

Organisation of Fire Research

THE Fire Research Organisation is a joint scheme in which an industry and the Government are partners, sharing the cost equally. It will be responsible for the conduct of research on all aspects of the prevention and extinction of fires, on the safety of life in fires and the mitigation of damage, except that on the fire resistance of buildings the Organisation will collaborate with the building research organisation of the Department of Scientific and Industrial Research, where much research on this subject has already been done. A Fire Research Station will be jointly established. The capital cost is likely to be of the order of £75,000-£100,000, and the ultimate annual running cost up to £50,000, both shared equally between the Department and the Fire Offices' Committee. As part of its contribution to the capital cost, the latter will transfer its Fire Testing Station at Elstree to the Government. The following are the broad subjects on which research will clearly have to be undertaken, although it will be for the Fire Research Board to make a selection and allot priority of work: (1) methods of preventing the occurrence of fires; (2) methods of extinguishing fires and equipment; (3) fire protection of buildings, that is, on the fire resistance of buildings, properties of building materials, and elements of structure, safety of life in fires, and the prevention of the spread of fire within buildings and from building to building; (4) other fire hazards, for example, ships, aircraft, special industrial hazards.

Textile Machinery Production in Britain

THE crucial importance of the relations between the textile industry and the textile machinery industry was emphasized in the report of the Working Party for the Cotton Industry, which recorded the broad impression that there is a clear need for more effort in Great Britain in regard to the perfection of the design of the machinery and the development of new methods of processing. This report has now been followed by a broadsheet (No. 252), in which Political and Economic Planning sets forth the facts and findings of a preliminary survey of the textile industry. The War has given rise to a very large accumulated demand for textile machinery from all textile manufacturing countries, since they have been unable to obtain new machinery for six years. Normal obsolescence requirements have been accelerated by production at high pressure with a minimum of maintenance, and total demand for textile machinery is likely to remain at a high level for years. Moreover, Germany and Japan are for the moment almost completely out of the picture, and the United States, the only other country with a large potential capacity, is at present preoccupied with its domestic market and was never a large exporter of textile machinery. For the time being, the task of satisfying world demand will in the main fall upon the British industry, and in view of the need to encourage exports with favourable long-term prospects, P.E.P. suggests that textile machinery should be given a high priority, in respect both of the allocation of labour and raw materials and the proportion of output devoted to export.

The capacity of the industry must be increased well beyond its pre-war limits. In the spinning, weaving and finishing sections, this could be facilitated by making use of the engineering resources of other areas. In all sections of the industry shortage of

labour is the limiting factor to increased capacity, and the productivity of the present labour force is low in comparison with other mechanical engineering industries. Among the most important measures of reorganisation and modernization recommended are mechanization of machine shops and foundries, which should increase productivity, and, by creating better conditions of work and pay, help to attract new recruits; an increase in the average size of producing unit, particularly at the foundry-level; and standardization of product. At present, too many different types of machinery are manufactured for work on identical fibres, with heavy demands on skilled labour and restricted possibilities of using automatic machine tools.

Insect Control in Australia

THE use of D.D.T. as an agricultural insecticide has been investigated by G. A. H. Helson and T. Greaves *J. Gen. Sci. and Ind. Res.*, 18, No. 4, Canberra, Australia, November 1945). They find that it is effective against a variety of lepidopterous pests and also certain aphids, including *Myzus persicae* and *Macrosiphum gei*, which can act as vectors for virus diseases. D.D.T. was ineffective against the cabbage aphid *Brevicoryne brassicae*, woolly aphis and red spider. On the debit side, bees were seriously affected by this insecticide when visiting the flowers of sprayed bean plants. The experiments were on varied scales, from laboratory tests to field trials, and several methods of application were used. D.D.T. dusts were also found by T. Greaves (*ibid.*, 18, No. 2, May 1945) to provide the best control for a number of cabbage pests in north Queensland. Lead arsenate and calcium arsenate were also effective, but it would seem necessary to apply all three substances only to the early stages of growth of the crop, as they are toxic to man and higher animals. R. F. Powning (*ibid.*, 18, No. 2, May 1945) has evolved a method for the analysis of D.D.T. and pyrethrins in kerosene-based sprays. The two insecticidal components are separated by passage through a column of alumina. D.D.T. passes through, and is then boiled with alcoholic caustic potash to liberate hydrochloric acid, which can be titrated with standard silver nitrate solution. Pyrethrins are liberated from the alumina and estimated by the usual methods. Wheat stored in bulk is sometimes attacked by *Rhizopertha dominica* and other insect pests. F. Wilson (*ibid.*, 18, No. 2, May 1945) has shown that such outbreaks can be largely controlled by applying finely ground magnesite or dolomite to the surface of the mound. Smaller infestations can be dealt with by fumigation with carbon disulphide or ethylene dichloride.

Indexing and Filing Unpublished Material

THE report of the meeting on February 15, 1946, of the Association of Special Libraries and Information Bureaus to discuss the "Indexing and Filing of Unpublished Material" (see *Nature*, 157, 259; 1946) has now been published. It includes the papers by Miss L. G. Thomerson on "Filing and Indexing Systems of Patra", Mr. W. Ashworth on "Correspondence Filing Problems of the British Cast Iron Research Association", Mr. A. E. Dodd on "The Filing of Unpublished Material in the British Refractories Research Association", and by Miss D. Knight, "Unpublished Material in the Library of the National Institute for Research in Dairying", which have not already appeared in the *Journal of Docu-*

mentation. The discussion includes contributions from Dr. F. Steggerda, director of the Nederlandsch Instituut voor Documentatie en Registratuur, and Dr. C. Groeneveld, of the Royal Dutch Shell Laboratory, and indicates the wide variety of practice. Two points which might be noted in passing are: first, the importance of relating the filing system to the quantity of material it is called upon to handle; and secondly, that notably in regard to correspondence, the papers and discussion collected in this report indicate a number of factors in efficient registry service which should be impressed firmly on all those using correspondence files, whether they bear any responsibility or not for the filing system itself. 51.

