

## NEWS AND VIEWS

## Prof. R. D. Haworth

As announced elsewhere in this issue (p. 168), Dr. R. D. Haworth, lecturer in chemistry at King's College, Newcastle-upon-Tyne, has been appointed professor of chemistry in the University of Sheffield after graduating at the University of Manchester in 1919, and spending some time there working with Prof. Lapworth. Dr. Haworth, having been awarded in 1921 the distinction of an 1851 Exhibition, proceeded to Oxford, where he began his work with the late Prof. W. H. Perkin, jun., on isoquinoline alkaloids, leading to the synthesis of cryptopine and protopine; and to important derivatives of the apomorphine series. This work received the well-merited recognition of the doctorate in science from Manchester in 1930. Since 1927 Dr. Haworth has been a member of the staff of the Chemistry Department of King's College, Newcastle-upon-Tyne, in the University of Durham, where, besides carrying on his work on alkaloids, he has had marked success in the investigation of naturally occurring derivatives of phenanthrene. In this connexion his general method for the synthesis of phenanthrenes has had a wide application. During recent years he has added materially to our knowledge of the structure of natural phenolic resins. He has displayed abilities of a high order as a teacher, both of undergraduates and research students, and has, for some years, been senior tutor in science. Besides these academic interests, Dr. Haworth is a keen and accomplished cricketer. He leaves behind him at Newcastle a host of friends won by his sterling qualities, and their good wishes go with him to Sheffield for the future.

## Mr. T. E. Wallis

MR. T. E. WALLIS, reader in pharmacognosy in the University of London, has been awarded the Hanbury Medal of the Pharmaceutical Society of Great Britain. Mr. Wallis has contributed thirty-seven papers describing original work to various scientific societies and their official organs. Roughly speaking, his work can be divided into six parts: (a) to discover those details of gross morphology and of microscopical structure by which it is possible to identify correctly vegetable materials used in medicine or as foods or spices either in the entire condition or in the form of powder; (b) to provide characters by which adulterants can be detected in foods and drugs, especially when in the powdered form or in broken pieces; (c) to discover general methods by which the proportions by weight of powdered materials—drugs or foods—may be accurately determined by means of the microscope; (d) to devise improved optical apparatus and mechanical contrivances for use with the microscope in the study of food, drugs and powdered substances; (e) the production of books for the use of food analysts and the instruction of students of food and drugs; (f) to devise new methods

for the determination of the purity of certain chemical substances used in medicine and pharmacy. Mr. Wallis's work has extended over the past thirty-nine years, and its effect as a whole has been to make it much more possible to maintain an efficient control over the purity and quality of food and drugs, especially when in the form of powder. The Hanbury Gold Medal is a memorial to Daniel Hanbury who died in 1875. It is awarded periodically for "high excellence in the prosecution and promotion of original research in the natural history and chemistry of drugs". The Committee of Award comprises the presidents for the time being of the Chemical, Linnean and Pharmaceutical Societies, the chairman of the British Pharmaceutical Conference, and one pharmaceutical chemist.

## Political and Economic Planning

A BROADSHEET (No. 149) recently issued by P E P (Political and Economic Planning) gives a brief review of the social and economic surveys which have already been made by P E P or other agencies or are still in progress. The research group of P E P which has already issued a report on agricultural research in Great Britain is now engaged in a survey of British scientific research in general. By this group research activity has been classified under four main headings: background research, or the pursuit of knowledge for its own sake; basic research, or the study of broad subjects with a pronounced practical bearing; *ad hoc* research or the study of specific practical problems; and pilot or development research, bridging the gap between survey or experiment and practice. Social or economic surveys generally fall into the second or third group, while studies of housing problems or of opportunities for industrial development appear to be comparable with such types of *ad hoc* research as the control of foot-and-mouth disease. Broader studies of the incidence of poverty or of the factors determining the location of industry fall into the same category as the study of animal genetics.

A FEATURE of the position is the lack of security for the personnel concerned in social and economic surveys, as well as the serious absence of provision for recruitment and training and for the publication of results. Moreover, much of the survey work is regarded as compromised by excessive concentration on immediate practical questions and by a failure to develop tested fundamental questions as a check upon passing fashions of thought. The question of co-ordination in the organization and scope of future surveys is urgent. Voluntary surveys are likely in future to consist chiefly in supplementing or interpreting the more voluminous and basic official surveys, except in pioneer fields, although even here more systematic methods are required. The educational aspects of survey work also require greater

attention, both from the point of view of using the results in educating local or national opinion and from that of training personnel. Notes on the more important recent surveys are included.

