

that in consequence of a fire at their printers the whole work, almost completed, was destroyed, and it is therefore necessary to recommence production and there will be a delay of some months in the publication of the volume.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A junior inspector of mines in the Mines Inspectorate of the Government of India—The Secretary to the High Commissioner for India, 42 Grosvenor Gardens, S.W.1 (August 30). Assistant masters for, respectively, physics and mathematics and chemistry, and physiology and biology at the Lawrence College, Ghora Gall (Murrer Hills), India—The Principal, St. Luke's College, Exeter (August 31). An adviser in dairy bacteriology at Armstrong College, Newcastle-upon-Tyne—The Registrar (September 2). An assistant bacteriologist in the Department of Pathology and Bacteriology of the University of Sheffield—The

Registrar (September 11). A lecturer in plant physiology in the University of Aberdeen—The Secretary (September 14). A senior metallurgist under the British Cast Iron Research Association—The Director, 75 New Street, Birmingham (September 15). A professor of philosophy in the University of Sydney—The Agent-General for New South Wales, Australia House, Strand, W.C.2 (September 15). A professor of psychiatry in the University of Sydney—The Agent-General for New South Wales, Australia House, Strand, W.C.2 (September 15). A research bio-chemist at the Walter and Eliza Hall Institute of Research, Melbourne—The Agent-General for Victoria, Victoria House, Melbourne Place, Strand, W.C.2 (September 30). An adviser in agricultural chemistry at Armstrong College, Newcastle-upon-Tyne—The Registrar (October 1). A lecturer in mathematics and physics in the Government College for Indian Women, Lahore—Miss G. Harrison, The Poplars, Buckingham.

Our Astronomical Column.

THE AUGUST PERSEIDS OF 1926.—Mr. W. F. Denning writes that "a series of very clear nights during the first eleven days of August enabled these meteors to be well traced as they gradually increased to a maximum on the morning of August 12. On August 7 the shower was strikingly evident by some fine, flashing meteors. The hourly number observed was about twenty-five from all radiant, of which the proportion from Perseus was sixteen. On August 10, after rain and clouds had prevailed in the early part of the night, the sky became very clear and 60 meteors were seen by an assistant during a watch maintained for 2½ hours. The great majority of these were Perseids and were fairly bright with the normal features of swiftness and afterglows, the latter being strongly marked in several cases where the heads were unusually lustrous. On August 11 clouds and rain again affected the conditions, but soon after 22^h G.M.T. the sky became clear and the ensuing morning presented an ideal aspect for astronomical purposes. A look-out was maintained for 4½ hours and 180 meteors were counted. About 145 of these were Perseids and included a fair proportion of conspicuous objects with long paths and a rapidity of movement which called for celerity on the part of the observer in accurately recording their flights. The maximum of the shower occurred between 2^h and 3^h G.M.T., August 12, when 60 meteors appeared. On the whole, however, the display may be regarded as only of moderate intensity and not nearly so rich in number as those of 1871, 1874, 1877, 1921 or some other years."

SOLAR RADIATION.—Special attention is directed by the Scientific News Service of the Smithsonian Institution to a recent issue of the *Monthly Weather Review* of the U.S. Weather Bureau, which is said to contain a further corroboration by Dr. Abbot of the reality of the variability of the sun's radiation. From a series of observations made at Mt. Wilson by himself and Mr. L. B. Aldrich during the years 1910–1920, a selection has been made of the days on which the atmospheric conditions were as nearly identical as possible, these being divided into comparable groups. Observations made throughout 1912 and

1913 were discarded on account of the Mt. Katmai eruption. When the mean values of the solar radiation readings for these selected days, grouped for a month at a time (the mean value for July of each year from 1910–1920 is given as an example), are plotted, together with the solar constant values already published by the Smithsonian Institution and the sunspot numbers for the same epochs, a close degree of parallelism is shown between the three sets of observations. It is also claimed that short interval changes within the individual months are verified. It is not stated, however, whether the data for other months or periods of the year give as close agreement as that shown for July. The full details of Dr. Abbot's communication will be awaited with interest.

THE SYSTEM OF CASTOR.—This beautiful system became still more interesting when Adams and Joy found in 1920 that the distant companion *C* (about 1' distant from the bright pair) was itself a spectroscopic binary. The period was at first given as 4 days, corrected later to 0.815 days. *C* is of magnitude 9.03; as the two spectra are of equal intensity, each component is of mag. 9.78; taking the parallax as 0.0747", this corresponds to absolute mag. 9.15.

Mr. H. van Gent, of Leyden Observatory, examined *C* for variability and found that it is an eclipsing binary. He has determined the light curve from photographs taken with the Leyden 33 cm. refractor. He discusses the observations in *Bull. Astr. Inst. Netherlands*, vol. 3, No. 97. The radius of each component is 406,000 km.; the mass of each is 0.518 sun and density 2.60 sun; the distance apart 2,581,000 km. and inclination 86°.

The surface brightness of each component is 3.31 mag. fainter than that of the sun. The effective temperature is deduced as 3500°, agreeing well with the spectral type *M*. These exact details concerning a red dwarf star are of great interest.

It is noted that Castor *C* has the greatest parallax and proper motion so far known among eclipsing variable stars, and that the components of 61 Cygni have similar absolute magnitude and colour.