

Education Offices, Guildhall, Hull (July 11). A demonstrator in the physics laboratory of the Royal Naval Engineering College, Keyham, Plymouth—The Secretary of the Admiralty (C.E. Branch), Whitehall, S.W.1 (July 12). An assistant to the head of the Plant Disease Research Division of the Ministry of Agriculture for Northern Ireland, and an assistant to the head of the Ministry's Dairy Bacteriology Research Division—The Secretary, Civil Service Commission, 15 Donegall Square West, Belfast (July 14). Junior assistants at the National Physical Laboratory, Teddington—The Director, National Physical Laboratory, Teddington (July 14). Two geologists on the Geological Survey of Great Britain—The Director, Geological Survey and Museum, 28 Jermyn Street, S.W.1 (July 14). A mycologist at the Royal Horticultural Society's Gardens—The Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey (July 16). An assistant professor of physics at the Military College of Science, Woolwich—The Assistant Commandant, Military College of Science, Red Barracks, Woolwich, S.E.18 (July 21). A fellowship for research work in connexion with aeronautics—The Clerk, The Company of Armourers and Brasiers, 81 Coleman Street, E.C.2 (July 28). A mechanic to take charge of the college workshop, and laboratory stewards for the chemistry and physics

departments of the University College of Hull—The Secretary, University College, Hull (July 29). A second in command to the Chief of the Economic Botany Division of the Commonwealth Council for Scientific and Industrial Research—The Acting Secretary, Commonwealth Council for Scientific and Industrial Research, 314 Albert Street, East Melbourne, Victoria (Aug. 31). An investigator for work on the Flying Fox (*Pteropus spp.*) problem in Australia—F. L. McDougall, Australia House, Strand, W.C.2 (Aug. 1), or The Acting Secretary, Commonwealth Council for Scientific and Industrial Research, 314 Albert Street, East Melbourne, Victoria (Sept. 1). A part time professor of highway engineering at the City and Guilds Engineering College—The Academic Registrar, University of London, South Kensington, S.W. 7 (Sept. 4). Lecturers in applied chemistry and in economic entomology in the University of Queensland—The Secretary, Queensland Government Offices, 409 Strand, W.C.2. A lecturer in mining subjects at the Mansfield Technical College—The Principal, Technical College, Mansfield. A lecturer in chemical engineering at University College, London—The Secretary, University College, Gower Street, W.C.1. A woman laboratory assistant with knowledge of botany, physics, and chemistry, at Bedford High School—The Head Mistress, High School, Bedford.

Our Astronomical Column.

TELESCOPES OF THE FUTURE.—It seems very possible that certain innovations may be made in the construction of telescopes. Larger aperture seems required without much additional weight; the solid, thick disks for reflectors are difficult to cast, mount, and utilise in an efficient manner, and atmospheric disturbances affected their performance in no small degree. For general work, the really large instruments have been often discarded for smaller sizes by Herschel, Rosse, and Lassell, being found more serviceable and expeditious.

Prof. G. W. Ritchey, of Pasadena, California, who has worked for some time in Paris, had a considerable share in the making and mounting of the 100-inch reflector at Mount Wilson and has experimented with several instruments of large size. He concludes that "future optical mirrors will be made not of solid disks but built up of glass plates; light, cellular structures, cemented together and figured at high mountain sites" where they are intended to be employed. He says that he hopes to make a reflecting telescope with a practically perfect mirror 50 feet in diameter. He describes details of his project in the *Journal of the R.A.S. of Canada* for May-June 1928, and expresses himself with confidence in regard to the realisation of his plans.

Prof. Ritchey's experience gives great weight to his opinions, and it is to be hoped that his researches will ultimately place a greater and more efficient telescope in the hands of those dealing with some of the greater questions in astronomy which require the help of more instrumental power than that hitherto employed. The immediate future may therefore witness the dawn of a new astronomy, if combination disks of glass plates, light and easily manipulated, can be utilised. They may carry practical astronomers far beyond the limits reached by means of their previous equipment.

THE CURVE OF SUNSPOT ACTIVITY.—S. Oppenheim, in *Astr. Nach.*, No. 5566, discusses the sunspot

activity of the last two centuries and obtains a curve with several periodicities, the longest period being 450 years, and the principal one $11\frac{1}{4}$ years. He conjectures that the long period is identical with that suspected in terrestrial magnetic phenomena, the duration of which is given as between 450 and 500 years. He notes that some variable stars have a second periodicity much longer than the principal one (Mira 218 years, R.V. Tauri 3.6 years). He gives a curve from his formula which is compared with that from Wolf's sunspot numbers. The agreement is close except for the present maximum. His curve gives a sharp maximum at 1928.5, higher than any since 1870; the observations up to the present point to a low flat maximum considerably below that of 1917. The high maximum of 1778 and the low one of 1816 are very well represented.

THE ORBIT OF COMET PELTIER-WILK.—This comet was independently found by Mr. Peltier in the United States and by Mr. Wilk of Cracow. Its definitive orbit has been deduced by Mr. F. Kepinski, also of Cracow. The observations ranged from Nov. 21 to Dec. 30, 1925. They are divided into six groups, which are all well represented by the adopted orbit, the largest deviation being $2''$.

The following are the elements:

T	1925 Dec. 7.267395 U.T.
ω	$126^{\circ} 7' 13.46''$
Ω	140 34 35.59
i	144 36 22.22
e	1.0005047
log q	9.8828482

This adds another to the considerable list of comets the orbits of which appear to be hyperbolic; the deviation from a parabola in this case is so small that it can reasonably be ascribed to planetary perturbations.