NEWS and VIEWS

Royal Society Medal Awards

THE King has approved the recommendations made by the council of the Royal Society for the award of the two Royal Medals for the current year as follows: Prof. W. N. Haworth, professor of chemistry in the University of Birmingham, for his fundamental contributions to organic chemistry, particularly to the constitution of the sugars and the structure of complex polysaccharides; and to Dr. W. W. C. Topley, secretary of the Agricultural Research Council, for his outstanding work on experimental epidemiology and immunology.

The following awards of medals have been made by the president and council of the Royal Society:

Copley Medal to Sir Robert Robinson, Waynflete professor of chemistry in the University of Oxford, for research work of outstanding originality and brilliance which has influenced the whole field of organic chemistry.

Rumford Medal to Dr. G. M. B. Dobson, reader in meteorology in the University of Oxford, for his outstanding work on the physics of the upper air and its application to meteorology.

Davy Medal to Prof. C. N. Hinshelwood, Dr. Lee's professor of chemistry in the University of Oxford, for his distinguished work on the mechanism of chemical reactions.

Darwin Medal to Prof. D. M. S. Watson, Jodrell professor of zoology and comparative anatomy in University College in the University of London, for his researches on primitive fishes and amphibians, which have much advanced the knowledge of the evolution of these groups of animals.

Buchanan Medal to Sir Wilson Jameson, chief medical officer of the Ministry of Health, for his distinguished administrative service to hygienic science and practice.

Hughes Medal to Prof. Enrico Fermi, at Columbia University, New York, for his outstanding contributions to the knowledge of the electrical structure of matter, his work in quantum theory, and his experimental studies of the neutron.

Land Settlement

A LECTURE, held under the Bossom Gift by the Chadwick Trustees, was given on November 10 by Miss Jocelyn F. Adburgham on "Land Settlement—Its Sanitary and Architectural Aspects and After-War Possibilities". The land being the platform on which any country's development, civilization and prosperity is supported, it is vital for the well-being of man that it should not be neglected or extravagantly exploited. That it will not tolerate a policy of taking without giving is patent from the realization of such facts as that the deserts of Libya were once the granaries of Rome; the hills of the Dalmatian coastal zone, now rugged and bleached, were once clothed with forests that were famous; and that in present times, California's fruit growing area has had to absorb some 70,000 refugees seeking resettlement from America's Middle West. Mass cultivation, factory farming, continual cropping, unscientific afforestation, squandering of water supplies, artificial manures and commercial progress can be held responsible for much. The remedy for abuse of the land and resulting degradation of the population is to be found in land settlement. This, too, provides an answer to the problem of extending cultivable areas in under-developed territory and in regions blighted by war.

Capital, labour, skill and available markets are essential requirements of successful land settlement, the saving grace of which is that there is physical and spiritual benefit to be derived from it and it has many virtues more beneficial than mercenary gain. Miss Adburgham showed that land settlement can follow various courses, governed by varying motives, with the same general ultimate end, that of establishing otherwise poverty-stricken and striving but sometimes aimless groups of population on territory which would otherwise be wasted, with resulting benefit to the settlers and to the country concerned. Among the examples quoted were the work of the early missionary colonies with medical services, as in India; the public assistance schemes to ease unemployment problems, like those of the land settlement associations in Great Britain, and of the Congested Districts Board in Ireland; State irrigation schemes as in the Punjab; the Murrumbidgee irrigation areas in New South Wales, allied to which was the Settlement Scheme for Returned Soldiers; the Farm Security Administration in the United States; the draining of the Zuider Zee; great colonization programmes such as that of the Italians in Libya and, finally, the re-establishment of a nation on its own sphere now in progress in Palestine. The present world-wide conflict has more than ever occasioned the primary need to look to satisfactory land settlement as a means of giving the populations of the world the prime necessities of man; freedom to exert ingenuity; a chance to obtain proprietorship; a health-preserving environment; rational work, and a general pleasure in existence.

Working Stresses for Indian Timbers

THE research work carried out on Indian timber stresses is described in Leaflet No. 13 of the Utilisation Branch of the Indian Forest Research Institute. The engineer requires to have a fairly definite knowledge of the strength properties of all building materials. In tropical countries it is not unnatural that timber for constructional purposes should have been regarded with doubt by all engineers. Its non-homogeneous character, defects such as knots, liability to split and warp and vulnerability to the white ant or termite, borer and fungi have all played their part in this suspicion. Steel and concrete have in modern times, therefore, been preferred. In the leaflet, as the result of research investigations, some of the common Indian structural timbers are classified into three grades, depending on the incidence of defects, and safe working stresses are given for them. It is stated that as some common defects are always present in ordinary structural timber, Grade No. 2 containing defects as specified in the leaflet has been taken as the "Standard Structural Grade" and the table at end of the leaflet gives the safe stresses for this grade. Allowance for defects has been made in computing these stresses. Mr. V. D. Limaye, the author of the leaflet, says: "By making use of this Table engineers will be able to utilize the timber listed with the same confidence, safety and economy as when they use other materials of construction such as steel". Working stresses for thirty-five common Indian timbers are given, with the trade and botanical names of the tree, for which the leaflet should be consulted.