

addition to Herbert Spencer's "Descriptive Sociology." The work, which will deal with Ancient Egypt, has been written by Sir Flinders Petrie and will be issued at an early date.

AMONG the spring announcements of the Cambridge University Press are "Science and the Modern World," by Dr. A. N. Whitehead, which embodies a study of the mentality of successive epochs during the past three centuries in so far as it has been influenced by the development of science; "The Quantum Theory of the Atom," by G. Birtwistle, dealing with the evolution of the quantum theory from its inception by Planck down to the most recent work on the reaction of the atom to radiation fields; and "Population Problems of the Age of Malthus," by G. Talbot Griffith, being a study of economic conditions and their effect on the birth, marriage, and death rates at the time when Malthus wrote his "Essay on Population."

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:

Inspectors under the Ministry of Agriculture and Fisheries for the purposes of the Diseases of Animals Acts, 1894 to 1925—The Secretary, Ministry of Agriculture and Fisheries, 10 Whitehall Place, S.W.1 (February 15). A tutor and lecturer on methods of teaching science (especially physics and chemistry) at the London Day Training College—The Principal, London Day Training College, Southampton Row, W.C.1 (February 22, on Form H.2/1). A Vice-Principal of the Somerset Farm Institute, Cannington, near Bridgwater—The Principal (February 22). A senior lecturer in the department of logic and metaphysics of the University of Glasgow—The Secretary, University Court, the University, Glasgow (February 24). A secretary to the Royal Horticultural Society—The Treasurer, Royal Horticultural Society, Vincent Square, S.W.1 (February 27). A man to take charge of the A.I.D. Chemical and Physical Testing Laboratory at the R.A.F. Stores Depot, Kidbrooke, S.E.—The Secretary (S.2), Air Ministry, Adastral House, Kingsway, W.C.2.

Our Astronomical Column.

RECENT SUNSPOT AND MAGNETIC "STORM."—On January 26, the largest magnetic disturbance for five years was recorded by the magnetographs at the Royal Observatory, Greenwich. The disturbance commenced at 16½h., rose to a considerable maximum, and subsided soon after 5h. on the following morning. The greatest range shown during the disturbance by

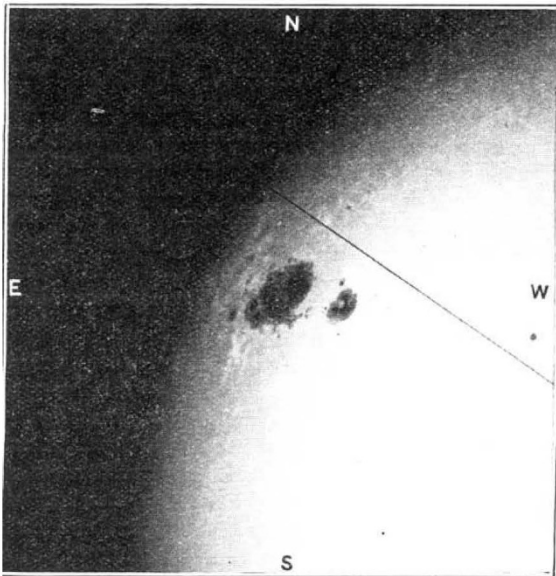


FIG. 1.

the magnetic needle recording magnetic Declination was one degree. The photographic traces of North Force and Vertical Force also showed considerable deflexions. Press telegrams announced a remarkable display of the aurora borealis seen from Norway and North America on the night of January 26.

At the time of commencement of the magnetic "storm," the great spot, which had been a prominent object on the sun's disc since January 18, was about 27° west of the central meridian. The spot was first seen from December 22 to January 3, when it was also of great size, but no disturbances of any consequence

were recorded by the magnetographs during this period. Mr. J. Evershed, observing with his spectroscopic instruments at Ewhurst, Surrey, noted large disturbances in the chromosphere over the spot when seen close to the west limb on January 4 (R.A.S. report, *The Observatory*, February 1926).

The accompanying photograph (Fig. 1) was taken on January 20 at the Royal Observatory, Greenwich, and shows the large spot (latitude 22° N.) two days after its reappearance on the sun's disc. The spot is followed by bright faculae in which a few scattered spots can be seen. Preceding the great spot by 9° of solar longitude is a smaller one, which has formed whilst this part of the sun was turned away from the earth. It is probably separate from the great spot disturbance, but the Mount Wilson polarity determinations will throw light on this point.

Details of position and area of the large spot will be found in *NATURE* of January 9 and 30.

PHOTOGRAPHIC STELLAR PHOTOMETRY.—The application of photography to stellar photometry has at present scarcely progressed beyond the experimental stage. Various methods have been used by different observers, and it is therefore of some interest to receive details of those in use at the Yerkes Observatory, as described by J. A. Parkhurst and Miss Farnsworth in the *Astrophysical Journal*, vol. 62, p. 179. The stellar images were taken in sharp focus, and were compared in a Hartmann microphotometer with an artificial scale of images, formed at equal intervals of about half a magnitude by giving a series of exposures, in logarithmic ratios, on a chosen star. The scale values were obtained independently on each plate by using coarse wire objective gratings, and comparing the first order spectra obtained in this manner with the central image. Both photographic and photovisual magnitudes were measured—the latter by using Cramer isochromatic plates with colour filters. The reduction to international magnitudes was effected either by means of duplicate exposures and comparison with stars of the North Polar Sequence, or indirectly by comparison with Harvard or Potsdam stars included on the same plate, reducing the latter magnitudes to photographic by correcting for colour index. The results of this work during 1914–1924, together with further details, are promised in a forthcoming publication of the Yerkes Observatory.