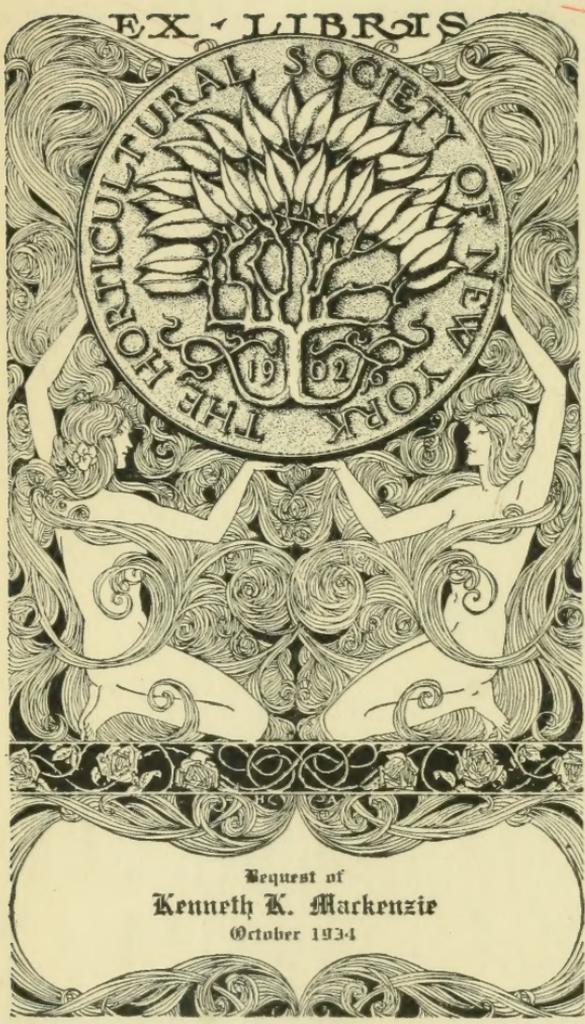




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AN

ADDRESS

ON THE

BOTANY OF THE UNITED STATES,

DELIVERED BEFORE THE

SOCIETY

FOR THE

PROMOTION OF USEFUL ARTS,

AT THE CAPITOL, IN THE CITY OF ALBANY, ON THE 9TH
DAY OF FEBRUARY, 1814.



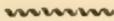
To which is added,

A CATALOGUE OF PLANTS
INDIGENOUS TO THE STATE OF NEW-YORK.



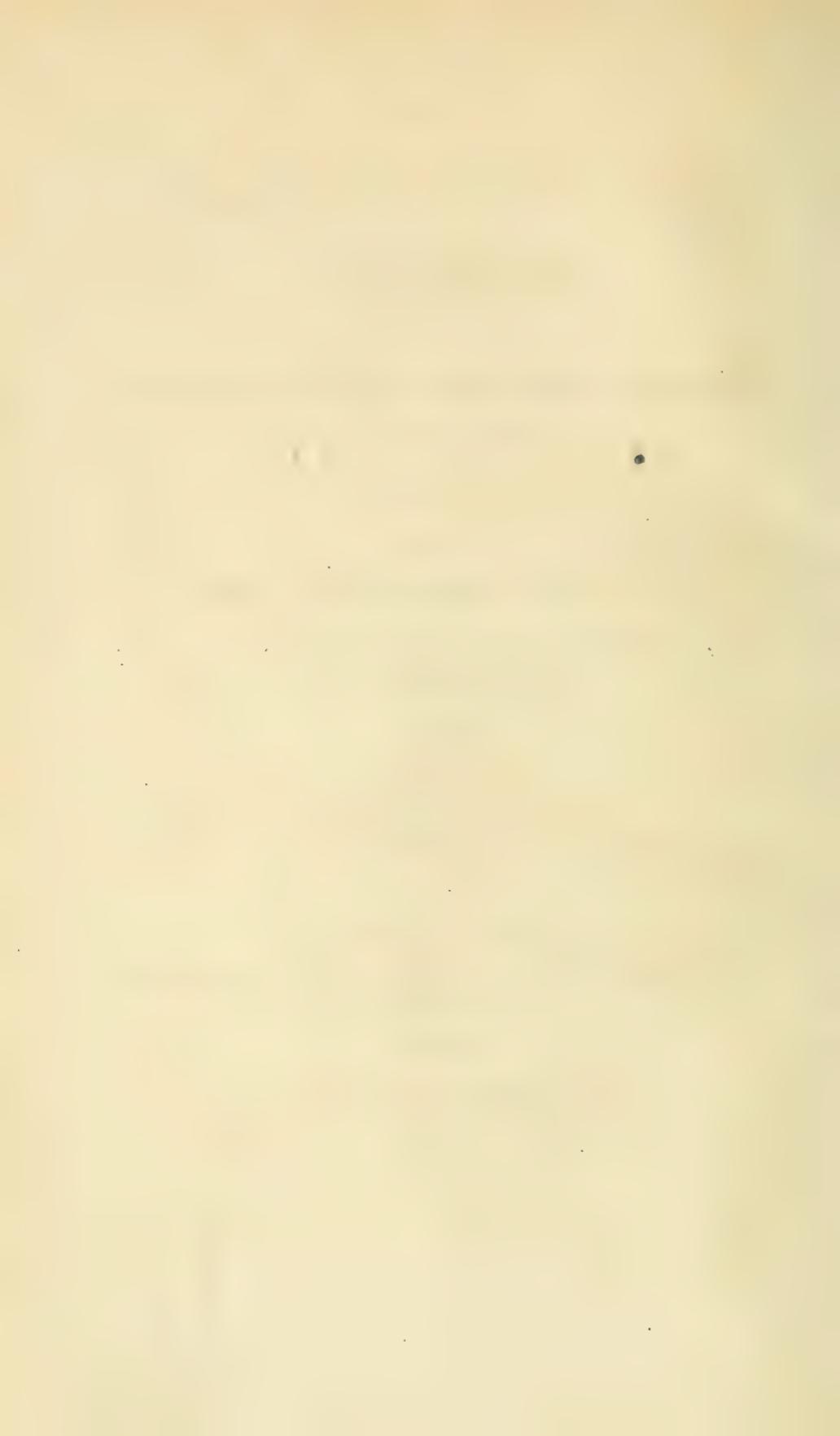
BY JACOB GREEN, A. M.

One of the Counsellors of the Society, and Member of the Linnæan
Society of Philadelphia.



Fortunatus et ille, Deos qui novit agrestes,
Panaq; Sylvanumq; senem, Nymphasque sorores.

Virg.



ON THE
BOTANY OF THE UNITED STATES.



“**I**N every country an accurate knowledge of its internal resources, forms an object of political importance. But a description of its natural productions is connected with the interest of society at large, and eminently calculated to illustrate those indications of goodness and intelligence, which may be traced in every form of matter, from a particle of earth to the wonderful construction of an organized and sentient being.”*

These sentiments should be felt by every well wisher of science; and every enterprising and well disposed citizen, will be willing to contribute, as far as he is able, to the information here contemplated. Under this conviction, I have determined to address you this evening ON THE BOTANY OF THE UNITED STATES. A subject which, considering our peculiar and important advantages for its cultivation, has been, I conceive, much neglected. I propose, first of all, to call your attention to some of the advantages which we possess for the study and improvement of Botany.

A country can scarcely be said to exist till the period of its civilization. The savage, with a mind uninformed by knowledge, and affected by no desires or emotions, but those of immediate preservation and enjoyment, passes, with little regard, the most important productions of nature. Even those which by their novelty or usefulness have engaged his attention to-day, will often be forgotten in the hurry of to-morrow. Of Botany, he knows nothing. He has a slight and imperfect acquaintance only with a few medicinal and

* Edinburgh Review.

nutritive plants, and of these indeed, he has scarcely more knowledge than that which is possessed by his wild associates, the beasts of the forest. Nature to him is a blank—All her endless varieties exist in vain. It is civilization alone which opens the stores and discloses the mysteries of creation, and enables man to appropriate to himself whatever is necessary, useful and ornamental. Till the discovery of America, therefore, by civilized Europe, the advantages of our country for the study of Natural history in general, and of Botany in particular, could not be appreciated. These advantages, I have affirmed, are peculiar and important.—They are so, because in a new country all vegetation, being in its original state, the Botanist is not perplexed in his investigations and discoveries, by those changes in the qualities and the appearance of plants, which the culture and the innovations of art always occasion. Add to this, the important circumstance, that the greater portion of our country is placed in that happy temperature of climate, where vegetation is neither wholly checked by the severity of northern blasts, nor its sources dried up by the too ardent rays of the sun. It is true indeed that hybridous productions are every where to be found,* and that a doubt may be suggested whether all the *species plantarum* are not the effect of changes produced by time; and that the *genera* alone were the immediate productions of the Creator. Be this as it may, it is still certain, that a newly discovered country affords far less varieties of this kind, than are found in regions where the improvements of cultivation have been introduced.

The moisture of the ground and the state of the atmosphere is not so much varied in America by a difference in latitude as in the countries of the old world. From this cause probably we witness that general and remarkable abundance of herbs, shrubs and trees which distinguish the different parts of this continent. There is certainly a lux-

* See Wildenow's Principles of Botany—and also a Dissertation on the Sexes of Plants by Linnæus.

uriance in the vegetation of North and South America which is unequalled by any other portion of the globe. And as one extremity of the United States is influenced by the severity of polar cold and the other powerfully affected by equatorial heat, while the far greater part, as already remarked, is found under temperate latitudes, we should expect what we know to be the fact, that the variety of our plants would be peculiarly great. But that we may the more clearly discover the advantages enjoyed in the United States for the study and improvement of Botany, allow me to present you with a sketch, a little more distinct, of the face of the country, and of its soil and climate; with a cursory notice of some of the plants already known.

That vast chain of mountains which extends in a north and south direction, across the United States, is the most striking feature of the country. This great ridge is intersected by many others, which, though *comparatively* small, are, when separately taken, by no means inconsiderable.—These mountains are generally of the *primitive* formation.

The rivers which descend from these mountains, are another striking characteristic. The St. Lawrence, the Hudson, the Susquehanna, Ohio, and Mississippi; whether we consider the length of their course, or the quantity of their water, may vie with any in the old world.

Our lakes are no less conspicuous and peculiar than our rivers and mountains. Huron and Superior, Ontario and Erie, are without rivals, and almost without resemblance, in any other part of the globe.

Now it is to be remembered that the banks of rivers, the bases of mountains, and the margin of lakes, are always sought after by the Botanist, as particularly favorable to his researches.

The soil at the base of our mountains towards the Atlantic, is generally composed of a rich mould, from two to four feet in depth. Nearer the ocean a clay soil, mixed with loam seems to predominate.*

* Rush's Medical Enquiries and Observations—also Proud's History of Pennsylvania.

That portion of land, which forms the soil of most of the states included between the sea and the ridge of hills which extends westerly from the southern part of the state of New-York, round the rivers Patapsco and James, to the Roanok in South-Carolina, is generally loose in its texture and rich in its composition. It was perhaps formed later than most of the other country, being in many places manifestly alluvial, from the surrounding heights. This region of ground is intersected by numerous streams of water, on the banks of which a multitude of herbs and shrubs are found, that were thought to grow only in the upland country. In other parts of this tract, plants are seen which were supposed natives only of the southern states. Thus in the lower parts of New-Jersey, *Euphorbia Ipecacuanha* has lately been discovered.

My purpose does not require a particular description of the nature of the soil in every portion of the country. It is sufficient to state that it is generally fertile.

