

spite the fact that the income on a large part of the John Stewart Kennedy bequest is now available. The largest single item of expense is for educational administration and instruction, \$2,180,402. Next to this come appropriations for buildings and grounds, the sum being \$332,593. The interest on the corporate debt will amount to \$114,870, while \$100,000 will be set aside and added to the redemption fund. Stated according to the various corporations of the university, the budget is divided as follows: Columbia College, \$2,101,512.28; Barnard College, \$217,725; Teachers College, \$803,470; College of Pharmacy, \$37,020.

A SPECIAL meeting of the Oberlin trustees was held on March 13 to consider plans presented by Mr. Cass Gilbert, of New York City, regarding the location of the new buildings made possible by the completion of the half million endowment. Mr. Gilbert's plans include a science quadrangle at the northwest end of the campus. Here it is proposed to erect four large laboratories to accommodate the departments of physics, zoology, geology and botany. Part of the equipment of the botanical building will be a series of greenhouses. The department of chemistry is already comfortably housed in a separate building, Severance Chemical Laboratory.

DR. HORACE DAVID ARNOLD has been appointed dean of the Harvard Medical School to fill the place made vacant by the resignation of Dr. Henry A. Christian.

DR. TALCOTT WILLIAMS, associate editor of the *Philadelphia Press*, has been appointed director of the School of Journalism of Columbia University, founded by Mr. Pullitzer. Professor John W. Cunliffe, now head of the department of English of the University of Wisconsin, is the associate director of the school.

DR. DOUGLAS W. JOHNSON, assistant professor of physiography in Harvard University, has been appointed associate professor of physiography at Columbia University.

DR. J. E. WALLACE WALLIN has accepted a

call from the University of Pittsburgh to organize a department of clinical psychology.

DR. MURRAY S. WILDMAN, A.B. (Earlham, '93), Ph.D. (Chicago, '04), now professor of economics and commerce in Northwestern University, has been appointed professor of economics in the Leland Stanford Jr. University, to fill the vacancy caused by the resignation of Professor Alvin S. Johnson, who goes to Cornell University at the close of the present academic year.

DR. H. W. FOOTE has been promoted to be professor of physical chemistry in the Sheffield Scientific School of Yale University.

DISCUSSION AND CORRESPONDENCE

THE CORN SNAKE IN NEW JERSEY

WHILE at Chatsworth, Burlington County, N. J., on July 11, 1911, I called on Mr. George Bozarth, the hotelkeeper, who buys up local snakes, excepting rattlesnakes, of which there are still a few in that part of the pine barrens. Noting that the box where he kept his reptiles contained only pine and king snakes, I inquired if he had any other species. He replied that he had but the day before thrown out a corn snake, which had died. He added he had but few of that kind brought in, but that they were to be occasionally met with in the vicinity. After some search we found the reptile, which was still in a good state of preservation and which I showed to various people living near Jones's Mill, a short distance to the east of Chatsworth, eliciting the information that the corn snake occurred in the vicinity, but was far rarer than the pine snake.

My specimen has the dorsal rows of scales weakly keeled, as described by Cope, and the color pattern also fits the description admirably. It has also been compared with living specimens in the New York Zoological Park. It is thirty-four inches in length.

In the "Amphibians and Reptiles of New Jersey," by Henry W. Fowler, published in the Annual Report of the New Jersey State Museum for 1906, I do not find the corn snake, *Coluber guttatus* Linn., recorded, nor

is it mentioned in the supplements that have since been published. Cope says:

This species ranges the Austroriparian region east of the Mississippi River, and the Carolinian district of the Eastern, not, however, entering New Jersey.

It appears, however, from the above record that there is at least one colony of corn snakes to be found in the pine barrens of New Jersey.

NEW BRIGHTON, WM. T. DAVIS
STATEN ISLAND, N. Y.

FUNDULUS AND FRESH WATER

THE notes which have recently appeared in SCIENCE in regard to the capacity of salt-water minnows to survive being transferred to fresh water, remind me that the experiment has been, and I suppose still is tried, on what I may call a commercial scale, in south-eastern Massachusetts. "Mummichugs" (*Fundulus* spp.) are the favorite, practically the only, bait for winter pickerel fishing through the ice, and it was a very common practise to catch them in large quantities in salt water in the late fall, and keep them in running fresh water all winter.

When I lived on a farm in Middleboro, Mass., in 1892-96, one of my neighbors always had them for sale, during the pickerel season. He used to catch them in Buzzard's Bay, some fifteen miles away, and kept them in a perforated box, placed in a running brook. I have more than once bought "Mummichugs" from him, and, if my memory does not play me false, have kept them alive for some time in a boxed-in spring on my farm. They must have been in confinement at least a month, but seemed in perfect health and were very vigorous and active. Had there been any serious mortality among them, it certainly would not have paid him to keep them for sale.

As a matter of fact, I believe that live *Fundulus* for bait are to be had regularly in the Boston fish markets every winter, and my impression is that they are kept in tanks fed with ordinary tap water.

I may add that I use a good many "Mum-

michugs" for live bait every summer, and find them remarkably tenacious of life. If covered with wet seaweed, they keep lively for several hours even in hot weather.

JOHN MURDOCH

PUBLIC LIBRARY,
BOSTON, MASS.

SCIENTIFIC BOOKS

Vergleichende Physiologie. By AUGUST PÜTTER. Jena, G. Fischer. 1911. Pp. 721; illustrations 174.

The title of this book, "Comparative Physiology," is misleading and the author, who is a professor at Bonn, endeavors to justify it in his introduction. The task of general physiology, he says, is the investigation of the general problems of life; comparative physiology is a method, the object of which is to enable one to comprehend the fundamental physiological similarities of organisms. The book therefore does not rehearse the physiological differences of species or larger groups, but deals with general physiology. "Allgemeine Physiologie" would have been a better title, had it not conflicted with that of his master Verworn's book. The facts are drawn chiefly from invertebrate animals and plants, a helpful list of which, with both scientific and common names, family, order and class, is given at the end. There are ten chapters, most of them long, rambling, and clumsily subdivided. In one case, the same heading is used for two distinct and separate sections. The index is wretchedly incomplete. Notwithstanding these technical defects, the book is a valuable addition to the growing literature of general physiology. It is very modern: most of its references to literature belong to the last decade; but again the great bulk of American physiology is unnoticed.

The morphological substratum of vital processes is passed over very briefly, only a few facts being presented regarding colloids, adsorption compounds, membranes, alveolar structure, and the chemical constituents of living substance. The term "living substance" is an abstraction; several kinds of