a great advantage in dealing with the history of exploration in the South Polar regions. With the space at his disposal no one could have done better than M. Rouch in setting forth with equal detail all the outstanding Antarctic voyages from that of Cook in the *Resolution* to that of Shackleton in the *Endurance*. Except for a very few slips in the spelling of names (*Thun* instead of *Chun* on the *Valdivia* is the only serious one) the accuracy of the work is quite remarkable, and the facts regarding the various expeditions have obviously been selected from the original narratives.

The style is lively and sympathetic but concise and sailorly. M. Rouch holds all explorers as his brothers and there is a delightful air of *cameraderie* in his treatment of the aspirations and achievements of British, French, Russian, American, Swedish, Norwegian, and German explorers. It is refreshing to find this fine French sailor giving credit impartially to his German rivals and his French colleagues, and with an almost British self-criticism touching more frankly on the little shortcomings of his fellow-countrymen than on those of foreigners.

Perhaps the author's imagination has assisted a little in describing the details of Scott's last expedition; but if he here allows dramatic truth to prevail over verbal accuracy it is in excess of sympathy.

The numerous illustrations are excellent as showing Antarctic conditions, but they obviously refer only to the author's own section of the region. H. R. M.

Mineral Land Surveying. By Dr. J. Underhill. Third edition, revised. Pp. viii+237+3 plates. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1922.) 17*s.* 6*d.* net.

DR. UNDERHILL'S book describes the methods in use for the survey of the mineral lands in the western portion of the United States. It should certainly be in the possession of all surveyors who intend to proceed there; but only the first three chapters are likely to be of much service to mine surveyors in England. In chapter 1, on direct solar observation, the method of obtaining the true meridian by single observations on the sun is clearly and fully explained, with the aid of several worked examples, after the derivation of the formula employed has been given. The method of obtaining latitude by solar observation is also briefly described. Chapter 2 describes the Shattuck Solar Attachment, the Burt Solar Attachment, and the Berger and Saegmuller Solars and their use for finding true meridian and latitude. Of these, the Shattuck Solar Attachment appears to find most favour with the author, who states that he has obtained perfect checks on this instrument by direct observation of the sun. Chapter 3 is a useful account of traversing and measurements, including stadia measurements. Other chapters deal with location surveys, including calculation of areas by the double meridian distance method, patent surveys, patent field notes, Land Office and Records, and the examination for commissions as United States Mineral Surveyor with typical questions and solutions. The appendix includes extracts from the Manual of Instructions for the Survey of the Mineral Lands of the United States.

L'Océanographie. Par Prof. J. Thoulet. (*Science et Civilisation: Collection d'exposés synthétiques du savoir humain.*) Pp. ix+287. (Paris: Gauthier-Villars et Cie, 1922.) 9 francs.

THIS book is one of a series which offers a general account of modern scientific research in its relations to civilisation: it is written in a pleasant, continuous manner and, on the whole, is a very good exposition of the main results of physical oceanography. It follows the line of treatment which appears now to have become classical since the publication of Krümmell's big book in 1907–11: an account of the bottom of the ocean and its deposits; the physics and chemistry of sea water; waves and tides; and the formation of ice. The ocean in its relation to life and the development of the foreshore and coast-line are scarcely touched. The theory of the tides is dealt with very slightly, and the statement is made that all tidal problems have been elucidated by Airy's "théorie des ondulations": quite lately, of course, the dynamical theory of the tides has been almost transformed. There is no account of the methods of prediction.

In such a work as this figures and charts are indispensable, yet the book under review only contains eight text-figures and these are rather difficult diagrams. It can be read with advantage and by the non-professional reader only with constant reference to a good atlas of physical geography, and there is no such work in existence which includes all the recent investigations of marine currents and drifts. J. J.

The Misuse of Mind: A Study of Bergson's Attack on Intellectualism. By Karin Stephen. (International Library of Psychology, Philosophy, and Scientific Method.) Pp. 107. (London: Kegan Paul and Co., Ltd.; New York: Harcourt, Brace and Co., Inc., 1922.) 6*s.* 6*d.* net.

THIS important study of Bergson's philosophy is not an attempt to epitomise or expound the principle, the method, or the particular content. It concentrates on an attempt to understand what is generally rejected as unintelligible—the attack on intellectualism. In Bergson's view the tradition of philosophy is all wrong and must be broken with; philosophical knowledge can be obtained only by "a reversal of the usual work of the intellect." The author gives us in three chapters first a criticism of "explanation," then a criticism of "fact," both with reference to Bergson's theory of change, and in a final chapter shows how light is thrown on the problem by his theory of the relation of matter to memory.

Les Sciences et le Pluralisme. Par J.-H. Rosny, aîné. (Nouvelle Collection Scientifique.) Pp. iv+219. (Paris: Félix Alcan, 1922.) 8 francs net.

M. ROSNY'S thesis is that "pour retrouver l'uniforme nous sommes contraints de nous rabattre sur des substances ou des énergies hypothétiques. En fin de compte, l'homogène que nous trouvons est subi ou créé par le moi, mais non strictement *donné par les choses.*" The volume contains a lucid discussion of the most recent theories in mathematics and physics.