

ress essentially through the subordination of individual struggle and development to species-maintaining ends."

All these changes and others, in fact the most important of floral variations, the big lifts distinctive for the evolution of orders, are thus seen no longer as indefinite, and hence dependent on external selection for their guidance; but, on the contrary, as parallel and definite, since determined through the continued checking of the vegetative process by the reproductive, and thus pressed along parallel and definite grooves of progressive change. But if this be so, the importance we have been taught by Darwin to assign to natural selection becomes greatly changed—from selecting accumulating supposed indefinite variations, to that mainly of retarding definite ones, after their maximum utility has been independently reached!

Despite, or perhaps because of, the clarifying definitions of vitalism given us by Professors Lovejoy, Ritter and others, I am now come to a point where I do not know at all what vitalism means. I once had at least a personal meaning for the word. But as I note the references to Driesch and Bergson in this book of Professors Geddes and Thomson and then read their chapter—Geddes and Thomson's chapter—on "The Evolution Process Once More Reinterpreted," and see that natural selection is for them the work "of Siva, not of Brahma," I am going hereafter to think of them as vitalists! To such a misunderstanding of vitalism and vitalists can one come through persistent reading about things and persons thus catalogued!

But let no one avoid this excellent little book about evolution because of fear of taint from vitalism. Probably no one else will find any vitalism in it; the authors perhaps least of all!

V. L. K.

STANFORD UNIVERSITY, CAL.

British and Foreign Building Stones. A Descriptive Catalogue of the Specimens in the Sedgwick Museum, Cambridge. By JOHN WATSON.

Under the above caption Mr. John Watson has published a compact little volume of 483 pages descriptive of a collection of building stones prepared by him and installed in the

Sedgwick Museum of Cambridge, England. The collection comprises upwards of eleven hundred specimens prepared in the form of 4½ inch cubes "the sides of which are dressed in the usual style adopted for the purposes for which the stone is generally used in the region from which the specimen comes." Each specimen is accompanied by a label giving the commercial name of the stone, its stratigraphical position, name and locality of the quarry and name and address of the owner. The individual labels state the color, average chemical composition, weight per cubic foot, and crushing strength so far as data are available.

Two hundred and forty-four pages of the catalogue are, however, given up to descriptive matter in which the stones are taken up according to their geological distribution, and it is this portion which will be of greatest value to those not having immediate access to the collection.

The collection is arranged according to the geological horizons, with the exception of the igneous rocks, which are divided into plutonic and volcanic. The portion of the work relating to the rocks of Great Britain contains much interesting historical matter and observations relative to the weathering of the rocks.

No illustrations are attempted, but there is a very full index and it is evident that a great deal of discrimination has been made in getting together the collection as well as in compiling the book which deserves the name of "handbook" rather than simply "descriptive catalogue."

GEORGE P. MERRILL

THE ASTRONOMICAL AND ASTROPHYSICAL SOCIETY OF AMERICA

THE twelfth annual meeting of the Astronomical and Astrophysical Society of America was held in the Dominion Observatory, Ottawa, Canada, on August 23, 24 and 25, 1911. In opening the first session, President E. C. Pickering called attention to the fact that this was the first meeting of the society held outside of the United States. Welcome to Ottawa was extended to the society by Dr. W.