



Fig. 1880.

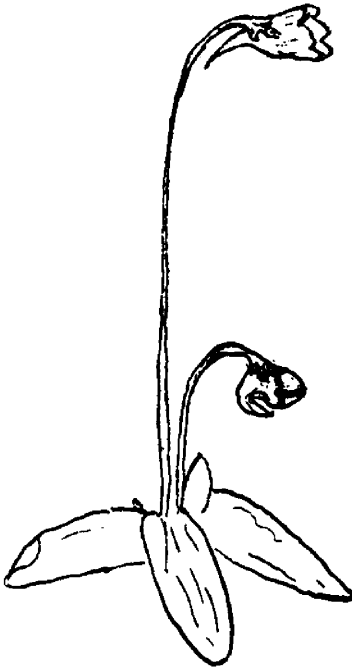


Fig. 1881.

upon the ground, instead of the usual flat leaf blade and narrow leaf stalk, have been changed, stalk and blade into lengthy sacs, resting upon their backs, inflated about the middle, somewhat contracted about the mouth, which is raised up from the ground and bordered with a collar or sort of hood. This hood is streaked with red veins, often of a vermillion brightness, and holds its concave surface in a position to catch the raindrops and conduct them into the cavity below. Near the mouth the pitcher is provided on the inside with glands which exude a sweet fluid that is spread thinly over what may be termed the throat. Below this the interior is lined with long, smooth, sharp-pointed bristles. See Fig. 1880, a section through the wall of the sac, showing the long spinous bristles greatly magnified. The bright colors and sweets allure the insects, many slide down over the smooth slippery spines; after vainly endeavoring to climb the bristle-lined wall they sink exhausted into

the water below and perish. When a number are decaying the water becomes turbid, resembling manure water. It is not yet known whether the fluid is mere rain water or whether the gland-like cells at the bottom exude a secretion which modifies its character. Will not some reader of the Canadian Horticulturist settle this question? It is in this way that Pitcher plants obtain more or less of their required nitrogen. These comprise all of the Canadian plants embraced in the first group.

Turning now to the consideration of the second group, those plants that exhibit movements in capturing their prey, we find that the Canadian members are confined to two plant families, one also belonging to the Bladderwort family and four to the Sundew family. This one, which is placed by botanists in Bladderwort family, has no bladders, does not live in water, captures insects by the involution of its leaf margins. It may be briefly described as follows—*Pinguicula vulgaris*, Butterwort. The leaves are entire, arranged in a rosette at the base of the leafless flower stalk, flower violet-purple, one petaled, two lipped, upper lip two cleft, under three cleft, nearly straight nectar bearing spur varying from one-sixth to one-third of an inch in length. Its range is from Newfoundland and Quebec through Ontario to the Rocky Mountains. In Ontario at Red Bay, Lake Huron, along the coast of Lake Superior from Michipicotin to Red Rock, on St. Ignace Island and on the east coast of Lake Nipigon (Macoun).

Fig. 1881 represents a flowering plant. The upper surface of the leaves is covered with numerous glands which secrete a sticky fluid that is poured out profusely whenever an insect or other nitrogenous body is brought continuously in contact with them; to this, at such times only, is added another fluid similar to the gastric juice of animals. When small insects alight upon the leaf they are detained by the sticky sub-