

that are retained do not seem to us of any particular value, while one of them is of doubtful expediency: we mean his use of the term "privative attribute." This term has always been used to mean the absence of an attribute where it was once present or might be expected to be present; but Mr. Stock uses it to mean the absence of an attribute in a thing that might have it, as when a dish is called "empty." The execution of the work is in the main good; the style of expression, in particular, being very clear. The least satisfactory part in this respect is that relating to the syllogism, which, as in most other logical works, contains too much technical matter, and does not present a sufficient number of concrete examples to illustrate the principles. But while Mr. Stock's mastery of the forms of reasoning is complete, he has some views as to its nature and validity which can hardly pass unchallenged. Thus, he says that "inductive inferences are either wholly instinctive, and so unsusceptible of logical vindication, or else they may be exhibited under the form of deductive inferences (p. 128). And again he affirms that "no inductive inference can ever attain more than a high degree of probability; whereas a deductive inference is certain, but its certainty is purely hypothetical (p. 130). If this is true, the human intellect is in a bad way. Hence, without meaning to detract from the merits of Mr. Stock's work, we would suggest that what the world needs at the present time is not a new presentation of the forms of reasoning, but a deeper study of the nature of reasoning and of the principles on which it depends.

Botany for Academies and Colleges. By ANNIE CHAMBERS-KETCHUM, A.M. Philadelphia, Lippincott. 12°. \$1.

THE course of study in these lessons is based upon the inductive method of A. L. de Jussieu. Beginning with cryptogamia, plant-development is gradually unfolded, from the green stain on the door-stone to magnolia and clematis. Although the natural system is followed by the author, there are some departures from the method of Jussieu, its founder. This is recognized by the author, who, however, expresses the opinion that if Jussieu had lived to learn the lessons of the fossils, as well as other late discoveries in science, he would have been the first to advocate an arrangement which is so logical because it is so natural.

In addition to structural botany, which includes morphology, physiology, phytotomy or plant anatomy, and chemistry, systematic botany is concisely dealt with. The rules for nomenclature and pronunciation are especially deserving of mention. A manual of plants, including all the known orders with their representative genera, forms the second part of the volume. It is, of course, merely an outline of the 150,000 or more known species of plants, but it appears to be very complete. An excellent index and well-executed illustrations render this book one of the best for teaching purposes which we have seen.

A History of Eighteenth Century Literature. By EDMUND GOSSE. London and New York, Macmillan. 12°. \$1.75.

THIS is the third volume of the history of English literature which the publishers are now issuing, the second volume of which was noticed in *Science* when it appeared. The different volumes are by different writers, each chosen for his special acquaintance with the period to be dealt with, and the first and fourth volumes are not yet published. The present work covers the period from 1660 to 1780, — a period, as the author remarks, not exactly contemporaneous with the eighteenth century, but nevertheless forming a distinct chronological division in the history of English literature. The work is in the main well done, though it cannot be said to have any special charm of style. Its principal defect, according to our thinking, is the disproportionate attention it gives to insignificant writers, many pages being devoted to an account of works that are never read now except by a very small number of literary specialists. Mr. Gosse justly remarks that the principal work of the period under review was "to reform and regulate ordinary writing." The prose of the preceding age had been involved and clumsy to an extraordinary degree, and it was during the latter part of the seventeenth century that Englishmen first began to write in a style similar to that of the present day; while some of the writers of the eighteenth century have hardly been surpassed since. Another

notable work of the eighteenth century itself was the creation of the novel; and Mr. Gosse gives careful attention to both these literary developments. The principal figures in the literature of the period are, in Mr. Gosse's opinion, Dryden, Swift, and Johnson, though it would seem that Richardson, as the inventor of the novel, was entitled to equal rank. The greatest master of prose-style, Mr. Gosse thinks, was the metaphysician Berkeley. It must be understood, however, that the book does not deal with philosophical and scientific writers except with reference to their style. In his last chapter the author considers the relation of the English literature of the period to that of the Continent, — a subject that we should have been glad to see more largely treated.

Insects Injurious to Fruits. By WILLIAM SAUNDERS, F.R.S.C. 2d ed. Philadelphia, Lippincott. 12°. \$2.

THE first edition of this book appeared in 1883. The experience of Mr. Saunders as director of the Experimental Farms of the Dominion of Canada, and as editor of the *Canadian Entomologist*, would lead us to expect a valuable contribution from his pen. In this expectation we are not disappointed. The matter of the original edition was as complete as it could well be made. Since it appeared, additional facts have come to light, and in the second edition we have these facts embodied. For those who are not familiar with this admirable treatise, we will give a brief outline of its plan and contents.

The cultivation of fruit in America has now become such a matter of importance that every one, whether grower or consumer, is interested in the discovery of every thing which hinders or promotes this great industry. One of the most important factors is insect-life. Injurious insects are so universally distributed that there is no part of this continent where fruit-culture can be profitably carried on without some effort being made to subdue them. But all insects are not injurious. There are friendly species as well as those that are inimical. Indeed, it is to these friendly ones that nature has assigned the task of keeping in subjection those that are destructive, by devouring either their bodies or their eggs. Thus it becomes a matter of great importance that the fruit-grower should be able to distinguish between friend and foe, lest, in his efforts to destroy the latter, he may be depriving himself of his strongest ally. Until Mr. Saunders took this subject in hand, the fruit-grower was obliged to search for much of his information in State and departmental reports, or in books on scientific entomology. In these volumes the practical knowledge is so much encumbered with scientific and other details as to make the acquisition of it too laborious a process for those whose time is so fully occupied as is that of the practical fruit-grower. In the book before us the author has endeavored to bring together all the important facts relating to insects known to be injurious to fruits in all parts of Canada and the United States. His experience as a fruit-grower and student of entomology for nearly thirty years has enabled him to succeed in his self-appointed task, and to present the results in a concise manner, and as free from scientific phraseology as is possible. In the arrangement of the subject, the author has adopted the plan of grouping together the insects injurious to a particular tree or plant. Thus, under the heading, "Insects Injurious to the Apple," we find all the known species inimical to this fruit-tree. These main headings are still further subdivided into those which treat of the insects which attack the roots of the apple-tree, those which attack the trunk, the branches, the leaves, and the fruit. Each of these is fully illustrated, so that the determination of any injurious species is rendered comparatively easy. The species having been identified, the methods to be adopted for its destruction are described. The plan is not only an admirable one from a theoretical point of view, but that it is also a practical one, and one which meets the wants of those interested, is demonstrated by the demand for a second edition. Not less worthy of commendation is the execution of the work. An author's best efforts are often rendered nugatory by the parsimony of his publisher, who is unwilling to provide the necessary illustrations or such paper and type as will make the book attractive. In this respect there can no fault be found by Mr. Saunders. The execution of the work is excellent in all respects, making its perusal a pleasant as well as a profitable task.