

September 24. He will study the grasses of that country, returning in about four months. The work will be done in cooperation with the New York Botanical Garden and the Gray Herbarium.

GEORGE B. SHATTUCK has resigned the chair of geology at Vassar College for the purpose of joining an expedition to Africa.

THE Remington Medal, given annually to a member of the American Pharmaceutical Association, who makes the most notable contribution toward the advancement of pharmacy, was awarded to Professor James P. Beal, dean of the college of pharmacy of the University of Illinois, Chicago, at the sixty-seventh annual meeting of the American Pharmaceutical Association held in New York City.

DR. M. E. CONNER, chairman of the Rockefeller Foundation Commission to Guayaquil, Ecuador, was presented with a gold medal, August 11, in recognition of his services in the campaign against yellow fever.

GEORGE R. GREEN has resumed his duties as associate professor of forestry at Pennsylvania State College. Professor Green was employed during the war as wood technologist at the Naval Aircraft Factory in Philadelphia, in charge of all experiments having to do with wood, glues and fabric, supervision of the dry kilns, and the school for inspectors and wood workers.

MR. A. D. GREENLEE, formerly assistant chemist with the food research laboratory, U. S. Bureau of Chemistry, and, during the period of the war, specialist in poultry handling for the same bureau, with office at the Field Station, Indianapolis, Ind., has resigned from this position to become president of the newly organized Greenlee Products Company, at St. Louis.

#### UNIVERSITY AND EDUCATIONAL NEWS

THE University of Redlands, Redlands, California, has completed a campaign for funds for a program of expansion. In excess of \$50,000 was raised by popular subscription in

the city and a similar sum was secured by subscription outside. In addition to these amounts, special gifts for buildings aggregate \$100,000, construction on two of these, a science hall, and a new men's dormitory, to begin during the present summer. The university will also receive a large sum from the Baptist Church Fund.

AT Tufts College a research fellowship has been established for work on the physiological problems in surgery, under the direction of Professor A. H. Ryan, of the department of physiology and Professor F. H. Lahey, of the department of surgery.

THE trustees of the Western Reserve University have voted an increase of twenty per cent. to the salaries of the entire full-time instructing staff of the medical school.

DR. EMIL GOETSCH, associate professor of surgery in Johns Hopkins University, has been appointed professor of surgery at the Long Island College Hospital, Brooklyn, N. Y.

PROFESSOR E. I. TERRY, for some time connected with the Colorado School of Forestry, has been appointed professor of forestry at Middlebury College, Vermont. He will be supervisor of the 25,000 acres of forest land recently bequeathed to the institution.

DR. E. J. MOORE, associate professor of physics in Oberlin College, has been appointed professor in charge of physics at the University of Buffalo.

DR. J. F. DASHIELL, assistant professor of psychology in Oberlin College, has been appointed associate professor in charge of psychology in the University of North Carolina, succeeding in that capacity the president elect, Dr. H. W. Chase.

MISS GRACE MACLEOD, assistant editor of the *Journal of Industrial and Engineering Chemistry*, has resigned in order to accept the position of instructor in the department of nutrition and food economics in Teachers College, Columbia University.

DR. J. K. SHAW has resigned as pomologist in the Massachusetts Experiment Station in

order to accept the professorship of horticulture in West Virginia University.

L. R. HESLER, assistant professor of plant pathology in the New York State College of Agriculture at Cornell University, has been appointed professor of botany and head of the department of botany at the University of Tennessee.

NEW appointments in Colorado College include in biology: R. J. Gilmore, Ph.D. (Cornell), professor; A. E. Lambert, Ph.D. (Dartmouth), assistant professor, and Florence Brumback, instructor. In chemistry: F. W. Douglas, Ph.D. (Cornell), of Albion College, associate professor. In philosophy and psychology, A. E. Davies, Ph.D. (Yale), recently professor of philosophy in Ohio State University, professor.

At the University of North Dakota Howard E. Simpson, associate professor of geology and physiography, has been promoted to a professorship of geographic geology, and Leonard P. Dove, now instructor in geology at Northwestern University, has been appointed assistant professor of geology.

At the Michigan Agricultural College Mr. C. W. Bennett, graduate assistant in botany, has been appointed instructor to succeed Miss Rose M. Taylor, who died last December. Mr. H. C. Young, absent for a year on leave on account of military service as lieutenant in the Sanitary Corps, has resumed his position as research associate in plant physiology.

MME. CURIE has been appointed professor of radiology in the Warsaw University.

## DISCUSSION AND CORRESPONDENCE

### OPISTHOTONOS

PAST events can only be interpreted in the light of recent phenomena, and to this rule, first so clearly outlined by Sir Charles Lyell, the writer<sup>1</sup> was adhering when he proposed the interpretation that the attitude of fossil vertebrates often suggested spastic distress and induced an inquiry into the causes of

their death. Bashford Dean<sup>2</sup> especially has criticized this interpretation and suggested an alternative, voicing not only his sentiments, but the sentiments of the large majority of paleontologists, for on a recent trip through the east the writer found many of them opposed to this interpretation. The causes for this opposition were puzzling in the extreme until it was learned that one chief cause was that *opisthotonos* is regarded as a phenomenon restricted to the human race, and on rereading my paper I find I owe my readers an apology. It now becomes necessary to say that the phenomena, *opisthotonos*, *pleurothotonos* and *emprosthotonos* are extremely common among modern vertebrates of all classes, and these phenomena are so commonly seen in medical laboratories as to be well known to sophomore medical students. Captain Weed told me that cats inoculated with cerebrospinal meningitis often died during the night in the opisthotonic position and were found fixed in this attitude by the *rigor mortis*. Rabbits, guinea pigs, dogs, frogs and other laboratory animals frequently exhibit the phenomena. The phenomena occur among modern vertebrates in the order of frequency named as they do also among fossil vertebrates. It was the similarity of these occurrences which first suggested that these phenomena *might* indicate disease among fossil vertebrates.

Dr. Dean is quite right in saying:

It would trouble one to find recorded cases of it (*opisthotonos*) in reptiles or birds, amphibia or fishes: even in mammals collectively the percentage of deaths following *opisthotonos* would evidently be microscopically small.

There is no medical literature bearing on this problem, partly because the phenomena are so commonly seen that medical writers have not deemed it worth while. However, Cushny in his text-book of pharmacology has figured a rabbit in *opisthotonos*, and most medical works on nervous diseases mention the phenomena, but to date none have discussed it.

It is difficult to see the logic of Dr. Dean's reasoning that the pull of the ligaments in dry-

<sup>1</sup> *Am. Naturalist*, LII., pp. 369-394.

<sup>2</sup> *SCIENCE*, N. S., XLIX., No. 1267, pp. 357, 1919.