

and *Oenothera* belong, the reduction by pressure of the natural number to four instead of five, and sometimes to a smaller number, is characteristic, but it is by no means uncommon to observe the restoration of the fifth part in both *Fuchsias* and *Oenotheras* under high culture, and, when it occurs at all, it takes place uniformly through all the circles. I have seen various examples in both genera. In the great order *Fabaceæ*, the Leguminous plants, a single carpel from abortion through irregularity of the rest of the circle is characteristic, but I have often met with kidney beans with two opposite carpels united by their edges so as to remind us of the maple fruit, and in *Acer Pseudoplatanus*, the Sycamore, I have found, instead of the usual pair of carpels, a complete circle. We are thus forced to admit that the parts deficient in particular structures are absent through abortion, but were rudimentally present in the bud, capable under favourable influences of being developed.

In fact the number five is very common in the exterior circles of Dicotyledonous plants, less so in the gynæcium, though often occurring there also; four is often produced both by pressure and by irregularity, three is occasionally found, and two rather more frequently, whilst in cases of the least amount of development, where the circles are reduced to two, or even one, a single organ in that circle is all that appears. In monocotyledonous plants the number three, and, from additional circles, its multiplies, is somewhat more constant, but abortion or degeneracy of organs from irregularity, is found throughout the Musal and Orchidal alliances and in grasses; and other irregularities of number occur. Our general laws of Floral structure, once understood, leave little difficulty in recognizing the proper explanation of the facts as they fall under our notice.

Having now shortly reviewed those principles which may be regarded as admitted among those botanists who apply themselves to the theoretical relations of the flower and its organs, tracing what is common and accounting for what is varied in the different structures, and having ventured to add one or two suggestions for improving these views or the mode of expressing them, we are prepared to estimate the evidence for any additional principle, where we have to judge whether the phenomena are susceptible of good explanation by the aid of those already established, or really require some new generalization for the correct expression of what occurs, and the perception of its true relations with other facts—and then whether the proposed principle agrees