

university life which is developed nowhere so much as at St. Petersburg : it is the large number of students who receive 'stipends' (scholarships). About one-fourth of the students (in all, 577) receive regular scholarships ; and, as those of the first year are excluded from them, the percentage is much higher in the three later years. The yearly expenses of the university in 1885 were four hundred and thirty-five thousand rubles.

O. E.

St. Petersburg, Feb. 26.

NOTES AND NEWS.

THE Rev. W. C. Winslow, 429 Beacon Street, Boston, treasurer and vice-president of the Egypt exploration fund for America, writes as follows : "The invaluable labors of our society in the Delta were successfully resumed in December. The splendid results of 1883-84 and 1884-85, for classical, historical, and biblical elucidation and illustration, are familiar to scholars and to a large portion of the reading public. The work is in the hands of masters ; but these labors cannot go on without continued support. To those who contribute so small a sum as five dollars the elaborate memoir of the season, annual reports, etc., are sent. The book 'Naukratis' (forty plates and plans) is in preparation ; 'Tanis II.' (Zoan) will follow. The officers and the committee all give their services gratuitously. To all interested a circular and other information will be gladly furnished by the treasurer."

—The winter habitat of the mackerel is not yet definitely ascertained. It is interesting, therefore, to place upon record the fact, noted in the circular of the Boston fish bureau of March 5, that the schooner Fitz J. Babson of Gloucester was struck by a heavy sea on the 27th of February, when about twenty miles north of Georges Banks. When the water had disappeared, eight mackerel were found flipping about the deck. The spring mackerel fleet is being fitted out somewhat earlier than has been usual in former years, on account of this indication of the proximity of the mackerel schools to the coast.

—A committee of geologists and naturalists invite subscriptions to a monument to Oswald Heer, whose death two years and a half ago closed the work of one of the most eminent naturalists of this century. It will take the form of a marble bust on a stone pedestal, to be placed under cover in the Botanic garden at Zurich. One thousand dollars are desired, and those willing to contribute are invited to send their contributions to Dr. C. Schröter, Professor, Hottingen, Zurich, before the first of May next, or to

the editor of *Science*, 47 Lafayette Place, New York, who will see that they are forwarded.

—Dr. Austin Flint, the most celebrated of American physicians, died in New York, March 13, aged seventy-four. Probably no one person has ever exerted so great an influence in medical education, and in the medical profession of America, as has Dr. Flint through his text-books and teachings.

—Professor Ward's 'Sketch of paleobotany' (Fifth annual report, U.S. geol. surv.) is an excellent work, and one to which the title does not do justice. The work comprises biographical sketches of twenty-two of the most eminent leaders of the science, followed by a 'sketch' of the early history and subsequent progress of paleobotany, which must have involved a large amount of labor. After this follows a discussion of the classification of fossil botany. Between eight and nine thousand species of fossil plants are now known, two of which are from the Cambrian, nearly fifteen hundred from the carboniferous, and over three thousand from the miocene, with only sixty-nine from the trias, and less than four hundred older than the carboniferous. In his introductory remarks upon the inter-relation of geology, paleobotany, and botany, the author expresses surprise that the mutual dependence of botany and paleobotany has received so little recognition among scientific men, and presents the importance of studying fossil and living plants together. Certainly with this view every naturalist ought heartily to concur. What he complains of in fossil botany has been unfortunately too true in other branches of paleontology.

—Mr. Gilbert's report on the 'Topographic features of lake shores,' in the 'Fifth annual report of the geological survey,' is of especial interest from the author's wide experience on the 'fossil' shore-lines of the evaporated lakes of the Great Basin, and from his studies of the former expansion of Lake Ontario, now in progress. The several topographic forms are well defined, and illustrated by maps and views. The plates of the Cup Butte and other portions of the old Bonneville shore-line in Utah are particularly valuable. A large share of shore-work is attributed to the waves and littoral currents of great storms, just as the greater part of river-channel topography is determined by the heavy and exceptional floods. The bars at the western end of Lake Superior are adduced in illustration of the statement that the greatest waves, and not the prevailing winds, of a shore, will define its topography.

