

outline, illustrated by simple diagrammatic sketches. The value of the book is due rather to the fact that it gives a conspectus of the subject in the light of recent laboratory studies. Anyone desiring to get to grips with the science of carbonisation will scarcely find a better channel of access, for the author is evidently familiar with the British, European, and American investigations of the last decade. The collection of information on the decomposition of ammonia and hydrocarbons at high temperatures is valuable—especially the recent work on pyrolysis carried out at Sheffield. On p. 42 he says: "At the time of writing, the high (though declining) price obtainable for creosote oil is having a considerable bearing on the economics of the process". If he were writing that sentence to-day, he would have to substitute 'low' for 'high' and say that creosote is such a drug on the market as to make its disposal a real problem. Ammonia has also ceased to be a considerable asset, and indeed sometimes is a charge on the process. Nothing could indicate better the need for caution in placing any high value on the gain obtainable from by-products of carbonisation. The sale of gas according to heating value dates from 1920—not 1922 (p. 132). The description of the manner of removing naphthalene from gas (p. 138) does not suggest the continuous process now in use. On p. 173, 'undecomposed' steam should be added as an additional source of water in gas liquor from vertical gas retorts, which constitute more than half the plant in use to-day in British gasworks.

The publisher invites criticism at times. On p. 104 he has not done the author justice in reproducing curves on so small a scale as to make them difficult to read. Again, the price is the highest in the whole "Industrial Chemistry Series", while books of similar size are priced at 10s. 6d. upwards. The number of guineas which young students can afford is limited, and this is a book which one would like to recommend them to buy.

H. J. H.

Geography and Regional Studies.

Studies in Regional Consciousness and Environment. Essays presented to Prof. H. J. Fleure. Edited by Iorwerth C. Peate. Pp. xii + 220 + 14 plates. (London: Oxford University Press, 1930.) 21s. net.

BY a curious coincidence, the publication of this volume of essays presented to Prof. Fleure by a group of former students on the completion

of his twenty-five years at Aberystwyth coincides with the announcement of his departure for Manchester. Few tributes could be more eloquent, few more acceptable, than such an acknowledgment of the inspiration afforded by academic leadership. At first sight the essays seem extraordinarily diverse, ranging from geology to helminthology, economic history, and French politics, and in area from Wales to Natal and the Great Barrier Reef. But the whole collection is united in that it is concerned with the world as the environment of the central figure—man—and typifies the science for which Prof. Fleure has stood for more than a quarter of a century—the science of modern geography.

Amongst the more purely geographical researches included are Miss R. M. Fleming's "Outline of some Factors in the Development of Russia"—a valuable summary which incorporates a considerable amount of material formerly only available in Russian; Miss F. F. Laidler's study of the limits of certain cultivated plants in Spain—an important contribution to the solution of the vexed problem of how far Spain can be regarded as a 'Mediterranean' country; and Mr. E. E. Evans's geographical study of the Pyrenees as a barrier to mankind. The editor of the volume, Mr. Iorwerth C. Peate, contributes an account of the old Welsh wood-turning industry; Wales also figures in a geological contribution by Prof. W. J. Pugh and a study of miners' phthisis in Cardiganshire by Mr. E. G. Bowen.

Miss H. A. Wilcox has attempted to throw light on the former distribution of natural vegetation in southern England—a subject fraught with difficulty but of the utmost importance to the prehistorian. Mr. S. J. Jones deals with the distribution of perforated stone axes in Europe, Mr. R. A. Pelham with the trade of the Cinque Ports in 1307–8, Miss S. Harris with field systems in Guernsey. Mr. H. Hauck deals with the influence of geographical factors on the French elections of 1928. His maps emphasise the fact that the rich cattle-rearing and cultivated districts support the right wing party, the peasant owners of small farms maintain the radical faction, whilst the extreme left receives its main support from urban and industrial centres. It is interesting to notice how closely his conclusions would apply to Great Britain.

The last essay in the volume strikes a different note, giving a delightful sidelight on daily life and work with such an expedition as that to the Great Barrier Reef.

L. D. S.