to be valued at "a button in a man's cap." Nor will they probably be the last of the same kind. There is no exaggeration in this sketch—I have merely repeated what I heard, and which, for the most part, the corresponding testimony of different persons tended to corroborate.—Indeed what I have penned bears so small a proportion to the mass of information of the kind given to us, that my most difficult task has been to condense what I have heard related, so as not to run the risk of proving very tiresome to the society, and in consequence I have been obliged to omit much of what, to myself, appeared interesting enough. I will conclude by observing that, should these slight remarks on the Tête de Boule Indians, induce a desire for more particular information concerning them, I know no one so well qualified to complete a more perfect account of them, from constant and well directed enquiry, as another member of this society, my respected companion on the late expedition, Mr. Nixon, of the 66th regiment.

---

## *Notes on some of the* PLANTS *of Lower Canada, by* W. SHEPPARD, *of Woodfield, Esq. V.P.*

*Read 19th December, 1829, and 19th January, 1830.*

In laying before the society, a few observations made on some of the vegetable productions of our neighbourhood, I have to crave your indulgence for taking up your time on a subject of but partial interest. The acquisition of knowledge in the various branches of Natural History, I regret to say,

has not hitherto been pursued here so generally as in Europe, and elsewhere. From the establishment of this, and our sister society in Montreal, I doubt not will date a new era in knowledge in these provinces. To these societies, as centres, will naturally converge, from various quarters, facts in science, and discoveries in the arts, which might otherwise never be made known to the world. Encreased facilities in the acquirement of useful knowledge, will necessarily grow out of these establishments.

In these notices I do not profess to follow the regular order of succession of the vegetable families, but will select them so as to create, if possible, some interest, by contrasting trees with grasses—the useful with the ornamental. I do not presume to write for your instruction, much less do I expect that the notices which I am about to offer will excite any interest beyond what I may hope from your indulgence. If I succeed in creating in the younger part of my friends, a taste for this pleasant branch of Natural History, I will be quite satisfied—it is my only aim. An opportunity will soon be given them, I fully trust, to follow up the pursuit, by attending the lectures about to be instituted under the auspices of this society. Summer is, beyond doubt, the most suitable season for pursuing these enquiries, and will in all probability be chosen for the lectures. The trees and shrubs are, for the most part, now divested of their ornamental clothing, and the humble herbaceous plant is retired out of sight, for a long and necessary repose after the summer's excitement and exercise of functions. Few living plants can therefore be produced in illustration of these notes. I am induced by this circumstance, to make choice of a natural family to begin with, composed principally of evergreens.

*Family*—CONIFERÆ.—Jussieu.
*Genus—PINUS.—L.*
*Section—Spruces.* Leaves solitary.

Pinus balsamea—L. Abies balsamifera—Michaux.
Balsam Spruce. *Sapin.*
"Leaves flat, grey beneath. Cones cylindrical, erect."

This is a beautiful evergreen tree, rising in a pyramidal shape to the height of thirty feet or more. In open and cultivated grounds, it becomes feathered down to the surface, and is a very pleasing object to contemplate; it is in consequence, in much request for shrubberies and park scenery in Britain. This is the tree which produces the Canada Balsam, well known to practitioners in the healing art. It is found in small blisters in the bark, whence it is extracted by incision, and received in a limpid state into a shell or cup. The best varnish for water-colour paintings is prepared fromthis liquid resin. This spruce is common about Quebec, and throughout Canada; but I do not find that the timber is applied to any useful purpose.

Pinus Canadensis—L. Abies Canadensis—Mx.
Hemlock Spruce. *Pruche.*
"Leaves flat, denticulate, two-ranked. Cones ovate, terminal, as long as the leaves."

A large tree, with beautiful foliage, vying in magnitude with the white pine. The timber enters not into commerce, except in the shape of lathwood, of which a considerable quantity is yearly shipped to Britain and Ireland: it is however, sparingly used here in rural architecture for coverings of roofs and for weather boardings. The bark is used by the country tanners in the manufacturing of leather; it is said to possess a large proportion of the tanning principle. The leaves have the flavour of juniper

berries; they are sometimes used by the country people to make a *ptisanne*. The tree is ornamental and might be admitted into park scenery with advantage. It is not common about Quebec, but abounds in various parts of Canada, in dry sandy soils.

Pinus nigra—Lb. Abies nigra—Mx. Black Spruce. Double Spruce. *Epinette noire.*

"Leaves four-sided, scattered on all sides of the branches, erect, straight. Cones ovate; scales oval, with undulated margins, close-toothed at the apex."

