variety sprouts late in the spring, yet matures its fruit early; other varieties (p. 362) have the fault of being too much excited by the April sun, and in consequence suffer from frost. A Styrian variety (p. 254) has brittle foot-stalks, so that the clusters of fruit are often blown off; this variety is said to be particularly attractive to wasps and bees. Other varieties have tough stalks, which resist the wind. Many other variable characters could be given, but the foregoing facts are sufficient to show in how many small structural and constitutional details the vine varies. During the vine disease in France certain old groups of varieties[8] have suffered far more from mildew than others. Thus "the group of Chasselas, so rich in varieties, did not afford a single fortunate exception;" certain other groups suffered much less; the true old Burgundy, for instance, was comparatively free from disease, and the Carminat likewise resisted the attack. The American vines, which belong to a distinct species, entirely escaped the disease in France; and we thus see that those European varieties which best resist the disease must have acquired in a slight degree the same constitutional peculiarities as the American species.

White Mulberry (*Morus alba*).—I mention this plant because it has varied in certain characters, namely, in the texture and quality of the leaves, fitting them to serve as food for the domesticated silkworm, in a manner not observed with other plants; but this has arisen simply from such variations in the mulberry having been attended to, selected, and rendered more or less constant. M. de Quatrefages[9] briefly describes six kinds cultivated in one valley in France: of these the *amourouso* produces excellent leaves, but is rapidly being abandoned because it produces much fruit mingled with the leaves: the *antofino* yields deeply cut leaves of the finest quality, but not in great quantity: the *claro* is much sought for because the leaves can be easily collected: lastly, the *roso* bears strong hardy leaves, produced in large quantity, but with the one inconvenience, that they are best adapted for the worms after their fourth moult. MM. Jacquemet-Bonnefont, of Lyon, however, remark in their catalogue (1862) that two sub-varieties have been confounded under the name of the *roso*, one having leaves too thick for the caterpillars, the other being valuable because the leaves can easily be gathered from the branches without the bark being torn.

In India the mulberry has also given rise to many varieties. The Indian form is thought by many botanists to be a distinct species; but as Royle remarks,[10] "so many varieties have been produced by cultivation that it is difficult to ascertain whether they

---

[8] M. Bouchardat, in 'Comptes Rendus,' Dec. 1st, 1851, quoted in 'Gardener's Chron.,' 1852, p. 435. See also C. V. Riley on the manner in which some few of the varieties of the American Labruscan Vine escape the attacks of the Phylloxera: 'Fourth Annual Report on the Insects of Missouri,' 1872, p. 63, and 'Fifth Report,' 1873, p. 66.

[9] 'Etudes sur les Maladies actuelles du Ver á Soie,' 1859, p. 321.

[10] 'Productive Resources of India,' p. 130.