

## UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

OXFORD.—The following is an extract from the speech delivered at the Encaenia on the presentation of F. D. Godman, F.R.S., Trustee of the British Museum, for the degree of D.C.L., June 21.

“In ea Naturae parte quae ad animalium herbarumque varietates pernoscendas spectat neminem vel diligentius vel utilius hoc viro laborasse scitote.

Ille enim, scientiae amore instigatus, Americae quae dicitur centralis saltus silvasque una cum amico suo caro Osberto Salwino (nuper fato eheu! nobis abrepto) longis pererravit peregrinationibus atque fruges fetusque omnes ejus orbis terrarum partis adcurate investigavit.

Nec illud tacendum arbitrator eundem diversi generis species illic ab ipso cura infinita collectas quum rarissimas tum etiam pretiosissimas singulari munificentia Museo nostro Britannico donasse.”

THE Committee of the City and Guilds of London Institute are inviting applications for the appointment of Assistant Professor in the Department of Civil and Mechanical Engineering at the Institute's Central Technical College. Particulars of the appointment may be had of the Honorary Secretary of the Institute, Gresham College, E.C.

THE Board of Education Bill was considered by the House of Commons Committee of Ways and Means on Tuesday. It was resolved “That it is expedient to authorise the payment, out of moneys to be provided by Parliament, of a salary, not exceeding 2000*l.*, to the president of the Board of Education, and of salaries and remuneration to the secretaries, officers, and servants of the Board, in pursuance of any Act of the present Session to provide for the establishment of a Board of Education for England and Wales.”

MAJOR-GENERAL SIR JOHN F. D. DONNELLY, K.C.B., retired on Monday from the Secretaryship of the Science and Art Department, after forty years in the public service. In consequence of Sir J. Donnelly's retirement, the Duke of Devonshire, Lord President of the Council, has made the following appointments:—Sir George W. Kekewich, K.C.B., the present Secretary of the Education Department, to be also Secretary of the Science and Art Department. Captain W. de W. Abney, C.B., to be the Principal Assistant Secretary of the Science and Art Department. Mr. W. Tucker, C.B., to be the Principal Assistant Secretary of the Education Department.

THE Duke and Duchess of York visited Exeter on Tuesday and opened a new wing of the Albert Memorial Museum and College. The Museum became affiliated with the Cambridge University several years ago, when the Exeter Technical and University Extension College was started, with Mr. A. W. Clayden as principal. This institution, to be known in future as the Royal Albert Memorial Museum and College, is now sufficiently equipped for the requirements of a local college. In opening the new wing, the Duke of York remarked that the efficient results attained at Exeter and also at Reading seem to indicate that it is possible for the municipal authorities of towns of moderate size to establish, with the co-operation of the great universities, institutions providing for higher and technical instruction. The co-operation of the universities, with their expert knowledge, and the local authorities with their control of funds for educational purposes and their practical knowledge of local needs, cannot fail to be of the greatest advantage to the community from an educational standpoint.

## SCIENTIFIC SERIALS.

*Meteorologische Zeitschrift*, June.—On the amount of cloud in Europe during cyclonic and anticyclonic days, by Dr. C. Kassner. In this important discussion the author has investigated the cloud observations at five principal stations in Europe for twenty years (1871–90), and has followed a plan adopted by Dr. Leyst in another discussion by selecting the days in each month when the readings of the barometer were lowest or highest. These days, including the days preceding and following that on which the extreme reading occurred, are those called respectively cyclonic or anticyclonic periods. He finds that in

cyclonic periods the maximum amount of cloud only occurs on the principal day in summer and autumn, while in winter and spring a large amount of cloud occurs in the evening of the preceding day as well as on the morning of the principal day. The preceding day has generally somewhat less cloud than the principal day, and almost always more than the following day. This result agrees with that deduced by the late Mr. Ley, and by the Deutsche Seewarte with respect to the distribution of cloud in cyclones. In anticyclonic periods the least cloud frequently occurs, not on the principal day, but on the preceding or following day; this is especially the case at Christiania and Pavlovsk, where the least cloud occurs before the passage of the highest barometric pressure, and then gradually increases. Generally speaking, however, the principal day is clearest, and next to this the preceding day, but not always, for at Budapesth and Tiflis the day following that of the maximum barometric pressure has less cloud than the day preceding.

*Bollettino della Società Sismologica Italiana*, vol. iv., 1898, No. 9.—Old seismic instruments, by P. Tacchini, referring to an old form of the Cecchi seismograph and to Cacciatore's mercury seismoscope, recently acquired by the Central Office of Meteorology and Geodynamics at Rome, and which, with others already in the possession of the office, will form the nucleus of a seismometrical museum.—Principal eruptive phenomena in Sicily and the adjacent islands during the half-year July to December 1898, by S. Arcidiacono.—Later modifications in the electrical seismoscope of double effect, by G. Agamennone. Describes several improvements by which the instrument may be put more rapidly in working order.—Notices of earthquakes recorded in Italy (December 25 to 31, 1897), by G. Agamennone, the most important being an after-shock of the Umbria-Marches earthquake of December 27, and the Haiti earthquake of December 29.

## SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, June 15.—“The Colour Sensations in Terms of Luminosity.” By Captain W. de W. Abney, C.B., D.C.L., F.R.S.

This paper deals with a determination of the colour sensations (based on the Young theory) by measuring the luminosity of the three different colour components in a mixed light which matches white. At the red end of the spectrum there is but one colour extending from its extreme limit to near C, and there is no mixture of other colours which will match it, however selected, and is, on the theory adopted, a colour which excites but one sensation. At the violet end of the spectrum, from the extreme violet to near G, the same homogeneity of light exists, but it is apparently due to the stimulation of two sensations, a red and a blue sensation, the latter never being stimulated alone by any spectrum colour. Having ascertained this, it remained to find that place in the spectrum where the blue sensation was to be found unmixed with any other sensation except white. By trial it was found that close to the blue lithium line this was the case, and that a mixture of this colour and pure red sensation gave the violet of the spectrum when the latter was mixed with a certain quantity of white. The red and the blue sensation being located, it remained to find the green sensation. The complementary colour to the red in the spectrum gave a position in which the green and blue sensations were present in the right proportions to make white, and a point nearer the red gave a point in which the red and blue sensations were present in such proportions as found in white, but there was an excess of green sensation. By preliminary trials this point was found. The position in the spectrum where the yellow colour complementary to the violet was also found. The colour of bichromate of potash was matched by using a pure red and the last-named green. To make the match, white had to be added to the bichromate colour. A certain small percentage of white was found to exist in the light transmitted through a bichromate solution with which the match was made, and this percentage and the added white being deducted from the green used, gave the luminosity of the pure green sensation existing in the spectrum colour which matched the bichromate. Knowing the percentage composition in luminosity of the two sensations at this point, the luminosity of the three sensations in white was determined by