Take now, in connexion with the statement just made, an extract from Wildenow's Principles of Botany and Vegetable Physiology. "We find (says he) that mountainous countries are richer in plants than flat countries, and that in primitive mountains the number of plants exceeds that of the floetz mountains. A country of primitive rocks has plants, which other mountainous countries do not possess. In all plains of the same latitude, however far they may extend, the same plants always occur; only with some little varieties dependant on difference of soil. In primitive rocks, and at their foot, we again meet with all the plants of flat countries. Whenever primitive rocks surround a flat country, we find all the plants of this at their root, and even at their summits; but after ascending, and descending on their opposite side, we find a different vegetation, which again extends as far as the next mountainous chain. Now, who will doubt that all the plants of flat countries which were found at a later period, came from the high mountains; and that the primitive mountains of our globe, were the chief sources, as it were, of

the floras of the different countries. Hence America is so full of plants, because from the North Pole to the South, high mountaineous chains, with numberless intermediate branches, intersect it. Hence Canada produces different plants from Pennsylvania, this again from Virginia, and this again produces different from Carolina. Hence the North-West coast of North America produces plants which totally differ from those of the North-East coast.”*

The influence of mountains, lakes and extensive forests, on the climate of a country, is well ascertained ; and since we are peculiar in all these respects, our climate will of course be peculiar also. But it is impracticable to give a description of all the peculiarities of our climate, produced by local circumstances. The general prevalence of cold, however must not be unnoticed. Its power on the Western continent is not confined by the limits of the frigid, or the temperate zone. It even mitigates, by its influence, the excessive heat of the torrid zone. In the same parallels of latitude, on the Eastern continent, winter is scarcely felt, while in America its rigor is extreme. On the contrary, the sultry plains of Asia, and the burning sands of the African desert, have no counterparts in America. Our summer months indeed are frequently warm,† but their warmth, like the cold of winter, is not lasting.‡ This influence of cold on the American continent, with the frequency and violence of our thunder storms, and the sudden change of air after them, may be the causes why we abound more in biennial and perennial plants, than any other part of the globe.

It is at least the general opinion,§ that the weather of the United States is more changeable, and less severe, than formerly ; occasioned by the diminution of forests, the draining of swamps, and the improvements of agriculture. If the

* Willdenow's Botany, &c. page 382—the English translation.

† In July 1812, lat. 42 1-2, Far. Thermometer stood at 96°.

‡ See some interesting notices on this subject in vol. 2d of Robertson's History of America, and Pinkerton's Geog.

§ I am well informed that the late Dr. Rittenhouse (a high authority certainly) was decidedly opposed to this opinion.

fact be so, it will have at least a gradual influence on the vegetation of the country.*

As the plants of this country, which are generally known, may be found in catalogues formed on purpose to embrace them, I shall notice them but slightly and imperfectly, in mentioning some vegetable productions for the illustration of the point before us.

The forest trees in North America are almost beyond number. Those which are already arranged and classified, amount to more than one hundred and fifty species, while in all Europe, botanists reckon but forty.† The Chesnut, the Walnut, the Hickory and Gum, here grow to an enormous bulk, and are nearly of every species. The Elm, the Poplar, the Beech, the Maple and the mountain Ash, are very common; and both for size and beauty are no where excelled. Many varieties of the Oak are here profusely planted by the hand of nature. Our sandy tracts, unlike the wastes of Zaara or Arabia, are quite productive. Here flourishes the Pine in all its varieties, the Hemlock, Spruce and Juniper, the Cedar, the Fir, and a species of the Larch.

Among the smaller plants may be found the Geranium, Ceanthus, *Gulthæria procumbens*, *Monarda*, *Cunilla* and *Solidago Odoria*, most of which are frequently substituted for tea. The *Lobelia cardinalis*, the Aster, *Syringa*, and many beautiful species of the *Lonicera* or Honeysuckle, which spread their flowery garlands from tree to tree.—The *Phleum*, *Avena Elatior*, *Myosotis*, *Sinosurus*, *Aira*, *Briza*, *Draba*, and the far famed *Agrostis*—The *Galium*, the *Sanguisorba*, the *Quercitron Oak*, the *Sophora*, and the *Rhus Toxicodendron*, may be mentioned as some of our vegetable dyes.

* The number of swamps in the United States, and which frequently occupy a large and valuable extent of country, might easily be converted into productive soil, by strewing lime over them—The putrid effluvia which they exhale is destroyed by this process, and the decaying vegetable matter, is reduced to a solid fertile mould. Linnæus first suggested this plan, and in England many of the fens and bogs are made to yield abundantly. The practice is the *liming of swamps*.

† Michaux—*Med. Repos.*

In the Southern States we find the lofty Palmetto, the Papaw Fig, the great Magnolia, and the Mangrove tree, the only shrubby plant that can flourish in salt water.

Mr. Pinkerton, when speaking of the Botany of this country, observes perhaps with more elegance than correctness, that "the glories of the American Flora are principally confined to Virginia and the Southern States. It is here that the unfading verdure of the wide savannas, the solemn magnificence of primeval forests, and the wild luxuriance of the steaming swamps, offer to the astonished admiration of the Botanist, every thing that by colour, by fragrance, or by form, can delight the senses or fix the attention." In this part of the country on the level of plains by the sides of the rivers, grow "the Magnolia glauca or Beaver tree, American Olive, and Gordonia Lasianthus, silvered over with fragrant blossoms, with numerous species of Azalias, Kalmias, Rhododendrons, arranged by the hand of nature into thickets and shrubberies, entwined and overarched by the crimson Granadillas and the fantastic Clitoria, here display their inimitable beauties in full perfection. The sides of the pools and the shallow splashes, are adorned by the bright cœrulian flowers of the Axia, the golden blossoms of the Canna Lutea or the rosy tufts of the Hydrangia, while the edges of the groves and the dubious boundaries of the savannas, rising imperceptibly towards the forests, are fringed by innumerable gay varieties of the Phlox, by the shrinking Sensitive plant, the irritable Dionæa, the glowing Amarillis Atamasco and the impenetrable ranks of the Royal Palmetto.

The Botanist will find that many of the plants mentioned by this florid writer, are met with in most of the other states.

Our mountainous ridges and our sea coast, are very prolific in Cryptogamic vegetables. The Equisinum, the Os-munda, Polypodium, Adiantum, Onoclea and Bryum, are some of the ferns and mosses. The Lichen, Tremella, with many species of Jungermania and Marchantia, are the sea weeds or Algæ, and the Boletus, Clavaria, and Lycoperdon, are the Mushrooms or Fungi.

But in addition to advantages which are peculiarly our own, we have many in common with Europe. The affinity, in some particulars of our climates, to those of Europe, gives us most of their productions. It is owing, indeed, to this circumstance, and to the easy and continual intercourse between the two continents, that it is sometimes difficult to distinguish those plants, which are indigenous to our soil, from those which are only naturalized, and which grow spontaneously after their adoption. The fact is worth observation, that some vegetables grow with more luxuriance, and arrive at a greater apparent perfection, when removed to a soil and climate, differing considerably from that in which they were formed in their native state. Thus the potatoe (*Solanum tuberosum*) in the year 1565, was first introduced from this country into Ireland, and thence, by a fortunate shipwreck, into Lancashire in England, in both of which places it thrives better than in America.* If the agriculturist would take advantage of such facts, many articles which at present are imported might probably be made staple commodities.

Having now pointed your attention to some of the peculiar advantages which we possess for botanical enquiries and improvements, and noticed a little, the variety and abundance of our vegetable productions, the remainder of this address will be employed in remarks, more appropriate to this occasion: on a number of plants in our country, which claim particular attention from the agriculturist, the manufacturer, the artist, and the physician. And you will please to remember that as practical utility, more than recondite science, is the leading object of our society, I ought not to hesitate to throw out a number of observations, and to indulge in some diffuseness, which might otherwise be improper.

As there are are many vegetable productions, which seem

* Those who wish to investigate this subject will find much information in the Medical Repository, and in Dr. Muhlenberg's communication to the American Philosophical Society.

naturally adapted to our country, and which have as yet received but little attention, the labour of the farmer would certainly be employed to the best advantage in the cultivation of them. Of these I shall notice a few.

The *Sinapis* or Mustard is a plant, which might yield no trifling profit to the American cultivator. Small clusters of it are seen growing in our fields and gardens; but whether it is a native of the country, or merely the fruit of chance, I am not able to determine. In some catalogues, however, it is marked as an exotic; but our climate is congenial to its habit, and almost every soil is adapted to its growth. A gentleman from Orange county, in this state, has informed me, that he collected from half an acre of but tolerable land, fourteen bushels of the seed, which he believed equal in quality to that of the *Sinapis Arvensis*, commonly known by the name of Durham mustard. There are many species of this herb, but it would be well for the cultivator to confine his attention to the one just mentioned, the seed of which is more abundant and of a better quality than in the other kinds. The high price given for imported mustard, and the facility with which it can be raised, induce a belief that farmers generally might find their account in making it an article of culture and traffic.

The curious and beautiful Candle Berry Myrtle (*Myrica Cærifera*) is very abundant in many parts of the United States. The wax which this tree yields would amply compensate the trouble of obtaining it. In Maryland, on the shores of the Chesapeake, and near most of the streams which flow into that bay, it is found in large quantities. It is also scattered over this state growing in a wet soil, and very rarely exceeding five or six feet in height. The plant, however, is not confined to marshy grounds. I have seen it on upland in Connecticut, rising to the height of 10 or 12 feet. This species indeed is rarely seen, and the berries are not so abundant in this as in the other kinds.* In Louisiana there

* I rather think the Connecticut Myrtle wax tree is only a variety of the species which is found in a wet soil.

is another species of this tree as large as the Cherry, bearing pointed leaves* (*Myrica Cærifera Angustifolia*); those of the other being broader and more obtuse (*Myrica Cærifera Latifolia*.)† In France the Myrtle is cultivated for its wax,‡ which is prepared by simply boiling the berries in water; the wax rising to the top of the vessel. It is apt to be of a pale green colour, which is not reckoned handsome. This however may probably be remedied by throwing some alkali into the boiling water, which will convert the wax into a deep green. The experiment indeed I have not attempted, but there can be no doubt of its success. By chemical agents it is probable that almost any colour may be given to this wax. From four pounds of the berries, one pound of wax is obtained, superior in quality, and applicable to all the purposes of bee's wax. Candles made of it afford a clear white flame; and if burned newly made, they emit an agreeable, and it is said a salubrious odour.—Should the Myrtle wax excite proper attention it might be highly advantageous to medicine as well as to the arts.§

The Papaver or Poppy¶ for the variety of its species and the richness of its colours is not exceeded by any of the garden flowers. The petals both of the single and double kind are ornamented with every shade of crimson, yellow and purple; and hence we find it prized in this country more for its beauty than its inherent virtues. It begins however to receive some attention for its medicinal qualities in many parts of the country—In our neighborhood, at

* Medical Repos. vol. 12, p. 191.

† Two varieties of this tree are found at the Cape of Good Hope. Barrow's Tour in Africa, p. 18, Am. ed.

‡ Medical Repos. vol. 12, p. 192.

§ For the medicinal qualities of the Myrtle wax, see Barton's Collections, part 2, p. 4—and for experiments on its analysis, Dr. Bostick's Memoir in Nicholson's Journal, March, 1803—and for the mode of propagating the tree and manufacturing the wax, C. L. Cadet's Account, Nicholson's Jour. vol. 4th.

¶ This article might perhaps with more propriety be inserted in the list of medical plants, but as an important agricultural object I have thought proper to place it here.

