

Grace the Duke of Bedford and Sir P. Chalmers Mitchell at the centenary celebrations, as well as shorter addresses by three representative delegates.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A temporary technical assistant in farm economics under the Department of Agriculture for Scotland—The Establishment Officer, Department of Agriculture for Scotland, Queen Street, Edinburgh (May 10). Designers with experience in the design and construction of light precision mechanical or electrical machinery, for an Admiralty establishment near London—The Secretary of the Admiralty (C.E. Branch), Whitehall, S.W.1 (May 10). A physiological botanist under the Director of Agriculture, Mauritius—The Private Secretary (Appointments), Colonial Office, 2 Richmond Terrace, Whitehall, S.W.1 (May 16). A university librarian for the Queen's University, Belfast—The Secretary to the Library Committee, Queen's University, Belfast (May 16). A head of the Building Department of Leeds Technical College—The Director of Education, Education Department, Calverley Street, Leeds (May 17). A senior science master at the City of Leeds School—The Director of Education, Education Department, Calverley

Street, Leeds (May 17). A chief assistant in the Pottery Department of the North Staffordshire Technical College—The Clerk to the Governors, North Staffs Technical College, Town Hall, Hanley, Stoke-on-Trent (May 19). A junior lecturer in the department of inorganic and physical chemistry of Bedford College for Women—The Secretary, Bedford College for Women, Regent's Park, N.W.1 (May 24). An assistant horticultural adviser to the County of Southampton Education Committee—The County Education Officer, The Castle, Winchester (May 24). An assistant director of agricultural education, a senior agricultural advisory officer, and a poultry advisory officer—The Director of Agricultural Education, Agricultural Station Offices, Sprowston, Norwich (May 24). A head of the mathematics and physics department of the Birmingham Central Technical College—The Principal, Central Technical College, Suffolk Street, Birmingham (May 30). An assistant lecturer in the department of mathematics of the University College of Swansea—The Registrar, University College, Swansea (May 30). Assistant meteorologists under the India Meteorological Department—The Director-General of Observatories, India Meteorological Department, Poona 5, India (June 29).

Our Astronomical Column.

Double Star Measures at Johannesburg.—*Circular* No. 80 of the Union Observatory is wholly occupied with double star measures made by Mr. W. H. van den Bos. There are 1393 measures of 604 pairs; the 9-inch refractor is used for such pairs as are within its reach; the 26½-inch for more difficult ones. Some pairs within reach of northern observers are measured for a check on personality in measuring. One of these is Sirius; there are five measures of the principal pair *AB*, which agree closely with the ephemeris from Aitken's orbit; two measures of the suspected third companion *C*, date 1929·213, give P.A. from *B* 132·6°, distance 1·54"; the note on one night is "*C* sharp and stellar regarded as quite certain, good measure"; but a later note states that the real existence of *C* is still regarded as doubtful. A bar across the object glass was found to aid observation in this case; there were dark lanes between the diffracted patches of light; a faint object in these lanes was more easily seen; it is suggested that the device might be useful for Procyon. Three companions of Nova Pictoris were measured; position angles, 70°, 230°, 10°; distances, 0·5", 0·6", 0·3"; dates not given. An interesting new close pair is ν Indi; magnitudes, 6·1, 6·2; P.A. 0°, distance 0·14". As this star has a parallax of 0·034" (Voute), it is likely to show orbital motion. With the circular are issued twelve more sheets of the photographic star-atlas of the southern heavens that is being made with the Franklin Adams camera; they are ruled with the lines of R.A. and Decl. for the equinox of 1875.

A New Determination of the Galactic Pole.—*Publication* No. 43 of the Groningen Laboratory, by Prof. P. J. van Rhijn, director of the Laboratory, is taken up with a careful analysis of the distribution of the faint stars, based chiefly on the photographs of the Kapteyn selected areas, but supplemented by the Franklin Adams photographs and some other sources. The stars used are very much fainter than those employed in obtaining the galactic co-ordinates that

are in common use; it is therefore not very surprising to find that the new position of the galactic pole differs considerably from accepted values. Thus, in the analysis the preliminary position of the galactic pole was that derived by Gould; R.A. 12^h 42^m 34^s, N. Decl. 27° 13'; that finally adopted is 12^h 56^m, N. 25° 30' (both are for the equinox of 1900). The publication contains tables for reducing R.A. and Decl. to this new system; the remainder of it contains extended tables of the logarithms of the star density for different magnitudes and in different regions of the sky. The important result is deduced that the ratio of increase in the number of stars on extending the table from any magnitude (between the limits 15 and 18) to a value half a magnitude fainter is independent of the galactic longitude, and is the same on both sides of the galaxy.

Melbourne Astrographic Catalogue, Vol. 3.—This catalogue has just been published under the direction of the present Government Astronomer, Mr. J. M. Baldwin; most of the photographs were taken and measured under his two predecessors, Messrs. Ellery and Baracchi. It covers the zones - 69° and - 70°, so that about half the stars in it occur twice, since each plate covers 2° in declination. There are 254 pages, and the average number of stars on each page is about 200. The diameters of the star images are given, and a table in the introduction gives the magnitude corresponding to each diameter: the faintest stars are of magnitude 12·9. The rectangular co-ordinates x, y of each star are given to the third decimal of a minute; there are tables to facilitate the reduction to Right Ascension and Declination. The stars used for the plate constants are in heavy type. The reference numbers in the Cape Photographic Durchmusterung are given for all stars contained in that work, together with their magnitudes. The Melbourne section of the catalogue extends to the south pole, but the zones near the pole are very small, so that about half the whole area has now been published.