

have to infer from them the character of the physical realities which are their stimuli, must be erroneous. Prof. Stout's criticism appears to show that Prof. Alexander's doctrine cannot be sustained as it stands, but the fact that it can be put forward by a writer of such philosophical eminence is an interesting sign of the influence which Avenarius is at last beginning to exercise on British philosophy.

Very similar tendencies are revealed by Mr. A. Wolf's interesting paper on "Natural Realism and Present Tendencies in Philosophy." The interest awakened by Bergson's striking book "L'Évolution Créatrice" is witnessed to by Mr. Carr's disquisition on Bergson's theory of knowledge, and Mr. G. T. R. Ross's treatment of the satisfaction of thinking. Pragmatism, as one would expect, does not go unrepresented. Dr. Schiller inflicts one of those castigations which are becoming periodical with him on rationalism in a paper on "The Rationalistic Conception of Truth," and the subject also figures prominently in a so-called symposium on pluralism, in which different points of view are represented by Dr. Schiller, Prof. Muirhead, and the writer of this notice. The volume further contains an essay on "The Mutual Symbolism of Intelligence and Activity," by Mr. Foston, and a discussion between Prof. Bosanquet, Dr. Sophie Bryant and Mr. G. T. R. Ross on "The Place of Experts in Democracy."

A. E. TAYLOR.

An Introduction to the Study of Biology. By J. W. Kirkaldy and I. M. Drummond. Pp. iv+259. (Oxford: Clarendon Press, 1909.) Price 6s. 6d.

This little book represents an attempt to deal, within the limits of some 250 pages, with the study of biology as exemplified primarily by the organisms prescribed in the syllabus of the Oxford and Cambridge Schools' Examination Board. The authors have, however, realised the deficiencies of the type system and endeavoured to "bridge over the gulfs" by brief accounts of, or references to, a considerable number of forms "allied" to the selected types. Thus Monocystis, Hæmameba, Bacillus, Chromulina, Actinosphærium, Globigerina, Rhaphidococcus, Arcella, Euglena, Noctiluca, Stytonichia, Acineta, Desmids and Diatoms are all introduced as allies of the more familiar Protozoa, viz. Amœba, Saccharomyces, Sphærella, Vorticella and Paramœcium.

There is no doubt that a too rigid adherence to the type-system does produce a very disconnected idea of the animal kingdom, but we fear that the ordinary schoolboy will think that it is bad enough to have to make the acquaintance of the types without having to shake hands with so many of their relations. No fewer than sixteen types of animals and plants are dealt with in more or less detail, ranging from the Amœba to the dogfish, and from the yeast to the sunflower, besides chapters on the distinction between animals and plants, the life-history of the frog, and the physiology of the rabbit.

The book contains numerous illustrations, for the most part borrowed from very familiar sources; a few are original, but we cannot congratulate the authors very warmly upon these. The picture of a crayfish on p. 112 is extraordinarily crude. The book gives an enormous amount of information gathered from a very wide field, but it is far too concentrated to be inspiring, and the authors do not appear to have succeeded in putting the general principles dealt with in a very clear light. We hope it is intended to be read in connection with a course of practical work, but we have not been able to find any reference to the necessity for such a course.

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LETTERS TO THE EDITOR.

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The End of the *Beagle*.

It is well known that Charles Darwin began to advocate his famous doctrine of evolution after his voyage on board H.M.S. *Beagle* as naturalist, in the course of which he went to South America, Africa, and Oceania, and founded the theory of natural selection; but it has been a matter of regret among men of science throughout the world that the famous old ship had passed out of sight. As the result of careful inquiries, however, by Mr. Shigetaka Shiga, a renowned geographer in Japan, it has now been ascertained what was the ultimate fate of the *Beagle*.

Mr. S. Shiga has told the story to the editor of the *Yorodzu Chōhō*, the most popular newspaper in Tokyo, as follows:—"While I was attending the Sapporo Agricultural School some twenty years ago, I read in the *Living Age*, an American literary magazine, that the *Beagle* had been sold in Japan. After my inquiry it was found out that the warship had been bought by the Lord Shimadzu, who had changed its name to *Kenkō-maru*. Afterwards it was purchased by the Naval Department, and kept as a training ship of the Naval School in Tsukiji, Tokyo; but I had then no intention of preserving the famous ship, and so took no notice of the matter.

"This spring I heard Englishmen were sorry at having lost all trace of the *Beagle* at the hundredth anniversary of the great naturalist's birth. I then applied to a steward of Prince Shimadzu, as well as Viscount Captain Ogasawara, to get fuller particulars of the ship. According to the record of the Prince, the *Kenkō-maru* was certainly the *Beagle* that had been built of teak at Liverpool; it was bought for 75,000 dollars in Nagasaki on July 23 in the first year of Gwanji (1864 A.D.). Viscount Ogasawara informed me of the same fact, and added that the Naval Department ordered several officials, Kawamura (the late Count Sumiyoshi), Masuda, and Satō, to receive the same ship from the Shimadzu clan at Shinagawa on June 13 in the third year of Meiji (1870). It was in existence as a training-ship in the thirteenth year (1880), and was re-named *Yeiji-maru* at Yokosuga in the fifteenth year (1882). It was in May of the twenty-second year that the ship was sold by auction for 3276 yen to the late Kikusaburo Oaki, the proprietor of the Oaki Ship-building Yard.

"After some inquiries about the *Yeiji-maru* at Oaki's, I learned that the ship had been broken up at the old Shinagawa Fort, and that her cabin had been preserved for three years, when it was lost sight of; but Mr. Keizo Oaki, the present owner, who superintended the breaking up of the ship as the engineer-in-chief, has had the kindness to make inquiry of the workmen engaged in the work. The result is as follows. A part of the ship was at length discovered. It was being used as a stand for stones which have been piled up near the temple of Suitengu, in the premises of the dockyard. Having been taken out, it was found to be a part of the ribs of the *Beagle*, 3.5 feet in length, 1.5 feet in breadth, and of teak. Thus a portion of the fragments of the famous *Beagle* has at last been found."

TOYOZI NODA.

Ichinoseki, Iwate, Japan, October 27.

The Maintenance of Forced Oscillations of a New Type.

In a paper "On a Class of Forced Oscillations" published in the *Quarterly Journal of Pure and Applied Mathematics* (No. 148, June, 1906), Mr. Andrew Stephenson discussed mathematically a proposition which may be stated in his own words thus: periodic non-generating force acting on a system in oscillation about a position of stable equilibrium exerts a cumulative action in intensifying or diminishing the amplitude, if its frequency is contained