the "Genera Plantarum" of Bentham and Hooker; but the most ardent admirers of that solid book could not expect it to appeal to the laity: it is designed for the use of specialists, and they alone will use it. Between this and the illustrated text-books intended for students there has been hardly any intermediate in this country, though Lindley's "Vegetable Kingdom," a book which still holds its place as a classic, served in the past a part not altogether unlike that which Dr. Engler's book may be expected to serve in the future. It is, however, in France that the nearest approach has been made to the idea of Dr. Engler. In the "Traité de Botanique" of Le Maout and Decaisne we have a volume profusely illustrated, and dealing with the vegetable kingdom as a whole: the English translation of this, edited by Sir J. D. Hooker, is familiar to all British botanists. Again, the "Histoire des Plantes" of Baillon, which is still in progress, is a classificatory work of large size, well illustrated as regards external morphology, but somewhat deficient in description of the internal details: his "Dictionnaire de Botanique," which commenced in 1876, is also still in progress, and covers, in dictionary form, much the same ground as his "Histoire." These are, then, the chief illustrated and descriptive works with which Drs. Engler and Prantl will have to compete. If we may judge from the first three numbers, the competition, though keen, will be in favour of the new enterprise, and that chiefly on the ground that the authors of it take a more general view of the subject. They do not confine their task to the description and delineation of external form, classification, and distribution. While giving due prominence to these branches, they also incorporate the results of recent investigations of anatomy and development. F. O. B.

OUR BOOK SHELF.

Nomenclature of Colours for Naturalists, and Compendium of Useful Knowledge for Ornithologists. By Robert Ridgeway, Curator, Department of Birds, United States National Museum. Ten coloured plates, and seven plates of outline illustrations. (Boston: Little, Brown, and Co., 1887.)

THIS will be a very welcome volume to naturalists in general, and ornithologists in particular. We do not know that everybody will agree with the principles laid down by the author, but he has, at all events, brought together a considerable number of colours, and given them very definite names for purposes of comparison, and a mere glance at the coloured plates will show how very important it is that every variety of green shown in Plate 10, for instance, should have its special name and admit of easy reference.

The comparative vocabulary of colours, which occupies a considerable proportion of the first part, is also a very valuable combination, and should be in the hands of naturalists of all civilized countries, as we get the English, Latin, German, French, Spanish, Italian, Norwegian, and Danish equivalents of all the colours shown in the coloured plates, and a great many more.

The *pièce de résistance* in the part of the volume which has been prepared chiefly for the use of ornithologists is a glossary of technical terms. It seems to us to have been very carefully done. A study of the plates illustrating the various feathers of birds, and the various birds' eggs, with the attached nomenclature, is certain to lead to a gradually increasing care in description. There is no doubt that the book will prove of very great value to many naturalists.

English Tobacco Culture, &c. Edited by E. J. Beale, F.L.S. (London: E. Marlborough and Co., 1887.)

THIS little book will serve as an important guide to farmers in conducting experiments in the cultivation of tobacco. It gives a detailed account of the origin of the movement for determining whether tobacco could be relied upon as a farm crop in Great Britain, and, if so, whether it could be cultivated to yield a profit to the grower. These two questions, it is maintained, have been answered in the affirmative by the results of last year's experiments, but this conclusion is founded more upon the appearance of the plants than upon actual results in the production of good commercial tobacco.

Seventeen varieties of tobacco were grown last year in this country, and a full description is given of the plants of each variety, with well-executed illustrations, showing the general appearance and distinctive features of the fully-developed plants. For each description of tobacco grown an "Estimated Balance Sheet" has been prepared, and the anticipated profit, amounting in some cases to as much as £25 and even £27 per acre, is very encouraging for farmers who may think of undertaking experiments in tobacco cultivation.

Perhaps the most useful part of the book is that devoted to directions for conducting the several operations of tobacco culture. These include the preparation of the land; the sowing of the tobacco seed; the transplanting of the young seedlings; the transferring of the plants to the prepared ground; and their subsequent treatment until finally harvested and cured. Altogether the book is prepared with great care, and its publication at the present time is very opportune.

Life of Charles Darwin. By G. T. Bettany. (London: Walter Scott, 1887.)

THIS is one of the series of volumes entitled "Great Writers." It was not to be expected that Mr. Bettany would be able to tell us anything absolutely new about the illustrious man of science concerning whom so much has already been written. He has, however, succeeded in presenting in a bright and attractive style the leading facts of Darwin's career, and he has done good service by taking pains to show that Darwin was not only a great thinker and discoverer, but a man of a singularly pure and noble character. Mr. Bettany's exposition of the results of Darwin's labours is brief, but clear and accurate, and he tries to mark as distinctly as possible the various stages in the process by which the theory of evolution as Darwin conceived it was itself evolved.

LETTERS TO THE EDITOR.

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.*

[*The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.*]

Thought without Words.

MAY I demur to the Duke of Argyll's statement that monkeys and dogs have no true reasoning powers? Long and careful attention given to the action of animals consequent on true reasoning power, has led me to an opposite conclusion. I do not trouble you with instances, or could give very many; and I have frequently seen reasoning power exercised after obvious thought over the best course to pursue. Then, *are* animals speechless among themselves? I think not, and believe they speak freely to one another at needed times, in their own language. And I certainly with my own domestic animals can understand in a certain sense their language. I clearly know