

halves exactly defined. The tree was a grafted one, and Mr. La Touche thinks that the branches which bore this curious apple sprung from the point of junction of the graft and stock: had this fact been ascertained, the case would probably have come into the class of graft-hybrids already given. But the branch may have sprung from the stock, which no doubt was a seedling.

Prof. H. Lecoq, who has made a great number of crossings between the differently coloured varieties of *Mirabilis jalapa*,<sup>122</sup> finds that in the seedlings the colours rarely combine, but form distinct stripes; or half the flower is of one colour and half of a different colour. Some varieties regularly bear flowers striped with yellow, white, and red; but plants of such varieties occasionally produce on the same root branches with uniformly coloured flowers of all three tints, and other branches with half-and-half coloured flowers, and others with marbled flowers. Gallesio<sup>123</sup> crossed reciprocally white and red carnations, and the seedlings were striped; but some of the striped plants also bore entirely white and entirely red flowers. Some of these plants produced one year red flowers alone, and in the following year striped flowers; or conversely, some plants, after having borne for two or three years striped flowers, would revert and bear exclusively red flowers. It may be worth mentioning that I fertilised the *Purple Sweet-pea* (*Lathyrus odoratus*) with pollen from the light-coloured *Painted Lady*: seedlings raised from the same pod were not intermediate in character, but perfectly resembled either parent. Later in the summer, the plants which had at first borne flowers identical with those of the *Painted Lady*, produced flowers streaked and blotched with purple; showing in these darker marks a tendency to reversion to the mother-variety. Andrew Knight<sup>124</sup> fertilised two white grapes with pollen of the Aleppo grape, which is darkly variegated both in its leaves and fruit. The result was that the young seedlings were not at first variegated, but all became variegated during the succeeding summer; besides this, many produced on the same plant bunches of grapes which were all black, or all white, or lead-coloured striped with white, or white dotted with minute black stripes; and grapes of all these shades could frequently be found on the same foot-stalk.

I will append a very curious case, not of bud-variation, but of two cohering embryos, different in character and contained within the same seed. A distinguished botanist, Mr. G. H. Thwaites,<sup>125</sup> states that a seed from *Fuchsia coccinea* fertilised by *F. fulgens*, contained two embryos, and was "a true vegetable twin." The two plants produced from the two embryos were "extremely different in appearance and character," though both resembled other hybrids of the

<sup>122</sup> 'Géograph. Bot. de l'Europe,' tom. iii., 1854, p. 405; and 'De la Fécondation,' 1862, p. 302.

<sup>123</sup> 'Traité du Citrus,' 1811, p. 45.

<sup>124</sup> 'Transact. Linn. Soc.,' vol. ix. p. 268.

<sup>125</sup> 'Annals and Mag. of Nat. Hist.,' March, 1848