Niskeuna and Lebanon, the Society of Shakers raise the *Papaver Somniferum*; and they have supplied this city, for a short time, with opium, some of which was little inferior in quality to that imported from the Levant or the East-Indies. Dr. Rickertson, of Dutchess county in this state, also cultivated the Poppy to advantage. From one plant he procured seven grains of opium. A particular account of his success will be found in the first volume of our Transactions.* As far north as New-Hampshire, Dr. Spalding, prepared this gum from the true Opium Poppy (*Papaver Album*) and also from the common Poppy of the garden.† These experiments are sufficient to prove the readiness with which this plant may be raised, in almost any part of the country, and the valuable addition it would make to our domestic resources will not be questioned.

Opium, which is the inspissated juice of the Poppy, is gathered from the capsules, before, or at the time they are fully ripe, by making four or five longitudinal incisions in them, from the stalk of the plant upwards—Care must be taken not to penetrate the cavity of the seed vessels.—Opium may also be obtained by pounding the dried leaves, stems and capsules, boiling them, when pulverised, in water, and then evaporating and cleansing the mixture.‡

Opium has also been extracted from the common Lettuce, (*Lactuca Sativa*) simply by evaporating the juice of the plant. Eight heads of full grown Lettuce yielded, in one instance, seven drachms of Opium. Hops also contain a large quantity of the narcotic principle, and the extract of Hops is now in use in some places as an anodyne. Indeed we abound in every species of anodyne plants, and the country physician, with a little care, might supply himself with opiates from his own garden.

* Agricultural Transactions, vol. 1st, p. 264.

† Med. Repos. vol. 13, p. 193. Archives, vol. 2, p. 177.

‡ For a particular account of this method of extracting Opium see Archives of Knowledge, vol. 2nd, page 169.

But I must observe that the Opium of the Poppy is not the only benefit which its cultivation would afford—From the seeds an oil may be extracted as salubrious and agreeable as the finest Florence oil—The quantity of this oil which is consumed, and the frequent difficulties which attend its importation, would make the extraction of it from the Poppy a lucrative employment.* I am glad to state that in Pennsylvania some acres of ground are planted with the Poppy for this purpose. As the quality of the Olive oil is much affected by the acidity or richness of the soil in which the plant grows, it would be well to notice these circumstances in the cultivation of the Papaver.† It is hardly necessary to add that the opium and the oil may both be extracted from the same plant.

Large quantities of Sugar are annually extracted from the Maple tree, (*Acer Sacharinum*) in many parts of the United States; and the subject has already received the attention of some writers.‡ I shall therefore in this place notice only the Sugar Cane, (*Sacharum Officinatum*) this was

* There have been many doubts suggested respecting the wholesome qualities of this oil—but the question that it is not deleterious is now settled—See the Abbe Rosier's experiments, quoted in *Archives*, vol. 2, p. 176.

† At Harmony, half a day's ride from Pittsburgh, (both places objects of very great interest) the settlers, use oil expressed from the poppy seed, exclusively, in lieu of olive oil for sallads, &c. It is nearly, if not quite equally good. This oil is becoming common in Europe as a substitute for olive oil. The poppy seed, may be eaten with impunity when ripe. I do not see why its use should be confined to the settlement of Harmony. The Ben, Bene, or Benni Seed common in the Carolinas, can furnish, as I am informed, oil enough to supply the United States at a cheap rate I have eaten the oil of the Ben or Behen nut in England, and I find no difference between it, and the olive oil. Why should this last be imported? But I doubt whether the Ben or Behen nut be the same with the Benni seed. I suspect this last to be the *Sesamum*; but I have never seen it. The Behen nut, *Glans unguentarius*, *Balenos murepsiki*, is the fruit of the *Gnilandina Moringa*. The oil is prepared in the Levant, in Egypt, in Syria, and in Italy, by expression. It is valuable for its purity, and its freedom from smell and taste, and for its property of remaining long without alteration or rancidity, which makes it extremely valuable in pharmaceutical preparations. *Rees' Encyclopædia*.

‡ See American Philo. Trans. for an important paper on the Maple tree—By Dr. B. Rush.

introduced into Georgia a few years since and has been found to grow there in great perfection.* The sacharine matter of the Georgia cane is quite as rich and plentiful as that from the cane of the West-Indies. It is supposed that most of the land in that state near the coast, south of Sunbury, may be converted into sugar plantations; and since it is pretty well ascertained that more cotton is raised than the manufactories of that article consume, the sugar cane might be advantageously substituted for it.† The interests of humanity, however, would not be advanced by the exchange, as they employ more slaves to make the sugar than to cultivate the cotton.

The Fiorin Grass, or *Agrostis Stolonifera*, is a native of the United States.‡ Our fellow member, Charles Whitlow, first discovered it in Sussex county, New-Jersey, and afterwards on the margin of the Genesee river—It grows also in great profusion on the island below this city.§ Dr. Mease mentions that he found it on the commons of Philadelphia. This I believe to be incorrect. It is the *Agrostis Capillaris*,¶ and not the *Stolonifera*, which is seen in that place.

The Fiorin Grass has excited much attention in this country, since the introduction of Merino Sheep; these animals being remarkably fond of it, and the grass, from its succulent qualities, being well adapted for their fodder—Indeed most cattle prefer it as food to the other grasses; and it is particularly proper for cows, as it is said to increase the quantity and to improve the quality of their milk.

The advantages in agriculture of the *Agrostis* are of no

* Medical Repos. vol. 12, p. 192.

† Dr. Mease recommends the raising of the papaver in room of the cotton.

‡ There are six species of the *Agrostis* mentioned by Dr. Muhlenberg as natives of this country, two of these are new species—the *Capillaris* is among the number but not the *Stolonifera*—See Muhlenberg's *Floræ Lancastriensis* in *American Philoso. Trans.* vol. 3, p. 160.

§ On this island is found the *Avena elatior* and in the small compass of 6 feet I have seen 6 or 8 different species of grass.

¶ Archives of Useful Knowledge, vol. 2, p. 278.

recent date. There is a species of it called *Durva*, growing in the North of India, which for a long time has been very greatly prized. Sir William Jones in his catalogue of Indian plants, when speaking of this, observes "its flowers in their perfect state are among the loveliest objects in the vegetable world, and appear through a lens like minute rubies and emeralds, in constant motion from the least breath of air—It is the sweetest and most nutritious pasture for cattle, and its usefulness, added to its beauty, induced the Hindus in their earliest ages, to believe it the mansion of a benevolent nymph. Even the Veda (or holy and immortal book) celebrates it in the following text from the Athervana.* "May *Durva* which rose from the water of life, which has a hundred roots and a hundred stems, efface a hundred of my sins and prolong my existence on earth a hundred years."†

Among the many superior qualities of the Fiorin Grass are the following—Its active principle of life, which is not destroyed by the operations of nature fatal to other grasses—It thrives equally well in a moist, a dry, and a shallow soil—It appears little affected by the influence of the sun—Hence it may be found growing near the north side of a wall—It is regardless alike of the severe cold of winter, and the intense heat of summer—Its crops are enormous and double, both crops, in one instance, amounted to nearly eight tons and a half per acre,‡ and in another ten tons were gathered.§

The propagation, culture and properties of the Fiorin Grass have been unhappily exaggerated by the lovers of new improvements; who, not satisfied with advantages which are really peculiar, attribute to this herb every fancied desideratum—Yet, after making sufficient allowances on this score, the Fiorin Grass has unquestionably many

* The fourth great division of the Veda.

† Quarterly Review, vol. 1st, p. 307.

‡ Archives of Knowledge, vol. 2, p. 273.

§ See Edinburgh Farmer's Magazine.

excellencies, which ought to give it the highest standing in this class of vegetables.

The sea weeds which are seen in such quantities along our coasts, might be turned to great account; and this portion of our territory which has been resigned to *hopeless sterility*, may thus be rendered productive.* Every rock and island near the Atlantic is covered with the *Cryptogamia Algæ*, which by calcination is converted into kelp a salt esteemed at a much higher rate than the pearl ash in its purest form.† Kelp is employed in the manufacture of glass, alum and hard soap. The only use made of the sea weed at present is for manure, which is scattered loosely over the ground, just in the state in which it is taken from the sea shore after a storm.

Barrilla which is made in the same manner as kelp, and employed for the same purposes, is procured from the *Cryptogamia Filices* or ferns, which grow not only along the coast but in the upland country. The state of New-Jersey is noted for the production of them.

Kelp and Barrilla are made by burning the plants in kilns, so that no air can approach them during their calcination.‡ It is somewhat singular that these articles have not been made the subject of commerce by the enterprising people of New-England.

The *Urtica Whitlowi*, discovered in the year 1810, by Mr. Whitlow, promises to be a better and more lucrative production than hemp or flax. Dr. Muhlenberg gave this important plant its present name in compliment to the discoverer. It is found in great abundance on the island below this city—a place perhaps more fertile in plants, than any other, of equal dimensions, in the United States.

The fact is now well established, that the culture of hemp offers a greater profit to the farmer, than if he should employ his time, his labour, and his field in any other manner

* See National Arithmetic, or Observations on the Finances of Massachusetts, chap. 5th.

† Tucker on Commerce.

‡ Chambers on Glass and Soap Making.

heretofore known—but if the *Urtica* has a finer and stronger fibre, and will produce more on a given portion of land, it will eventually supercede the hemp.

The soil best adapted to the *Urtica* is wet meadow land ; and it will thrive in ground covered with water many months in the year. It grows also to advantage in a rich, moist, upland loom. It can be raised from the seed or root, as it is a hardy perennial. The seed should be planted in the spring, and the roots in the fall months. If the fibre is wanted for the finest fabrics, the plant should be cut while in full flower ; but if only for common use, it will yield more by standing till completely ripe. After being cradled, which is the most proper way to cut it, the stalk should be suffered to lie on the ground some days, as the stinging quality which is peculiar to the growing nettle, is thus removed. The *Urtica* is rotted in the same manner as hemp, only it requires a longer time for the purpose : But it is not affected by the inclemency of the weather.

The legislature of this state at their last session incorporated a company for the manufacture of this plant, and the United States have granted a patent to Mr. Whitlow for its discovery.*

While on the subject of vegetable fibre, it is proper to mention the *Asclepias*† and the *Apocynum Cannabinum*, both of which grow very luxuriantly on the island in our neighborhood, already mentioned. The fibres of these plants are very strong and very numerous ; and may, with little trouble, be converted to many domestic purposes. For coarse cordage or family cloth it can be used almost in the state in which it is taken from the stalk. The common *Asclepias*, or Milkweed, may be employed for

* For many interesting particulars respecting the cultivation of this valuable nettle, examine a paper published by the corporation of the city of New-York, and the Baltimore Medical and Philosophical Lyceum.

† Two new species of *Asclepias* were discovered in this state last summer by Mr. Whitlow, and a patent has been taken from the office for the manufacture of the staple.

the purposes just mentioned ; but there is a newly discovered species having much smaller leaves than the other, and growing nearly in the same plenty, which will be found to answer better.* The silk or cotton taken from the pods of the *Asclepias* when ripe, has been manufactured into hats, and has also been spun into yarn of which cloth has been made, which vies with silk in lustre.†

The advantages of introducing into this country the cultivation of the Vine have been frequently and strikingly exhibited. I shall only mention that a colony of enterprising Swiss, who settled in the Indiana Territory, have planted vineyards of the Bordeaux, Madeira and other grapes ; and they have sent from their wine presses last season large quantities of claret, not inferior to that imported from France. By an advertisement in a newspaper published at Cincinnati, in the state of Ohio, it appears that a merchant of that place has a large supply of this red wine for sale ; and that a quantity of Madeira is expected from the vineyards to which I have referred.‡ §

Though not critically proper in a discussion on botany, I may be allowed the liberty of introducing in this place a few observations on some colouring vegetables. The late discovery of the *Zanthorrhiza tinctoria* in the United States promises to be extensively useful. This shrub is found on the Alleghany ridge from Virginia to Georgia, and it probably may be found on most of the upland country. The extract or even decoction of the whole plant, forms a fine yellow dye, which may be varied by saturation or dilution, from the brightest straw colour to the deepest orange. In combination with indigo or most other blues, all the different shades of green may be produced. The stain which it makes on cloth is not apt to fade or wear off, and it may

* This *Asclepias* has been sent to Dr. Muhlenberg for a name.

