

Further information regarding the shock of July 30 last would also be welcome (see NATURE, Aug. 7, 1926, p. 204).

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A pathologist at the Charing Cross Hospital Institute of Pathology—The Secretary, Charing Cross Hospital Institute of Pathology, 62 Chandos Street, W.C.2 (Mar. 23). A junior scientific assistant for Admiralty research—The Secretary of the Admiralty (C.E. Branch), Admiralty, Whitehall, S.W.1 (Mar. 26). Two junior technical officers in an Admiralty Experimental Establishment—The Secretary of the Admiralty (C.E. Branch), Admiralty, Whitehall, S.W.1 (Mar. 26). An assistant in the Liverpool Observatory, Bidston—The Mersey Docks and Harbour Board, Liverpool (Mar. 31). Six forest officers for service under the Government of Burma—The Secretary to the High Commissioner for India, 42 Grosvenor Gardens, S.W.1 (April 1). A scientific officer under the directorate of scientific research, Air Ministry, primarily for research in con-

nexion with electrical ignition appliances—The Chief Superintendent, Royal Aircraft Establishment, South Farnborough, Hants (April 6, quoting A. 81). An adviser in agricultural entomology in the University of Manchester—The Registrar, University, Manchester (April 19). A professor of anatomy in King's College, London—The Academic Registrar, University of London, South Kensington, S.W.7 (April 21). An instrument maker for experimental work in the Experimental Department of the Fine Cotton Spinners' and Doublers' Association, Ltd., Rock Bank, Bollington, Macclesfield—The Secretary. A demonstrator in the mechanical engineering branch of the Artillery College, Woolwich—The Assistant Commandant, Artillery College, Red Barracks, Woolwich, S.E.18. An agricultural entomologist at the Kirton Agricultural Institute—The Principal, Kirton Agricultural Institute, nr. Boston, Lincs. A junior chemist, and a senior laboratory assistant, under the Lancashire and Cheshire Coal Research Association—The Director of Research, Lancashire and Cheshire Coal Research Association, College of Technology, Manchester.

Our Astronomical Column.

DISCOVERY OF A NEW COMET, 1927 *d*.—A telegram from Prof. Shapley, circulated by the I.A.U. Bureau at Copenhagen, announces the detection of the fourth comet of 1927. The discovery was made by Dr. C. L. Stearns, at the Van Vleck Observatory, Wesleyan University, Middletown, Connecticut, on Mar. 10 at 10^h 4^m 8^s U.T. in R.A. 15^h 16^m 6^s, south declination, 7° 21' 43". The comet was of the tenth magnitude, and its daily motion was -16^s, North 19'. On Mar. 19 it will be in R.A. 15^h 13^m 42^s, south decl. 4° 53', assuming uniform motion. This is some 5° north of β -Libræ. Meridian passage will be about 3^h 30^m A.M.

RADIO RECEPTION AND SOLAR ACTIVITY.—A paper entitled "The Correlation of Radio Reception with Solar Activity and Terrestrial Magnetism" is contributed by G. W. Pickard in the *Proceedings of the Institute of Radio Engineers*, Feb. 1927. The purposes of the paper are to emphasise the need for prolonged systematic observations of radio reception and to give preliminary results which have been obtained from data extending over nine months. At the outset it appears that poor broadcast reception coincided with practically every magnetic disturbance of note between 1922 and 1926 as registered at Cheltenham, U.S.A., but in order to establish a more definite correlation, a series of nightly measurements of the radio reception at Boston of WBBM at Chicago (operating at 1330 kilocycles) was commenced early in 1926. Over this relatively short interval the author obtains a correlation factor of -0.89 ± 0.06 between radio reception and magnetic character on a monthly average basis. The graph for monthly averages show little correlation with sunspots, but on using moving weekly averages it appears that an increase of solar activity is paralleled by an increase in magnetic disturbance and a decrease in reception. Another graph, giving weekly departures from monthly means of sunspots, magnetic character of days, and radio reception, shows a succession of peaks suggestive of the well-known 27-day interval relation between solar disturbances and magnetic

storms. Other points of interest are, first, that the low frequency end of the radio spectrum is not very sensitive to solar disturbances, the most sensitive portion being apparently between 1000 and 1500 kilocycles; secondly, that although the magnetic storm and reception depression begin together, the storm reaches its maximum before reception is at a minimum and magnetic quiescence returns two or three days before reception is normal. It is greatly to be hoped that the observations will be continued to substantiate thoroughly these interesting preliminary results.

SOLAR ECLIPSE OF JUNE 29.—The Ordnance Survey has published a very useful map of the circumstances of the total solar eclipse across England and Wales on June 29 (Southampton: Ordnance Survey, 1927. 3s.). The scale is ten miles to the inch. The central line, north and south limits of totality, the lines where the magnitudes are 0.99, 0.98, 0.97, 0.96, the lines where the sun's altitudes are 10°, 11°, 12°, 13°, and those where central eclipse occurs at U. T. 5^h 20^m, 5^h 21^m, etc., to 5^h 28^m, are all laid down from computations made at the Nautical Almanac Office. As estimated corrections have been applied to the moon's positions calculated from Brown's Tables, the various curves should be accurate within a mile. The map shows contour lines for every 400 feet of altitude, the spaces between them being printed in different colours; this information is of use in selecting stations, as the sun is so low in Wales that it is important to ascertain whether high ground will interfere with the view.

The width of the track of totality is 28 miles on the west coast and 31 miles on the east coast; the speed of the shadow is about 100 miles per minute.

It may be mentioned that two excursions to the eclipse from London are announced; one by Messrs. Cook to Southport, the other by the L.N.E.R. to some point in Yorkshire near the central line. The departure from London is on the afternoon or evening of June 28, returning on the following afternoon. These should be very useful to observers pressed for time.