

- B. Rhizome horizontal, otherwise as in A :
V. sagittata, affinis, Macounii, cucullata, palmata, papilionacea.
- C. Rhizome horizontal or ascending, monopodial, with basal leaves from the axils of which aerial stems develop with leaves and flowers, but no stolons :
V. pubescens, glabella, orbiculata.
- D. Rhizome a sympodial pseudorhizome with basal leaves, etc., as in C :
V. Canadensis, striata, rostrata.
- E. Rhizome horizontal, monopodial, leaves all basal with axillary flowers and stolons with scale-like leaves :
V. Leconteana, primulaefolia, Selkirkii, blanda, lanceolata.

As may be readily seen from this table, the monopodial ramification seems the most characteristic, while the sympodial occurs only in a few species. Of these two kinds of branching, the monopodial is in *Viola* recognized by its continuous growth in one direction and by its terminal bud developing only leaves with axillary shoots : floral or vegetative, of which the latter continue the same development of leaves and without being terminated by a floral axis. These lateral shoots, however, do not attain the same length or the same strength as the mother axis, unless in cases where this becomes injured and dies off. It is thus characteristic of the monopodium that the terminal bud remains vegetative and for an indefinite period.

The sympodial rhizome is in *Viola* but sparingly represented, and as a matter of fact it does not occur as a true rhizome in the stricter sense of the word. We have called it a pseudorhizome, because the under-ground stem-portion is here (in *V. Canadensis*, etc.) only represented by the bases of the aerial shoots, from the lowermost leaf-axils of which buds develop, which in the following season grow out into above-ground shoots. But there is no under-ground mother-axis in these species, and, moreover, each bud becomes terminated by a floral shoot with cauline leaves and axillary flowers. And it is seen without much difficulty when we examine *V. Canadensis* that the fresh, flowering shoots are, always, borne upon the base of an old, withered stem from the previous year. One might suppose that *V.*