A middle sized tree, tall, straight and taper. The foliage dense and having a very dark appearance. Whole tracts of swampy country are frequently covered with this and some other evergreens, which give them a dismal cast compared with adjoining growths of trees on undulating grounds: those tracts are hence called blackwood lands. From the spray of this tree is extracted the essence with which that wholesome beverage spruce beer is made. Of the timber is manufactured deals for exportation; large quantities are yearly shipped at the port of Quebec, principally to the Irish market.

Pinus alba—Lb. Abies alba—Mx. White Spruce. *Epinette blanche.*

"Leaves four-sided, incurved. Cones nearly cylindrical, lax; scales obovate, entire."

A tree similar in appearance to the preceding, except that the leaves are of lighter green, and not so thickly set. It grows on dryer soils. The timber is white and is also manufactured into deals, scarcely to be distinguished from those of the black spruce. Manufacturers are acquainted with several varieties of this tree, occasioned by the different nature of the soil: such as *epinette grise* and *epinette*

*tremblante;* the latter is preferred in point of quality. The timber of the black and the white spruce resembles in appearance, and probably in quality, the white deal of the north of Europe, which is made from *Pinus Abies;* whence, no doubt, arises the foreign demand for our spruce deals. Spars for the higher yards and for top-gallant masts, are frequently taken of this timber by reason of its comparative strength and lightness. The Indians collect from this tree principally, the gum with which they pay the seams of their bark canoes: it exudes on the surface, at the knots and wounds, whence it is taken and melted to free it from impurities.

Lambert makes another species of spruce here, which he names *Pinus rubra;* but Michaux is not willing to adopt it, and says it is only a variety of the alba; perhaps one of those mentioned.

*Section—*PINES. Leaves in twos, threes, or fives in a sheath.

Pinus resinosa—AIT. Pinus rubra—MX. Red Pine.

*Pin rouge.*

"Leaves in pairs, elongated. Cones ovate-conic, rounded at the base, about half as long as the leaves; scales dilated in the middle, unarmed."

A handsome tree of large growth. Bark scaly and of a reddish colour. The timber of this pine enters largely into commerce, principally as squared logs of from ten to sixteen inches, or more, of a side; also as spars for masts and yards, for which purposes it is in great request. Some deals are also manufactured from it, and great quantities of lathwood; for the latter purpose it is well suited, its great strength enabling it to support the weight of the slate and tile roofs of Britain. This wood is much used here in ship-building, for planks, spars, &c. being strong and durable.

Towards the sources of the Ottawa large tracts of sandy land are entirely covered with red pine; from which country we principally derive our supplies of that kind of timber. It also grows about Quebec, and is more or less scattered throughout the country.

Pinus banksiana—Lb. Pinus rupestris—Mx. Gray Pine. *Chipré?*

"Leaves in pairs, short, rigid, devaricate, oblique, recurved, twisted; scales without prickles."

A small tree varying from a few feet in height to thirty feet, according to the nature of the soil. It is rare in the southern parts of the province, but abounds in the north. Capt. Franklin mentions it as growing in a high latitude. There is a solitary locality of this tree at Sillery; near the highway to Cap Rouge: it is also found at Three Rivers and at St. Paul's Bay.

Pinus rigida—Lb. Pitch Pine.

"Leaves in threes, in short sheaths. Cones ovate; scales with reflexed spines."

A tree about the size of red pine; found very sparingly in Canada, but grows in abundance on the shores of Lake Champlain. No locality is known near Quebec. The timber resembles red pine, but abounds more in resin; it is sought after by pump-makers. Tar and lampblack are manufactured in Vermont by very simple processes. The knots being incorruptible, are found abundantly in groves of this pine, frequently under ground, where they have lain for ages; these are collected and piled upon a stone hearth, covered over with sod and earth, and set on fire, in the manner of making charcoal. The heat produced in burning causes the tar to leave the knots, and flow over the hearth by a groove cut in it for that purpose. Lampblack

is nothing more than the condensed smoke of the same fires, collected in large wooden receptacles.

Pinus serotina—Mx. Pond Pine.

"Leaves elongated, in threes, Cones ovate; prickles of the scales straight and very slender."

Not having seen this pine, I merely record it as a native of Canada, on the authority of Purch, who says, in a manuscript note in my possession, that it grows at Anticosti.

Pinus Strobus—L. White Pine. *Pin blanc.* Yellow Pine of commerce in England, and Weymouth Pine there in its growing state.

"Leaves in fives."

