THE sum of $100,000 has been given anonymously to the Higher Institute of Medicine for Women at Petrograd for the foundation of scholarships in the name of Count Vorontzoff, who died in 1916.

FOR the period from 1911 to 1915, inclusive, the proportion of first places, according to reports of state board examinations published in the *Journal* of the American Medical Association, the percentage of first places won by the different schools of medicine is: Pennsylvania, 5.1; Johns Hopkins, 4.9; Harvard, 4.5; Northwestern, 4.4; Rush, 4.2, and Jefferson, 4.1.

DR. MARION L. BURTON, president of Smith College, has accepted the presidency of the University of Minnesota.

DR. EDGAR R. MCGUIRE, of Buffalo, N. Y., has been elected to fill the chair of surgery in the medical department of the University of Buffalo, which position was previously held for thirty-one years by the late Dr. Roswell Park. Dr. McGuire was Dr. Park's assistant for several years and has been acting head of the department of surgery for the past two years.

A. C. BAER, instructor in dairy husbandry at the University of Wisconsin, has resigned to become head of the dairy department of the Oklahoma College and Station.

E. P. TAYLOR, professor of horticulture and horticulturist at the Utah College and Station, has resigned to become director of agricultural extension at the University of Arizona.

IT is stated in *Nature* that Mr. Joseph Yates, of the Blackburn Technical School, has been appointed head of the chemistry department of the Derby Technical College.

DISCUSSION AND CORRESPONDENCE

THE FUR SEAL CENSUS OF 1916

I AM indebted to the Commissioner of Fisheries for the following detailed enumeration of the fur seals of the Pribilof Islands for 1916:

Breeding females	116,977
Pups	116,977
Harem bulls	3,500
Idle bulls	2,632
Yearlings, both sexes	67,291
Two year olds, both sexes	48,460
Bachelors and young bulls	61,492
Total	417,329

This census is the work of Mr. G. Dalles Hanna, a member of the island staff, who also made the counts of 1915, given in the October 27 issue of SCIENCE. Mr. Hanna came to his work on the fur-seal islands in 1913 and participated in a considerable part of the work of pup counting of that season, thus becoming familiar with the methods employed. Comparing the two seasons for which he is responsible we find for 1916 a gain of 13 per cent. in pups, which is also the gain in breeding females. It will be remembered that in the two counts by the writer for 1912 and 1913, in which the personal equation was also the same for both seasons, a gain of 12½ per cent. was found for 1913. These two sets of counts go far toward fixing the normal rate of increase in the breeding stock of the herd at approximately 13 per cent. per annum.

A second significant thing about this census of 1916 is the item, "bachelors and young bulls, 61,492." These are males of less than adult age, three, four, five and six years. They represent the animals exempted from killing in the past five years by the law of 1912, suspending commercial sealing. These 61,000 animals have definitely passed into the reserve bull class and will as they gradually attain maturity constitute that dangerous overstock of breeding males which is resulting from the operation of the law of 1912. There were already present on the rookeries in the spring of 1916, 3,981 adult bulls in excess of the number holding harems in 1915. Of these 1,349 forced their way into the breeding grounds and established harems. A normal increase in harems would have been 280, equalling the 13 per cent. gain in cows. Even after these 1,349 had obtained harems there remained 2,632 adult bulls which were unable to obtain harems. It is unnecessary to say that these unsuccessful idle bulls as well as those which

were successful occasioned a large amount of fighting and confusion on the rookeries in the season of 1913.

Fortunately, Mr. Hanna has given us the data to illustrate just what this fighting and confusion has meant; he has supplied us with a count of the dead animals. Similar figures for 1915 are not available, but we have such figures for 1912 and they may be compared as follows:

Animals Dead	1912	1916
Bulls	3	12
Cows	27	79
Pups	1,060	2,482

The deaths in 1912 were what might be considered normal and inevitable. In that season there were only 113 idle bulls and the fighting was a negligible factor. The deaths occurred as a result of accidents inherent in the crowded condition of harem life. In 1916, however, we find the deaths among bulls quadrupled; among cows, almost trebled and among pups, increased 134 per cent. Moreover, this is with only between two and three thousand idle bulls. What will be the result when the 60,000 to 70,000 idle bulls begin six to eight years hence to bring their pressure to bear upon the breeding grounds?

In my report for 1913 I attempted, without effect, to bring this unfortunate aspect of the fur-seal law of 1912, which could readily be foreseen, to the attention of the Bureau of Fisheries in the following words:

> The bull fur seal is an animal of about 500 pounds weight; his mates are animals of 80 pounds weight; the pup at birth is a weak thing of 12 pounds. The harem life of the seals is crowded at best and subject to commotion. The mother seal takes no thought of the time and place of labor. Newly born pups are trampled and smothered under the best of circumstances. Anything which creates turmoil and fighting in the vicinity of the breeding grounds is necessarily fraught with danger to the young. Fighting among the bulls arises from attempts by idle bulls to steal cows from their more successful neighbors. In these contests cows are torn and injured and pups trampled. . . .

George Archibald Clark
Stanford University, Calif.,
January 23, 1916

Professor Curtis's Review of Petrunkevitch's Morphology of Invertebrate Types

The review of Professor Petrunkevitch's "Morphology of Invertebrate Types" by Professor W. C. Curtis in Science for December 1 is rather misleading. The method of presentation in Professor Petrunkevitch's book is certainly one for which many teachers of invertebrate zoology have been waiting. Commendation of the principles upon which the book is founded and explanation of the necessity for such a work have been very ably put forth in Professor Curtis's review. However the method of presentation of subject-matter and type forms taken up for consideration are but two of the many points to be considered in determining the value of a book as a text for student use. It has been my experience, and I am sure it is shared by others, that one of the most difficult things to accomplish with the student in science is an appreciation of the necessity for clearness of expression. Mistakes in grammar and in English are too frequently looked upon as of no consequence to the scientist. In view of these facts I feel that the reviewer has omitted some points to which attention should have been called.

When Professor Curtis makes the remark that "the book is well done, clear, concise and to the point . . ." he very evidently does not consider such passages as:

> Place a specimen in a white dish with water on its right side and make a drawing twice natural size showing the left side (page 155).

On page 8 the student is directed to

> Label anterior and posterior end, dorsal and ventral surface.

Another example of what does not appear to be either clear or concise is found on page 39, where the reader is told that

> The *circular canal* follows the edge of the disc between every rhopalium.

I do not believe that a zoology text could be written in sufficient detail to eliminate the necessity of a teacher, but I do think that a large percentage of the average undergraduate class in studying the anatomy of *Molgula* would require an explanation on the part of