

Oil and its Uses

Earth Oil. By Dr. Gustav Egloff. (A Century of Progress Series.) Pp. xi+158. (Baltimore, Md.: The Williams and Wilkins Co.; London: Baillière, Tindall and Cox, 1933.) 5s. 6d.

THE word oil is a household one to-day, since the ingenuity of man has found a myriad uses for it. As 'petrol' in England, 'gasoline' in America, 'essence' in France, it serves as the source of power to propel cars for work and for play, while as a social influence it may be claimed to have altered the habits of nations. It behoves us, therefore, to know something of oil, perhaps of its history and the methods of locating it, but certainly about the methods of mining or drilling for it, its storage, transportation and refining, including those modern developments of the oil technologist and oil chemist such as cracking and hydrogenation. Even the subject of oil resources has its interest, whilst it is of great economic and strategic importance. It is to fulfil such requests that this little book has been written. The author, Dr. Gustav Egloff, who is a deservedly popular leader among petroleum technologists, is able with his pen, aided by numerous illustrations, to portray for us almost in moving picture form the oil story, and well he does it.

It is certain that the uses for oil will increase and that it is almost an ideal material for the internal combustion engine. It is a strange reflection on international economics that those countries which lack oil are seeking to replace it by substitutes and protect these by taxation. The world's use

of oil to-day is far below the producing capacity of the actual wells, of which 330,000 are producing in the United States alone at an average rate of seven barrels per well per day. Vast reserves both known and undiscovered are left underground; further, the newer methods of production and refining all give far higher yields of product from a ton of crude oil. There is thus no fear of an oil shortage, but every encouragement to go on to make more use of it.

The past summer has seen the holding of the first International Conference of Petroleum Technologists at South Kensington, at which all matters pertaining to oil were discussed among experts. Its outstanding success indicates the certainty of further progress in every direction.

One aspect still baffles us, namely, the origin of oil. It is a subject for the geologist to tackle in addition to his task of locating oil—this last a subject in which enormous strides have been taken as a result of the co-operation of the physicist. Crude oil sometimes has much, at others little, sulphur and the same applies to nitrogen. Different crudes vary in almost every respect—some are nearly all gasoline, as in California, some are practically solids. No one theory of petroleum production is in any way satisfactory. The earth is generous to mankind: perhaps oil is one of her greatest gifts and those lands which have it are specially favoured.

The book is issued in connexion with the Chicago Century of Progress Exhibition: few would dispute the claim of the oil industry to be in the forefront of such progress. E. F. A.

Short Reviews

Lehrbuch der ökologischen Pflanzengeographie. Von Prof. Dr. Eug. Warming und Prof. Dr. P. Graebner. Vierte Auflage. Lieferung 5 (Schlusslieferung). Pp. viii+961-1157. (Berlin: Gebrüder Borntraeger, 1933.) 18 gold marks.

THE publication of the fifth part completes the fourth edition of Warming and Graebner's "Lehrbuch der ökologischen Pflanzengeographie". The sclerophyllous vegetation of districts with winter-rain, subxerophilous grass formations, and deserts are here considered. A final chapter deals with the struggle between plant communities. Title-page, preface, contents and index are also included.

The new edition is a most important work of reference and gives an excellent summary of world vegetation and of the causal or correlated physical and biotic factors. It is written in relatively simple

language without undue stress on technical terms. Most of the illustrations are adequate and some are excellently reproduced and very instructive, but no attempt is made to illustrate the distribution of the communities or 'formations' by maps. The most unfortunate feature is the bibliography. Only an appendix to the literature listed in the third edition is given, and to trace most of the papers quoted, reference to this earlier edition is necessary. So many important post-War English and American books and papers have been overlooked that a false impression is given that ecological and phytogeographical studies are not being pursued with any intensity outside Central Europe.

The death of Prof. Graebner, while this last part of the "Lehrbuch" was in press, is recorded with deep regret. W. B. T.