

retains its character as long as grown in a dryish soil, but soon loses it when planted in fresh and humid soil. Mr. Salter, who is well known for his success in cultivating variegated plants, informs me that rows of strawberries were planted in his garden in 1859, in the usual way; and at various distances in one row, several plants simultaneously became variegated; and what made the case more extraordinary, all were variegated in precisely the same manner. These plants were removed, but during the three succeeding years other plants in the same row became variegated, and in no instance were the plants in any adjoining row affected.

The chemical qualities, odours, and tissues of plants are often modified by a change which seems to us slight. The Hemlock is said not to yield conicine in Scotland. The root of the *Aconitum napellus* becomes innocuous in frigid climates. The medicinal properties of the *Digitalis* are easily affected by culture. As the *Pistacia lentiscus* grows abundantly in the South of France, the climate must suit it, but it yields no mastic. The *Laurus sassafras* in Europe loses the odour proper to it in North America.¹¹ Many similar facts could be given, and they are remarkable because it might have been thought that definite chemical compounds would have been little liable to change either in quality or quantity.

The wood of the American Locust-tree (*Robinia*) when grown in England is nearly worthless, as is that of the Oak-tree when grown at the Cape of Good Hope.¹² Hemp and flax, as I hear from Dr. Falconer, flourish and yield plenty of seed on the plains of India, but their fibres are brittle and useless. Hemp, on the other hand, fails to produce in England that resinous matter which is so largely used in India as an intoxicating drug.

The fruit of the Melon is greatly influenced by slight differences in culture and climate. Hence it is generally a better plan, according to Naudin, to improve an old kind than to introduce a new one into any locality. The seed of the Persian Melon produces near Paris fruit inferior to the poorest market kinds, but at Bordeaux yields delicious fruit.¹³ Seed is annually brought from Thibet to Kashmir,¹⁴ and produces fruit weighing from four to ten pounds, but plants raised next year from seed saved in Kashmir give fruit weighing only from two to three pounds. It is well known that American varieties of the Apple produce in their native land magnificent and brightly-coloured fruit, but these in England are of poor quality and a dull colour. In Hungary there are many

¹¹ Engel, 'Sur les Prop. Médicales des Plantes,' 1860, pp. 10, 25. On changes in the odours of plants, see Delibert's Experiments, quoted by Beckman, 'Inventions,' vol. ii. p. 344; and Nees, in Ferussac, 'Bull. des Sc. Nat.,' 1824, tom. i. p. 60. With respect to the rhubarb, &c., see also

'Gardener's Chronicle,' 1849, p. 355; 1862, p. 1123.

¹² Hooker, 'Flora Indica,' p. 32.

¹³ Naudin, 'Annales des Sc. Nat.,' 4th series, Bot., tom. xi., 1859, p. 81. 'Gardener's Chronicle,' 1859, p. 464.

¹⁴ Moorcroft's 'Travels,' &c., vol. ii. p. 143.