Boerker gives an excellent description of such fires, which enables the reader to realize what formidable destructive agents they are. A good idea of the elaborate system of fire-watching and fire-fighting measures taken in the United States can be gathered from this book, and the reader is impressed by the well-organized scale on which these preventive measures are carried out. In spite of all this, the annual loss of timber is very great. This is well illustrated by one example—"one of the most serious of recent fires was the big Wilson fire of August 1933 in Oregon started by friction from a steel cable passing round a dry stump. Over 260,000 acres of the finest virgin forest timber was burnt. The loss to the public and to labour was computed to be in excess of \$350,000,000." In this one fire alone an amount of timber was destroyed equal in total to the entire timber cut of the United States for 1932.

To make good the wastage due to human carelessness and to almost unavoidable accident, re-afforestation has to be carried out on a similar scale by both private timber companies and the State Conservation Department. These efforts are not only designed to re-forest burnt-over areas but also to return abandoned farm land to forest.

The United States have carried out a well-planned and comprehensive scheme of juvenile and adult education on the preservation and development of their forest resources, as well as setting aside extensive areas as national parks. The work begins in the schools and is carried on later by numerous societies, of which the author mentions a number of the more important. The United States and Canada form one of the greatest centres of coniferous forests in the world, and although man has greatly depleted this, wise measures of conservation and large-scale schemes of re-afforestation still make the North American continent the chief area of supplies of coniferous timber.

This book is of great interest to the general reader, for it deals in a most interesting fashion with a subject that concerns all of us. It is of equal interest to the scientific man, and appeals particularly to the botanist and the plant ecologist. A word of praise must be added for the many beautiful plates which accompany the text. Many of these were taken by the U.S. Forest Service, some by the U.S. Soil Conservation Service, and a certain number were obtained from private sources.

F. J. LEWIS.

ELECTRICITY SUPPLY ORGANIZATION

Electricity—Public or Private Monopoly?

By F. Hamlyn Dennis. Pp. iv+143. (London: Victor Gollancz, Ltd., 1945.) 7s. 6d. net.

ELECTRICITY supply takes a high place in the list of major public services which are scheduled for reorganization by the Government now in power in Great Britain. Its political prominence is not a new development, as Parliament has given considerable attention to co-ordination of electricity supply ever since the War of 1914–18 revealed the deficiencies of separate power systems serving comparatively limited areas.

The book under review provides ample information regarding the various steps which led to the existing

Grid supply system, but it may be useful to summarize these steps for the information of readers not intimately connected with the supply industry.

The Electricity (Supply) Act of 1919 established the Electricity Commissioners, who endeavoured to co-ordinate the British systems by establishing joint electricity authorities which grouped adjacent undertakings to form larger and more economical units. Their efforts had so little success that it proved necessary to pass the 1926 Electricity (Supply) Act and thereby establish the Grid system controlled by the Central Electricity Board.

The Grid provides for the co-operative working of all electrical generating stations in Great Britain. It has been in operation since 1930, and has been effective in improving the average thermal efficiency by some 15 per cent. All generating plant has become generally available instead of only locally, and the savings in capital costs in power stations have offset the cost of providing the Grid equipment. During the War the Grid was of inestimable value in assuring continuity of electricity supplies throughout the country. This great technical and economic success of the Grid has been an important factor in focusing attention on the vital question of ownership of undertakings.

Mr. Dennis is a whole-hearted advocate of public ownership, and he does his best to justify his preference by revealing the fact that power companies charge more for electricity than do municipalities. He also takes great care to reveal the sources of his information, and these sources are usually the best which are available to the public. He presses home his main contention by disinterring from *The Economist* of July 4, 1936, a rather sour estimate of the efficiency of power companies: "Company-owned undertakings, by and large, have shown neither outstanding commercial efficiency in the pursuit of their own interests, nor over much zeal for those of the consumer". This thrust would have been more effective had it been illustrated by analysing the production costs of typical undertakings. In the reviewer's opinion, the absence of such analyses conduces to inefficiency.

A 'unit' of electricity costs about 1d. The public are notoriously careless of pence and tolerate extortionate percentage increases of cheap articles without taking much notice.

The authorized undertakings are able to continue to operate at comparatively low efficiency because they sell much of their output directly to the uncritical and uninformed public, and because they exploit the situation to a comparatively small extent.

As a first step towards real economy in electricity supply, the reviewer suggests publication of costs of electricity to the consumer in the form of league tables. These would reveal the facts in a way which would appeal to the British public, and if they did not cause the inefficient undertakers to improve, governmental action could be taken. To ensure that there will be no premature change over to civil service control, the relative efficiencies of the General Post Office telephone service and of the power companies should be examined. The reviewer suggests that such an examination would have a sobering effect on Mr. Dennis and his co-enthusiasts.

The book is recommended as being one of the most convenient and interesting sources of information on British electricity supply.

C. W. MARSHALL.