

NEWS and VIEWS

The Great Sunspot and Radio Transmissions

A GROUP of sunspots of exceptional size came over the eastern edge of the sun's disk on January 29 and passed central meridian on February 5–6 (when the group was about 33° north of the disk centre); it should pass around the western edge on February 11–12. As the group came fully into view, it was seen to consist of a giant single spot preceded by a large double spot, with a total area, corrected for foreshortening, of 4,900 millionths of the sun's hemisphere on February 1–2. It is unlikely, however, that this huge area will be maintained for long. In several respects, the present group resembles that of January 1926, which had a maximum area of 3,716 millionths and a mean area during the transit of the disk of 3,285 millionths—hitherto the largest group in the Greenwich records, that is, since 1875.

The association of the present great spot with a certain continuous radio phenomenon observed on short-wave radio transmission, as with a big sunspot in February 1942, has been commented upon by Sir Edward Appleton in a B.B.C. broadcast (see also *Nature*, Jan. 12, p. 47). In addition, the spot region (up to February 3) has provided a notable example of an intense solar flare observed in monochromatic light ($H\alpha$; in the H and K lines of the solar spectrum due to ionized calcium, or in a few other special lines) and a synchronous 'irruption' of the ionosphere producing a marked fade-out on short-wave radio transmission over channels in the earth's sunlit hemisphere. These dual phenomena occurred on February 2 between 9^h and 11^h G.M.T. The flare appeared over the following spot then in longitude 45° east of the central meridian. Had the flare occurred rather nearer the central meridian, the statistical conditions would have been more favourable for any corpuscular stream, ejected from the spot region at the time of the flare, to have encountered the earth and so produce a 'magnetic storm' about 20 hours after the flare (*Mon. Not. Roy. Ast. Soc.*, 103, 253; 1943). The spot group, if it survives, should re-appear at the sun's east limb on February 26–27 and should reach central meridian about March 5.

Sedleian Professor of Natural Philosophy at Oxford:
Prof. Sydney Chapman, F.R.S.

PROF. SYDNEY CHAPMAN, whose appointment as Sedleian professor of natural philosophy in the University of Oxford has just been announced, began his academic life as an engineer, taking first-class honours at Manchester in engineering in 1907; but then turned to mathematics and took first-class honours in 1908. He went to Trinity College, Cambridge, where he continued to read mathematics, and in 1910 was appointed a chief assistant at Greenwich Observatory. He was Smith's Prizeman in 1913 and was a fellow of Trinity during 1913–19, when he returned to Manchester as professor of mathematics. In 1924 he moved to London, being appointed chief professor of mathematics at the Imperial College. He was elected a fellow of the Royal Society in 1919, and he has also served as president of the Royal Meteorological Society, the Royal Astronomical Society and the London Mathematical Society. During the War he was engaged in work for the War Office and at present is chairman of the Meteorological Research Committee of the Air Ministry.

Prof. Chapman's earliest researches were concerned with certain problems in pure mathematics.

He followed with important papers on the dynamical theory of gases, and he helped to isolate the phenomenon of thermal diffusion in gases. He also contributed theories of magnetic storms and of diurnal variations in the magnetic elements. Geophysical subjects have, in fact, always occupied a great part of his attention; geomagnetism has particularly interested him, his numerous papers culminating in his standard book on the subject in conjunction with Prof. Bartels. He has also published important papers on the ionization of the upper atmosphere by radiation and the formation of the ionosphere, the formation and vertical distribution of atmospheric ozone and the lunar diurnal variation of atmospheric pressure.

New York Academy of Sciences:

Honorary Life Members

THE following have been elected to honorary life membership of the New York Academy of Sciences: Prof. J. N. Brönstedt, director of the Institute of Physical Chemistry, Bledgansvej, Copenhagen; Sir Jack Drummond, recently professor of biochemistry, University College, London, now director of scientific research at Messrs. Boots Pure Drug Co., Ltd.; Dr. P. Kapitza, director of the Institute of Physical Problems, Moscow; Prof. M. L. Oliphant, Poynting professor of physics, University of Birmingham; Prof. A. Szent-Györgyi, professor of medical and organic chemistry, University of Szeged; Prof. N. H. Swellengrebel, president of the Third International Congress on Malaria, Amsterdam, 1938; Prof. J. H. F. Umbgrove, professor of geology, Technische Hoogeschool, Delft; Dr. C. M. Wenyon, consultant in tropical medicine, Wellcome Research Institution.

A. Cressy Morrison Prize Awards for 1945

Two A. Cressy Morrison Prizes for 1945 have been awarded as follows: A prize of 200 dollars for the paper entitled "Electromesons", by John Archibald Wheeler, Princeton University, Princeton, New Jersey; a prize of 200 dollars for the paper entitled "Limitations of Optical Image Formation", by Max J. Herzberger, Eastman Kodak Research Laboratories, Rochester, New York. An honourable mention was awarded for the paper entitled "The Golgi Apparatus", by Leonard G. Worley, Department of Biology, Brooklyn College, New York. It is announced that Mr. Morrison has renewed his offer of two prizes of 200 dollars each to be competed for during the year 1946, for the two most acceptable papers in a field of science covered by the Academy or an affiliated society; these prizes are to be awarded in December 1946. Mr. Morrison has also offered a prize in astronomy for 1946, in renewal of those awarded in recent years, of 500 dollars for the paper adjudged by the Council of the Academy to be the most meritorious contribution on the subject of solar and stellar energy.

British Journal of Pharmacology and Chemotherapy

THE British Pharmacological Society proposes to establish a new journal with the above title, to be published by the British Medical Association. Pharmacology and chemotherapy are two aspects of the same subject, dealing with the action of drugs on man and other organisms. It is particularly concerned with new therapeutic discoveries. This subject is rapidly expanding, and the discovery of many new remedies has had a profound influence on the teaching and practice of medicine and has stimulated much new clinical investigation. Not only pharm-