

with war and gratifying the savage instincts by descriptions of bloody victories, with the poetry of modern times, in which the sanguinary forms but a small part, while a large part, dealing with the gentler affections, enlists the feelings of readers on behalf of the weak, we are shown that, with the development of a more altruistic nature, there has been opened a sphere of enjoyment inaccessible to the callous egoism of barbarous times" (page 215). We have marked many other passages for quotation, not in the *Data of Ethics* alone, but in other works of Mr. Spencer's as well, but our limits forbid the use of them. Enough has been produced, however, to prove to any unprejudiced reader that the accusation brought against Mr. Spencer of counseling selfishness is, as we said before, "absolutely without foundation," and does signal injustice to a man the whole of whose philosophy is so strongly inspired by a social motive. In the matter of moral science many people are today in the position in which men in general were some generations ago in relation to physical science. Just as the alchemists of a former time were bent on achieving the transmutation of metals, and the astrologists on reading in the stars the destinies of individuals and of states; and just as these precursors of the scientific workers of our time would have been greatly discouraged and would perhaps have abandoned their labors if persuaded that their methods were vain and their hopes visionary and unrealizable; so, if we may be allowed to say so, the pre-scientific or anti-scientific moralists of our own time are disposed to spurn any ethical system that is not transcendental in its character and does not nourish boundless hopes. Truth, however, is making its way in the world; and gradually all intelligent men will be led to see that better, wider, and more permanent results can be achieved by working on the moral lines laid down by science, than by striving,

with the older philosophies and theologues, to scale the heaven of an unattainable virtue. Let us hope that the present discussion may have a little influence in this direction.

LITERARY NOTICES.

JOURNAL OF RESEARCHES INTO THE NATURAL HISTORY AND GEOLOGY OF THE COUNTRIES VISITED DURING THE VOYAGE ROUND THE WORLD OF H. M. S. BEAGLE, UNDER THE COMMAND OF CAPTAIN FITZ ROY, R. N. By CHARLES DARWIN. A new edition, with Illustrations. New York: D. Appleton & Co. Pp. 551, with Maps. Price, \$5.

THERE are only a few books that have the qualities of an originality and freshness that never wear out. Darwin's *Naturalist's Voyage* must be conceded a prominent place in the list. It has been a little more than fifty years since it was first published. That is a very long time in the life of a book of science and even of a book of travels. Either is likely to become antiquated and obsolete in that period. The book of science comes to be read largely as a curiosity, and to derive its chief interest as being a landmark from which the advance accomplished may be measured. The book of travels becomes a kind of history, and is valued for the illustrations it furnishes of the scenes and conditions that once prevailed. Mr. Darwin's *Journal*, in whichever aspect we regard it, seems as life-like, real, and sagacious as if it were the fresh record of the latest observer. The prediction made by the *Quarterly Review* on its first appearance, that "it must always occupy a distinguished place in the history of scientific investigation," is more than fulfilled. The work accomplished by Darwin on this voyage has been gone over, in its various parts, many times, with all the advantages of increased knowledge and approved appliances and methods of investigation; and it is surprising how little of it has to be rewritten. So far from any of its science seeming obsolete, we find all through the narrative observations which are in effect unconscious predictions, the product of the author's peculiar way of looking at things, of what has since been determined; and we are also constantly reminded that the later determinations are to

the largest extent the outcome of Mr. Darwin's own subsequent work. The track of the voyage and its principal features are well known to all persons who are conversant with the scientific literature of the last half-century, for hardly any book has been more frequently referred to in that literature. The places visited were not as familiar then as they have since been made, and of the natural life of many of them hardly anything was known. So Mr. Darwin enjoyed the advantage of being one of the first visitors and often the first scientific observer. Much of the book is, therefore, the original record by a discoverer of his discovery. Of the manner in which that record has been composed, we need say no more than quote Mr. John Murray's remark in the Prefatory Notice to the present edition, that "the extraordinary minuteness and accuracy of Mr. Darwin's observations, combined with the charm and simplicity of his descriptions, have insured the popularity of this book with all classes of readers, and that popularity has even increased in recent years." Not only are Mr. Darwin's observations as a rule accurate and anticipatory of much that has since been established; they also comprehend nearly everything that should fall under the ken of a thorough-going investigator. Seeing all that the experienced traveler sees and a great deal more than most of this class think of looking for, he portrays the scenery with a few well-defined traces; studies the geology; looks after the animal and vegetable life, with an eye that discerns as much in a few hours of sojourn at a place as duller observers might hardly discover after months of study; peers with equal keenness into the habits and most trifling actions of the animate world; takes note of the human life, of society, of manners and customs, the conditions of civilization, and of the prospects for the future of the countries he visits; and interweaves the whole with pertinent yet undogmatic speculations as to the meaning of the various features that came under his eye such as mark all the man's work—most of which have been verified, or are in course of verification by investigations to which he gave the start and on lines of research which he himself marked out. Perhaps the point to which the present interest is attached is embodied

in his observations on coral reefs, which have come under discussion again in consequence of the new results obtained by the Challenger Expedition. Some of his observations—in cases where the aspect is affected by the progress of human settlement—are in more or less striking contrast with what is to be seen now. One of the strongest contrasts, perhaps, is offered in the picture of New Zealand, where the natives at the time of his visit lacked the charming simplicity of the Tahitians, and the greater part of the English were "the very refuse of society." But in the more detailed fillings of even this picture we find foreshadowings of the higher civilization that has overtaken the Maoris, and the prosperity that has attended the English colony. The present edition of Mr. Darwin's narrative is illustrated by views not in the previous editions, most of which were made on the spot by Mr. R. T. Pritchett with the book by his side, and others are taken from engravings which Mr. Darwin himself had selected for their interest as illustrating his voyage.

NORTH AMERICAN GEOLOGY AND PALEONTOLOGY. For the Use of Amateurs, Students, and Scientists. By S. A. MILLER. Cincinnati. Pp. 664.

THIS work includes a summary of the general principles of geology, with definitions of the principal formations represented in North America, and a manual of Palæozoic paleontology. The first chapter, on the "Definitions and Laws of Geology," concisely presents the principles of geological theory, including the agencies by which the structure and appearance of the superficial crust of the earth are affected; explanations of the more general terms used in geology, and remarks on the principles of nomenclature. For the systems, the generally accepted names are used. In choosing between the methods that have been followed in naming the groups, a preference is expressed for calling each group after the place in which the strata were first studied and described, because a name thus formed is sufficiently technical; it can not be used for any other purpose; and it indicates the typical locality of the exposure. On the other hand, names founded on the mineralogical