This is the most majestic of all our pines; in suitable soils attaining a great size, and towering over all the other trees of the forest. When growing in open situations; it is usually feathered down to the ground, assuming a picturesque appearance, especially when loaded with its large pendulous cones. White pine is easily wrought, comparatively free from knots, and durable in all situations: it is, in consequence, used by our carpenters and joiners almost exclusively in the construction of houses and other buildings. Masts of large ships are usually made of this timber, and frequently their decks also; the property of not splitting by the sun in warm climates fitting it for the latter purpose, its great size and lightness for the other. This wood is an extensive article of commerce, and of export from these provinces; being shipped in the shape of masts, plank, boards, shingles, square logs, and sawed scantling. The quantity of this timber exported yearly, far exceeds that of any other kind. It is the most useful, and fortunately the most plentiful timber we possess, being found generally throughout the province.

*Section—Larches.* Leaves in bundles.

Pinus pendula—Lb. Black Larch. Tamarack. *Epinette Rouge.*

" Leaves deciduous. Cones oblong; margin of the scales bent in; bracts fiddle-shaped."

A tall taper tree, growing about Quebec, and throughout Canada. The timber is straight grained and strong, fitting it for the spars of ships, but inferior to white and black spruce for this purpose, on account of its greater weight. It is also used in ship-building, principally for knees to fasten the beams; the but of the stem and one of the principal roots, forming together the angle required, are taken for that purpose—these knees are strong and very durable. The wood burns briskly and furnishes a great and sudden heat; for which qualities it is in request as fuel for the steam engines on the St. Lawrence.

Pinus microcarpa—Lb. Red Larch or Tamarack. *Epinette rouge.*

" Leaves deciduous. Cones roundish, few-flowered; scales reflected; bracts eliptical."

This larch so closely resembles the preceding in habit and qualities, as scarcely to be distinguished from it; except botanically. Michaux makes but one species of them, under the name of *Larix Americana.*

*JUNIPERUS.—L.*

Juniperus virginiana—Wm. Red Cedar. *Cèdre rouge.*

" Leaves in threes, adnate at their bases; in the young state they are imbricate; older, they become spreading."

A small evergreen tree, growing abundantly on the shores and islands of Lake Ontario; but very sparingly in Lower Canada; the only localities of its growth in this province, that I know of, are at the falls of the Chats and

the Chaudière on the River Ottawa. In Upper Canada and in the States where it is plentiful, it is used for fences; being superior to every other kind of wood in point of durability in such exposed situations. It is occasionally brought to this market in round logs of about twenty feet long, and eight to twelve inches in diameter: but is seldom exported to Great Britain, owing to an enormous duty levied on it by weight.

Juniperus communis depressa—L. Juniper. *Genevrier.*

"Leaves in threes, spreading, mucronate, longer than the berry."

A low spreading shrub, about two feet high and extending over a large surface. The berries might be collected for the use of the distiller, as are those of the European variety of this species. Grows on the shores of the St. Lawrence below Quebec, and at the falls of the Ottawa.

Juniperus sabina—L. Savine. *Savin.*

"Leaves opposite, obtuse, glandular in the middle, imbricate four ways, delicate, acute, opposite."

A low decumbent shrub, about six inches high. The elder Michaux found it growing in clifts of rocks, from Hudson's Bay to the mouth of the Saguenay.

*THUYA.—L.*

Thuya occidentalis—L. Arbor vitæ. White Cedar.

*Cèdre blanc.*

"Branchlets two-edged; leaves imbricate four ways, rhomboid-ovate, closely pressed, naked, tubercled. Cones obovate; inner scales truncate, gibbous below the apex."

Grows generally in moist grounds, and on the sides of hills; attaining a large size in favorable situations. The timber has the lowest specific gravity of all our Canadian kinds of wood, and is remarkable for its durability: on these accounts it is in great request here for fencing: thus

exposed to all weathers, the timber will last half a century. Builders use large logs of this wood for cellar beams, being little acted on by the moisture of such situations. It likewise rives freely, and is much used here for shingles and laths. The Indian uses it for the ribs of his frail bark canoe.

### *TAXUS.—L.*

Taxus Canadensis—Wm. Taxus baccata minor—Mx.
Canadian Yew. *Buis.* Dwarf Hemlock.

"Leaves linear, two-ranked, margin revolute."

A recumbent evergreen shrub, rising obliquely to the height of four or five feet. In foliage it resembles spruce, from which circumstance the Americans call it Dwarf Hemlock: a reason for the Canadian name of *Buis* is not apparent; it certainly has little resemblance to box. The berry is quite similar to the fruit of the European species; and there is a variety with berries perfectly white, growing in the ravine between Wolfesfield and Spencerwood.—Common in shady woods and north sides of hills.

The recumbent habit of this plant and of our variety of the common juniper, may possibly be occasioned by the weight of snow lying on them, during nearly one half of the year.

