

that of the Atlas, are distinguished with the greatest ease whilst young, but with difficulty when old.

FLOWERS. •

I SHALL not for several reasons treat the variability of plants which are cultivated for their flowers alone at any great length. Many of our favourite kinds in their present state are the descendants of two or more species crossed and commingled together, and this circumstance alone would render it difficult to detect the difference due to variation. For instance, our Roses, Petunias, Calceolarias, Fuchsias, Verbenas, Gladioli, Pelargoniums, &c., certainly have had a multiple origin. A botanist well acquainted with the parent-forms would probably detect some curious structural differences in their crossed and cultivated descendant; and he would certainly observe many new and remarkable constitutional peculiarities. I will give a few instances, all relating to the Pelargonium, and taken chiefly from Mr. Beck,¹⁶⁹ a famous cultivator of this plant: some varieties require more water than others; some are "very impatient of the knife if too greedily used in making cuttings;" some, when potted, scarcely "show a root at the outside of the ball of the earth;" one variety requires a certain amount of confinement in the pot to make it throw up a flower-stem; some varieties bloom well at the commencement of the season, others at the close; one variety is known,¹⁷⁰ which will stand "even pine-apple top and bottom heat, without looking any more drawn than if it had stood in a common greenhouse; and Blanche Fleur seems as if made on purpose for growing in winter, like many bulbs, and to rest all summer." These odd constitutional peculiarities would enable a plant in a state of nature to become adapted to widely different circumstances and climates.

Flowers possess little interest under our present point of view, because they have been almost exclusively attended to and selected for their beautiful colour, size, perfect outline, and manner of growth. In these particulars hardly one long-cultivated flower can be named which has not varied greatly. What does a florist care for the shape and structure of the organs of fructification, unless, indeed, they add to the beauty of the flower? When this is the case, flowers become modified in important points; stamens and pistils may be converted into petals, and additional petals may be developed, as in all double flowers. The process of gradual selection by which flowers have been rendered more and more double, each step in the process of conversion being inherited, has been recorded in several instances. In the so-called double flowers of the Compositæ, the corollas of the central florets are greatly modified, and the modifications are likewise inherited. In the columbine

¹⁶⁹ 'Gardener's Chron.,' 1845, p. 623.

¹⁷⁰ D. Beaton, in 'Cottage Gar-

den,' 1860, p. 377. See, also Mr. Beck, on the habits of Queen Mab, in 'Gardener's Chronicle,' 1845, p. 226.