

3. **The Various Contrivances by which Orchids are Fertilized by Insects.** By Charles Darwin, M. A., F. R. S., &c. Second Edition, Revised. With Illustrations. D. Appleton & Co. New York. Price \$1.25.

The first edition of this work appeared fifteen years ago. It is at once an indication of the effect of the author's investigations on the course of scientific study and of the wonderful activity in the department of natural history, that forty works on the same subject appeared between the issue of the first and the revision of this second edition. The result of so much investigation, conducted by the first men of science in a dozen different lands, was, naturally, to bring to light many curious facts which the pioneer author, careful and scrutinizing as he is, had overlooked. Another result was to correct not a few mistakes he had fallen into. The present volume is remodeled and revised in accordance not only with the information supplied by these various treatises but still more with the further and fuller information acquired in the interval since 1862 by Mr. Darwin himself. It is a great pleasure to read whatever Mr. Darwin writes on any subject. He is so calm, so clear, so candid, so instructive that it is a veritable

communion with nature to sit at his feet. The curious and deeply interesting subject of the manner in which flowers are fertilized by pollen brought from other plants is here treated with the same painstaking minuteness of observation and simplicity of style that distinguish all the author's writings. To be sure, he is using his great array of facts to prove a point in Darwinianism, viz. that higher organic beings "require an occasional cross with another individual." He takes it for granted that the study of these beings "may be as interesting to an observer who is fully convinced that the structure of each is due to secondary laws, as to one who views every trifling detail of structure as the result of the direct interposition of the Creator." But all this is easily enough got along with by an intelligent reader, who will care very little whether Mr. Darwin's theory of the facts be strictly valid so long as he is so utterly frank and so absolutely honest in reporting the facts themselves.

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