## LILIACEÆ—Juss.

### *LILIUM.—L.*

Lilium Philadelphicum—W. Philadelphian Lily.

"Leaves in whorls, lance-linear. Flowers erect, bell-shaped, spreading; petals with claws."

A handsome bulbous plant, about two feet high, bearing one or two erect flowers at the summit: petals red, and marked below with dark spots. This lily resembles in some degree the common orange lily of the gardens, but is not

so strong a plant, and seldom bears more than two flowers. It grows in the upper part of the Province, and on the shores of Lake Huron.

### Lilium superbum—L. Superb Lily.

"Leaves lance-linear, three-nerved, smooth; lower ones in whorls, upper ones scattered. Flowers in a pyramidal raceme, reflexed. Petals rolled back."

A stately plant, five or six feet high, bearing a large pyramidal bunch of flowers at the summit, frequently as many as thirty on a plant. The flowers are orange-coloured with dark purple spots. This plant grows in overflown grounds in Upper Canada, and on the Island of Montreal. It is one of the most showy of our natives and merits a place in all collections of flowers.

### Lilium Canadense—L. Canadian Lily. *Lis des prairies.*

"Leaves remotely whorled, lanceolate, three-nerved. Peduncles long, terminal, mostly in threes. Corolla spreading. Raceme spreading."

This lily is about three to four feet high, and bears a loose cluster of yellow or red flowers at top, marked inside with dark spots. The petals are not rolled back, but merely bent out towards the points, by which character it may be readily distinguished from the preceding one.—It grows in the meadows about Quebec, and very generally throughout the country, on lands liable to be overflown. Although not such an elegant plant as the superb lily, it is highly ornamental in the flower border, and it improves by culture.

## *ERYTHRONIUM.—L.*

Erythronium Americanum—Sm. Yellow dogstooth Violet.

" Leaves lanceolate, spotted. Petals oblong lanceolate, obtuse at the point.

A small bulbous plant, bearing a scape six or eight inches high, terminated by one handsome nodding flower; petals yellow, beautifully veined and rolled back. Leaves generally two or three from the root, smooth and marked with numerous dark spots, which afterwards disappear. Bulb small and deeply seated in the ground,

This beautiful little plant is found in great abundance about Quebec, in moist shady situations, shewing its handsome flower among the first in spring.

## *UVULARIA.—L.*

Uvularia perfoliata—L. Perfoliate Bellwort.

" Leaves perfoliate, elliptic, obtuse. Corolla campanulate, granular, scabrous within. Anthers cuspidate."

A herbaceous perennial plant, about fifteen inches high: stem simple, forked at top; bearing a single pendulous flower from the end of one of the branches; petals pale yellow, narrow, not spreading out. Leaves closely veined and ending in a small point. Flowers in May. Grows on the side of the hill at Marchmont.

Uvularia grandiflora—Sm. Great Bellwort.

" Leaves perfoliate, oblong, acute. Petals smooth within. Anthers without awns."

This species resembles the preceding one, but the flowers are much larger and of a deeper yellow. Grows about Montreal.

Uvularia sessilifolia—L. Sessile-leaved Bellwort.

"Leaves sessile, oval-lanceolate, glaucous beneath. Petals flat, smooth within. Capsules stipitate."

A delicate perennial plant eight to ten inches high; stem simple, or forked at the summit, slender, with a few scattered leaves; flowers close bell-shaped, nodding, pale yellow. Common on dry ground about Quebec.

ASPHODELEÆ.—Juss.

*PONTEDERIA.—L.*

Pontederia cordata—L. Heart-leaved Pontederia. Pickerel Weed.

"Leaves oblong cordate. Flowers in crowded spikes."

A strong herbaceous perennial, growing in ponds and on the borders of lakes. Stalk about two feet high, bearing at the summit a close spike of blue flowers. Leaves few, four to five inches long, on a foot-stalk about one inch and a half in length. Grows abundantly round Lake St. Peter, and sparingly at the outlet of the River Etchemin.

*ALLIUM.—L.*

Allium Sibericum—L. Siberian Onion.

"Scape nearly naked, round. Leaves semicylindrical. Stamina subulate. Petals lanceolate, acute."

Leaves two, sheathing a third part up the stem, keeled. Outer leaf, four inches long above the sheath; inner one, one inch long, membranaceous. Flowers in a crowded head, light crimson; divisions of the petals broad lanceolate, and somewhat distorted at the extremity. Common on the rocky shores of the St. Lawrence near Quebec. This plant is not mentioned by writers on American botany.

Allium Canadense—L. Tree Onion.

"Scape naked, terete. Leaves linear. Head bulbiferous."

Native of the shores of Lake Ontario. This onion is esculent and cultivated.

