

and hydrocyanic acid.* These mixtures vary not only in the different families, but also in the species which belong to the same genus. Sometimes it is morphine or the narcotic principle, that characterises the vegetable milk, as in some papaverous plants; sometimes it is caoutchouc, as in the hevea and the castilloa; sometimes albumen and caseum, as in the cow-tree.

The lactescent plants belong chiefly to the three families of the euphorbiacæ, the urticæ, and the apocineæ†. Since, on examining the distribution of vegetable forms over the globe, we find that those three families are more numerous in species in the low regions of the tropics, we must thence conclude, that a very elevated temperature contributes to the elaboration of the milky juices, to the formation of caoutchouc, albumen, and caseous matter. The sap of the *palo de vaca* furnishes unquestionably the most striking example of a vegetable milk in which the acrid and deleterious principle is not united with albumen, caseum, and caoutchouc: the genera euphorbia and asclepias, however, though generally known for their caustic properties, already present us with a few species, the juice of which is sweet and harmless. Such are the *Tabayba dulce* of the Canary Islands, which we have already mentioned,‡ and the *Asclepias lactifera* of Ceylon. Burman relates that, in the latter country, when cow's milk is wanting, the milk of this asclepias is used; and that the aliments commonly prepared with animal milk are boiled with its leaves. It may be possible, as Decandolle has well observed, that the natives employ only the juice that flows from the young plant, at a period when the acrid principle is not yet developed. In fact, the first shoots of the apocyneous plants are eaten in several countries.

* Opium contains morphine, caoutchouc, &c.

† After these three great families follow the papaveracæ, the chiconacæ, the lobeliacæ, the campanulacæ, the sapotecæ, and the cucurbitacæ. The hydrocyanic acid is peculiar to the group of rosaceo-amygdalacæ. In the monocotyledonous plants there is no milky juice; but the perisperm of the palms, which yields such sweet and agreeable milky emulsions, contains, no doubt, caseum. Of what nature is the milk of mushrooms?

‡ *Euphorbia balsamifera*. The milky juice of the *Cactus mamillaris* is equally sweet.