† In France this cotton is known by the name of Virginia silk, and coverlets, stockings and gloves are made of it.

‡ See *Columbian*, by Albany Register, July 18th, 1813.

§ A new species of cluster gooseberry grows on the Alleghany ridge, which yields a wine nearly equal to that from the grape.

also be applied without using any mordant. Specimens of cloth dyed with the Zanthorrhiza were shewn to the society last winter. This plant also possesses many medical virtues.*

Isatis Tinctoria, or Woad, is well known as a blue, and still better as the basis of black. The colouring matter is obtained from the leaves. This plant can be raised here with little trouble, and in great abundance. In the neighborhood of this city there are some fields planted with it. The Isatis, in conjunction with the Zanthorrhiza, gives us the three principal dyes in colour making.

The Galium Tinctorium is also one of our native plants. It flourishes most in places sheltered from the sun, and where the ground is rather moist. This plant so nearly resembles the Madder (*Rubia Tinctorium*) in its botanical character, as well as in its colouring properties, that some writers have given it the name of *Rubia Americana*. The Galium is employed by the inhabitants of Jura, one of the Hebrides,† as a red dye, and it is perhaps equal to the rich red of the *Rubia* itself. Upon turning over the pages of our transactions, I find that the Galium has already received your attention and patronage.‡ The true *Rubia* was raised last summer at Pittsfield by Mr. E. Watson, who will, I understand, read you in the course of the winter a paper on this article. The *Rubia* has for a long time been raised in Connecticut, but only in gardens. I understand the Shakers have also planted it.§

* See Barton's Collections, part 2, ps. 11, 12, and 13.

† Encyclopædia Britannica, article Jura.

‡ Agricultural Trans. vol. 1st, p. 367.

§ The following directions for raising Madder, may be useful, they are copied from the Emporium of Arts, vol. 4th, No. 2, p. 325.

“ This plant may be propagated either by offsets or seeds ; if the latter method is preferred, the seed should be of the true Turkish kind, which is called *lizari* in the Levant. On a light thin soil the culture cannot be carried on to any degree of profit, that soil in which the plant delights is a rich sandy loam, being

The Cochineal plant (*Cactus Cochinifer*) has been discovered in South-Carolina, where it can be cultivated to any extent. We may therefore reasonably hope that the invaluable dye extracted from the insect which gives this plant its name, and which always accompanies it, will speedily be numbered among our staple productions.†

The juice of the common Pokeberry (*Phytolacca Decandra*) has lately been added to the list of permanent vegetable dyes. Dr. Adam Seybert of Philadelphia, was the first who succeeded in fixing this colour, which can be changed from the brightest crimson to a red little inferior to scarlet. It is expected from the further discoveries which are likely

three feet or more in depth. The ground being first made smooth is divided into beds four feet wide, with alternate alleys, half as wide again as the beds; the reason of this extraordinary breadth of the alleys will appear presently. In each alley is to be a shallow channel for the convenience of irrigating the whole field, &c. that part of the alley which is not otherwise occupied may be sown with legumes.

“The Madder seed is sown broad cast in the proportion of from 25 to 30 lbs. per acre, about the end of April. In a fortnight or three weeks the young plants begin to appear, and from this time to the month of September, care must be taken to keep the ground well watered and free from weeds; if the plants are examined in autumn they will be found surrounded with small yellow offsets, at the depth of two inches; and early in September the earth from the alleys is to be dug out, and laid over the plants of madder to the heights of two or three feet, with this the first year’s operation finishes. The second year’s work begins in May, with giving the beds a thorough weeding, and care must be taken to supply them with plenty of water during the summer; in September the first crop of seed will be ripe, at which time the stems of the plants may be mown down, and the roots covered a few inches with earth taken as before out of the alleys. The weeding should take place as early as possible in the spring of the third year, and the crop, instead of being left for seed, may be cut three times during summer for green fodder, all kinds of cattle being remarkably fond of it. In October the roots are taken up, the offsets carefully separated and immediately used to form a new plantation, and the roots, after being dried, are sold, either without further preparation, or ground to a coarse powder and sprinkled with an alkaline ley. The roots lose four-fifths of their weight in drying, and the produce of an acre is about two thousand pounds weight of dry saleable madder.”

† Archives of Knowl. vol. 1st, 257.

to be made on this colour, that the Cochineal which is so expensive, may be generally dispensed with.*

The Quercitron, a species of Oak, and native of this country only, has long been esteemed for producing a yellow dye. Dr. Bancroft, who first carried it to Europe, received a patent from the English government for its introduction there, and acquired a large fortune by the enterprise. The pulverised bark was the state in which the Quercitron was imported and used—But works are now erected at Fitchburgh, in Massachusetts, for obtaining the extract of the Quercitron, by a new process; which contains the virtues of the bark in substance in a very condensed state. One pound of this extract affords as much colouring matter as fifteen or twenty pounds of the pulverised bark.†

As we abound in Cryptogamic plants, I must not pass them wholly unnoticed when speaking of dyes.‡ Both mosses and mushrooms have been made to produce, in union with other substances, beautiful colours of red and of violet hues. In Sweden they stain woollen cloth with their mosses.‡ In France the mountains of Auvergne supply a moss containing a colour little inferior to the splendid purple extracted from the Archil or Roella of the Canary Islands;§ and in the Highlands¶ of Scotland there are mosses found which yield the same beautiful tinctures. These examples ought to stimulate us to inquiries and investigations on these subjects, which probably would be rewarded with complete success.

The art of dyeing is in its second infancy; but we may hope that, like the fabled eagle of the ancients, this renewed youth will be only the precursor of a more vigorous maturity. The attention of a few scientific men to the subject would bid fair to realize the prospect. The ancients held

* See *Aurora*, October 5th, 1813.

† See *Literary and Philos. Repos.* for Nov. and Decem. 1812, p. 148.

‡ Kalm.

§ *Encyclop. Britannica*—Archil and Colour making, No. 49.

¶ *Ibid.* with Archil.

this art in the greatest estimation, and it is to be lamented that although we have increased the variety of colours, we are yet unable to give them that durability which they are known to have once possessed, and which forms their principal value. The mode of making the Tyrian dye or ancient royal purple, has been long lost. But if the cloth coloured by it could have been preserved, and what is told of it be true, the stain might have been as lasting as the story of its discovery.

The medicinal qualities of plants is an important and interesting subject of investigation, and it is surprising that the spirit of research and discovery, so remarkable in our countrymen, should not have been more operative on this subject. The flower which is now heedlessly trampled under foot, may possess virtues for the relief of many maladies, which, from our ignorance of its properties, we are unable to cure:—And when it is recollected that plants which differ widely from each other in habits of life, and in internal structure, have been found to produce the same results,* it may be confidently expected that a period will arrive when our own country will furnish us, with most of the medicines which are now imported. Already many plants which were noticed as desiderata for American cultivation, and† which twenty years ago were esteemed exotics, are now found growing in our fields and forests. The new and rapid improvements which are making in the *Materia Medica*, flatter us with a hope that Pharmacy will soon banish from her list, most of her mineral applications, those banes, too often, of the health and constitution, which like the Vampyres of Java, eventually destroy the blood, while they lull, in present security, the unsuspecting victim.

In this place I shall mention a few native medicinal plants, some of which have not been publicly noticed.

The *Aristolochia Serpentaria*, or Virginia Snake Root, to-

* Homberg produced the same principle from Cabbage as from Hemlock. Edin. Rev. No. 13.

† American Philos. Trans. vol. p. 325 to 380.

gether with many of the same species, have been long known among us as astringents and tonics. But a new plant, which may be called *Serpentaria Alba*, or white Snake Root, is much to be preferred to the others; as it possesses all their virtues in the highest degree. The farmers of New-Jersey esteem it greatly as a cure for the ague; and it abounds most in the vicinity of marshes, where the miasma which occasions this complaint prevails. But it is remarkable that a dry soil is required for its peculiar habit. The efficacy of the *Serpentaria* is said to be superior to the *Cinchona*, or Peruvian Bark in its febrifuge qualities. I cannot forbear just to notice here a witticism on this subject by Voltaire, whose reputation stands higher in matters of fancy, than in matters of fact, and who is commonly unhappy when he touches on a moral subject. He takes occasion in speaking of the Peruvian bark, to combat the idea that the bounty of Providence is apparent in providing a remedy for diseases in the neighborhoods which produce them. He observes, in his *Philosophical Dictionary*, that the Peruvian Bark is found, in one quarter of the globe, while the disease which it cures is discovered in another. But as the bark is used in many complaints, his remark is wholly irrelevant, unless he could have shewn that it was of no special benefit where discovered. Now if general and uncontradicted tradition is to be believed, the medical qualities of the *Cinchona* were first learned by observing certain animals, affected by intermittents, instinctively led to the plant itself, or to ponds of water impregnated with its juice.* Be this however as it may, we certainly find in the *Serpentaria* a new proof of the old doctrine, that the remedy is usually found on the spot which produces the disease.

The *Maculata Virginiensis*, a newly discovered plant, has been found a most efficacious remedy in epileptic affections, and for this purpose it is much employed by the Indians.

The *Maranta Arundinacea*, or Arrow Root, (called so by

* Darwin's *Botanic Garden*, P. 2, p. 60.

the Indians, who heal with its juice wounds inflicted by poisonous arrows) was formerly thought a native only of South America. But it is now discovered in the West-Indies and I believe in Georgia. It is highly valued as an antidote to animal poison. The bite of the Scolopendra or Centum Pes, which is almost as venomous as the sting of a scorpion, has often been cured by the application of the Maranta, which flourishes most where these noxious insects abound. It also effectually counteracts the fatal effects of the deadly nightshade (*Atropa Belladonna*) which is perhaps the most powerful of the vegetable venoms. Six slaves in the West Indies swallowed some spirits from a bottle which had been stopped with the leaves of the deadly nightshade.—Four of them died shortly after, by the effects of the poison. The remaining two were saved by applying liberally the juice of the *Maranta Arundinacea*. The efficacy of this plant in removing the baneful consequences of the animal and vegetable poison, seems to indicate that the malignancy of mineral poison might also be opposed by its administration. The experiment is certainly worth a trial. The juice of the young plant is the antidote. The ferenaceous qualities of the arrow root when mature, are sufficiently known.

The bark of the White Walnut, or Butternut, has been used for the cure of bites from venomous serpents;* and an extract from it, made by simple boiling, is known to be among the best cathartic medicines. The *Scutellaria*, or Skull Cap, has lately obtained much reputation as a remedy, or preventure, of canine madness. The authority on which many of the cures are believed to be real, cannot be questioned; and the frequent occurrence of the hydrophobia, during the summer months, entitle such a specific to much attention—The *Sutellaria* grows plentifully in this state, and it flowers in July and August.