Allium tricoccum—Ait.

"Scape naked, nearly terete. Leaves lanceolate-oblong, flat, smooth.—Umbel globose. Seeds solitary."

"Bulb large oblong. Leaves about four inches long, and an inch or more in breadth. Scape a foot high, striate. Umbel spreading. Corolla white. Capsule obtusely triangular. Cells one-seeded."—Torrey.

This plant on the authority of Pursh, grows about the River Ottawa; and, if I am rightly informed, is called by the country people, *Ail sauvage*. Esculent.

SMILACEÆ.—R. Brown.

*CONVALLARIA.—L.*

Convallaria bifolia—L. Least Solomon's Seal.

"Stem two-leaved. Leaveson short petioles, cordate oblong, very smooth on both sides. Raceme simple, terminal. Flowers tetrandrous."

A small upright plant, about six inches high, with two, and sometimes three heart-shaped leaves. Flowers small, white, deeply four-parted. Grows plentifully about Quebec, on dry ground.

Convallaria stellata—L. Star-flowered Solomon's Seal.

"Leaves numerous, alternate, oval-lanceolate, amplexicaule. Raceme simple, terminal."

A perennial plant about a foot high. Flowers small, white, deeply six-parted. Grows in moist ground; plentifully on the banks overlooking the falls of the Chaudière, and among the rocks below high-water mark, at Pointe Levi.

Convallaria trifolia—L. Three-leaved Solomon's Seal.

"Stem about three-leaved. Leaves alternate, oval-lanceolate, contracted at the base. Raceme simple, terminal, few-flowered."

A pretty little plant, four or five inches high. Raceme six to ten-flowered, followed by small red berries. Grows in moss swamps about Quebec.

Convallaria racemosa—L. Great Solomon's Seal.
*Sceau de Solomon.*

"Leaves numerous, alternate, sessile, oblong-oval, acuminate, nerved, pubescent. Flowers in a terminal racemose-panicle."

A perennial plant; stem two feet high, arched, smooth, angular. Raceme terminal, compound. Flowers small, six-parted, yellowish green. Berries red. Flowers in June. Found commonly about Quebec.

Convallaria pubescens—Willd.

"Stem nearly terete, furrowed. Leaves alternate, amplexicaul, ovate, pubescent beneath. Peduncles axillary, generally two-flowered."

A herbaceous perennial, one to two feet high; stem arched. Flowers cylindrical, yellowish green, pendulous by fine foot-stalks. Berries blue. Grows on the banks of the St. Lawrence, near Quebec.

## *DRACÆNA.—L.*

Dracæna borealis—L. Wild Lily of the Valley.

"Subcaulescent. Leaves oval-obovate, margin ciliate. Scape pubescent. Umbel corymbed, sometimes proliferous. Pedicels naked, nodding."

A perennial plant, with three or four large radical leaves, six inches long, and two inches broad, ending in an abrupt sharp point. Stem a foot or more in height, angular, bearing four or six flowers towards the extremity, disposed by twos on upright foot-stalks, sometimes having the appearance of an umbel. Flowers yellow, large, divided nearly to the base. Berries a beautiful blue. This is a handsome plant, and grows in moist woods about Quebec.

There appears to be a strong disposition among late authors to remove this plant from the genus Dracæna.—Torrey has put it in Convallaria, and Pursh among his Smilacinæ.

### *STREPTOPUS.—Mx.*

Streptopus roseus--Mx. Rose Bellwort.

"Smooth and shining. Leaves amplexicaul, serrulate-ciliate. Anthers short, two-horned."

A handsome perennial plant, about a foot and a half high, with a forked stem. Flowers axillary, single, pendulous on a short slender stalk, bell-shaped, rose-coloured. Grows on the banks of the St. Lawrence near Quebec. It deserves a place in the flower border.

Streptopus distortus—Mx. Heart-leaved Bellwort.

"Smooth. Leaves amplexicaule, smooth on the margin. Pedicels distorted, and geniculated in the middle."

A perennial plant, resembling the preceding. Stem two feet high, with several forked branches. Leaves two to four inches long, ovate-lanceolate, many-nerved, acuminate. Flowers solitary, on slender foot-stalks an inch and a half long. Flowers greenish yellow. Grows about the river Ottawa. I have not observed it yet in this neighbourhood.

### *SMILAX.—L.*

Smilax peduncularis—Willd. Jacob's Ladder.

"Stem terete, climbing, or arched. Leaves round-ovate, cordate, acuminate, about nine-nerved. Umbels long peduncled."

