

*Hephæstus; or, The Soul of the Machine.* By E. E. Fournier d'Albe. (To-day and To-morrow Series.) Pp. 90. (London: Kegan Paul and Co., Ltd.; New York: E. P. Dutton and Co., 1925.) 2s. 6d. net.

THE publishers make claim for the "To-day and To-morrow Series" that it has revived the pamphlet as a form of literature. Now a pamphlet, one supposes, should be brief, provocative, and readable. If the author is a little angry, all the better; Milton was angry when he wrote the "Areopagitica" and his treatises on divorce. If the author has several very obvious blind spots, all the better; some one else will immediately write another pamphlet to point them out to him; and so the joyous game of pamphleteering will grow like a snowball.

Dr. Fournier d'Albe is brief, provocative, and readable, but not angry; he is lyrical. His pamphlet is a pæan in praise of the machine, daughter of Hephæstus and Fire, liberator of mankind. "The victories of Hephæstus are victories of mind over matter. The *mechanical age*, which to some appears as the very negation of the soul, is, on the contrary, the age of supreme psychical achievement" (p. 50). "Fire has made all things new" (p. 57). "The whole earth must be Vulcanized" (p. 80). So the European. We may now confidently await the pamphleteer, with sympathies more Asiatic than European, with mind given pause by the speculations of, say, Spengler, who will point out to Dr. Fournier d'Albe that nine-tenths of mankind are still, always have been, and probably always will be, supremely indifferent to, and slightly contemptuous of, any but the most rudimentary form of machine. Modern European civilisation is built on machinery; other civilisations have had other foundations.

J. Y. T. G.

*An Introduction to Organic Chemistry.* By Prof. Alexander Lowy and Dr. Benjamin Harrow. Pp. ix+389. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1924.) 15s. net.

BOTH the teacher and student of organic chemistry must at times seem overwhelmed by the enormous and ever-growing mass of material that now constitutes this branch of the science; but, fortunately for both, the subject is well systematised and lends itself well to a broad, general treatment. The work under review can be recommended from this point of view: the outline presented is broad and clear, structural formulæ are numerous and well set out, especial prominence is given to applications in the industrial arts, biochemistry, and pharmacy, and the parts dealing with nomenclature and the meanings of technical terms are very useful.

Although the method of presentation is, in general, not sufficiently didactic for use in secondary schools, and is inclined to be too dogmatic, fact and hypothesis being inadequately differentiated, the book will serve as an excellent introduction for students when used as an auxiliary to a good course of lectures and experimental work. The exclusion from the main body of the text of melting- and boiling-points, and similar physical details, the up-to-date character of the subject matter, and the insertion of some excellent folding charts relating mainly to industrial applications, all help to make the work thoroughly readable and to awaken the interest of the student. The literature

references given throughout the book, with the view of inciting collateral reading add considerably to its value.

*Dwellers of the Sea and Shore.* By William Crowder. (Hutchinson's Nature Library.) Pp. xv+300+44 plates. (London: Hutchinson and Co., n.d.) 7s. 6d.

"DWELLERS OF THE SEA AND SHORE" is a true natural history book, and is written by a real naturalist who obviously delights in observing the living animals and plants in their haunts. Although it is published in England as one of "Hutchinson's Nature Library," the reader will not find in it an account of the inhabitants of British shores and seas. The region described is on the American coast not many miles from New York Harbour, and although we have many seashore animals and plants in common, there are of course many differences. This is perhaps really an advantage, as we are given an excellent picture of a foreign shore. The illustrations are good, especially the photographs of living animals taken in the water, and the extremely interesting pictures of the king crab. The chapters on the habits of the individual animals remind one of Fabre, those on the king crab, fiddler and hermit crabs, and the moon snail having a peculiar charm. We gather from the author the sad fact that *Limulus*, the "living fossil" as he terms it, is in danger of extinction in spite of its great abundance. There is little to criticise in the book, which is a genuine contribution to the biology of sea animals, but why should it be said that brachiopods differ from bivalve molluscs in having both valves similar?

*A Summary of Physical Chemistry.* By Prof. K. Arndt. Translated from the fourth German edition by W. H. Patterson. Pp. v+92. (London: Methuen and Co., Ltd., 1925.) 3s. 6d. net.

THE "Summary of Physical Chemistry" which Mr. Patterson has translated covers 86 pages, apart from the two indexes. It is just the sort of abstract that an able student would prepare in order to recall the essential points of the lectures to which he had listened, and of the text-books which he had read. A ready-made summary of this kind provides a means of 'spoon-feeding' which is likely to be acceptable to many hard-pressed students, but in the opinion of the reviewer they would be well advised to make use of it only after compiling a summary of their own, and then mainly in order to check the completeness of the 'home-made' product. If used in order to provide a supply of 'catch-words,' as a substitute for detailed knowledge, its introduction would be definitely harmful.

*An Introduction to the Physics and Chemistry of Colloids.* By Emil Hatschek. (Text-books of Chemical Research and Engineering.) Fifth edition. Pp. xiii+183. (London: J. and A. Churchill, 1925.) 7s. 6d. net.

THE first edition of Hatschek's "Introduction to the Physics and Chemistry of Colloids" appeared in 1913. Since the fourth edition was entirely rewritten, the fifth edition includes only a few additional sections describing recent important advances; apart from these, the text is substantially that of the previous edition.