

bud-variation, as shown in the previous lists, and might probably, by searching foreign horticultural works, have collected very many more cases, yet their total number is as nothing in comparison with that of seminal varieties. With seedlings raised from the more variable cultivated plants, the variations are almost infinitely numerous, but their differences are generally slight: only at long intervals of time a strongly marked modification appears. On the other hand, it is a singular and inexplicable fact that, when plants vary by buds, the variations, though they occur with comparative rarity, are often, or even generally, strongly pronounced. It struck me that this might perhaps be a delusion, and that slight changes often occurred in buds, but were overlooked or not recorded from being of no value. Accordingly, I applied to two great authorities on this subject, namely, to Mr. Rivers with respect to fruit-trees, and to Mr. Salter with respect to flowers. Mr. Rivers is doubtful, but does not remember having noticed very slight variations in fruit-buds. Mr. Salter informs me that with flowers such do occur, but, if propagated, they generally lose their new character in the following year; yet he concurs with me that bud-variations usually at once assume a decided and permanent character. We can hardly doubt that this is the rule, when we reflect on such cases as that of the peach, which has been so carefully observed, and of which such trifling seminal varieties have been propagated, yet this tree has repeatedly produced by bud-variation nectarines, and only twice (as far as I can learn) any other variety, namely, the Early and Late Grosse Mignonne peaches; and these differ from the parent-tree in hardly any character except the period of maturity.

To my surprise, I hear from Mr. Salter that he brings the principle of selection to bear on variegated plants propagated by buds, and has thus greatly improved and fixed several varieties. He informs me that at first a branch often produces variegated leaves on one side alone, and that the leaves are marked only with an irregular edging or with a few lines of white and yellow. To improve and fix such varieties, he finds it necessary to encourage the buds at the bases of the most distinctly marked leaves, and to propagate from them