The Seneka snake root (*Polygala Senega*) is found in the

* Barton's Collec. vol. 2, p. 23.

highlands between this place and Schoharie. The Indians are said to cure the bite of the Rattlesnake with this root, and they were perhaps first induced to use it, by the striking resemblance which it bears to the rattles of this dreadful animal. There is a great demand for it in medicine, and its discovery in our neighbourhood will be important.

The Delphinium *Consolida*, or common Larkspur, has been found to possess many useful qualities, and it may be used in some instances for the *Digitalis Purpuria*, or Foxglove,* a medicine in some cases indispensable; and the effects of which notwithstanding, on the vision, are equally distressing and wonderful. The imagination of the patient, also, both in his sleeping and wakeful hours, is powerfully affected by it.

The headlong precipice that thwarts *the* flight,
The trackless desert, the cold starless night,
And stern-eyed *Murder* with his knife behind,
In dread succession agonize the mind.

To relieve us from these consequences of the *Digitalis*, we have a hope in the *Delphinium*. A tincture made of the bruised seeds has been the mode of its preparation.†

The Columbo root was discovered in the western part of this state last summer, by Mr. Whitlow. Willdenow supposes it to belong to a species of the *Bryonia*. This however is doubtful. A technical name, it is known, will shortly be given to the plant. Its present appellation is from Columbo, a town in Ceylon from whence all India is supplied. It grows also in Africa,‡ and forms an important article of commerce with the Portuguese at Mozambique. Its use and importance in medicine is fully established, and it has hitherto been the subject of regret, that the irregularity attending its importation, has obliged practitioners often to exhibit it in a decayed state, owing to long keeping.

* See Medical Repos. Hex. III, vol. 2. p. 232, for a particular account of this important plant.

† See Dr. A. Blanchard's communication to the New-England Med. and Surg. Journal, vol. 2, p. 248.

‡ Duncan's Dispensatory, p. 203.

The *Actæa Spicata*, marked as peculiar to Britain in Donn's Catalogue, is found at the base of Schooley's mountain, and in many other places. The *Actæa Racemosa* and *Alba* are frequently met with. The berries of the *Actæa Spicata* are poisonous. Toads are said to resort to this plant, owing to some congenial effluvia they exhale from it. The vulgar antipathy to these animals may have arisen from this circumstance. The root of *Actæa* is the medicine.*

This short list of medicinal plants might be greatly enlarged; but neither the limits nor the design of this address permit me farther to expatiate. I understand that Mr. Frederick Pursh, the botanist, who made one of the expedition up the Missouri under the command of the unfortunate Lewis, is about publishing in London, under a liberal patronage, a full account of the valuable and extensive additions which were then made to the *Materia Medica*. Another work, comprising the discoveries since that period, is contemplated in this country. These, with Dr. Barton's Collections, will furnish us with a tolerable view of the subject.

Respecting ornamental flowers, the properties of which have not yet been developed, I shall only say, that the florist would find, in many of our wild plants, colours richer and more numerous, and fragrance more delightful, than in many which have already been introduced into the hot house and garden.

I conclude with recommending the employment of a skilful botanist to explore the unfrequented parts of our state, and particularly those portions of it considered unhealthy; as a greater number of plants, and those of the most useful kind, are found in such places, than elsewhere. Tours of this nature are by no means unfrequent, and while Americans have neglected the botanical examination of their country, foreigners have immortalised themselves by doing it. From England we have had Raleigh and Catesby, Fra-

* Donn's *Hortus Cantabrigiensis*, p. 100.

sier, Squibb, Lewis, and Walter; from Sweden, Professor Kalm, a pupil of Linnæus and collector for him; from Germany, Fursling and Pursh; France has sent us Michaux and Volney, and Prussia, Baron Humboldt and King. To these indeed many other names might be added; but among them all there is not one of our own countrymen—no one who has received our patronage or encouragement. If you are unwilling to engage a botanist for this purpose, let every member who is at all acquainted with the subject, engage to occupy himself in multiplying the number of local Floras; and we may thus, perhaps, obtain the vegetable contents of the state. Should this plan be adopted, each individual engaging should undertake to survey a district contiguous to his residence, with special and minute investigation. The nomenclature and classification of the vegetable tribes are now reduced to such a systematic form, that any discovery may be registered with the greatest ease and precision. If this method should be pursued with industry and skill, we might soon reverse, in regard to this region of our country, the position of the poet, and say

Not “many a flower is born to blush unseen,
And waste its sweetness on the desert air.”

Catalogue of Plants

INDIGENOUS TO THE

STATE OF NEW-YORK.

Communicated to the Society, February 23d, 1814.

PREFACE.

THE following Catalogue includes only the plants, which have been collected by Messrs. Le Conte, Pursh, Eddy, Whitlow, Edmonston, Beck, and myself—it might have been enlarged by the addition of some other genera and species which have been naturalized and now grow spontaneously—but I thought it would be more proper to confine the list to those which are indigenous. It will be found that but a very few of the Cryptogamous tribes are here inserted—on some future occasion it is proposed to treat of this class more at large.

Where I have been unable to find in the lists already published, an English name for the Latin Systematick name, I have supplied it. Many inaccuracies will no doubt be found in the present catalogue, but it is hoped they are such as may be easily rectified by the botanist.

JACOB GREEN.

ABBREVIATIONS.



<i>Ait.</i>	Aiton.	<i>Lmk.</i>	Lamarck.
<i>Auct.</i>	Auctores	<i>l'Her.</i>	l'Heritier.
<i>Bartr.</i>	Bartram.	<i>Lys.</i>	Lyons.
<i>Curt.</i>	Curtis.	<i>Mich.</i>	Michaux.
<i>Cav.</i>	Cavinille.	<i>Mich. f.</i>	Michaux filius.
<i>Desf.</i>	Desfontaines.	<i>Mench.</i>	Mænchausen.
<i>Don.</i>	Donn.	<i>Muhl.</i>	Muhlenberg.
<i>Ehrt.</i>	Ehrhardt.	<i>Pers.</i>	Persoon.
<i>Ed.</i>	Eddy.	<i>Sal.</i>	Salisbury.
<i>Fras.</i>	Fraser.	<i>Swz.</i>	Swartz.
<i>Fræl.</i>	Frælich	<i>Walt.</i>	Walter.
<i>Gert.</i>	Gærtner.	<i>Waug.</i>	Waugenheim.
<i>Hedw.</i>	Hedwig.	<i>Willd.</i>	Willdenow.
<i>H. P.</i>	Hortus Parisiensis.	<i>N. S.</i>	New Species.
<i>Le Con.</i>	Le Conte.	<i>Var.</i>	Variety.
<i>L.</i>	Linnaeus.		

CATALOGUE, &c.



Scientific Name.

English Name.

ACER

- 1 coccineum
- 2 dasycarpum *Ehrt.*
- 3 flavum. N. S.
- 4 montanum
- 5 negundo
- 6 rubrum
- 7 saccharinum
- 8 striatum
- 9 do. *Var.*

ACHILLÆA

millefolium

ACORUS

calamus

ACTÆA

- 1 americana *M. S.*
- 2 ——— alba.
- 3 cœrulea
- 4 racemosa
- 5 rubra
- 6 spicata

ADIANTUM

pedatum

ADONIS

autumnalis

AGARICUS

campestris

AGRIMONIA

eupatoria *Var.*

AGROSTEMMA

githago
githago segetum *Desf.* }

MAPLE

- 1 scarlet
- 2 silver leaved (white)
- 3 yellow
- 4 mountain
- 5 ash leaved (box elder)
- 6 scarlet, white, red, soft
- 7 sugar maple
- 8 striped maple }
moose-wood }

YARROW

milfoil

SWEET FLAG

common
aromatic. *calamus* }

BANE BERRY

- 1 American
- 2 white
- 3 blue
- 4 black snake root
- 5 red
- 6 common, *coral and pearl*

MAIDEN HAIR

Canadian

ADONIS

autumnal
pheasant's eye }

AGARICUS

AGRIMONY

common

ROSE CAMPION

corn cockle

AGROSTIS

- 1 decumbens
- 2 filiformis
- 3 stricta
- 4 stolonifera

AIRA

- 1 melicoides *Mich.*
- 2 obtusata *Mich.*

ALETRIS

- 1 farinosa }
 alba *Mich.* }
- 2 aurea *Mich.*

ALISMA

plantago

ALLIUM

- 1 canadense
- 2 cernuum
- 3 tricoccum

ALNUS

- 1 incana (glauca)
- 2 serrulata

ALSINE

media

AMARANTHUS

- 1 lividus
- 2 oleraceus

AMPELOPSIS

- 1 hirsuta *Lys.*
- 2 quinquefolia }
 hedera quinquefolia. *L.* }
 cissus hederacea *Pers.* }

ANAGALLIS

arvensis

ANCHUSA

- 1 canescens }
 batschia *Mich.* }
- 2 Virginica

ANDROMEDA

- 1 calyculata *Var.*
- 2 ferruginea
- 3 mariana *Var.*
- 4 paniculata *Var.*
- 5 polifolia *Var.*
- 6 salicifolia *N. S.*
- 7 strigosa *N. S.*

BENT GRASS

- 1 creeping
- 2 thread-form
- 3 upright
- 4 fiorin grass

HAIR GRASS

- 1 melic like
- 2 blunt

ALETRIS

- 1 mealy; *Devil's bit, star* }
 grass }
- 2 yellow flowered

WATER PLANTAIN

common

ONION GARLICK

- 1 wild, or American
- 2 mountain garlick
- 3 broad leaved, three seeded

ALDER

- 1 hoary leaved (glaucous)
- 2 common American

CHICKWEED

common

AMARANTH, or *Cock's comb*

- 1 lead coloured
- 2 cultivated

FALSE GRAPE, or *American joy*

- 1 hairy
- 2 five leaved wild ivy

PIMPERNEL, or *Chick-weed*

common

BUGLOSS

- 1 soft

ANDROMEDA

- 2 smooth
- 1 box leaved
- 2 ferrugineous
- 3 oval leaved
- 4 panicked
- 5 rosemary leaved
- 6 willow leaved
- 7 slender

- § racemosa
 ANDROPOGON
 1 scoparium *Mich.*
 2 virginicum.
 ANDRYALA
 sinuata
 ANEMONE
 1 dichotoma
 2 hepatica, *obtusa.*
 3 parviflora
 4 pennsylvanica
 5 quinquefolia
 6 thalictroides
 thalicttrum anemonoides }
Mich.
 7 virginiana
 ANETHUM
 fœniculum
 ANGELICA
 1 atropurpurea
 2 hirsuta triquinata
 ANTHEMIS
 cotula
 ANTHOXANTHUM
 odoratum
 ANTIRRHINUM
 1 canadense
 2 linaria vulgaris
 APOCYNUM
 1 androsæmifolium
 2 cannabinum
 3 hypericifolium
 AQUILEGIA
 canadensis
 ARABIS
 1 bulbosa
 2 canadensis }
 falcata *Mich.* }
 3 hispida
 4 lyrata
 5 spathulata
 6 thaliana
 ARALIA
 1 hispida
 2 nudicaulis
 3 racemosa
 8 cluster flowered, sweet
 scented
 BEARD GRASS
 1 broom
 2 yellow broom grass
 ANDRYALA
 crooked
 ANEMONE
 1 wolf's bane leaved
 2 hepatica, *liver wort*
 3 small flowered
 4 Pennsylvanian
 5 five leaved
 6 meadow-rue leaved
 7 Virginian
 FENNEL
 sweet
 ANGELICA
 1 purple
 2 downy
 CHAMOMILE
 stinking—*May weed*
 VERNAL GRASS
 sweet scented
 SNAP DRAGON
 1 Canadian
 2 common toad flax
 DOG'S BANE
 1 tutsan leaved
 2 Indian hemp
 3 hypericum leaved
 COLUMBINE
 scarlet or wild
 WALL CRESS, *or turkey food*
 1 tuberous
 2 Canadian or sickle pod-
 ded.
 3 hispid or Welch
 4 lyre leaved
 5 palm leaved
 6 common or mouse ear
 ARALIA
 1 bristly
 2 wild sarsaparilla
 3 berry bearing spikenard

