

purpose; and the fifth—beauty, love, spirit, truth. There is much in Mr. Isbyam's treatment of happiness as discipline of soul, and we believe that to many his advice will be welcomed, to fix attention on those who, because they harbour the spiritual entities so well, can keep their minds adjusted to the never-ending flux of all existing things, with ardour ever new.

The volume is further enhanced for the non-specialist by the inclusion of two appendices on the principles of relativity and quanta.

H. D. A.

*La fabrication chimique de l'or.* Par Jollivet Castelot. Texte français (traductions anglaise, allemande, espagnole). Pp. 126. (Douai: Chez l'Auteur, 19 Rue Saint-Jean, 1928.) n.p.

M. JOLLIVET CASTELOT claims to have succeeded in preparing gold by the action of arsenic and antimony sulphides on silver at 500–1100° C. M. A. Ballandras, a chemical engineer, has verified this result, obtaining colour reactions varying from light yellowish-black to peach-pink, a dark-black powder with a green reflection, and glossy flakes capable of taking a high polish. M. L. Outon, a pharmacist, has repeated the experiment with amazing results. All these gentlemen are to be congratulated on their spagyric achievements if not on their perception of the ridiculous—the inventor in particular, since although not unaware of the economic advantages of the reaction, he has confined himself to the simple search for truth. The yield of gold appears a little low, but doubtless could be improved. Modifications consist, for example, in the addition of tellurium or tin. It is somewhat to be regretted that alchemical prowess should be dissipated in the preparation of so inexpensive a material as gold, particularly if its manufacture on the large scale is to be ignored; radium, for example, costs a great deal more, and a catalytic or any other means for its preparation which would eliminate the somewhat tedious cultivation from uranium would be much appreciated. Even the production of any metal, however base, from gold itself would at least have about it an engaging air of novelty. M. Castelot "emits the hypothesis that the arsenic acts as a catalyser and the sulphur as a ferment in the transmutation." Such a statement is indeed amazing; more amazing, perhaps, than M. Castelot would admit.

A. A. E.

*The Composition of Water.* By Prof. J. R. Partington. (Classics of Scientific Method.) Pp. viii+106. (London: G. Bell and Sons, Ltd., 1928.) 1s. 6d.

THE editor of these "Classics of Scientific Method" suggests that "a reader who takes up a volume of the series, dealing with a branch of science of which he is ignorant, will be able, without further aid, to trace the steps by which the human mind has passed from chaotic ignorance to ordered knowledge." The first impression of the reviewer was that this purpose had been admirably fulfilled in Prof. Partington's monograph on "The Composi-

tion of Water"; but closer study shows that, in order to make full use of the available material, he has thought it necessary to discuss the phlogiston theory, and to tell the story of the 'water controversy,' in which the question at issue was one of priority between Cavendish, Lavoisier, and James Watt. This policy has reduced the value of the monograph as a guide to 'the man in the street,' who does not want to be dragged up every blind alley that has been entered, even by the most distinguished pioneers. On the other hand, the monograph is an ideal one for the serious student of historical chemistry, since the standard is as high as that of the Alembic Club reprints, but the material is presented in the more attractive form of a continuous illustrated narrative.

*Selene: or Sex and the Moon.* By Prof. H. Munro Fox. (Psyche Miniatures, General Series No. 15.) Pp. 84. (London: Kegan Paul and Co., Ltd., 1928.) 2s. 6d. net.

THIS interesting book is written for the general reader with no special knowledge of biology; it is intended to arouse interest as well as to impart information on the subject. Prof. Munro Fox deals with the historical and the mythical aspects of the problem before directing the attention of the reader to authentic cases of animals obeying a lunar rhythm in reproduction.

The accounts of the sea-urchin at Suez and of the Palolo worm of Fiji summarise well what is known to science to-day as regards these two animals; but the treatment of the behaviour of the Californian smelt includes only the work of the Thompsons in 1919 and not of Clark in 1925. Clark showed quite clearly that the Californian smelt is a tidal form, that is, makes two spawning runs each lunar month during the breeding season. The possible causes of the lunar rhythm are discussed, such as tide and moonlight.

Apart from the fact that the references to the Californian smelt are now discredited, the book is worth reading for its lucid and concise exposition of the problem.

*Does the Earth Rotate?* By William Edgell. Reprint. Pp. 69. (Radstock, Som.: The Author, Westfield House, 1927.) n.p.

THIS book is pure paradox; it takes us back to pre-Copernican days, and asserts that the earth is flat and stationary, with the heavenly bodies within a few thousands of miles of it. Incidentally the author quotes astronomical facts incorrectly, giving the earth's rotational speed as 18 miles a second, that being actually the orbital speed. The difficulties alleged about falling bodies with a moving earth were of course in the minds of thinking men centuries ago, but were completely removed by the discovery of the true laws of force and motion.

The only service the book can do is to direct the attention of teachers to some points that may be difficult to beginners, and lead them to explain these points more fully and clearly.

A. C. D. C.