

with and harmonises all the facts so as to be received as what we call a good explanation of them. The kind of facts which *chorisis* undertakes to explain are cases in which the symmetry of the flower as commonly understood would suggest the expectation of one organ, but we actually find two or more, and these in an unusual degree of proximity; cases in which the multitude of apparently distinct organs produced in close proximity seems inconsistent with the supposition of their belonging to successive circles; those in which a number far exceeding the natural number seems to be found distinctly in one circle, and those in which a number of similar organs are combined at their base in clusters, the number of clusters corresponding to what might have been expected to be the number of organs. All these are represented as being capable of explanation by collateral chorisis or the subdivision laterally of one organ into a number of organs. There is also a different class of facts, such as the occurrence of organs arising on the face of other organs and opposite to them: sometimes of lines of opposite organs, which being supposed inconsistent with other principles of structure, are explained as cases of *transverse* chorisis, or the division of a single organ into folds like the splitting of a card into two or even many similar or related organs. It cannot be denied that the cases to which chorisis has been applied as an explanation are attended with some difficulty, and that some of them are even incapable of plausible explanation by previously established principles. Some of them, however, appear to me quite consistent with those principles, as I shall endeavour to show when examining some alleged examples, and although it cannot reasonably be affirmed that such an operation as chorisis is inconceivable as arising from the nature of the organs of the flower, and it seems even to be sanctioned by some facts, yet I find myself obliged at least to limit its application within much narrower bounds than some able botanists have assigned to it. My reasons will be best given in an examination of the particular cases brought forward at least a sufficient number of them to justify a general opinion on the subject. I shall take the examples given by Dr. Gray, who adopts fully the theory of chorisis in his valuable work, the *Botanical Text Book*, pp. 250-255, having reference also to his remarks in "The genera of the United States Flora, illustrated." Dr. Gray's first example of collateral chorisis, on which he is disposed greatly to rely, is found in the Tetradynamous stamens of the natural family *Brassicaceæ*. This case I considered at large in a paper read before the Cana-