

on Zoological Nomenclature, in succession to Prof. F. C. Monticelli, deceased. Prof. Filippo Silvestri, of Portico, Italy, has been elected a member of the Commission in succession to the late Prof. F. C. Monticelli, of Naples.

THE new-year issue of *The Fight against Disease*, the organ of the Research Defence Society, reminds us that the Society has now been in existence for twenty-one years. An interesting correspondence between Lord Knutsford and the Hon. Stephen Cole-ridge on diabetes and insulin treatment appears in this number.

A CATALOGUE issued by Mr. Francis Edwards, High Street, Marylebone, of books on the voyages of Captain James Cook, contains several items of great interest. One entry is the original painting by J. Webber, who was artist in the *Resolution*, of the death of Captain Cook in Hawaii. This picture is well known from the engraving by Bartolozzi. Another item is the manuscript log-book of H. Roberts, who as mate of the *Resolution* was in charge of the pinnace which took Captain Cook ashore for the last time. The log runs from October 1778 to November 1779, when Capt. King demanded for the Admiralty all log-books and diaries kept on board the ship.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—An assistant in the Electrical Engineering Department of the Coventry Municipal Technical College—The Director of Education, Council House, Coventry (Mar. 8). A head of the Building Department of Rutherford Technical College, Newcastle-upon-Tyne—The Director of Education, Northumberland Road, Newcastle-upon-Tyne (Mar. 9). A head of the Engineering Depart-

ment of the Technical Institute, Gillingham—R. L. Wills, 15 New Road Avenue, Chatham (Mar. 9). A woman lecturer in education in the Department of Education of the University of Bristol—The Secretary, Department of Education, The University, Bristol (Mar. 11). A lecturer in engineering at the Technical College, East London, South Africa—The High Commissioner for the Union of South Africa, South Africa House, Trafalgar Square, W.C.2 (Mar. 12). A Tancred student in physic at Gonville and Caius College, Cambridge—E. T. Gurdon, 28 Lincoln's Inn Fields, W.C.2 (Mar. 12). A director for the Harcourt Butler Institute of Public Health, Rangoon—The Secretary to the High Commissioner for India, General Department, 42 Grosvenor Gardens, S.W.1 (Mar. 13). A professor of botany in the University of Birmingham—The Registrar, The University, Birmingham (Mar. 16). A horticultural lecturer and adviser under the Bucks County Council—The Agricultural Organiser, Education Sub-Office, Aylesbury, Bucks (Mar. 16). A professor of philosophy in the University of Lucknow—The Registrar, The University, Lucknow (Mar. 17). An assistant lecturer in economics in the University College of North Wales—The Registrar, University College of North Wales, Bangor (Mar. 18). An assistant inspector in connexion with agricultural and horticultural education and research—The Secretary, Ministry of Agriculture and Fisheries, 10 Whitehall Place, S.W.1 (Mar. 18). A lecturer in metal mining in the Mining Department of the University of Birmingham—The Secretary, The University, Birmingham (Mar. 23).

ERRATUM.—Obituary of Dr. J. W. L. Glaisher in NATURE of Jan. 26, p. 135, col. 2, line 8 from bottom: for 1910 read 1901.

Our Astronomical Column.

SPECTRA OF MINOR PLANETS.—*Lick Observatory Bulletin*, No. 407, contains an investigation of this subject by Mr. N. T. Bobrovnikoff; he used a one-prism spectrograph on the 36-inch refractor. As might be expected, the light of the small planets is wholly reflected sunlight; there are no absorption bands as in the giant planets. The violet and ultra-violet regions are generally very weak as compared with the spectra of *G*-type stars. There is evidence of difference of composition of different planets; thus Ceres is bluer than Vesta, the maximum of intensity of the latter being much further towards the red end; the values given are: Ceres, $\lambda 4800$; Vesta, $\lambda 5300$. It has been deduced both by changes of light and of spectrum that Vesta rotates in $5^h 55^m$. The suggestion is made in the article that minor planets may be comets that have lost their gaseous envelope; but it should be remembered that Halley's comet was invisible when in transit over the sun in May 1910, whereas any solid body of even a few miles in diameter would have been detected, the comet being near the earth.

MAGNITUDES OF STARS IN THE CAPE ZONE CATALOGUE.—The importance of the accurate determination of magnitudes both for statistical purposes and for the deduction of spectroscopic parallaxes has been more fully realised during the last two decades. The Cape Observatory has lately published a volume

which gives the photographic magnitudes of 20,843 stars in the Cape Zones (Declination -40° to -50°), the Harvard spectral type and photometric and photographic magnitudes being given for comparison.

Very careful experiments have been made at the Cape of the photographic effects of different exposures, different intensities of light, and different brands of plates. Kron gave an exponential formula with different values of the exponents for different brands of plates. This is adopted with the simplification that Kron's a_1, a_2 are each assumed equal to 0.25 for all brands of plates. The quantity I , known as the 'optimal intensity,' is, however, considerably greater in slow than in fast plates. The mean difference (irrespective of sign) between Cape and Hertzsprung is 0.07 mag.; the difference from Harvard for 16 stars in the south polar sequence is +0.07 mag.

The satisfactory conclusion is reached that if there is on a plate one star the magnitude of which is known from extraneous sources, the magnitudes of the other stars on the plate can be deduced. The zero point of the Cape system was derived from the Harvard visual system corrected for colour. There is found to be a marked tendency for the colour indices to group themselves round four maxima the positions of which are -0.04 mag., $+0.38$ mag., $+0.84$ mag., $+1.30$ mag. It will be seen that they are nearly equally spaced.