A herbaceous perennial. Stem three to five feet high, branched. Leaves ending abruptly in a sharp stiff point, irregularly placed, on short foot-stalks, with tendrils at the axils. Flowers in a globular radiated head, about two inches diameter, on a stalk six inches long, issuing from the joints of the stem. Fruit, small black berries in a crowded cluster. This plant has a very unpleasant scent when bruised. It grows in moist meadows about Quebec, and throughout Canada.

### *GYROMIA.—Nuttall.*

Gyromia virginica—Nutt. Medeola virginica—L.
Indian Cucumber.

Herbaceous. Stem simple, smooth, furrowed, woolly at the joints, about eighteen inches high. Leaves in two whorls, one at the summit, of three or four leaves, the other lower down, of six or seven leaves, sessile; the upper ones lance-ovate, the others lance-oval, thin, smooth, entire, paler beneath. Flowers, three or four at the summit, yellow, on short foot-stalks, pendulous between the leaves. Berries dark blue. Grows in moist woods, near the falls of the Chaudière, and frequently throughout the province. The root is succulent, has the flavour of cucumbers, and is said to be eaten by the Indians.

### *TRILLIUM.—L.*

Trillium pictum—Pursh. Painted Herb truelove.

"Peduncle somewhat erect. Petals oval-lanceolate, acute, recurved, nearly as long as the narrow calyx. Leaves ovate, acuminate, rounded at the base, abruptly contracted into a short petiole."

A pretty herbaceous perennial. Stem simple, about eight inches high, with three leaves at the summit.—Flower on a short stalk from the centre of the three leaves. Petals narrow, white, with a transverse crimson bar near the base. Berry, bright red. Grows plentifully about Quebec in dry woods.

Trillium erectum—L. Purple Herb truelove.

"Peduncle inclined. Flower nodding. Petals ovate acuminate, flat, spreading, broader and a little longer than the calyx. Leaves broad-rhomboid, acuminate, sessile."

A herbaceous perennial plant, a foot high, stem simple. Flowers large and showy, generally of a brown purple

colour, but sometimes red, pink, yellow, and even white. Berries purple. This is an ornamental plant, frequently found in gardens: but it will not bear handling on account of a disagreeable dog-like scent. Grows very commonly in this neighbourhood, especially on the steep banks of the St. Lawrence.

Trillium grandiflorum—Salisb. Large-flowered Trillium.

"Peduncle inclined. Flower somewhat erect. Petals spathulate-lanceolate, connivent at the base, much longer than the calyx. Leaves broadly rhomboid-ovate."

A beautiful perennial herbaceous plant, having much the habit of the preceding one. Petals large, white, changing gradually to red. Berries dark purple. Grows on Montreal Mountain. I have not observed it in this neighbourhood. This showy plant ought to be more generally introduced into flower gardens. The whole of this genus is now in great request in Britain.

## IRIDEÆ.—Ventenat.

### *IRIS.—L.*

Iris versicolor—L. Various-coloured Iris. Common Flag.

"Flowers beardless. Stem terete, more or less flexuose. Germen somewhat triangular. Leaves ensiform."

A herbaceous perennial plant, about two feet high.—Flowers three or four at the summit. Petals purple and blue, inner ones paler. Leaves about three quarters of an inch wide, and generally equaling the stem in height. This is the common Iris of our brooks and swamps.

Iris tridentata—Walt. Three-toothed Iris.

"Beardless. Stem terete, longer than the leaves. Leaves ensiforme. Rudiments of the interior petals three-toothed, the centre tooth acuminate. Capsule three-sided."

Stem about two feet high, bent at top. Leaves sheathing, double, smooth and shining within, two-edged towards the point. Petals three, blue, marked with purple veins. Grows on the Island of Anticosti.

Iris Siberica—L. Siberian Iris.

"Beardless. Stem hollow, terete, passing the leaves. Leaves linear. Capsule short, three-sided, both ends obtuse."

Flowers blue, about three on the stem. Grows near the River Ottawa, on the authority of Pursh. I have not seen it.

Iris cuculata—Pursh, MS.

Pursh, in his visit to Anticosti in 1818, discovered a new species of Iris, which he thus named in a manuscript note. I have no specimen nor description of it.

## *SISYRINCHIUM.—L.*

Sisyrinchium anceps—Cavan. Blue-eyed Grass.

"Scape two-edged, winged, simple, nearly leafless. Spath about four-flowered, unequal, shorter than the flowers. Petals mucronate."

Plant perennial. Stem simple, about a foot high.—Leaves few, linear, half the length of the stem. Flowers deep blue, small, handsome. Common in meadows everywhere.

Sisyrinchium mucronatum—Mx.

"Scape simple, winged. Spath coloured, one of the valves extending into a long marcescent point."

