

changes to the influence of the stock; but from the facts already given, and from others to be given, bud-variation, with reversion, is probably a sufficient explanation.

Many other instances could be added of roses varying by buds. The white Provence rose apparently originated in this way.⁴⁶ M. Carrière states (p. 36) that he himself knows of five varieties thus produced by the Baronne Prévost. The double and highly-coloured Belladonna rose has produced by suckers both semi-double and almost single white roses;⁴⁷ whilst suckers from one of these semi-double white roses reverted to perfectly characterised Belladonnas. In St. Domingo, varieties of the China rose propagated by cuttings often revert after a year or two into the old China rose.⁴⁸ Many cases have been recorded of roses suddenly becoming striped or changing their character by segments: some plants of the Comtesse de Chabillant, which is properly rose-coloured, were exhibited in 1862,⁴⁹ with crimson flakes on a rose ground. I have seen the Beauty of Billiard with a quarter and with half the flower almost white. The Austrian bramble (*R. lutea*) not rarely⁵⁰ produces branches with pure yellow flowers; and Prof. Henslow has seen exactly half the flower of a pure yellow, and I have seen narrow yellow streaks on a single petal, of which the rest was of the usual copper colour.

The following cases are highly remarkable. Mr. Rivers, as I am informed by him, possessed a new French rose with delicate smooth shoots, pale glaucous-green leaves, and semi-double pale flesh-coloured flowers striped with dark red; and on branches thus characterised there suddenly appeared in more than one instance, the famous old rose called the Baronne Prévost, with its stout thorny shoots, and immense, uniformly and richly coloured double flowers; so that in this case the shoots, leaves, and flowers, all at once changed their character by bud-variation. According to M. Verlot,⁵¹ a variety called *Rosa cannabifolia*, which has peculiarly shaped leaflets, and differs from every member of the family in the leaves being opposite instead of alternate, suddenly appeared on a plant of *R. alba* in the gardens of the Luxembourg. Lastly, "a running shoot" was observed by Mr. H. Curtis⁵² on the old Aimée Vibert Noisette, and he budded it on Celine; thus a climbing Aimée Vibert was first produced and afterwards propagated.

Dianthus.—It is quite common with the Sweet William (*D. barbatus*) to see differently coloured flowers on the same root; and I have observed on the same truss four differently coloured and shaded flowers. Carnations and pinks (*D. caryophyllus*, &c.) occa-

⁴⁶ 'Gard. Chron.,' 1852, p. 759.

⁴⁷ 'Transact. Hort. Soc.,' vol. ii. p. 242

⁴⁸ Sir R. Schomburgk, 'Proc. Linn. Soc. Bot.,' vol. ii. p. 132.

⁴⁹ 'Gard. Chron.,' 1862, p. 619.

⁵⁰ Hopkirk's 'Flora Anomala,' 167.

⁵¹ 'Sur la Production et la Fixation des Variétés,' 1865, p. 4.

⁵² 'Journal of Horticulture,' March, 1865, p. 233.