

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

OXFORD.—The first election to a Geographical Studentship will be held at the end of Hilary Term 1892. The student at the time of his election must have passed all the examinations for his B.A. degree in the University of Oxford, but must not be of more than eight years' standing from matriculation. Previous to his election he must have attended the lectures of the Reader in Geography in at least two terms. Information as to the conditions of tenure may be obtained from the Reader in Geography.

The Report of the Delegacy of Non-Collegiate Students was presented to Convocation on Wednesday. It shows that the list of matriculations is rather larger than in the preceding year, but the total number of undergraduates has somewhat decreased. The total number on the books (440) is the largest which has yet been reached. Thirty-six took the B.A. degree, and nineteen the M.A. during the year. The Delegates notify that they admit, without examination, students in any special branch of study who do not desire to pass through the Arts course, and can show evidence of fitness for their special subject. Sixteen students have availed themselves of this privilege during the year. The balance-sheet appended shows that the financial condition is satisfactory. The total receipts exceeded the expenditure by £550, and the accumulated balance in the hands of the Delegacy at the close of the year was £2284.

CAMBRIDGE.—Mr. J. Macalister Dodds, of Peterhouse, has been elected Chairman of the Examiners for the Mathematical Tripos, Part I.

A petition from 2689 persons residing in New Zealand has been received by the Vice-Chancellor, praying that the Senate will grant degrees to properly qualified women. The signatories include Sir George Grey, K.C.B., formerly Governor of New Zealand, most of the Ministers of the Colonial Government, and many professors and graduates of the University of New Zealand.

Lord Wal-ingham, F.R.S., High Steward of the University, offers annually a gold medal to B.A.'s of not more than two years' standing for the best monograph or essay giving evidence of original research on any botanical, geological, or zoological subject; zoology being understood to include animal morphology and physiology, and an essay on any subject of chemical physiology being valued according to its physiological rather than its chemical importance.

MR. R. W. STEWART, B.Sc. (Lond.), has been appointed Assistant Lecturer and Demonstrator in Physics at the University College of North Wales, Bangor.

SCIENTIFIC SERIALS.

THE *American Meteorological Journal* for October contains:—A short memoir of the late Prof. W. Ferrel, by Prof. A. McArdie, with a complete list of his scientific contributions, from 1853 to 1891; his last paper, which appeared in our columns in April 1891, was entitled "The High-pressure Area of November 1889 in Central Europe."—The mineral waters of Ypsilanti and other places in Michigan, by Dr. E. N. Brainerd.—Cloud observations at sea, by Prof. C. Abbe. This is a preliminary report relative to the principal features of the work done by him during the recent cruise of the *Pensacola* to the West Coast of Africa. A number of experiments were made to determine the relative speed and direction of movement of the various strata of air, by means of clouds and small balloons. The experiments showed that the use of balloons is practicable both on sea and land, and gives accurate results. The following are some of the results of the author's observations: the vertical circulation increases and the horizontal circulation diminishes in the doldrums; the horizontal movement is a maximum at high latitudes; the bases of the cumuli are lower and their tops higher in the low latitudes; if there be any general east wind in the upper regions at the doldrum it is above the clouds, and therefore not observable.—The last article is by Dr. Leudet, on the action of climates at elevated stations on diseases of the chest.

Bulletin de l'Académie des Sciences de St. Pétersbourg, new series, vol. ii., No. 1.—On the scales of *Holoptychius* found in Russia, by Dr. Rohon (French). The histology of the same is

described, as also two new species: *Hol. virius* and *Hol. superbus*.—Ichthyological notes from the Museum of the Academy, by S. Herzenstein, being a description of the following new species: *Cottus niveus*, *Centridermichthys alcornis*, *Hypsogonus gradiens*, *Stichæus grigorievi*, *St. dictyogrammus*, *Chirolophus japonicus*, *Pleuronectes obscurus*, *Pl. japonicus*, *Pl. bicoloratus* (incompletely described by Basilewsky), *Hippoglossus grigorievi*, *Alburnus charusini*, and *Nemachilus kuschake-witschi*.—On the extraordinary phenomena presented by the great comet of 1882, by Th. Bredichin. After having given in a preceding paper his reasons for considering the interior tube of that comet as an anomalous tail, the author applies the same explanation to the exterior tube.—On two new laws of celestial mechanics, by H. Struve. In addition to the previously communicated results of observations made on the satellites of Saturn with the 30-inch refractor, Prof. Struve points out the remarkable relations which exist between the satellites Mimas and Tethys on the one side, and Enceladus and Dione on the other side. The observations of Mimas have shown that its orbit has an inclination of $1^{\circ} 26'$ on the equator of Saturn, and that its nodes have a motion of 1° every day, so that by the end of the year the orbit returns to its previous position; moreover, a considerable acceleration has been noticed in the rotation of Mimas during the last few years. From these facts M. Struve deduces the following law:—"Four times the average movement of Tethys, minus twice the average movement of Mimas, is always equal to the sums of the average movements of the nodes of the orbits of Mimas and Tethys on the equator of the planet." The same law may also be expressed in this way:—" (1) The conjunctions of Mimas and Tethys always take place about a point which is situated halfway between the ascending nodes of their orbits on the equator of Saturn. They may move off this point for about 48° , and this libration is performed in sixty-eight years. (2) The conjunctions of Enceladus and Dione always coincide with the perisaturn of Enceladus, or, at least, they must oscillate around this point." Several important conclusions relative to the mass of Rhea and that of the rings may be deduced from these laws.—On the genus *Obolus* (Eichwald), by A. Mickwitz.—On a personal equation in photometric observations of stars, by E. Lindemann.—The mammals of the Gan-su expedition of 1884-87, by Eug. Büchner (German). The few species of this very interesting fauna which have been brought to St. Petersburg, are described, the remainder being kept in the Museum of Irkutsk.—On the rotation of Jupiter, by A. Belopolsky (in German). From a perusal of all available data, the author finds the rotation-period to be equal to 9h. 55m. in the latitudes from 10° to 45° , while in the zone 0° to 5° , it is only 9h. 50m.—On the Ammonites of the Artinsk strata, by A. Karpinsky (German). The collection is derived from North-East Russia; the new species are: *Pronorites postcarbonicus*, *Pr. præfermicus*, *Parapronorites tenuis*, *Gastrioceras suessi*, *Agathiceras uralicum*, *Popanoceras krasnopolskyi*, and *Thalassoceras gemellaroi*.—On a new process for separating iron-oxide from aluminium, by F. Beilstein and R. Lüther.—Chemical notes, by N. Beketoff.—On the use of incandescent light for self-registering instruments, by H. Wild.—On artificial amphibolite, by K. Khrustschoff.

In the *Botanical Gazette* for September and October, Mr. T. Holm continues his series of articles on the minute comparative anatomy of American grasses. Brief abstracts are given of the botanical papers read at the Washington meeting of the American Association for the Advancement of Science, and at that of the Botanical Club of the same Association. Other papers are chiefly of interest to American botanists.

SOCIETIES AND ACADEMIES.

LONDON.

Zoological Society, November 3.—Prof. W. H. Flower, F.R.S., President, in the chair.—The Secretary read a report on the additions that had been made to the Society's Menagerie during the months of June, July, August, and September, 1891, and called attention to certain interesting accessions which had been received during that period.—The following objects were exhibited:—(1) On behalf of Mr. F. E. Blaauw, a stuffed specimen of a young Wondrous Grass-Finch (*Poephila mirabilis*), bred in captivity at his house in Holland; (2) on behalf of Prof. E. C. Stirling, a water-colour drawing of the new