presume that it will not be disputed that we here have instances of great variability in organs of the highest physiological importance, and with most plants of the highest classificatory importance.

Sageret[141] and Naudin found that the cucumber (*C. sativus*) could not be crossed with any other species of the genus; therefore no doubt it is specifically distinct from the melon. This will appear to most persons a superfluous statement; yet we hear from Naudin[142] that there is a race of melons, in which the fruit is so like that of the cucumber, "both externally and internally, that it is hardly possible to distinguish the one from the other except by the leaves." The varieties of the melon seem to be endless, for Naudin after six years' study had not come to the end of them: he divides them into ten sections, including numerous sub-varieties which all intercross with perfect ease.[143] Of the forms considered by Naudin to be varieties, botanists have made thirty distinct species! "and they had not the slightest acquaintance with the multitude of new forms which have appeared since their time." Nor is the creation of so many species at all surprising when we consider how strictly their characters are transmitted by seed, and how wonderfully they differ in appearance: "Mira est quidem foliorum et habitus diversitas, sed multo magis fructuum," says Naudin. The fruit is the valuable part, and this, in accordance with the common rule, is the most modified part. Some melons are only as large as small plums, others weigh as much as sixty-six pounds. One variety has a scarlet fruit! Another is not more than an inch in diameter, but sometimes more than a yard in length, "twisting about in all directions like a serpent." It is a singular fact that in this latter variety many parts of the plant, namely, the stems, the footstalks of the female flowers, the middle lobe of the leaves, and especially the ovarium, as well as the mature fruit, all show a strong tendency to become elongated. Several varieties of the melon are interesting from assuming the charateristic features of distinct species and even of distinct though allied genera: thus the serpent-melon has some resemblance to the fruit of *Trichosanthes anguina*; we have seen that other varieties closely resemble cucumbers; some Egyptian varieties have their seeds attached to a portion of the pulp, and this is characteristic of certain wild forms. Lastly, a variety of melon from Algiers is

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[141] 'Mèmoire sur les Cucurbitacées,' 1826, pp. 6, 24.

[142] 'Flore des Serres,' Oct. 1861, quoted in 'Gardener's Chronicle,' 1861, p. 1135. I have often consulted and taken some facts from M. Naudin's Memoir on Cucumis in 'Annal. des Sc. Nat.,' 4th series, Bot. tom. xi. 1859, p. 5.

[143] *See* also Sageret's 'Mémoire,' p. 7.