

chiefly by the large field of investigation which still remains to be cultivated.

The two reports of the Committee on Colloid Chemistry, and more especially the second, deserve to be read by all students and workers whether in pure or applied chemistry. Industrial practice, it must be confessed, is at present considerably in advance of our knowledge of the underlying principles, and it is therefore greatly to be desired, in the interests of a more rapid and economical industrial development, that the theoretical foundations of colloid chemistry should be strengthened. The reports before us, and those which will doubtless appear in the future, will do much to stimulate activity in this direction, and the Committee of the British Association responsible for their publication deserves the warm gratitude of all students and workers in the domain of colloid chemistry for the valuable service they have rendered to science.

ALEXANDER FINDLAY.

ALSATIAN POTASH.

LES MINES EN ALSACE-LORRAINE. L'INDUSTRIE DE LA POTASSE DE LA HAUTE-ALSACE. *Rapport par M. FÉLIX BINDER. Dec. 1917. Pp. 94 and 3 maps. (Paris: Ministère de la Guerre.)*

Although it is difficult to regard this report as other than pure propaganda, it is nevertheless propaganda in a good cause, and scientists and industrialists everywhere (outside Germany) will be grateful to the author for compiling so readable a statement of the case.

In the autumn of last year M. Paul Kestner read before the London Section of the Society of Chemical Industry a highly important paper, which rightly attracted much attention, upon the significance of the Alsatian potash-deposits in relation to the terms of peace (this J., 1918, 291 r). Since then it may be said that the German monopoly of potash has been for all time broken. Most of the information put forward by M. Kestner is included in M. Binder's report, and it is therefore unnecessary to do more than summarise it. M. Binder is thorough in his treatment of the potash question. He describes the history of the deposits in both Stassfurt and Alsace, and in assessing the resources and value of the latter, he emphasises their freedom from salts of magnesium. A brief account of the remaining world-supplies is given, and the remarks upon the Abyssinian deposits will interest those who have been puzzled by the contradictory reports of the peculiar resources there. He states (or quotes) the view that they have arisen from the evaporation of hot solutions, presumably of "juvenile" or deep-seated origin.

Reverting to the industrial aspects of the question, the author proceeds to recount the work of the Kall-Syndikat, the growth of the use of potash in agriculture and industry, both inside and outside Germany, and the control and allocation of sales. It is noteworthy that, of the 155 mines participating in the output before the war, the Alsatian mine Amélie I had 11-882 thousandths of the total production allocated to it—a proportion almost equal to that of the largest of the North German mines. This bears witness to the importance and quality of the Alsatian contribution to the potash supply. The "Kux" system (=mine shares of 3000 to 5000 marks) is described by the author, and reference is made to the "potash war" of 1909, as well as to the difficulties experienced in the attempt to hold a balance between taxing the potash and increasing its adoption in agriculture.

M. Binder gives full economic details of the Alsatian mines, both those under Franco-Alsatian control, which formed only a small proportion of the total, and those worked by German capital. Following a short account of their exploitation by the enemy, M. Binder proceeds to what may perhaps be considered the crux of the report, namely, their

exploitation in the future under the régime of France (written, it should be remembered, in 1917). The water and other communications of Alsace with France, Switzerland, Italy and Spain are considered, and the hope expressed that the last three countries will become clients. More difficulty, on economic grounds, may be experienced in displacing German potash from other European countries, but the author hopes (and his hope will certainly be realised) that preference will be given in Britain to Alsatian potash. The importance of the North American ever-growing market is emphasised, and is followed by details of American consumption of potash, and of American exports to France and Germany. A plea then follows for the retention of Alsace by France and for the support of American capital to assist in developing the Alsatian deposits. The first part of the plea may now be regarded as a *fait accompli*. Is it too much to ask that not only American, but British capital may be invested in the restored provinces?

The report is accompanied by an appendix by M. Ecard upon the financial arrangements to be established for the Alsatian mines, by a short bibliography, and by three useful maps. It is clearly, simply and yet concisely written, and the author may be cordially congratulated upon the results of his labours.

P. G. H. BOSWELL.

PUBLICATIONS RECEIVED.

THE CHEMISTS' YEAR BOOK, 1918-19. *Edited by F. W. ATACK, assisted by L. WHINYATES. In 2 volumes. Pp. 1146. (Manchester: Sherratt and Hughes. 1919.) Price 15s. 6d., post free.*

CALCULATIONS USED IN CANE-SUGAR FACTORIES. *By I. H. MORSE. Second Edition, Rewritten. Pp. 189. (New York: John Wiley and Sons, Inc. London: Chapman and Hall, Ltd. 1917.) Price 9s. 6d.*

OUTLINES OF THEORETICAL CHEMISTRY. *By F. H. GETMAN. Second Edition. Pp. 539. (New York: John Wiley and Sons, Inc. London: Chapman and Hall, Ltd. 1918.) Price 16s. 6d.*

ORGANIC CHEMISTRY. *By V. VON RICHTER. Edited by R. ANSCHÜTZ and G. SHROETER. Vol. I. Chemistry of the Aliphatic Series. Second (Revised) Edition. Newly translated and revised from the German edition (after Prof. E. F. Smith's third American edition) by P. E. SPIELMANN. Pp. 719. (London: Kegan Paul, Trench, Trübner and Co., Ltd. 1919.) Price 25s.*

REPORT OF THE FOOD INVESTIGATION BOARD FOR THE YEAR 1918. *Pp. 20. Department of Scientific and Industrial Research. (London: H.M. Stationery Office. 1919.) Price 3d.*

THE LITERATURE OF REFRIGERATION. *A list of English, American, French, Italian, and German Books, Journals and Proceedings, compiled by the Food Investigation Board. Department of Scientific and Industrial Research. (London: H.M. Stationery Office. 1919.) Price 4d.*

ANNUAL REPORT OF THE UNITED STATES NATIONAL MUSEUM, 1918. *Pp. 175. (Washington: Government Printing Office. 1919.)*

PUBLICATIONS OF THE UNITED STATES GEOLOGICAL SURVEY. *Department of the Interior. (Washington: Government Printing Office. 1919.)*

MINERAL WATERS IN 1917. *By A. J. ELLIS. IRON ORE, PIG IRON AND STEEL IN 1917. By E. F. BURCHARD.*

FUEL BRIQUETTING IN 1918. *By C. E. LESHER. GOLD AND SILVER IN 1917. (General Report.) By H. D. McCASKEY and J. P. DUNLAP.*

CADMIUM IN 1918. *By C. E. SIEBENTHAL.*