

The fertilisation of flowers, whether *per se* or by means of crosses, as in the animal world, is a curious and deeply interesting study, remarkable in its results, and puzzling even to the most active-brained inquirer. It demands the utmost patience and constant investigation, minute, close and copious. He who would acquire some knowledge of the graces of the English language "must give his days and his nights to the study of Addison," said Dr. Johnson, and it is equally certain that they who wish to learn even the rudiments of botany must study with unceasing industry the structure and function of plants and their outgrowth, be it bud, blossom, or flower. Mr. Darwin, whose opinions or theories on the brute creation are at present exceptional, although they cannot possibly exceed in absurdity the picture in "Paradise Lost" of the aboriginal lion with head, mane, and shoulders out of the ground, and the hinder quarters still wedged firmly under the earth, is a man of great scientific acquirements, and an earnest, clear-headed student. Standing beyond the pale of inspiration, he challenges every fact submitted to his reason, and is iconoclastic only when he thinks that he is taught and told to worship false idols. His present work deals only with primroses, cowslips, oxlips, and other bonny denizens of the woodland and meadow; but it is evident from the vast mass of detail placed before the reader, and the tabulated statements of Mr. Darwin recording the issue of his research, that he has spent over the present book quite a little fortune of time and laborious questioning. The author was materially assisted in these experiments by his son; also by French and German students of the subject so dear to him, and above all by Professor Asa Gray, the American naturalist, to whom the volume is affectionately dedicated. The formation of flowers with their infinite variety of form and colour; their pistils, stamens, anthers, aborted or otherwise; their capsules and corollas; the petals and ray-florets, must always of necessity remain a hidden volume to those who never study Nature in her minute forms and infinite manifestations of design. One prominent feature of the vegetable world cannot have escaped the notice of the most indifferent observer; and that is the paramount influence of the wind and insects on the development of fruit-bearing flowers. At page 94 when Mr. Darwin treats of "Heterostyled Dimorphic Plants," Chapter 3, the reader will find some singularly interesting detail which space forbids us to quote. And Mr. Darwin points attention to a fact less generally recognised. Writing about the primrose he says: "It is surprising how rarely insects can be seen during the day visiting the flowers, but I have occasionally observed small kinds of bees at work; I suppose, therefore, that they are commonly fertilised by the nocturnal lepidoptera." Linnaeus long ago divided flowers into four classes—hermaphrodite, monœcious, diœcious, and polygamous—and Mr. Darwin adopts this fundamental distinction. An index terminates the book, which is a valuable addition to the library of the botanist. Mr. Darwin gives warm thanks to Dr. Hooker for supplying him with specimens and otherwise aiding him, also to Mr. Thiselton Dyer, Professor Oliver, and to Fritz Müller, of St. Catharina, in Brazil, who kindly sent him many dried flowers of heterostyled plants.

* The Different Forms of Flowers on Plants of the same Species. By Charles Darwin, M.A., F.R.S. London: Murray, Albemarle-street.