

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

CAMBRIDGE.—A small revolution has been effected in the teaching of geometry by the adoption of a regulation allowing any proofs of the propositions in Euclid to be given in the "Little-Go" or previous examination. No proof, however, of any proposition occurring in Euclid will be admitted in which use is made of any proposition which in Euclid's order occurs subsequently.

The estimates for the new plant-house (£2760) and research laboratory (£250) at the Botanical Gardens are accepted, Messrs. Boyd, of Paisley, being engaged for the former, Mr. Sindall for the latter. Sir Joseph Hooker, Mr. Thiselton Dyer, and several skilled horticulturists have inspected the plans, and they meet with general approval. The proposed fern-house, stove, and orchid-house, have a combined area of 2660 square feet, as compared with 2290 square feet, the area of the corresponding present houses.

The apparent boycotting of the Cambridge mechanical workshops by the Museums and Lecture-Rooms Syndicate, and other Cambridge authorities has led to a considerable diminution of work, and consequently to a serious reduction of profit in the workshops, which have also suffered to some extent by the unfortunate rejection of the Engineering Tripos scheme. In a recent discussion Prof. Cayley expressed the opinion that it ought to be as much a matter of course to send University mechanical work to the University workshops as to send University printing work to the Pitt Press. He considered the work done by the workshops compared very favourably with similar work done by contractors. Mr. Lyon, superintendent of the workshops, claimed that, while much of the work done outside for the museums had to be frequently repaired, none of the mechanical workshops' work had required this. They had done the work for the Morphological Laboratory for £1000 less than was estimated. A good deal of testimony was given to the excellence of their work, against which it was stated that the Syndicate thought they could get their work done cheaper and better by a professional builder.

A scheme has been prepared for the future fitting up of the old Botanic Gardens site with University buildings in extension of the museums and lecture-rooms. The most salient points are that the site between the new Chemical Laboratory and the Museum of Human Anatomy is declared sufficient for the new Museum of Geology, and that the next buildings to be taken in hand should be those for Human Anatomy and Physiology. It is also proposed to accommodate the Department of Pathology in the old Chemical Laboratory.

Mr. Wilberforce will deliver a course of lectures on Dynamo-Electric Machines at the Cavendish Laboratory during the Easter term.

Among the Fellows elected at King's College last week were Mr. A. P. Laurie, who obtained a first class in the Natural Sciences Tripos, Part II., June 1884, and Mr. H. W. Richmond, Third Wrangler 1885, and placed in Division I. in the third part of the same Tripos, 1886.

Mr. R. Pendlebury, Fellow of St. John's, has been appointed a University Lecturer in Mathematics for five years.

Open Scholarship examinations in which natural science Scholarships may be awarded will be held at Downing College on May 29, and at Peterhouse in October. The Clothworkers' Exhibition in physical science will be competed for in connection with the Oxford and Cambridge schools examination in July.

SCIENTIFIC SERIALS.

IN the *Journal of Botany* for February, Mr. G. S. Boulger calls attention to the exceedingly loose way in which the term "endosperm" is applied by botanical writers to structures in Angiosperms, in Gymnosperms, and in Vascular Cryptogams which have no real homology with one another.—A very interesting new fern from New Guinea (*Polypodium Annabelle*) is described and figured by Mr. H. O. Forbes, belonging to the small group in which the fertile portion of the frond is only an extension of the lower barren portion.—In this, and in the number for March, Mr. J. G. Baker continues his synopsis of *Tillandsiaceae*, and the editor commences an exceedingly useful alphabetical biographical index of British and Irish botanists no longer living.

American Journal of Science, March.—Asa Gray, by J. D. Dana. The attention of the readers of NATURE has already been directed to this memoir, written by the friend and associate probably most competent to appreciate the life-work of the eminent American botanist.—Calibration of an electrometer, by D. W. Shea. In the various forms of the quadrant electrometer, and in the different methods of setting up the same instrument, the curves of calibration obtained are well known to correspond in a very irregular manner with the curves given by Maxwell's mathematical theory. In this paper are given some observations with an electrometer of the Mascart form, which show variations apparently due to change in the sensibility with variation in the temperature. The accompanying tables exhibit the changes in the form of the curves for various charges of the needle through the range of temperature attainable, at the time, in the room where the electrometer was set up.—On the so-called Northford (Maine) meteorite, by F. C. Robinson. One of the numerous specimens of this "meteorite" contained in various cabinets in Maine, and perhaps elsewhere, has recently been analyzed by Mr. Charles Fish in Mr. Robinson's laboratory. That it is not of meteoric origin seems settled by this analysis, which corresponds closely with some recorded analyses of copper-slag.—History of the changes in the Mount Loa craters; Part I, Kilauea (continued and concluded), by James D. Dana. The subjects discussed in this paper are: the size of the Kilauea conduit; the ordinary work performed by this crater; the kinds and sources of the vapours concerned; the effect of the expansive force of vapours in their escape from the liquid lavas (projectile action), and within the lavas (vesiculation and its mechanical effect); lastly, work of vapours generated outside of the conduit—fractures, displacements, and other results.—The Taconic system of Emmons, and the use of the name Taconic in geological nomenclature, by Charles D. Walcott. In this first paper on the North American Taconic system, the author deals (1) with the Taconic area in general and the geological work within it; (2) with the geology of the Taconic area as known at the present time. The Taconic area, as here studied, is stated to comprise the Taconic range running north and south nearly along the border-line between the States of New York, Vermont, Massachusetts, and Connecticut, with the country immediately adjacent to the range on the east and west. The strata included within the whole area are grouped under six terranes, identified as Middle Cambrian (1 and 5), Upper Cambrian (2), Calciferous, Chazy, and Trenton limestones (3), and Hudson shales, sandstones, &c. (4 and 6).—On the crystalline form of polianite, by E. S. Dana and S. L. Penfield. The true crystalline form of the anhydrous manganese dioxide, MnO₂, from Platten, Bohemia, to which Breithaupt has given the name of polianite, has been the subject of much discussion. Köchlin's recent contribution to its elucidation has induced the authors to continue their own studies, which establish beyond all doubt the independent position of polianite as a tetragonal crystal isomorphous with cassiterite and the allied species of the RO₂ group.

NEARLY the whole of the number of the *Nuovo Giornale Botanico Italiano* for January is occupied by a monograph by Sig. A. N. Berlese of the genus *Fungi Pleospora*, of which 104 undoubted species are described, several of them new to science, besides a considerable number of doubtful species. The eight plates, in which the essential characters of nearly all the species are illustrated, as well as monographs of the allied genera *Clathrospora* and *Pyrenophora*, are postponed to the next number.—Prof. A. Beccari also describes three new species of palm from New Guinea.

Rendiconti del Reale Istituto Lombardo, February 9.—On colour-hearing, by Tito Vignoli. A somewhat detailed account is given of this obscure psychological phenomenon, cases being described in which not only sound produced the sensation of colour and colour of sound, but also cases in which sensations of smell and taste were stimulated by sound and colour. Rejecting the explanations hitherto advanced, the author refers the phenomenon to the primæval condition of the brain itself before the various senses became differentiated and localized in this organ. These senses must be regarded as so many forms of the primitive and essential condition of the nerve-tissue in which they became gradually specialized. But although the protoplasmic substance of the brain was thus made the seat of distinct sensations by virtue of incident forces and slow selection, still it has never