

mens represents a single organ. The same is true of the organs seemingly representing abortive clusters of stamens in *Parnassia*, and the observation of Duchatre as to the development of the numerous stamens of *Malvaceae* from small protuberances representing the single stamens of the original circle may be confirmed by any one who will examine with attention half-double *Holyhocks* in which intermediate states are found between bunches of stamens and unfolded petals.

The close bundles of stamens in *Ricinus* and the fan-like groups in some *Myrtaceae* may be of the same kind. Admitting then, the principle to a certain extent, we need not multiply examples. The difficulty is that, supposing the scattered parts of a vascular bundle which forms the leaf to supply the filaments of a bundle of stamens, we should anticipate the divided expansion giving only one cell to each anther, as is the case in *Malvaceae*, but in other cases referred to we have two-celled anthers resulting from the divided leaf, a real difficulty without doubt, yet not sufficient, perhaps, to overcome the reasons in favour of the theory.

Transverse chorisis is quite a different thing and far more incredible than what has thus far been discussed. The leaf of a *Horse-chestnut*, a *Virginian creeper*, or a *Lupin*, occurs to us as a ready illustration of the possibility at least of collateral chorisis, and it being satisfactorily proved that an ordinary stamen is but a leaf developed under peculiar circumstances, a leaf becoming a group of connected stamens cannot seem entirely opposed to our reason, each portion of the leaf has its own vascular bundle to form the filament and its own cellular expansion to form the anther. But when we are told of that which is but a thin lamella of organized substance, with its two surfaces differently constructed, and its intermediate portion quite distinct from both, splitting in planes parallel with its surface so as from the one to produce a number of similarly expanded organs possessing the same general structure as the undivided organ would have done, we may well exclaim against the extravagance of such an assumption, and we try in vain to think of any thing which appears to justify it. A carpel is but a leaf in a peculiar state of development, and as it advances towards maturity as a fruit, we can often separate in a direction parallel with its surface three portions, the epicarp or outer surface, the mesocarp or vascular and intermediate portion, and the endocarp, the inner lining of the fruit corresponding to the upper surface of the ordinary leaf; but these three parts though often separable in fact,