—Mr. Westwood Oliver, with the assistance of a number of astronomers, has in preparation a

practical manual of 'Astronomical work for amateurs,' the aim of which will be to help the possessors of limited instrumental means to turn their attention to astronomical researches of real scientific utility, special attention being directed to the comparatively new fields of spectroscopy and celestial photography. The book will be published by Messrs. Longmans & Co. Mr. Oliver, in the mean time, invites suggestions from practical workers, which may be sent to him at Lochwinnoch, Scotland.

— 'The weather journal' (Cincinnati, *S. S. Bassler*) is the title of a new weekly paper to be devoted to the general meteorology of the eastern United States, illustrated by tri-daily charts of the movements of the atmosphere and the distribution of atmospheric pressure and temperature.

— The wealth and richness of the illustrations of Mr. I. C. Russell's 'Recent glaciers of the United States' (Fifth annual report, U. S. geol. surv.) would alone give his work value, but they serve only to embellish what without them is a very interesting treatise. Some of the engravings of Mounts Shasta and Dana are especially striking. One is surprised to learn of the extent to which glaciers occur in the United States throughout the northern Sierra Nevada and Rocky mountains, while in the Cascade Mountains are numerous ones, flowing through narrow defiles and over precipices, and, as the author says, by no means unworthy of comparison with the ice-fields of Switzerland and Scandinavia. In Alaska the catalogue is still further extended, embracing numerous examples of alpine glaciers as magnificent as any in the world.

— Professor Chamberlin's paper, in the 'Fifth annual report of the U. S. geological survey,' on artesian wells, is one that cannot help but be of practical value. It was the author's aim to include in convenient form such information relative to the qualifying conditions of artesian wells as may be capable of brief, general statement, and may seem to be serviceable alike to citizen, driller, and geologist; and he has evidently succeeded.

— Some novel and interesting applications of instantaneous photography to the study of the movements of the heart and intestines have recently been made by Dr. W. G. Thompson. Photographs of rabbits', pigeons', cats', and frogs' hearts were made in different stages of systole and diastole, showing the action more clearly and accurately than is possible by other methods. In addition to the value of such in physiological teaching, the most practical application of the

method will be the illustration of the changes in the form of the heart and intestines produced by drugs; and the author believes the process may be further extended to the study of the contractions of the stomach, bladder, and diaphragm, and other viscera.

LETTERS TO THE EDITOR.

Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

The trade in spurious Mexican antiquities.

A NOTE supplementary to my paper on Mexican pottery, published in your issue of Feb. 19, may be of interest to a number of readers.

The fraudulent specimens referred to reach this country in two ways, — through the agency of travellers who purchased them in Mexico, and through traders who ship them to New York in large lots. From recent observations I have reached the conclusion that there are now in the collections of this country specimens valued at many thousands of dollars, yet which, since they are fraudulent and in every way vicious, are not worth the trouble of breaking up and casting away. Peru is hardly less fully represented, as the factories in that country have been at work for a number of years.

The detection of modern work is in many cases a difficult matter, but in others a decision is easily reached. With reference to the Peruvian frauds, it may be taken for granted that new-looking specimens are new, and, besides, that many old-appearing pieces are new. If exterior appearances are not sufficient to satisfy the collector as to the age of suspected pieces, let him break some very narrow-necked vessel, either of the light terra-cotta colored or of the black ware, and he will probably find that the inside is innocent of any stain of age.

I may add that objects of stone from both of these countries need careful inspection.

W. H. HOLMES.

Washington, D.C.

The anachronisms of pictures.

The articles of Professors Holder and Lockwood (*Science*, vii. 220 and 242) remind me of what I saw many years ago in one of the ladies' magazines, — a picture of the embarkation of the Pilgrims from Delft Haven, with steamships at anchor in the bay. An enterprising artist! — only about two hundred years ahead of his time, and the picture probably 'drawn by our artist on the spot.'

C. G.

Homer, N. Y.

Is the dodo an extinct bird?

It is very improbable that the dodo has been found in the Samoan Islands, alive or fossil. It inhabited the islands of Mauritius and Bourbon in the Indian Ocean. The bird alluded to by Mr. Hopkins as still living in Samoa is probably the *Didunculus*, a specimen of which I well remember in the collection of Sir William Jardine, the famous ornithologist. Sir William thought the *Didunculus* was allied to the dodo and the pigeon.

W. S. SYMONDS.

The camp, Sunningdale, Feb. 29.