

seum of Natural History, assistant professor of zoology.

Two appointments from European universities to the faculty of the medical school of Johns Hopkins University have been made as follows: Dr. J. W. McNee, of University College, London, is to be associate professor of medicine. Dr. Bela Halpert, first assistant to Professor Otto Grosser at the University of Prague, is to be instructor in anatomy.

DR. ROBERT C. MILLER, who during the past three years has been engaged in the marine borer investigations of the San Francisco Bay Marine Piling Committee and the National Research Council, has been appointed assistant professor of zoology in the University of Washington.

THE following appointments have been made at the University of Virginia: Dr. Leroy A. Calkins, of the University of Minnesota, to professor of obstetrics and gynecology; Dr. Alfred Chanutin, of the University of Illinois, associate professor of biological chemistry; Dr. Arthur Ferguson Benton, national research fellow at the California Institute of Technology, to assistant professor of chemistry, and Dr. A. A. Pegan to acting assistant professor of geology.

## DISCUSSION AND CORRESPONDENCE

### WOMEN OFFICERS OF THE ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

IN the third article on "The history of the A. A. A. S." by Professor Herman L. Fairchild, in *SCIENCE*, for May 9, p. 411, it is said that: "The only woman official of the association was Mrs. Erminnie A. Smith, who was secretary of the section of anthropology in 1885." This is incorrect, as there have been at least three other women officials, all of the section of anthropology. Two were chairmen of that section, *viz.*, Miss Alice C. Fletcher at the Buffalo meeting of 1896 and Miss Lillian J. Martin in 1915. In 1894 I was elected secretary of the section for the following meeting, but resigned before it was held. The secretary who had been elected for the 1897 Detroit meeting similarly resigned, and I was then elected for the second time and served as secretary at that meeting.

There was an odd combination of circumstances at Detroit in 1897. The president of the association did not attend the meeting; my husband, W J McGee, was chairman of anthropology and senior vice-president of the association; his time was therefore mainly occupied by his duties as acting president, while I became acting chairman, as well as secretary, of the section.

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## POISONING FROM CASTOR BEANS

I HAVE been much interested in the recent letters regarding allergic reactions with castor beans. The castor bean grows wild here over wide areas and is commonly eaten by many people as a substitute for the oil or a pill for a cathartic. This practice is so common that it is currently believed that the beans are innocuous, but there is ample evidence to the contrary.

In 1920 a soldier stationed in Schofield Barracks ate five castor beans one afternoon. The morning of the second day he died in coma, the direct cause of death being acute nephritis. He had anaphylactic symptoms within a few hours after ingestion of the beans, followed by an intense toxemia which was fatal through kidney damage. This was considered at the time to be due in all probability to a ricin poisoning, which may have been absorbed through the mucous membrane of the alimentary canal, or possibly, and I think more likely, through a lesion somewhere in the canal.

I have since seen two cases where the ingestion of a single bean was followed in five minutes by edema of the mouth and pharynx and in one case of the glottis. This progressed in each case to a degree which made speech or swallowing extremely difficult, and in one case respiration became dangerously impeded. In each case there was general urticaria with giant wheals. Adrenalin relieved all the symptoms promptly and permanently.

The asthmatic and hay-fever symptoms mentioned in previous communications are entirely new in my experience, and it would interest me greatly to hear whether any one else has experienced them.

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## THE ENCYSTMENT OF VAMPHYRELLA ELEGANS (H. AND L.)

AN interesting analysis of the conditions leading to encystment of *Didinium nasutum*, by Mast and Ibara, appeared in *Biological Bulletin* last August. In their introduction, they cited the opinion of Root that *Suctorina* encyst when they lack food; of Mast that *Didinium* sometimes encysts when food is lacking; of Miss Carter that *Amoeba* encysts when food is abundant; of Miss Hogue that *Amoeba limax* encysts due to metabolic waste products, which lead to a weakened vitality, "resulting in the loss of power of assimilation"; and of Calkins, who, in speaking of encystment in general, says it is "a special adaptive process by which the organisms are enabled to survive when the environment is unsuitable."