#### Air Raid Defence

IN the June number of *Air Raid Defence* the nature of the air threat is critically examined, including the factor of increased numbers of aircraft, the costs involved, the method of attack and the functions of the incendiary bomb and the gas bomb, as well as of the high explosive bomb, which is considered to be the main weapon of attack. London is regarded as the most probable target in the lightning attack, although key strategic points such as the steel-making district of Sheffield might also become main targets. Civil defence, it is emphasized, differs entirely from traditional defensive strategy in which the war effort is developed as the war progresses in that the maximum demand will be made of it on the very day that war breaks out. Our organization must be ready to operate effectively immediately peace is despaired of, not a few weeks, or even a few days after war has begun. Moreover, since the lightning attacks are only likely to be delivered for a few weeks, short-term measures are entirely justifiable in our main civil defence scheme. It is wrong to plan on the assumption that the intense pressure of the initial blows can be maintained by the enemy throughout a long war. The parrying of the lightning blow is a problem of imperial strategy; the strategic defence aims at giving the best protection where it is most required. We have hitherto been too much inclined to treat civil defence as a matter for local authorities, with their local responsibilities. What is required is not something for everybody, but a great deal for those who are most likely to be attacked.

#### Rabbit Control by Virus Infection

DISAPPOINTMENT has attended the latest experimental work of the Australian Council for Scientific and Industrial Research on myxomatosis virus as a means of destroying rabbit populations in the field. On Wardang Island, off the coast of South Australia, a colony of about one thousand adults and as many young, in thirty-three warrens, was built up in a ninety-acre enclosure. The disease was introduced into about half the warrens, and in a hundred days some eight hundred infected animals were collected. Very few warrens not deliberately infected became contaminated. The end result, when the disease had practically disappeared, was almost inappreciable, the death-rate being balanced by the birth-rate. It appears that a sick rabbit leaves its colony, wanders aimlessly away and lives only two to four days. It therefore has little opportunity for infecting other rabbits in its colony, and probably none of giving the disease to other colonies. Thus, although the virus is very virulent indeed, and maintains its toxicity, and although there is no evidence of development of immunity, its capacity to kill off a rabbit population is defeated by the instinctive behaviour

of the animal. An insect vector is a possibility that is being explored, though without much hope of success.

#### Science Review Broadcast

THE British Broadcasting Corporation has decided to continue its fortnightly "Science Review", which was begun in January this year. These programmes provide a service of first-hand news from the world of science in a form that is assimilable by the interested layman, and it has the unique advantage of bringing the man of science, whether he is describing a piece of his own research or explaining the significance of an announcement from abroad, into direct contact with his public; and he need fear no false emphasis nor misrepresentation because it is he who does the talking. The programmes last twenty minutes and are usually made up of two separate items, one of which is selected from the physical or mechanical sciences and the other from the natural sciences. In this way they cater for as wide an audience as possible. Some of the more outstanding talks so far have been Dr. B. A. Keen's "What Happens to the Rain" (following on one of the wettest weeks in January and his own presidential address to the Royal Meteorological Society); Dr. P. I. Dee's description of the splitting of atoms of uranium; Dr. E. I. White's talk on the South African 'fossil' *Cœlocanth*; Dr. Maurice Burton's "Recent Sponge Epidemic in the West Indies"; Donald Carmichael's "How Eskimos Think", and periodic talks on various topical aspects of astronomy by Dr. W. H. Steavenson. If this programme is to retain the standard of interest and topicality it has succeeded in maintaining so far, it must continue to be largely dependent on the co-operation of scientific workers, who are invited to offer suggestions for suitable subjects.

#### The Science Museum: Acquisitions

A SERIES of interesting transparencies, illustrating recent work of the National Physical Laboratory, on such problems as the accurate measurement of precise components, the determination of the temperature and the pressure of the atmosphere and the speed and direction of the wind during the ascent of a radio-sounding balloon, and recent research in metallurgy, has been set up in the Museum. Photographs of John Fitch's Steamboat Model (1785) have been presented by G. H. Eckhardt, of Philadelphia. John Fitch, of Windsor, Connecticut, is said to have first conceived the idea of marine steam propulsion in April 1785. The steamboat model shown was the first made by him, and was laid before the American Philosophical Society, at Philadelphia, on September 27, 1785. The steamboat was to have been propelled by an endless paddle-chain, which is shown fitted on the port side of the model; on the opposite side is a lee-board. There is no record that such a steamboat was ever tried experimentally. A print of the P.S. *Savannah* (1818) has been presented by the United States National Museum. The *Savannah*, the first vessel fitted with auxiliary steam propulsion to cross the Atlantic, was a three-masted carvel-built ship of 350 tons burden. To aid her spread of sail,