

NEWS and VIEWS

Imperial College of Science and Technology :
Appointment of Rector

PROF. R. P. LINSTAD, professor of organic chemistry in the Imperial College of Science and Technology, London, has been appointed rector of the College in succession to the late Sir Roderic Hill. Prof. Linstead had been director of the Chemical Research Laboratory (Department of Scientific and Industrial Research) before he went to his present post in the Imperial College in 1949 (see *Nature*, 163, 558; 1949).

Paris : New Scientific Attaché

MR. A. C. COPISAROW has been appointed scientific attaché to the British Embassy in Paris. Mr. Copisarow graduated in the honours school of geology of the University of Manchester in 1942, specializing in mineralogy and petrology. He served for four years in the Royal Navy, and was a member of the Ultra-Short-Wave Panel of the Scientific Advisory Council. Entering the Civil Service in 1947, Mr. Copisarow eventually became head of the Industrial Sub-Division in the Ministry of Defence. His published work includes a number of experimental papers on the colloidal chemistry of silica.

Sheep Biology Laboratory, Prospect, New South
Wales : Dr. I. W. McDonald

DR. I. W. McDONALD has been appointed officer-in-charge of the Sheep Biology Laboratory, Prospect, New South Wales, of the Commonwealth Scientific and Industrial Research Organization, Australia, in succession to Prof. C. W. Emmens, professor of veterinary physiology in the University of Sydney, who has been acting as officer-in-charge since 1952 (see *Nature*, 170, 954 (1952), and also 171, 597 (1953)). Dr. McDonald is a former student of Hawkesbury Agricultural College and a graduate of the University of Sydney. After graduation he undertook research on the nutrition of sheep at the Animal Nutrition Laboratory of the Commonwealth Scientific and Industrial Research Organization and at the Institute of Medical and Veterinary Science, Adelaide, where he was appointed deputy director. In 1945 he went to the Universities of Cambridge and Sheffield, gaining a Ph.D. for studies in the metabolism of the sheep, with special reference to the digestion of protein, and since 1948 he has been a senior principal scientific officer at the Institute of Animal Physiology, Cambridge, where he has continued his researches on the processes of digestion in the sheep.

The Australian Museum, Sydney : Dr. J. W. Evans

DR. J. W. EVANS, deputy chief scientific officer of the Civil Service in Great Britain, has been appointed director of the Australian Museum, Sydney, in succession to Dr. A. B. Walkom. After graduating at Cambridge, Dr. Evans went to Australia in 1926 and joined the staff of the Council for Scientific and Industrial Research. He held various appointments in Australia and returned to London in 1944. He has had wide scientific and administrative experience. Though employed chiefly as an applied entomologist, his forty to fifty papers indicate wider interests in taxonomy, comparative morphology and ecology.

Scientific Work on Smokeless Fuels

IN A Royal Institution Discourse on December 10, Sir Charles Ellis described the National Coal Board's

research work into the production of high-class solid smokeless fuels. The problem, he said, is twofold : it is necessary to remove the volatile matter from coal in some way that pays for itself ; and secondly, coal used must not be carbonization type, the long-term supply position of which is giving cause for considerable anxiety in Britain. The National Coal Board, he said, intends to develop a range of smokeless fuels that will be specialized to their individual purposes and will be premium fuels. In spite of the urgency of the situation, the Board believes that a long-term policy is necessary, and it is aiming at developing new processes that will represent a real technological advance.

One promising line of work starts with 'fines', or powdered coal. This is subjected to a fluidization process, in which a column of hot gas or steam is blown upwards through the fine coal in a heated vertical chamber ; this results in chemical changes in the coal and the separation of the volatile substances and oils. The product of this process is difficult to make into briquettes, so a binder such as pitch is added ; this involves a further process of carbonization. For this purpose the hot-sand carbonization process has proved to be of great importance. It gives rapid carbonization ; also, it is a continuous process. A small plant working on a 50 lb. an hour scale has been completed and the possibility of the process established. A drawback of compressing the less suitable types of coal into briquettes is that a binder has to be used. Quite recently, Sir Charles said, it has been found at the National Coal Board's research establishment that these high volatile coals can be made to stick together without using any binder. This discovery may revolutionize our thinking on the whole subject of supplies to consumers.

Scientific Research and Industrial Productivity

IN No. 7 (July 1954) of the "Occasional Bulletin" from Soudes Place Research Institute, Dorking, which resumes publication after two and a half years, the problem of research and productivity is discussed with reference to the more effective use by industry of applied science to improve its technological efficiency. It is recognized that labour productivity is not the only factor affecting the overall efficiency, nor necessarily the most important, and that productivity depends upon many factors other than economic, such as technical efficiency, the extent to which manual labour is lightened by the use of machines, enlightened and efficient management, good relations with trade unions, the existence of adequate incentives, taxation policy and the nature of the social system. Higher productive efficiency can never be achieved if any one of these factors is ignored ; but, limiting itself to technological efficiency, the Bulletin argues that a more intensive application of scientific methods to industrial problems offers great potentialities for increased productive efficiency. Pointing out that 98 per cent of Britain's factories employ less than two hundred and fifty workers but that more than 50 per cent of the country's industrial workers are employed in such factories, the Bulletin comments that, if the survey recently conducted by the Manchester Joint Research Council is representative of conditions elsewhere, up to half of the population of Great Britain is employed in industries where the chances of greater productivity arising from technological advances are remote. For such small firms the independent research institute is particularly useful, and the