

doctrine that human beings have descended from animals. This not being the belief of the college, which accepts the Bible account of creation in all its details, she resigned her position and her resignation was accepted. God sent to us in a very definite manner Professor S. J. Bole, an A.B. from the University of Illinois, who was for nine years an instructor in the Illinois State University, but whose religious views were positive and clear and made him desirous of a change. He has entered upon his work with enthusiasm and is very highly esteemed by his fellow teachers and students. In view of the general situation among university men, we consider his coming to us distinctly providential.

THE Indian mathematician Srinivasa Ramanujan, F.R.S., fellow of Trinity College, Cambridge, has died at the age of thirty-two years.

THE death is announced at the age of seventy-seven years of Clement Arkadieivitch Timiriazeff, emeritus professor of botany in the University of Moscow, recently elected to the Moscow soviet. Professor Timiriazeff was known for his work on the participation of the different rays of the visible spectrum in the photosynthetic activity of the green leaf. He was the author of a number of books on botany and agriculture, his earliest being a work on "Darwin and his Theory" published in 1863.

THE Biological Station of the University of Michigan will hold its twelfth session on the shores of Douglas Lake near Pellston in northern Michigan, June 28 to August 20, under the directorship of Professor George R. La Rue. The instructors are: Professor Frank Smith, University of Illinois; Assistant Professor Paul S. Welch, University of Michigan; Dr. Dayton Stoner, State University of Iowa; Assistant Professor Frank C. Gates, Kansas State Agricultural College; Assistant Professor George E. Nichols, Yale University; and Dr. John H. Ehlers, University of Michigan. Special and research courses in zoology and botany and facilities for research are also offered to qualified students.

THE summer courses in biology at the Hopkins Marine Station, Pacific Grove, Cali-

fornia, began on June 22 and will end on September 3. Instruction is offered in general zoology, the classification and ecology of marine invertebrates, comparative anatomy of vertebrates; the fishes of California, elementary physiology, general physiology, the algae and special work in zoology, physiology and botany. The faculty will consist of Professors W. K. Fisher, Edwin C. Starks, and Gertrude Van Wagenen in zoology; Professors E. G. Martin, J. P. Baumberger, and J. M. D. Olmsted in physiology and J. I. W. McMurphy in botany. Dr. Frank R. Lillie, of the University of Chicago, spent the winter quarter at the station and Dr. H. H. Newman is there during the spring quarter.

UNIVERSITY AND EDUCATIONAL

THE will of Richard M. Colgate gives \$100,000 to Yale University and to Colgate University.

DRURY COLLEGE has completed the raising of \$400,000 in order to secure an additional sum of \$200,000 from the General Educational Board. The net productive endowment of the college is now over one million dollars. As a consequence of the success of this endowment, salaries of professors and teachers have been increased from 25 to 60 per cent.

At its last meeting the Yale corporation elected Dr. Milton Charles Winternitz dean of the Yale School of Medicine to succeed Dr. George Blumer. Dr. Winternitz joined the Yale faculty in the fall of 1917 as professor of pathology.

At Washington and Lee University, L. J. Desha, Ph.D., formerly professor of chemistry in the Medical College of Tennessee, has been elected professor of chemistry; W. D. Hoyt, Ph.D., associate professor of biology, has been promoted to professor of biology and head of the department.

At Oberlin College Associate Professor W. D. Cairns has been promoted to be professor of mathematics and head of the department, professor F. Anderegg having retired after thirty-three years of teaching in Oberlin.

At Princeton University, William Lauder Jones has been appointed professor of organic chemistry. Charles Rogers, of the Museum of Natural History, has been appointed curator of the biological museum. Charles Jones Browne, head of the department of hygiene and physical education at the University of North Carolina, has been appointed to be an assistant professor in that department. James Alexander, on leave of absence for war service, has been made an assistant professor of mathematics. Professor Raymond Smith Dugan was promoted to a professorship of astronomy. Dr. Carl C. Brigham was appointed assistant professor of psychology, and Benjamin F. Howell was raised to the rank of assistant professor of geology.

At the Carnegie Institute of Technology Henry L. Moore, assistant professor of physics at the Mississippi Agricultural College, will be assistant professor of physics, Ruth E. Canfield, instructor of ceramics at Alfred University, instructor of ceramics and weaving. James R. Everett, assistant professor of mathematics at Baker University, and George W. Hess, professor of mathematics at Bethany College, will become instructors in mathematics.

PROFESSOR J. T. WILSON, professor of anatomy in the University of Sydney, has been elected to the chair of anatomy at Cambridge, rendered vacant by the death of Professor Alexander Macalister.

DISCUSSION AND CORRESPONDENCE

THE USE OF THE TERM FOSSIL

THERE is probably no word more widely and loosely used by geologists than *fossil*. Paleontology, the study of ancient life, is literally the study of fossils; and stratigraphy, or the correlation of formations, is principally dependent upon fossils as horizon markers. The broad subject of historical geology, or the evolution of the earth and its organisms, is also largely a study of fossils. All workers in the above mentioned divisions of earth science would define a fossil as the evidence of former life, no mat-

ter how much they might disagree as to the full and exact definition of the term. Unfortunately, however, the term is often used by geologists in general as an adjective to denote age of geologic magnitude; hence: "fossil volcano," "fossil river channel," "fossil sand dunes," etc.; all of which objects are obviously of inorganic origin.

Fossil is derived from the Latin, *fossilis*, "dug up or dug out." The latest edition of the Century Dictionary defines the term as follows:

Any rock or mineral, or any mineral substance, whether of an organic or inorganic nature, dug out of the ground. Specifically, in later geological and mineralogical use, anything that has been buried by natural causes, or geologic agencies, and bears in its form or chemical composition the evidence that it is of organic origin.

In spite of the above, there are literary persons who use the adjective form of the word in the sense of ancient or out-of-date; i. e., "fossil poetry," "fossil statesman." Sometimes the "bad use" of the word is merely ludicrous, as in the case of a paleobotanist who frequently refers in the text to the student of fossil plants as a "fossil botanist."

In the latest text-book of paleontology¹ a fossil is defined thus: "A fossil is the remains of a plant or animal, or the record of its presence, preserved in the rocks of the earth."

A definition more exact than any to be found in the modern text books is proposed as follows: *A fossil is an object which indicates former existence of an organism which has been buried and preserved by geological causes, previous to historic time.* According to this definition the mastodon preserved in the arctic ice is a fossil; the leaf buried in the gutter is not. The remains of an organism may be a true petrification and yet not be a fossil. Fossil and petrification are not synonymous. Simply because a species has become extinct does not make it a fossil, even if its remains are petrified, or the knowledge

¹ "An Introduction to the Study of Fossils," H. W. Shimer, Macmillan Co., 1914.