ARBUTUS
uva ursi *Amer.*

ARCTIUM
lappa

ARENARIA
1 divaricata *Mich.*

2 lateriflora

3 rubra
canadensis *Pers.* }

4 stricta

ARETHUSA

1 bulbosa

2 nutans

3 ophioglossoides

4 pendula

5 stellata

6 verticillata

ARGOLASIA

aurea *N. S.* }

heritiera tinct. }

ARISTOLOCHIA

1 serpentaria

2 siphon

ARUM

triphyllum *Var. Purp.*

ARUNDO

epigejos

ASARUM

canadense

ASCLEPIAS

1 amœna *N. S.*

2 cinera *Walt.*

3 debilis *Mich.* }

Aff. Nivea Dill. }

4 exaltata }

acuminata }

5 grandiflorum

6 incarnata

7 longifolia

8 obtusifolia

9 puichra

10 purpurascens

11 quadrifolia

12 syriaca

13 tuberosa }

decumbens }

STRAWBERRY TREE

bearberry

BURDOCK

common

SANDWORT

1 severed

2 lateral flowered

3 red or field

4 upright

ARETHUSA

1 bulbous

2 nodding

3 adder's tongue leaved

4 pendant

5 starry

6 whorl leaved

LOOKING GLASS PLANT

shining

BIRTH WORT, *snake root*

1 Virginian

2 broad leaved

INDIAN TURNIP

three leaved

REED GRASS

small

SNAKE ROOT

white—*wild ginger*

SWALLOW WORT, *milk*

1 oval leaved [*weed*]

2 artichoke leaved

3 white

4 poke leaved

5 large flowering

6 flesh coloured

7 long leaved

8 obtuse leaved

9 hairy, river

10 purple

11 four leaved

12 common silk plant

13 pleurisy root—*butterfly*
weed

14 variegata *N. S. ?*

15 verticillata

ASCYRUM

1 amplexicaule

2 crux andreae

3 hypericoides

4 multicaule *Mich.*5 stans *Mich.*

ASPARAGUS

officinalis

ASPIDIUM

1 acrotichoides

2 ebumum

3 filix fœmina

4 marginale

5 tenue

ASPLENIUM

1 ebumum

2 melanocaulon

3 rhizophyllum

4 ruta muraria *L.*

5 trichomanes

6 trichomanoides. *Mich.*

ASTER

1 amplexicaulis

2 conyzoides

3 cordifolius

4 corymbosus

5 infirmis *Mich.**cornifolius Willd.*

6 latifolius

7 linarifolius

8 miser

9 novæ angliæ

10 novi belgii

11 paniculatus *N. S.*

12 rigidus

13 salsuginosus *N. S.*14 silphoides *N. S.*15 solidaginoides *Mich.*

16 spurius

17 undulatus

ASTRAGALUS

1 canadensis

14 variegated

15 whorl leaved

ANDREW'S CROSS

1 stem clasping

2 common

3 hypericum like

4 many stemmed

5 upright

ASPARAGUS

common

ASPIDIUM

1 —————

2 *ebony*3 *brake*4 *marginal*5 *slender*

SPLEEN WORT

1 *ebony*2 *ruff stemmed*

3 —————

4 *wall rue*5 *maiden hair*6 *five leaved*

STAR WORT

1 stem clasping

2 flea bane

3 heart leaved

4 clustered

5 *weak*6 *broad leaved*7 *savoury or toad flax leaved*8 *small flowered (white)*9 *New-England*10 *glaucous or green, New Holland*11 *panicked*12 *stiff leaved*

13 —————

14 —————

15 *solidago like, golden rod*16 *spurious*17 *waved leaved*

MILK VETCH

1 *woolly or Canadian*

- | | |
|-----------------------------|-------------------------|
| 2 carolinianus | 2 Carolina |
| ATRAGENE | ATRAGENE |
| americana Muhl. | American |
| AVENA | OAT GRASS, OATS |
| 1 pennsylvanica | 1 Pennsylvania |
| 2 spicata | 2 spiked |
| glumosa Mich. } | |
| 3 elatior | 3 tall |
| AZALEA | ROSE BAY |
| 1 canescens N. S. | 1 grey downy |
| 2 canescens marginata N. S. | 2 |
| 3 glauca | 3 glaucous leaved |
| 4 nitida N. S. | 4 shining |
| 5 nudiflora Var. | 5 naked red flowered |
| 6 microcarpa N. S. | 6 |
| 7 procera N. S. | 7 tall |
| 8 racemosa. | 8 branching |
| 9 viscosa Var. | 9 viscous |
| BARTRAMIA | BARTRAMIA |
| BARTSIA | BARTSIA |
| 1 coccinea | 1 scarlet |
| Var. lutea | yellow |
| 2 pallida | 2 pale |
| BERBERIS | BERBERRY |
| canadensis } | Canadian or common |
| vulgaris L. } | American |
| BETULA | BIRCH |
| 1 glandulosa Mich. | 1 glandulous |
| 2 lutea Mich. | 2 yellow |
| 3 nigra (rubra | 3 sweet scented, red |
| lanulosa) Mich. } | beech |
| 4 pumila | 4 dwarf hairy |
| 5 tremula | 5 quivering |
| BIDENS | MARYGOLD |
| 1 cernua | 1 nodding burr |
| 2 connata Mich. | 2 marsh |
| 3 chrysanthemoides Mich. | 3 large flowered |
| BLITUM | STRAWBERRY ELITE |
| 1 capitatum | 1 common |
| 2 virgatum | 2 slender stalked |
| BEHMERIA | BEHMERIA |
| cylindrica | cylindrical |
| BOLETUS | BOLETUS |
| tuberosus | tuberous |

BOTRYPUS
lunaroïdes *N. S.*

BRIZA
maxima

BROMUS
1 canadensis *Mich.*
2 mollis

BRACHYSTEMUM
virginicum *Mich.*
linifolium *Willd.*

BUPHTHALMUM
helianthoides *l'Her.*
helianthus lævis *L.*
heliopsis lævis *Pers.*

BUCHNERA
americana

CACTUS
opuntia

CALENDULA
officinalis

CALLA
palustris *N. S.*
Var. denticulata

CALLICARPA
americana

CALTHA
1 dentata
2 palustris

CAMPANULA
1 acuminata
2 americana
3 nitida
4 perfoliata
 amplexicaulis *Mich.*

CARDAMINE
1 hirsuta
2 pennsylvanica
3 virginica

CARDUUS
1 horridulus
2 marianus
3 pectinatus

HEMLOCK FERN
kidney leaved

QUAKING GRASS
large

BROME GRASS
1 Canadian
2 soft

BRACHYSTEMUM
 flax leaved or Virginian

OX-EYE

 smooth

BUCHNERA
American

INDIAN FIG, *Cactus*
common

POT MARYGOLD
common

CALLA
marsh
Var. notched

CALLICARPA
sage leaved

MARSH MARYGOLD
1 gaged
2 common

BELL FLOWER
1 pointed
2 American
3 shining

4 perfoliate

5 round leaved

LADY'S SMOCK
1 hairy

2 Pennsylvania water cress
3 Virginian

THISTLE
1 thorny

2 milk
3 pectinated

CAREX

- 1 crinata
- 2 hystericina
- 3 leporina
- 4 muricata
- 5 pedunculata
- 6 rostrata
- 7 vulpina

CARPINUS

- 1 americana *Willd.*
- 2 ostrya

CASSIA

- 1 chamæcrista
- 2 discolor *Don.*
- 3 fasciculata *Mich.*
- 4 marilandica
- 5 nictitans

CASTANEA

vesca. americana *Gært.*

CAULOPHYLLUM *N. S.***CEANOOTHUS**

americanus
——— *Var.*

CELASTRUS

- 1 bullatus
- 2 scandens

CELTIS

occidentalis

CENCHRUS

echinatus

CENTAUREA

- 1 benedicta
- 2 calcitrapa
- 3 cyanus
- 4 jacea

CEPHALANTHUS

occidentalis

CERASTIUM

- 1 arvense
- 2 semidecandrum
- 3 viscosum

CERCIS

canadensis

CHELIDONIUM

majus

SEG, or SEDGE

- 1 chaffy
- 2 porcupine
- 3 hare
- 4 prickly
- 5 long stalked
- 6 beaked
- 7 great fox

HORN BEAM TREE

- 1 American
- 2 hop

CASSIA

- 1 dwarf (partridge pea)
- 2 two coloured
- 3 bundled
- 4 wild senna (false acacia)
- 5 nodding

CHESNUT

common American

CAULOPHYLLUM**TEA TREE**

common New-Jersey

STAFF TREE

- 1 scarlet fruited
- 2 climbing (bitter sweet)

NETTLE TREE

common American

HEDGE HOG GRASS

rough seeded

CENTAURY

- 1 blessed thistle
- 2 star thistle
- 3 blue bottle
- 4 knap weed

BUTTON WOOD

American

CHICK WEED

- 1 corn pink, mouse ear
- 2 least
- 3 clammy

JUDAS TREE or *Red Bud*

American

CELANDINE

common, greater

CHELONE

glabra

CHENOPODIUM

- 1 album
- 2 glaucum
- 3 incanum
- 4 hybridum
- 5 maritimum

CHIRONIA

- 1 angularis
- 2 chloroides
- 3 campanulata
- 4 chronantha *N. S.*
- 5 pulchella

CHRYSANTHEMUM

leucanthemum

CICORIUM**CICUTA**

- 1 bulbifera
- 2 maculata

CIMICIFUGA

- 1 americana
- 2 serpentaria

CINNA

arundinacea

CIRCÆA

- 1 alpina
- 2 canadensis }
lutetiana }

CISTUS

canadensis

CLAYTONIA

virginica

CLAVARIA

coralloides

CLEMATIS

- 1 virginica
- 2 ——— *N. S.*

CLEOME

dodecandra

CLETHRA

- 1 alnifolia
- 2 do *Var.*

CLIMACIUM

dendroides

HUMMING BIRD TREE

white

GOOSE FOOT

- 1 common lamb's quarters
- 2 glaucous
- 3 hoary
- 4 tufted
- 5 sea

CHIRONIA

- 1 angular stemmed (American centaury)
- 2 many petal'd, chlora like
- 3 bell flowered
- 4 ———
- 5 dwarf

CHRYSANTHEMUM

ox eye daisy

SUCCORY**COW BANE**

- 1 bulb bearing
- 2 American spotted

BUG WORT

- 1 stinking
- 2 ———

CINNA

reedy

NIGHT SHADE

- 1 mountain enchanter's
- 2 common

CISTUS or ROCK ROSE

Canada

CLAYTONIA

Virginian

CLAVARIA

coral like

VIRGIN'S BOWER

- 1 Virginian
- 2 ———

BASE MUSTARD

clammy

CLETHRA

- 1 smooth alder leaved
- 2 ———

CLIMACIUM

—————

CNICUS

arvensis

COLLINSONIA

canadensis

COMPTONIA

1 albida

2 asplenifolia *l'Her.*
liquidambar asple-
nifolium *L.* }

CONIUM

maculatum

CONVALLARIA

1 bifolia

2 maialis

3 multiflora

4 polygonatum

5 pubescens

6 racemosa

7 stellata

streptopus *Mich.* }

8 trifolia

9 umbellata

CONVOLVULUS

1 arvensis

2 panduratus

3 purpureus

4 repens

5 sagitifolius *Mich.*

6 sepium

7 spithameus

CONYZA

marilandica *Mich.*erigeron camphora-
tum *L.* }

COREOPSIS

1 alternifolia

2 verticillata

CORNUS

1 alba

2 alternifolia

3 canadensis

4 circinata *l'Her.*
tomentulosa *Mich.* }

5 florida

6 paniculata

THISTLE

Canada

COLLINSONIA

common (*horse balm*)

