

and a well-printed, if rather small-scale coloured map. The notes on topography are very brief, covering scarcely two pages, while climate is dismissed in a few lines. More consideration of these fundamental aspects of the economic life of the country would enhance the value of the book.

Of all the new or newly constituted states of Europe probably none has greater possibilities than Czechoslovakia. Its central situation, varied resources, and rich mineral endowment combine to promise a bright future. Racially also it has fewer thorny problems to solve than most of the new states. Czechs and Slovaks together comprise 68 per cent. of the population, and the only considerable non-Slavonic element is 22 per cent. of Germans, mainly in Bohemia. At the same time the great difference in cultural status between the Czechs and Slovaks, which is emphasised by the comparative lack of communication between their respective countries, is a hindrance to the consolidation of the State. The government is fully aware of this difficulty, and is facing it by the improvement of communications. The section of the Elbe from Aussig to Neratovice has been canalised and operations are in progress as far as Pardubice. From there a canal, 110 miles long, will be built to Prerau on the Beczwa in Moravia. A Danube-Oder canal is also under consideration.

R. N. R. B.

*Technical Electricity.* By H. T. Davidge and R. W. Hutchinson. Fourth edition. Pp. xii + 514. (London: University Tutorial Press, Ltd., 1922.) 10s. 6d.

THE object of the authors of this volume is to give a clear exposition of physical principles and to show how they are applied in engineering practice. This is done satisfactorily, and we think that the volume will prove useful to engineering students in the first and second year of their course at a technical college. Engineering practice and phraseology change rapidly, so it is difficult to keep an engineering treatise absolutely up-to-date. For example, the phrase "mean spherical candle-power" is rapidly becoming obsolete. Engineers now use the much more sensible phrase "the average candle-power"; similarly a "half-watt" lamp is now termed a "gas-filled" lamp. It is not strictly correct to say that the international candle-power "is now defined as an illuminating power equal to one-tenth of that of the Harcourt-Pentane lamp." When engineers refer to the international candle they mean the unit of luminous power maintained by the National Physical Laboratories of France, Great Britain, and the United States of America. The Hefner-kerze is used by Germany and Austria, and its numerical value is nine-tenths of that of the international candle. Hence the candle-powers given by lamp manufacturers in Germany are expressed by larger numbers than if they were expressed in international units. This is to their commercial advantage. We were surprised that the international standards for the resistance and temperature-coefficients of pure annealed copper are not given, as they are of fundamental importance in electrical engineering. We hope that the wire gauges, the table for the resistance of copper wires (temperature not stated), and the tables of fusing currents will be omitted from the next edition.

*Notes on Qualitative Analysis: Concise and Explanatory.*

By Dr. H. J. H. Fenton. Supplement. Pp. v + 155-202. (Cambridge: At the University Press, 1922.) 3s. 6d. net.

THIS pamphlet forms a supplement to Dr. Fenton's well-known "Notes on Qualitative Analysis." The more important and characteristic reactions are given of the rarer elements of more general interest which can be identified by chemical tests. References to "spectra," without any details, are made. No description is given of possible methods of separation. In arranging the elements according to alphabetical order, their chemical relationships are quite obscured, and the information conveys the impression of isolated snippets. The selection of the inorganic and organic compounds is, as the author emphasises, quite arbitrary: one notices more particularly the substances studied by Dr. Fenton himself. Although the book may prove useful to teachers who have not access to the larger treatises, its lack of system and reasonable completeness will somewhat diminish its value as compared with existing manuals of qualitative analysis such as that of Treadwell.

*The Fishing Industry.* By Dr. W. E. Gibbs. (Pitman's Common Commodities and Industries.) Pp. viii + 135. (London: Sir I. Pitman and Sons, Ltd., 1922.) 3s. net.

A VERY concise and comprehensive account of the sea-fishing industry in general is contained in Dr. Gibbs's little volume. There are chapters on the natural history of the edible fishes, molluscs, and crustacea, and on the methods of fishing, but the distinctive parts of the book are those that deal with the mode of fish-curing and conservation, and with the utilisation of by-products. Written with an evident personal knowledge of the processes described, these chapters make a really important contribution to the literature of the sea fisheries.

J. J.

*Manuel d'océanographie physique.* Par Prof. J. Rouch. Pp. 229. (Paris: Masson et Cie, 1922.) 15 francs.

CAPT. ROUCH'S book is a well-balanced account of oceanography, treated almost entirely from the physical point of view. The first part deals with methods, soundings, the physics and chemistry of seawater, the study of currents, tides, and tides and the observation of ice-formation. The second part deals in the usual way with the general results of oceanographical investigation. The book is a small one, but it is very concise in its treatment, and it is well illustrated.

*Practical Tanning.* By Dr. Allen Rogers. Partly based on the Third Edition of "Practical Tanning," by Louis A. Flemming. Pp. xxv + 699. (London: Crosby Lockwood and Son, 1922.) 45s. net.

DR. ROGERS is well known for his writings on chemical technology, and as an account of recent American practice his book will prove interesting to English technologists. It deals briefly with all branches of the subject, and is illustrated. The section on analytical methods is brief, but most of the important determinations are covered. A short account of synthetic tanning materials is given.