Stem cespitose, about a foot high. Spath consisting of two very unequal valves, one of them about as long as the

peduncles, the other continued half an inch or more beyond the flowers, and ending in a rigid point; both of them strongly coloured, generally violet, by which character it is easily distinguished from the preceding species. Grows on the shores of Lake Huron, according to Pursh.

## CORYLIDEÆ—S. F. Gray.

### *CARPINUS.—L.*

Carpinus Americana—W. Hornbeam. Blue Beech. *Charme.*

" Leaves oblong-ovate, acuminate, unequally sawed. Scales of the ament three-parted, the middle division with a lateral tooth."

A small tree, about the size of an apple-tree; having a smooth bark like that of the beech. The wood is extremely hard and close grained, resembling boxwood in texture. Raftsmen make withes of the sappling trees to bind their timber together into rafts. It grows on the Island of Montreal and in other parts of the province; but as far as I know has not been found near Quebec.

### *OSTRYA.—Mx.*

Ostrya Virginica—W. Hophornbeam. Ironwood. Leverwood. *Bois dur.*

" Leaves ovate-oblong, subcordate, acuminate, unequally serrate. Strobiles, oblong ovate, erect."

This tree is of larger and more upright growth than the hornbeam. It has a rough scaly bark, and the stem frequently assumes a knotty irregular appearance. The wood is heavy and tough in the extreme; these properties render it very suitable for levers, axletrees and other purposes requiring great strength. The centre of the wood is extre-

mely bitter, and has been found a powerful remedy for intermittent fevers, in form of decoction.

The fruit resembles hops, whence its English name.—This tree is very common about Quebec on stony land.

### *CORYLUS.—L.*

Corylus Americana—W. Hazle. *Coudrier. Noisettier.*

" Leaves broad, heart-shaped, acuminate, doubly-sawed. Ribs strongly prominent beneath, woolly where they join the midrib. Calyx of the fruit hispid, with glandular heads at the ends of the hairs, longer than the roundish nut, limb spreading, tooth-serrate."

A shrub six to eight feet high, producing a well flavoured nut. It grows very abundantly in the upper parts of the province. I have not observed it near Quebec.

Corylus rostrata—W. Beaked Hazlenut tree. *Coudrier.*

" Leaves oblong-ovate, acuminate. Stipules lance-linear. Calyx of the fruit bell-form, two-parted. Divisions gash-toothed, lengthened out beyond the nut into a beak."

A smaller shrub than the preceding one; also producing a pleasant fruit. The foliage resembles that of the common elm. This plant may be readily distinguished from the other by the long beaked calyx covering the nut; whereas the fruit of the americana is exposed to view when ripe. Grows very commonly about Quebec in dry woods.

### *QUERCUS.—L.*

Quercus coccinea—Wm. Scarlet Oak.

" Leaves long-petioled, oblong, deeply sinuate, glabrous. Lobes divaricate, toothed acute, setaceous-mucronate. Calyx turbinate, marked with scales. Acorn short-ovate."

This oak I have not seen—it is a Canadian tree on the authority of Pursh, who says, in a MS. note, it grows on the Ottawa.

Quercus ambigua—Mx. Grey Oak.

"Leaves sinuate acute. Bays acutish. Cups somewhat saucer-shaped. Acorn turgid, egg-shaped."

The grey oak of Michaud grows about Quebec in company with the red oak, which it closely resembles; so much so that some writers will not allow them to be specifically distinct. The timber is not in request.

Quercus rubra—W. Red Oak. *Chêne rouge.*

"Leaves long petioled, oblong, glabrous, obtusely-sinuate. Lobes acutish, toothed, ending by a bristle. Calyx saucer-form, smoothish. Acorn subovate, turgid."

The red oak is a very ornamental tree for parks and kept grounds, growing to a large size on good land. Little, however, can be said in favour of the timber; being but of indifferent quality; it is only used for staves for sugar hogsheads, and other dry casks; large quantities of which are annually exported to the West Indies, and rate at about two thirds the price of white oak staves of the same size.

Quercus macrocarpa—Mx. Overcup Oak.

"Leaves downy beneath, deeply lyrate-sinuate-lobed. Lobes obtuse, repand, upper ones dilated. Calyx bowl-form. Upper scales setose. Acorn turgid, ovate, large."

A large tree producing timber of excellent quality.—Pursh had a Canadian specimen of this tree; but it does not appear where he found it,—very probably in the upper province.

Quercus lyrata—W. White water Oak.

"Leaves with very short petioles, smooth, lyrate-sinuate, widened at the top. Lobes oblong, acute, upper ones truncate-angled. Cup depressed globular, the scales ending in short firm points. Acorn globular, almost covered by the cup."

