

physician-in-chief of the Johns Hopkins Hospital, has resigned.

PROFESSOR ERNEST W. BROWN, of Yale University, has been elected a correspondent of the French Academy of Science.

THE Vienna Medical Society at a recent meeting elected to honorary membership as token of gratitude for their efforts in promoting the public health of Austria, Mr. Herbert Hoover, of Washington, D. C., and Dr. F. Ferrière, the vice-president of the International Red Cross, at Geneva.

THE University of Dublin has conferred the honorary degree of doctor of science upon A. A. Michelson, professor of physics in the University of Chicago; W. M. Bayliss, professor of general physiology in University College, London, and E. Borel, professor of the theory of functions at the Sorbonne, Paris.

PROFESSOR C. S. SHERRINGTON, president of the Royal Society, has been elected a member of the Athenæum Club under the provision for the election of persons "of distinguished eminence in science, literature, the arts, or for public service."

THE Royal medals of the Royal Geographical Society have been awarded as follows: Founder's medal to Mr. Vilhjalmur Stefansson, "for his distinguished services to the Dominion of Canada in the exploration of the Arctic Ocean"; and Patron's medal to General Bourgeois, senator for Alsace, "for his long and eminent services to geography and geodesy." The council has made the other awards as follows: The Murchison grant to Commandant Maury, for his surveys in the Belgian Congo; the Bach grant to Miss Marian Newbigin, for her contribution to geography, particularly of the Balkans; the Cuthbert Peek grant to Captain J. B. L. Noel, for his reconnaissance of the eastern approaches to Mount Everest and other geographical work; and the Gill memorial to Lieutenant Colonel M. N. MacLeod, R.E., for his contribution to the theory of survey from air photographs.

DR. OSKAR KLOTZ, professor of pathology in the University of Pittsburgh Medical School, has been appointed representative of the International Health Board of the Rockefeller

Foundation for medical research work and education of São Paulo, Brazil, serving as director of a pathologic institute.

THE Food Research Institute, established by the Carnegie Corporation and Stanford University with Dr. C. L. Alsberg, formerly chief of the Bureau of Chemistry, United States Department of Agriculture as director, has appointed, to be associated with Dr. Alsberg, Alonzo E. Taylor, professor of physiological chemistry at the University of Pennsylvania, and Joseph S. Davies, assistant professor of economics at Harvard University. The directors will have authority to determine the scientific policies of the Institute and the problems to be studied. Leland Stanford, Jr., University has appointed as an advisory committee Herbert Hoover, Julius M. Barnes, Dr. J. C. Merriam, J. R. Howard, Dr. William M. Jardine and George Reeding.

DR. A. S. HITCHCOCK, systematic agrostologist of the U. S. Department of Agriculture, leaves about May 1 for an extended trip to the Orient. He will visit the Philippines, Japan, China, Indo-China, Singapore and Java, returning about January 1. He will study the grasses of the regions visited and will gather data especially for a revision of the bamboos of the world.

PROFESSOR MARSTON TAYLOR BOGERT, of Columbia University, gave an address at New York University on April 13, on "Science and disarmament."

#### UNIVERSITY AND EDUCATIONAL NEWS

A MAINTENANCE fund of \$30,000 a year has been promised to the Albany Medical College on condition that a similar amount is raised each year by the trustees. The Rockefeller Foundation will give \$20,000; the General Electric Company \$5,000, and Dr. Charles Alexander Richmond, president of Union University, \$5,000. The money this year must be raised by June 1 to make the \$30,000 available.

It is announced that the Ontario government will give immediate financial aid to the universities of the province as follows: University of Toronto, \$900,000; Queen's at Kings-

ton, \$325,000; the Western at London, \$200,000.

THE Pennsylvania State College has received from the children of the late J. Roberts Lowrie the gift of his herbarium. The collection comprises 2,750 mounted varieties representing 144 families and 707 genera.

WITH a portion of the funds at their disposal the trustees of the Captain Scott Memorial Fund have decided to establish a Polar Research Institute in connection with the new department of geography in the University of Cambridge.

THE exchange agreement, established before the war, between Buenos Aires medical schools and Paris schools, has been renewed. In August of this year Professors Marcel Labbé and G. Brumpt will go to Buenos Aires to give lecture courses. The Buenos Aires school will send to Paris either heads of clinics or laboratories to take postgraduate courses in Paris.

THE board of trustees of the Armour Institute of Technology has announced the appointment of Howard M. Raymond as acting president of that institution to fill temporarily the vacancy caused by the recent death of Dr. F. W. Gunsaulus.

FREDERICK H. SIBLEY, formerly professor of mechanical engineering at the University of Kansas, has been elected dean of the college of engineering at the University of Nevada. The college includes the four schools of civil, electrical and mechanical engineering and the Mackay School of Mines.

DR. OSKAR BANDISCH, formerly privat-docent in the University of Zurich, has accepted an appointment as research associate in biochemistry in Yale University. Dr. Bandisch received his training in organic chemistry at the Technische Hochschule in Zurich under Professor Baumberger, and has contributed much original work dealing with problems of plant assimilation and the influence of light on chemical reactions. His work at Yale will be entirely in the graduate school.

DR. SHEPHERD I. FRANZ and Dr. R. A. Cutting, respectively professor and associate pro-

fessor of physiology at the George Washington University Medical School, have resigned.

#### DISCUSSION AND CORRESPONDENCE ON THE USE OF THE TERMS "DENUDATION," "EROSION," "CORROSION" AND "CORRASION"

IN 1911 J. W. Gregory called attention to the looseness with which the above terms were used in geological and geographical literature,<sup>1</sup> and suggested certain restrictions in their meanings. Although the confusion in the use of these terms has been generally appreciated by geologists, Gregory's suggestions have met with little favor, and no effort seems to have been made to bring about a uniformity of usage. In fact, a review of various text-books which have appeared since the publication of Gregory's article indicates that the confusion is growing worse.

While the definitions suggested by Gregory are open to strong objection, yet the existing ambiguity in the use of such important geological terms can not fail to be bewildering to students and authorities alike, and calls for some remedial action. A few quotations taken at random from recent text-books will emphasize this fact.

1. According to Tarr and Martin<sup>2</sup> denudation consists of weathering plus erosion, and erosion is further defined as involving "removal, transportation and deposition of rock fragments," though on p. 115 erosion is spoken of as the combined work of corrasion and corrosion, no mention being made of deposition. These authors apparently define corrasion as the mechanical degradation of rock by river water, and corrosion as the chemical removal of *solid* rock (pp. 114, 115) though the definitions are not at all clear.

2. Pirsson<sup>3</sup> limits erosion to "the formation of rock débris and its removal" and gives no definition of denudation. Corrasion he defines as the action of a stream in rasping

<sup>1</sup> *Geographical Journal*, Vol. 37, 1911, pp. 189-195.

<sup>2</sup> "College Physiography," 1914, p. 18.

<sup>3</sup> Pirsson and Schuchert, "Textbook of Geology," 1915, p. 31.