

## NEWS and VIEWS

## Guthrie Lecture of the Physical Society: Prof. N. F. Mott, F.R.S.

THE Physical Society has appointed Prof. N. F. Mott, of the H. H. Wills Physical Laboratory, University of Bristol, to deliver the thirty-fifth (1951) Guthrie Lecture. This is an annual award instituted in memory of the founder of the Physical Society. Prof. Mott's subject will be "The Mechanical Properties of Solids", and the Lecture will be given in the Science Museum, Exhibition Road, London, S.W.7, on March 16, at 5 p.m. Prof. Mott left Cambridge in 1933 to occupy the chair of theoretical physics at Bristol, later, in 1948, becoming director of the Wills Laboratory. He has contributed much to the study of the solid state. Moreover, by summer schools and small conferences in the Wills Laboratory he has done much to familiarize other workers, both academic and industrial, with the modern approach to old problems in this field. In the first place, his interest was in the theory of metals and alloys, and his treatise on this subject with H. Jones (1936) contained much original material and is still a standard work. He then turned his attention to semi-conductors and insulators, and there followed another volume, with R. W. Curney, on "Electronic Processes in Ionic Solids". His theory of the photographic latent image also attracted much interest. During the Second World War, Prof. Mott's versatility was shown by his contributions to radar and to operational research, and later as superintendent of a theoretical group in the Ministry of Supply. He is a Hughes Metallist of the Royal Society and holds honorary doctorates of the Universities of Louvain and Grenoble.

## New Portable Television Equipment

A NEW range of portable television equipment for use in studios or for mobile outside-broadcasting stations has been designed and produced by the Marconi's Wireless Telegraph Co., Ltd. An outstanding feature of this equipment is the television camera using the famous 'Image Orthicon' pick-up tube, which has played such an important part in many recent B.B.C. television broadcasts. The extreme sensitivity of 'Image Orthicon' tubes enables them to provide good pictures by the light of a single candle; at the same time they will operate without adjustment over a wide range of light intensities, a valuable feature for the conditions often met in televising outdoor events. The new camera includes a four-lens rotatable turret, operated from the rear by the camera operator. Focusing is done by racking the camera tube and reflexion assembly relative to the lens. On account of the fact that an optical view-finder cannot work down to the low light-levels sometimes experienced, an electronic view-finder is used. This unit, which clips on top of the camera, contains a small vision monitor tube in which the operator sees the actual image his camera is picking up. All the accessory equipment is contained in units of convenient size and portability, to enable the whole installation to be set up quickly in studios or in mobile television vehicles.

## A New Systemic Insecticide

THE development of organo phosphorus insecticides is proceeding apace. Messrs. Pest Control, Ltd., Harston, Cambridge, announce that they will shortly

be putting on the market, under the trade name of 'Isopestox', a new compound, *bis isopropyl-amino-fluorophosphine oxide*, the oral toxicity of which to rabbits and guinea pigs ( $LD_{50} = 80-100$  mgm. per kgm.) is said to be only one twenty-sixth that of 'Parathion', one-ninth that of nicotine and rather more than twice that of DDT. It is well translocated by the plant and thus when applied to the roots by watering the soil it has a selective action against plant-feeding insects. Exact details of toxicity to the various insect pests are not yet available; but it is expected to be useful against lettuce aphids, which are largely inaccessible to ordinary insecticides. Considerable success in aphid control has been achieved with 'Pestox 3', the chief constituents of which are *bis* (dimethylamino) phosphonous anhydride and triphosphoric-penta-dimethyl-amide; but the high toxicity of this material to man and its long persistence in the plant (see *Nature*, 165, 100; 1950) have naturally raised doubts about the advisability of applying it to crops that are to be harvested for human consumption. The new compound is much less poisonous to man and is said to be completely hydrolysed by the plant within sixteen days.

## British Museum Newspaper Library: Microfilm Annexe

BEFORE the Second World War the British Museum Library collection of newspapers was housed in a two-story building at Colindale. This building collapsed in October 1941 as a result of bomb damage; but about three-quarters of the bound volumes were saved. The Museum had the problems of sorting the damaged material and of housing the annual intake of new newspapers—some 2,500 volumes occupying about 120 yards of shelving. Soon after the War, Sir John Forsdyke, who was then director and principal librarian, decided on the use of microfilms and the transfer to storage of volumes of newspapers. The Rockefeller Foundation of New York generously provided five cameras, a processing machine and a printing machine, with ancillary equipment. The Ministry of Works has now been able to erect a small building on the site of the destroyed wing at Colindale as a microfilm studio, and two temporary sheds for the sorting of the newspapers rescued from the destroyed building. The design of the microfilm annexe was based on a suggestion by Mr. Eugene B. Power, of Ann Arbor, Michigan, who has given the Museum much assistance in planning and carrying out this scheme. Non-inflammable 35-mm. film is used. The cameras have automatic travelling book-holders, so that opposite pages of a bound volume alternately come into position under the camera, which is supported above the book on a vertical pillar. In the processing machine, which is a modification of a type used in film studios, the film passes continuously over rollers through tanks of developer and fixer, and through washing and drying chambers at the rate of 2,000 ft. per hour. The automatic printer is also the microfilm version of a machine developed for motion-picture work. One thousand feet of positive can be printed in about thirteen minutes. Enlargements of the microfilm up to the original size of the newspaper can also be made. The Rockefeller Foundation gift included a number of microfilm reading machines specially suitable for newspaper work. The image of the film is projected on to a mirror at the back of a metal box and from this on to a greenish translucent reading screen, by the movement of which the image can be adjusted to the