

forms, together with many named variations in bark, foliage, cones, timber and seed.

The Royal Scottish Forestry Society was founded as the Royal Scottish Arboricultural Society in 1855 and its published transactions have developed into the current quarterly *Scottish Forestry*. While this Society draws its membership from a wider field than the Society of Foresters of Great Britain, and has a much bigger proportion of the non-professional element, its journal regularly includes original articles of considerable interest and value. Among those appearing during the year, mention may be made of a paper on the practical issue of using a knowledge of the life-history of the fungus (*Keithia*) which is liable to affect seriously the growth of *Thuja* seedlings, to raise healthy nursery stock of this tree; isolated nurseries used once only or in rotation, with due precautions to avoid sources of infection, are the solution. There is an interesting paper on the variation of susceptibility of European larch of different seed origins to frost, and another on 'group strike' by lightning, a case being reported of one hundred trees dying with only two showing actual scars, and a comparable case in a nursery. The morphological field is represented by a paper on

bark variation in birch and its relation to figured wood.

The present Royal Forestry Society of England and Wales was founded in 1882 as the English Arboricultural Society, on similar lines to its Scottish counterpart. Its transactions appeared from 1884, becoming the *Quarterly Journal of Forestry* in 1907. As might be expected, a very similar range of original papers is being published, including in 1958 three on the properties of coniferous timbers as affected by treatment during growth, one on the effect of liming ploughed or unploughed upland moors, and one on the 'mechanized forest'.

Mention should not be omitted of the *Empire Forestry Review*, published quarterly by the Empire Forestry Association, which includes a proportion of original articles on British forestry among its much wider coverage; these are chosen primarily for their general interest though, of course, forestry issues are very similar all over the world. The chief items of this type in 1958 are on desirable road density in plantations and intensive methods of raising coniferous seedlings. In addition, there are the 'Men of the Trees' publishing *Trees* two or three times a year.

H. G. CHAMPION

FOOD INVESTIGATIONS

THE recently published report of the Food Investigation Board* for 1957 also covers the work of the Torry Research Station and the Humber Laboratory concerning the improved handling and processing of fish; the Low Temperature Research Station on meat, eggs and various plant foods; and the Ditton Laboratory and the Covent Garden laboratory concerned mainly with conditions of storage for fruit and vegetables.

A report of this nature provides an excellent illustration of the complexity of the problems associated with the maintenance of an all-the-year-round supply of food in an industrialized, urbanized community. In the main, the work is concerned with preserving food and this requires a study of differences in the initial state of the food, of the conditions of handling to which it may be subjected, and of

methods of detecting early stages of deterioration, quite as much as a study of all aspects of the different methods of preservation, which include such varied means as the use of antibiotic ice, electronic radiation, electrostatic smoking, vacuum freeze-drying, gas storage, etc.

The Board stresses "the vital importance of the closest possible co-operation with the appropriate user industry from the outset of a research through all its stages to its final implementation". Several of the investigations concerning fish were made at the request of the White Fish Authority, the Herring Industry Board, and the National Federation of Fishmongers, and a committee of the National Farmers' Union was consulted when the research programme of the Ditton Laboratory was being planned. This is welcome collaboration and should not only ensure direction of effort towards the problems most urgently in need of solution but also speedy application of any solutions which might be found.

M. W. GRANT

* Department of Scientific and Industrial Research. Food Investigation 1957: The Report of the Food Investigation Board with the Reports of the Superintendents of the Torry Research Station, the Low Temperature Research Station, and the Ditton Laboratory. Pp. vi+81. (London: H.M. Stationery Office, 1958.) 5s. net.

REMANENT MAGNETISM OF THE ALLARD LAKE ILMENITES

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THE Allard Lake region of Quebec contains numerous outcrops of massive ilmenite enclosed in Grenville-type anorthosite of pre-Cambrian age. Hammond¹ has described the region, particularly the Lac Tio deposit, which is the largest of its type in the world.

Although the ore is usually referred to as ilmenite, it should be called hemoilmenite, since it consists of about 70 per cent ilmenite (FeTiO_3) and 25 per cent hematite (Fe_2O_3), with the remainder being largely

composed of feldspar, pyroxene and pyrite. The massive ore consists of relatively large crystals averaging about 3–5 mm. in diameter. The hemoilmenite solidified originally in homogeneous crystals, and then upon cooling separated by exsolution into an ilmenite-rich phase and a hematite-rich phase. The hematite-rich phase has exsolved in the form of thin discontinuous lamellae with their long and intermediate axes in the basal plane of the rhombohedral host-crystal. Thus the lamellae have the general