increased. The loss of so many sugar factories in Belgium and France is reported as stimulating efforts to produce more sugar in this country.

UNIVERSITY AND EDUCATIONAL NEWS

DR. HENRY FREEMAN WALKER has bequeathed \$100,000 to Middlebury College, to provide full salary for a professor on Sabbatical leave, any balance is to be used as an emergency fund for members of the faculty.

THE Experiment Station Record states that provision has been made by the Texas legislature for establishing a third junior agricultural college, to be known as the Northeast Texas Agricultural College. An appropriation of \$250,000 has been made for its establishment and maintenance. The board of directors of the State Agricultural and Mechanical College is given control over the institution. State appropriations have also been made for the station and substations aggregating \$225,095 for the year beginning September 1, and \$181,270 for the following year.

A CHAIR of aviation has been founded in the London University by M. Basel Zaharoff, who before the war had established similar professorships in the universities of Paris and of Petrograd.

Ross AIKEN GORTNER, Ph.D. (Columbia), associate professor of agricultural biochemistry in the University of Minnesota, has been appointed professor and head of the division of agricultural biochemistry in the university and chief of the division of agricultural biochemistry in the Minnesota Agricultural Experiment Station, succeeding R. W. Thatcher who becomes dean and director of the department of agriculture in the same institution. R. Adams Dutcher, assistant professor of agricultural chemistry in the Oregon Agricultural College, and Clarence A. Morrow, professor and head of the department of chemistry in Nebraska Weslevan University, have been appointed assistant professors of agricultural biochemistry in the University of Minnesota. Clyde H. Bailey, cereal technologist and assistant professor of agricultural chemistry in the University of Minnesota, who for the past year has been on leave of absence and has been employed as chemist for the Minnesota State Board of Grain Appeals, Minneapolis, has resumed his duties in the university and has been promoted to an associate professorship in the division of agricultural biochemistry.

C. W. Howard, associate professor of entomology and parasitology of the University of Minnesota, has accepted the position of professor of biology in Canton Christian College, Canton, China. Professor Howard will sail from San Francisco the middle of October, visiting Hawaiian Islands, Manila and Japan *en route*. Canton Christian College is the only institution of collegiate rank in South China. The rapid growth of the agricultural and medical departments has made necessary the organization of a department of biology.

DR. L. B. AREY has been promoted from instructor to associate professor of anatomy in the Northwestern University Medical School.

DR. RAYMOND FREAS has been appointed adjunct professor of chemistry in the University of Virginia.

DR. J. ARCE has been appointed to a newly established chair of tropical pathology in the University of Lima, Peru.

DISCUSSION AND CORRESPONDENCE THE INTERPRETATION OF THE RESULTS OF FIELD EXPERIMENTS WITH DIFFERENT PHOSPHATES

The interpretation of results of field experiments with different phosphates is of present interest, especially as the conclusions reached by several investigators are being challenged by Dr. C. G. Hopkins, of the Illinois Agricultural Experiment Station.¹ As is well known, Dr. Hopkins has for several years been the ardent champion of raw rock phosphate as a fertilizer. He has been largely dependent, however, on data secured by others. In fact, not until very recently had he published re-

¹ Hopkins, C. G., "Phosphates and Honesty," Ill. Agri. Exp. Sta., Circular 186.