Delinquency among Young People in Colombia

IN *Revista de la Universidad del Cauca* (No. 9, June 1946), Luis Carlos Pérez deals with factors responsible for crime among young people in Colombia. The author provides statistics based upon the results of certain investigations, in particular of the cases where there has been death of one or both parents, and these present some interesting features. When the mother survives, the number of delinquents increases, but when the father survives it decreases; the greatest number comes from cases where both parents are alive. Offences against property are by far the most numerous, and next to these, but very much less numerically, are offences against persons and cases of vagrancy. Cases of lapses after reformatory treatment are numerous; they suggest that it has no effect or that the teaching is practically the negation of correctional. Other matters are discussed, such as the larger number of male than of female criminals, the criminality of women in Colombia (in 1944, out of a total of 5,217 people condemned for offences, only a little more than 6 per cent were women), the problem of crime among the Indians, the Indian in relation to the law in Colombia, etc. In connexion with the last point, there is no general legislation; the protectors and judges of the Indians are usually the missionaries. They are authorized to exercise civil, penal and judicial jurisdiction over them, in accordance with a law passed in 1890. Difficulties arise in those cases where it is not very easy to differentiate between Indians who are civilized and those who are not. The methods for obviating this difficulty are by no means ideal, and alterations in the system are matters of great importance. 61.

Fruit Production and Propagation

THE war-time concentration on food production and the turning of many fruit-tree nurseries to short-term crops, has resulted in an acute shortage of young trees to meet the needs of the expanding industry and the private garden alike. In addition, much experienced labour has been lost to the industry in general, so there is real need to make known in a practical form the most up-to-date methods of propagation and the accumulated experience of orchard management. These objects are admirably achieved by two recent pamphlets issued by the Ministry of Agriculture and Fisheries ("Apples and Pears". Bull. 133. Pp. 119+18 plates. 2s. 6d. net; and "Fruit Tree Raising: Rootstocks and Propagation". Bull. 135. Pp. 46+2 plates. 1s. 3d. net. London: H.M. Stationery Office). The arts of budding and grafting can only be fully acquired by

observing the green-fingered dexterity of the experienced propagator, and proficiency and speed are only achieved after long practice (100 buds or 70 grafts an hour are said to be good averages); nevertheless, Bulletin No. 135 does as much as can be done by precept. It includes, *inter alia*, chapters on the classification and uses of rootstocks; propagation from seed, cuttings, stools and layers; tree shaping; control of pests and diseases, and a useful calendar of nursery operations.

Bulletin No. 133 is a well-illustrated text-book of commercial apple and pear production, and covers all aspects of the subject from planning and planting to storing and marketing. There is a particularly good chapter on top-working and frame-working, but that on pruning might have been improved by reference to the results of pruning and shaping trials at the research stations. In the chapter on soil management, on the other hand, the section on cover crops does not distinguish very clearly between established commercial practice and recent experimental results which have not been tested commercially. Both bulletins provide the orchardist with authoritative manuals at negligible cost. 3/2.

Diseases of Cereals in Scotland

THE high atmospheric humidity in Scotland favours the rapid development of eyespot (*Cercospora herpotrichoides*) on wheat and barley, but the severity of the disease is offset by the relatively long rotations employed. A survey carried out in 1944 (Mary D. Glynn, *Ann. Appl. Biol.*, 33, 1, 35; 1945) showed 75 per cent of the autumn-sown wheat crops to be affected, and some 9 per cent showed obvious loss. Nearly all spring-sown crops of barley were affected; but damage appeared to be less than on wheat. Sharp eyespot (*Corticium Solani*) was widespread and was particularly common in Aberdeenshire; loss is apparently slight, but deep lesions may cause some straggling. Take-all disease (*Ophiobolus graminis*) was seen on less than half the wheat crops, and in only one case was 10 per cent of the straws affected. Except in Dumfriesshire and Aberdeenshire, it was much less common than eyespot, a conclusion similar to that reached by R. W. G. Dennis (*Ann. Appl. Biol.*, 31, 370; 1944). 51/2.

Coryndon Memorial Museum, Nairobi

THE annual report for 1945 of the Museums Trustees of Kenya announces the appointment of Dr. L. S. G. Leakey (upon his release from war duties) to the full-time curatorship of the Coryndon Memorial Museum. Dr. Leakey, well known for his work in East African prehistory, has already carried out a great deal of work for this Museum in his capacity first as honorary curator and then as part-time curator. The Curator's report for the same year reports the holding of a Conference of Curators of East African Museums under the chairmanship of Dr. Leakey, and it is hoped that in future this will be an annual event. It was decided that a Federation of East and Central African Museums should be formed and linked with the Museums Association of England and the Empire. The same report makes reference to the possible development of the Museum as Kenya's War Memorial. During the year, the Governor called for suggestions as to what form the Kenya War Memorial should take, and a special committee was appointed to consider schemes sent in. Out of the ninety-eight