COMPTONIA

1 whitish

2 sweet fern

HEMLOCK

common

SOLOMON'S SEAL

1 two leaved, small

2 common lily of the valley

3 many flowered

4 common

5 hairy

6 cluster flowered

7 star flowered

8 three leaved

9 umbelliferous

BIND WEED

1 small (*field corn*)2 fiddle leaved (*wild pota-
toe*)

3 great purple

4 creeping

5 arrow leaved

6 hedge (*great bearbind*)

7 dwarf

FLEA BANE

marsh

SUN FLOWER

1 alternate leaved tick seed

2 whorl leaved

DOG WOOD

1 white berry

2 alternate leaved

3 Canadian

4 hairy

5 common

6 paniculated

- | | | | |
|-----------------------------|--------------|--------------------------------------|--|
| 7 sanguinea | | 7 bloody | |
| 8 sericea <i>l'Her.</i> | } | 8 blue berried | |
| cœrulea <i>Lmk.</i> | | | |
| 9 stolonifera <i>l'Her.</i> | | 9 creeping | |
| 10 stricta <i>l'Her.</i> | | 10 upright | |
| 11 <i>N. S.</i> | | 11 | |
| CORYDALIS | | CORYDALIS | |
| 1 fungosa | | 1 spungy flowered | |
| 2 rosea | | 2 rose coloured | |
| CORYLUS | | HAZLE NUT | |
| 1 americana | | 1 American common (<i>filbert</i>) | |
| 2 avellana | | 2 European common | |
| 3 humilis | | 3 dwarf | |
| 4 rostrata | | 4 cuckold hazle | |
| 5 <i>N. S. Catskill.</i> | | 5 ————— | |
| CRATÆGUS | | HAWTHORN | |
| 1 coccinea | | 1 scarlet fruited | |
| 2 cordata <i>Ait.</i> | | 2 maple leaved | |
| 3 crus gali | | 3 cock spur | |
| 4 eliptica | | 4 oval leaved | |
| 5 flava | | 5 yellow fruited | |
| 6 glandulosa | | 6 hollow leaved | |
| 7 parvifolia | | 7 small leaved | |
| 8 punctata | } | 8 large fruited | |
| leucophleous <i>Moench.</i> | | | |
| 9 pyrifolia <i>Ait.</i> | | 9 pear leaved | |
| 10 spathulata | | 10 spatula leaved | |
| 11 viridis | | 11 green fruited | |
| CROTOLARIA | | CROTOLARIA | |
| 1 parviflora | | 1 small flowered | |
| 2 sagittalis | | 2 arrow leaved | |
| CUCUBALUS | | CAMPION | |
| stellatus | | four leaved | |
| CUNILA | | CUNILA | |
| 1 mariana | | 1 mint leaved | |
| 2 pulegioides hedeoma | } | 2 penny royal leaved | |
| pulegioides | | | |
| | <i>Pers.</i> | | |
| CUPRESSUS | | CYPRESS TREE | |
| thuyoides | | white cedar | |
| CUSCUTA | | DODDER | |
| americana | | American | |
| CYCLAMEN | | CYCLAMEN, or sow bread | |
| americanum | | American | |

CYMBIDIUM

- 1 odontorrhizon
- 2 pulchellum *Willd.* }
angustifolium }

CYNOGLOSSUM

officinale

CYPERUS

- 1 compressus
- 2 flavescens
- 3 inflexus
- 4 parviflorus
- 5 phymatodes *N. S.*
- 6 strigosus

CYPRIPIEDIUM

- 1 acaule *Ait.* }
humile *Mich.* }
- 2 candidum
- 3 parviflorum
- 4 pubescens *Mich.*
- 5 spectabile *Sal.* }
canadense *Mich.* }
album *Ait.* }
- 6 *N. S.*

DALIBARDA

- 1 fragarioides
- 2 repens

DATURA

- 1 stramonium

2 tatula

DENTARIA

- 1 diphylla
- 2 laciniata

DIAPENSIA

lapponica

DIERVILLA

- 1 americana *N. S.*
- 2 humilis
- 3 lutea
- 4 montana? *N. S.*
- 5 canadensis
- 6 *N. S.*

DIOSCOREA

- paniculata *Mich.* }
villosa *L.* }

CYMBIDIUM

- 1 large tooth rooted
- 2 beautiful tuberous

HOUND'S TONGUE

common

CYPERUS GALINGALE

- 1 flat stemmed (*sedge*)
- 2 yellow
- 3 fragrant
- 4 small flowered
- 5 tuberous
- 6 rough bristle spiked

LADY'S SLIPPER

- 1 stemless dwarf
- 2 white
- 3 small flowered
- 4 hairy American yellow
- 5 shewy tall white flowered
- 6 *N. S.*

DALIBARDA

- 1 three leaved
- 2 heart leaved

THORN APPLE

- 1 common (*Jamestown weed*)
- 2 blue

TOOTH WORT

- 1 two leaved (*coral wort*)
- 2 jagged leaved

DIAPENSIA

northern

DIERVILLA

- 1 American
- 2 dwarf
- 3 marsh
- 4 mountain
- 5 yellow flowered
- 6 *N. S.*

YAM

American

- DIPSACUS
sylvestris
- DIRCA
palustris
- DOLICHOS
2 sphærospermus }
phaseolus L. }
- DRABA
verna
- DRACÆNA
borealis
- DRACONTIUM
fœtidum
- DROSERA
1 americana Willd.
2 filiformis N. S.
3 rotundifolia
4 spathulata N. S.
- ECHIUM
1 americanum N. S.
2 vulgare
- ELYMUS
canadensis
- EPIGÆA
repens
- EPILOBIUM
1 coloratum
2 lævigatum
3 lineare }
oliganthum Mich. }
- 4 spicatum Lmk.
5 strictum
- ERIGERON
1 bellidifolium Mich. }
pulchellum Mich. }
- 2 canadense
3 heterophyllum Muhl. }
aster annuus L. }
- 4 philadelphicum }
do. purpureum }
- 5 strigosum
- ERIOCAULON
gnaphalioides Mich.
- TEASEL
wild
- LEATHER WOOD
marsh (*moose wood*)
- DOLICHOS
1 purple
2 round seeded
- WHITLOW GRASS
spring
- DRACÆNA
oval leaved
- DRAGON
skunk weed
- SUN DEW
1 American long leaved
2 hairy
3 round leaved
4 spathulated
- BUGLOSS
1 American vipers
2 common
- LIME GRASS
Canadian
- EPIGÆA
creeping (*pigeon berry*)
- WILLOW HERB
1 coloured
2 smooth
3 linear leaved
4 narrow leaved
5 upright (soft)
- ERIGERON (*flca bane*)
1 Robert's plantain
2 annual
3 various leaved
4 Philadelphian
5 bristled
- PIPE WORT
short leaved

ERIOPHORUM

- 1 angustifolium
- 2 hudsonianum
- 3 polystachion
- 4 virginicum

ERYTHRONIUM

- 1 americanum }
luteum et album }
- 2 dens canis

EUONYMUS

- atropurpureus *Ait.*

EUPATORIUM

- 1 ageratoides *Willd.*
- 2 ceanothifolium
- 3 caelestinum
- 4 coronopifolium *Willd.*
- 5 hyssopifolium
- 6 lanceolatum
- 7 maculatum
- 8 melissoides
- 9 perfoliatum
- 10 pubescens
- 11 purpureum
- 12 punctatum
- 13 rotundifolium
- 14 sessilifolium
- 15 trifoliatum
- 16 verticillatum *Muhl.* }
trifoliatum *L.* }

EUPHORBIA

- 1 ipecacuanha
- 2 maculata
- 3 polygonifolia

FAGUS

- 1 carpinifolia
- 2 ferruginea
- 3 sylvestris

FESTUCA

- clandestina

FRAGARIA

- 1 palustus
- 2 vesca
- 3 virginiana *Ehrt.*

FRASERA

- 1 verticillata

COTTON GRASS

- 1 narrow leaved
- 2 Hudson's Bay
- 3 common many headed
- 4 Virginian

DOG'S TOOTH VIOLET

- 1 American yellow and white
- 2 common

SPINDLE TREE

- purple

EUPATORIUM

- 1 nettle leaved (*hemp seed*)
- 2 ceanothus leaved
- 3 blue flowered
- 4 buck's horn leaved
- 5 hyssop leaved
- 6 spear leaved
- 7 spotted stalked
- 8 balm leaved
- 9 bonesett (*thorough wort*)
- 10 hairy
- 11 purple stalked
- 12 dotted
- 13 round leaved
- 14 sessile leaved
- 15 three leaved
- 16 whorl leaved

SPURGE

- 1 ipecacuanha
- 2 spotted
- 3 knotgrass leaved

BEECH

- 1 hornbeam leaved
- 2 rusty leaved
- 3 common

FESCUE GRASS

- hidden flowered

STRAWBERRY

- 1 marsh
- 2 common garden
- 3 wild

FRASERA

- 1 pyramid flowered

- | | |
|------------------------------|-----------------------------|
| 2 waltheri | 2 Walter's |
| FRAXINUS | ASH |
| 1 concolor | 1 red green |
| 2 discolor | 2 two coloured |
| A. americana | white |
| B. juglandifolia | walnut leaved |
| 3 platycarpa Mich. | 3 Carolinian broad fruited |
| 4 pubescens | 4 hairy |
| 5 sambucifolia Mich. | 5 black elder leaved |
| FUCUS | FUCUS |
| vesiculosus | vesiculosus |
| FUMARIA | FUMITORY |
| 1 glauca Curt. | } 1 glaucous |
| sempervirens L. | |
| corydalis sempervirens Mich. | |
| 2 formosa | 2 beautiful |
| 3 N. S. | 3 N. S. |
| GALACTIA | GALACTIA |
| ervum volubile Walt. | } smooth |
| gabella Mich. | |
| GALEGA | GOAT'S RUE |
| virginica | Virginia two coloured |
| GALIUM | LADIES' BED STRAW |
| 1 aparine | 1 common |
| 2 bermudianum | 2 Bermudian |
| 3 brachiatum | } 3 cross branched |
| circæzans Mich. | |
| 4 cuspidatum | 4 spit pointed |
| 5 pennsylvanicum Willd. | 5 Pennsylvanian |
| 6 pilosum | } 6 hairy |
| punctulosum Mich. | |
| 7 tinctorium | 7 dyer's |
| 8 trifidum | } 8 trifid |
| claytoni Mich. | |
| GAULTHERIA | GAULTHERIA |
| 1 hispidula | 1 hispia |
| 2 procumbens | 2 mountain tea winter green |
| GENTIANA | GENTIAN |
| 1 amarelloides Mich. | } 1 five leaved |
| quinqueflora L. | |
| 2 angustifolia Mich. | 2 narrow leaved |
| 3 crinita Fræl. | 3 fringe flowered |
| 4 saponaria L. | 4 soap wort |

