

fats, essential oils, proteins, tannins and cereals, milk products, paper, petroleum, coal and gas. Each section is written by an expert in his own field, and the whole work is thoroughly co-ordinated and ably edited. It is an easily readable book, well printed, and with a good index. It is comparatively cheap as modern prices stand. The reviewer suggests that it is a book that should be in the hands of every analytical chemist. J. REILLY.

*Sea-Angling Fishes of the Cape (South Africa): a Natural History of some of the Principal Fishes caught by Sea Anglers and Professional Fishermen in Cape Waters.* By C. Leo. Biden. Pp. xii + 304 + 48 plates. (London: Oxford University Press, 1930.) 18s. net.

CAPE COLONY extends from the Atlantic to the Indian Ocean. Whereas on the west side there are almost constant conditions owing to the southern current, the waters of the Indian Ocean lave the southern peninsula, during the summer months. This means migration of fish from the north, while many stationary fish must have well-defined seasons of abundance and scarcity of food, although perhaps feeding is a matter of the psychology of the fish themselves, induced by temperature and other physical and chemical changes in the sea. There are also regular breeding seasons and movements induced by these. The author is clear on these matters in the eighteen chapters, on a like number of fish, which he presents to the angler. Eight are strong swimming pelagic fish, and his account of their local names suggests that seven must belong to genera common to the whole southern ocean, the eighth being the North Atlantic tunny, which is a rare visitor.

We are at once attracted by the much varied heads and teeth of the bottom feeders; these are correlated with equally different habits and food. Clearly, the Cape is a locality where colour fluctuations could be conveniently studied, as affected by environment, temperature, etc. Octopi, mussels, and tunicates are important articles of food. Commercial fisheries are not discussed; but the angler is generally a man of intelligence, and he is presented with a most readable and admirably illustrated account of his fish. Scientific details may occasionally be wrong; but the author is to be congratulated on a most useful book.

*Leçons sur les conduites.* Par Prof. Charles Camichel. (Chaire de mécanique des fluides et applications.) Pp. vii + 101. (Paris: Gauthier-Villars et Cie, 1930.) 30 francs.

THIS monograph gives an account of both experimental and theoretical researches carried out during the last twenty years on pipelines, mainly forming portions of hydraulic installations in south and central France. These researches chiefly concern the waves of pressure propagated along the pipelines, in consequence of the elasticity of their walls and the compressibility of water, when the flow of water is changed more or less suddenly, and also the resonance phenomena associated with these waves. The first chapter treats of pipelines of

uniform cross-section and wall thickness, and the second with those of variable section and thickness. The third chapter deals with the effect of reservoirs of air connected with the pipelines, especially in damping down the waves. These three theoretical chapters comprise four-fifths of the book, the remaining portion being devoted to a very brief summary of the design and construction of pipelines subject to high pressures and of the accidents to which they are liable. The book is clearly written and should prove of great interest to hydraulic engineers, as well as to mathematicians interested in the practical applications of hydrodynamics.

*Systematic Inorganic Chemistry: from the Standpoint of the Periodic Law.* By Prof. R. M. Caven and Dr. G. D. Lander. New edition. Pp. xviii + 510. (London, Glasgow and Bombay: Blackie and Son, Ltd., 1930.) 9s. net.

CAVEN and Lander's textbook has been known to teachers and students for some years as a carefully written statement of inorganic chemistry based on the periodic system, and it could well supplement any other book in use. It is particularly suited to the needs of the more advanced student who wishes to revise and systematise his knowledge of the subject, and a new edition of the work may be welcomed. The authors have added sections on the modern atomic theory and its bearings on the subject at the end of the book. In view of the rapid changes which are taking place in this part of the subject, it is undoubtedly wise to adopt this plan, the permanent structure of the science being dealt with in the body of the work. The additional sections fit in very well with the general plan of the book. One or two newer discoveries probably came too late for inclusion; for example, the preparation of nitryl chloride, the reactions given not leading to the formation of this substance. The new edition of this excellent textbook may be recommended to teachers and students.

*Siam: Nature and Industry.* Pp. vii + 324 + 60 plates. (Bangkok: Ministry of Commerce and Communications, 1930.) n.p.

It is seldom that a book of this nature, issued by a State, presumably for propaganda purposes, can be recommended as having any scientific value. This volume, however, is an exception. It avoids the usual guide-book information and self-congratulatory statements, and contains a number of serious chapters on the scientific aspects of the country. Most of these are written by competent authorities under their own names. Thus the book is a valuable compendium on the geology, fauna, flora, ethnology, agriculture, mining, and other aspects of Siam. It is particularly useful, since accurate information on many matters relating to Siam is not easy to find. Several of the chapters were issued as separate pamphlets in 1926. They are now revised and collected in this volume, with additions, which was prepared for the congress of the Far Eastern Association of Tropical Medicine, held at Bangkok in December 1930. There are several maps and illustrations.