This oak grows on the borders of the St. Lawrence in

the upper parts of the province; but it does not attain a large size.—The timber is said to be of good quality.

Quercus alba—W. White Oak. *Chêne blanc.*

"Leaves oblong, sinuate-pinnatifid, pubescent beneath. Lobes sublinear, obtuse, entire, narrowed at their bases. Fruit peduncled. Calyx somewhat bowl-formed, tubercled, flattened at the base Acorn ovate."

White oak grows in the southern and western parts of this province, and abundantly in Upper Canada. In rich alluvial soils it attains very large dimensions, sometimes measuring five feet in diameter at the base. Great quantities of squared timber and of staves made of this species of oak, are annually floated down the St. Lawrence, and shipped to Britain, Ireland, and the West Indias. The timber is also extensively used here in ship-building.

Quercus bicolor?—W. Swamp white Oak.

"Leaves long petiole, oblong-ovate, white downy beneath, coarsely-toothed, entire at the base. Teeth unequal, spreading, acutish, callous at the point. Fruit in pairs, long peduncled, the peduncle terminating in a bristle. Calyx hemispheric. Acorn oblong-ovate."

A large tree growing sparingly in this province. Leaves resembling those of the beech. Acorn sweet. Native of the island of Montreal.

*FAGUS.—L.*

Fagus sylvatica—W. White Beech. *Hêtre blanc.*

"Leaves ovate, acuminate, slightly toothed, ciliate, acute at the base, Nut ovate, three-sided, obtuse, mucronate."

A beautiful tree, with a smooth gray bark, growing usually on stony land, and in favorable situations, attaining a large size. The timber is not much used in this country, except by plane-makers. It is excellent fuel, being only inferior to sugar-maple and black birch in that respect.—

This is an European tree, and said to be the only one indigenous to Canada. It is found abundantly about Quebec.

Fagus ferruginea—W. Red beech. *Hêtre rouge*

"Leaves ovate-oblong, acuminate, pubescent beneath, coarsely toothed, at the base obtuse-subcordate-oblique. Nuts ovate, three-sided, very acute."

This tree very much resembles the preceding one, and is equally ornamental. The timber is of a reddish colour, whence its name, and is said to be of a superior quality; more closely resembling English beech in this respect than the other; it is therefore entitled to a preference for those purposes in which this timber is used, such as shoe-lasts, plane stocks, and turnery wares. Grows in similar situations with the former species.

*CELTIS.—L.*

Celtis occidentalis—L. Nettle tree. *Bois incommu.*

"Leaves ovate, acuminate, generally serrated, except near the base; scabrous above, rough-haired beneath. Fruit solitary."

A large tree, growing usually in alluvial soils. The timber is hard, rives freely, and resembles ash in texture: it is sometimes used by chair-makers and wheelwrights.—In Lower Canada rather scarce, but grows in company with elm, ash, and red maple, on the low shores of the Ottawa, and on the islands in Lake St. Peter.

*PLATANUS.—L.*

Platanus occidentalis—L. American Plane-tree. Buttonwood. *Cotonier.*

"Leaves five-angled, obtusely lobed, toothed. Stem and branches becoming white."

The plane, said to be the largest tree in the North

American forests, does not appear to be a native of this province; yet borders very closely upon it, as I have observed it growing naturally near Burlington, on Lake Champlain, about half a degree south of our boundary line. It is very common in Upper Canada.

This tree is ornamental, and is successfully cultivated at Montreal. I doubt not it would succeed here in the alluvial soils, which it naturally prefers.

## MYRICÆ.—Richard.

### *MYRICA.—L.*

Myrica Gale—L. Sweet Gale. Dutch Myrtle.
*Galé. Piment Royale.*

"Leaves wedge-lanceolate, obtuse, sawed at the end. Staminate aments imbricate. Scales acuminate, ciliate. Fruit in a dry head.

A bushy shrub about three feet high, of handsome appearance. The foliage is dark green above, and very fragrant. This shrub, according to Miller, has numerous good and useful qualities; for a description of which, that author may be consulted. From the number, it may not be improper to quote from him that—"The cones boiled in water, throw up a scum resembling beeswax, and gathered in sufficient quantities, would make candles. It is used to tan calf-skins. Gathered in the autumn, it dies wool yellow, and is used for that purpose both in Sweden and Wales."

The Myrica Gale appears to have long been held in esteem for its various good qualities, that of producing wax might be tried here with little trouble, as the plant is very abundant with us. This pretty shrub grows on the margins of lakes and rivers, and is found near Quebec, at Cap Rouge and on the low shores of the St. Charles.