In this connection, facts concerning the *Vampyrella elegans* (H. and L.) that appeared under the title

"Notes on Leptophrys,"<sup>1</sup> are of interest and should be made more available.

In this paper it is recorded that "some time after the animal has gorged itself with food, or formed a central, common vacuole of food, it withdraws its pseudopodia and enters into an encysted condition. Numerous cysts have been seen and studied. A single individual has been observed ingesting food and was followed through its complete encystment. From the time when the animal had quieted down and ceased to ingest food to when it left the cyst, a period of five hours had elapsed. The cyst varies in size and shape, depending upon the size of the animal and the amount and form of the food."

Again, in 1908,<sup>2</sup> it was recorded that when *Vampyrella* ingests food, "the protoplasm forms a rounded mass about which an encysting membrane is formed. The animal remains quiet while the food is being digested. As digestion proceeds, the plants taken in as food change from green to brownish red. The food decreases in size as its digested parts are absorbed from the food vacuole. The protoplasm becomes pigmented by the assimilated food, so that when the protoplasm breaks from the cyst as a free animal or animals, it is conspicuously colored brownish red."

These observations were made upon both isolated individuals, taken from a swamp in which they were scarce and from laboratory aquaria in which they were abundant. Fission of the individual did not always follow encystment. The process of encystment seemed rather to be a vegetative one to which propagation by fission was but incidental.

It is indicated, therefore, that this a-nucleated protozoon encysts in order to conserve its energy towards digesting and absorbing its food.

The writing of this note has been prompted by the fact that such thorough workers as Mast and Ibara had overlooked my observations and that for the good reason that they had been buried beneath a poor title.

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### UNIVERSITIES AND THE CIRCUS

WE have received the following communication purporting to come from the North American Circus Owners' League:

Editor of SCIENCE:

We are about to select one of the large eastern universities and to offer to it a substantial subsidy for providing instruction for future circus managers, artists and employees. We wish to ascertain unofficially, through your valued paper, if the rush of

<sup>1</sup> *The American Naturalist*, Vol. 40, p. 337.

<sup>2</sup> "Principles of Animal Histology," Dahlgren and Kepner, p. 273.

students to take these courses would not seriously interfere with the quieter and less practical courses now given, and thus possibly cause us some undesirable publicity.

Some universities are already training cooks, salesmen and plumbers, and are teaching the laying of eggs, horseshoeing, etc. A careful study of their present courses of instruction has led our educational committee to believe that most subjects of importance in our profession could be given by the existing departments, with a slight adaptation of problems and terminology.

Members of our committee have personally attended the so-called Spring-Day, Mud-Rush, and other similar performances at some universities, and also various impromptu rough-house affairs on the campuses and down-town. They have satisfied themselves that plentiful acceptable circus material exists among the student bodies of our typical universities and colleges.

In offering our endowment to a university, we shall make two conditions: (a) That the requirements for passing a course in our line shall be considerably above the present educational standards, and (b) that no excuses for absence shall be considered unless accompanied by at least three separate medical certificates, each signed by a doctor of a different medical school, and all specifying an ailment substantially in the same part of the body.

For the training of managers, the present courses in bookkeeping, poster design and boxing could be admirably adapted. For training arena artists some universities already have physical directors, athletic coaches, horses, bulls, etc., while for laboratory exercises the students themselves could in turn take the part of wild animals.

A department of domestic science could give excellent instruction in the preparation of pink lemonade, redhots and popcorn, while the departments of oratory and psychology could teach the proper way of calling attention to such delicacies. The departments of chemistry, anatomy and law could give training in the scientific preparation of freaks for the side shows.

An assistant professor of clownry, a three-legged calf and a steam piano would be the only additional equipment needed to start with.

We shall be glad to have your impartial opinion in regard to the above proposal.

Yours truly,

HAGEN RING BARNLING,

*Executive Secretary*

[The foregoing satire on some present-day tendencies in our university instruction was written by Professor Vladimir Karapetoff of Cornell University.—Editor.]