- | | |
|---|---|
| 5 ochroleuca
saponaria <i>Mich.</i> } | 5 pale white |
| 6 linearis | 6 linear leaved |
| 7 villosa | 7 villous |
| GERANIUM | GERANIUM (<i>crane's bill</i>) |
| 1 carolinianum
Var. album
Var. incarnatum | 1 Carolina
white flowered
red flowered |
| 2 centaureum
Var. hirsutum | 2 centaury
rough |
| 3 columbinum | 3 long stalked |
| 4 maculatum | 4 spotted (<i>crowfoot</i>) |
| 5 pusillum | 5 small flowered |
| 6 robertianum | 6 herb Robert |
| GERARDIA | GIERARDIA |
| 1 erecta | 1 upright |
| 2 flava | 2 yellow |
| 3 glauca <i>Ed.</i> | 3 glaucous |
| 4 pedicularia | 4 louse wort leaved |
| 5 purpurea | 5 purple |
| 6 tenuifolia | 6 fine leaved |
| 7 villosa
heterophylla } | 7 hairy |
| GEUM | AVENS (<i>herb Bennet</i>) |
| 1 album | 1 white |
| 2 floridum | 2 flowery |
| 3 hirsutum | 3 rough hairy |
| 4 rivale | 4 water |
| 5 strictum <i>Ait.</i> | 5 upright |
| 6 virginianum | 6 Virginian |
| GLECHOMA
hederacea | GROUND IVY
common |
| GLYCINE | GLYCINE |
| 1 apios | 1 tuberous |
| 2 comosa
monoica
Var. alba
Var. cæreulea | 2 close flowered
3 pea vine
white flowered
blue flowered |
| 4 umbellata | 4 umbelled |
| GNAPHALIUM | CUDWEED (<i>mouse ear</i>) |
| 1 dioicum | 1 dioicous |
| 2 margaritaceum | 2 pearly everlasting |
| 3 plantagineum | 3 plantain leaved |
| 4 uliginosum | 4 bundled |
| GRATIOLA
virginica | HYSSOP
Virginian hedge |

HAMAMELIS		WITCH HAZEL	
virginica		common	
HEDYSARUM		HEDYSARUM	
1 canadense		1 Canadian	
2 canescens		2 rough leaved	
3 cuspidatum	} Mich.	3 sharp pointed	
bracteosum		4 spreading	
4 divergens	} Mich.	5 shrubby	
5 frutescens		6 bare	
lespedeza capitata		7 clammy	
		8 many spiked	
6 glabellum		9 naked stalked	
7 glutinosum		10 blunt leaved	
8 hirtum	} Mich.	11 Maryland	
polystachia		12 naked flowered	
9 nudicaulis		13 paniced	
10 obtusum		14 trailing	
11 marilandicum		15 nettled leaved	
12 nudiflorum		16 round leaved	
13 paniculatum		17 violet flowered	
14 prostratum	} Mich.	18 green flowered	
procumbens		19 N. S.	
15 reticulatum	} Mich.	HELENIIUM	
sessilifolium		smooth	
16 rotundifolium	} Mich.	SUN FLOWER	
canescens		1 tall	
17 violaceum	} Willd.	2 narrow leaved	
18 viridifolium		3 ten petaled	
19 ——— N. S.		4 branching	
HELENIIUM		5 leafy	
autumnale		6 gigantick	
HELIANTHUS		7 soft	
1 altissimus		8 many flowered	
2 angustifolius		HELLEBORUS	
3 decapetalus		1 bear's foot	
4 divaricatus		2 three leaved, <i>gold thread</i>	
5 frondosus		3 green	
6 giganteus		HELONIAS	
7 mollis		1 narrow leaved	
8 multiflorus			
HELLEBORUS			
1 fetidus			
2 trifoliatus			
3 viridis <i>Ait.</i>			
HELONIAS			
1 angustifolia			

- | | |
|---|--|
| 2 asphodeloides
xerophyllum <i>Mich.</i> } | 2 grass leaved |
| HEUCHERA
americana
cortusa <i>Mich.</i> } | HEUCHERA
purple flowered |
| HUBISCUS
1 manihot
2 moscheutos
3 palustis
4 riparius <i>Pers.</i> }
militaris <i>Cav.</i> }
5 virginicus <i>Walt.</i> } | HIBISCUS
1 palmated
2 poplar leaved
3 marsh
4 smooth
5 river |
| HIERACIUM
1 gronovii
2 marianum <i>Willd.</i> }
scabrum <i>Mich.</i> }
3 paniculatum
4 venosum
5 ——— <i>N. S.</i> | HAWKWEED
1 Gronovius'
2 rough
3 panicked
4 veiny leaved
5 <i>N. S.</i> |
| HIPPOPHAË
canadensis | SEA BUCKTHORN
Canada, oval leaved |
| HIPPURIS
vulgaris | MARE'S TAIL
common |
| HOLOSTEUM
succulentum | CHICKWEED
succulent |
| HOTTONIA
palustris | WATER VIOLET
marsh |
| HOUSTONIA
1 cœrulea
2 longifolia
3 purpurea | HOUSTONIA
1 blue
2 long leaved
3 red |
| HUDSONIA
ericoides | HUDSONIA
heath |
| HYDRASTIS
canadensis | YELLOW ROOT
Canada |
| HYDNUM
imbricatum | HYDRIUM
imbricated |
| HYDROPELTIS
purpurea <i>Mich.</i> | HYDROPELTIS
purple |
| HYDROPHYLLUM
1 scabrum <i>Muhl.</i>
2 virginicum | WATER LEAF
1 rough
2 Virginian |
| HYPERICUM
1 ascyroides
macrocarpon <i>Mich.</i> }
bartramicum } | JOHN'S WORT
1 large capsuled |

- | | |
|-----------------------------|---|
| 2 canadense | 2 Canadian |
| 3 elatum <i>Ait.</i> | 3 tall |
| 4 perforatum | 4 common, perforated |
| 5 procumbens | 5 procumbent |
| 6 denticulatum <i>Walt.</i> | 6 notched |
| 7 pyramidalatum | } 7 stem clasping |
| amplexicaule <i>Lmk.</i> | |
| 8 rosmarinifolium | } 8 ——— |
| <i>Lmk.</i> | |
| 9 virginicum | 9 Virginian |
| 10 ——— <i>N. S.</i> | 10 <i>N. S.</i> |
| HYPOXIS | STAR-FLOWER |
| 1 erecta | 1 upright bastard |
| 2 juncea | 2 rush leaved |
| ILEX | HOLLY |
| 1 aquifolium | 1 common |
| 2 canadensis <i>Mich.</i> | } 2 Canadian |
| prunifolia | |
| 3 opaca <i>Ait.</i> | 3 Carolinian |
| IMBRICARIA | IMBRICARIA |
| convexicaulis | convex stalked |
| IMPATIENS | BALSAM |
| 1 maculata | 1 spotted |
| 2 noli tangere | 2 touch me not |
| INULA | ELECAMPANE |
| 1 helenium | 1 common |
| 2 linearis <i>N. S.</i> | 2 linear |
| IRIS | FLAG (<i>flower de luce</i>) |
| 1 cristata | 1 crested |
| 2 versicolor | 2 many coloured |
| 3 <i>Var. Major.</i> | 3 large |
| 4 virginica | } 4 Virginian |
| versicolor <i>Auct.</i> | |
| 5 ——— <i>N. S.</i> | 5 <i>N. S.</i> |
| 6 ——— <i>N. S. LeCon.</i> | 6 <i>N. S.</i> |
| IVA | IVA (<i>bastard Jesuit's bark</i>) |
| frutescens | shrubby |
| JUGLANS | WALNUT or hickory |
| 1 alba | } 1 white heart |
| tomentosa <i>Mich.</i> | |
| 2 amara <i>Mich.</i> | 2 bitter |
| 3 compressa <i>Gert.</i> | } 3 shell bark |
| alba <i>Mich.</i> | |
| squamosa <i>Mich. f.</i> | |

- | | |
|-------------------------------|-------------------------------|
| 4 <i>Spec. microcarpa</i> | 4 common |
| 5 cinerea ———— | 5 butternut (<i>white</i>) |
| <i>cathartica Mich. f.</i> } | |
| 6 hybrida <i>N. S.</i> | 6 hybrid |
| 7 nigra | 7 black |
| 8 <i>Spec. oblonga</i> } | 8 oblong |
| <i>glabra Muhl.</i> } | 9 pignut |
| 9 porcina <i>Mich. f.</i> } | |
| 10 regia | 10 common, royal |
| JUNCUS | RUSH GRASS |
| 1 effusus | 1 soft |
| 2 bulbosus | 2 bulbous, round fruited |
| 3 marginatus | 3 marginated |
| 4 melanocarpus | 4 black fruited |
| 5 echinatus | 5 many headed |
| <i>polycephalus Mich.</i> } | |
| 6 nodosus | 6 knotty |
| 7 setaceus | 7 bristly |
| 8 squarrosus | 8 moss or goose corn |
| 9 sylvaticus | 9 wood |
| JUNIPERUS | JUNIPER or cedar |
| 1 communis | 1 common |
| <i>repens Don.</i> } | |
| 2 prostrata | 2 creeping |
| 3 virginiana | 3 red |
| KALMIA | KALMIA or laurel |
| 1 angustifolia | 1 narrow leaved |
| 2 ———— <i>Var.</i> | 2 ———— |
| 3 glauca <i>Ait.</i> | 3 glaucous |
| 4 latifolia | 4 broad leaved |
| 5 rosmarinifolia <i>N. S.</i> | 5 rosemary leaved |
| LACTUCA | LETTUCE |
| <i>elongata Muhl.</i> | narrow leaved |
| LAMIUM | NETTLE (<i>Henbit</i>) |
| 1 amplexicaule | 1 common dead |
| 2 purpureum | 2 purple |
| LAURUS | BAY TREE or laurel |
| 1 benzoin | 1 wild alsprice, fever bush |
| 2 diospyros | 2 persimmon |
| 3 sassafras | 3 sassafras |
| LECHEA | LECHEA |
| 1 major <i>Mich.</i> | 1 large |
| 2 minor <i>L.</i> | 2 small |
| 3 racemulosa <i>Mich.</i> | 3 bunch flowered |

LEDUM

- 1 latifolium
- 2 palustre
- 3 thymifolium *Lmk.*

LEONURUS

cardiaca

LESPEDEZA

- 1 capitata *Mich.*
- 2 linearis *N. S.*
- 3 polystachya *Mich.*
- 4 procumbens *Mich.*

LIATRIS

- 1 aspera
- spicata *Willd.*
- 2 macrostachya *Mich.*

3 pilosa *Ait.*

4 scanota

5 squarrosa

LICHEN

frucata

LIGUSTICUM

actæifolium

cicuta maculata *L.*

LIGUSTRUM

vulgare

LILIUM

- 1 canadense }
coccineum }
- 2 pennsylvanicum *Don.*
- 3 philadelphicum
- 4 superbum

LIMODORUM

unifolium

LINARIA

vulgaris

LINNÆA

borealis *rubra.*

LINUM

usitatissimum

LIQUIDAMBAR

styraciflua

LIRIODENDRON

tulipifera

LITHOSPERMUM

1 arvense

LEDUM

1 Labrador tea

2 marsh

3 thyme leaved

MOTHER WORT

common

LESPEDEZA

1 capitated

2 linear

3 many spiked

4 trailing

LIATRIS

1 rough

2 blue blazing star, long
guted

3 hairy

4 ragged cupped

5 rough headed

LICHEN

LOVAGE

actæa leaved

PRIVET *or Prim*

common

LILY

1 Canadian

2 Pennsylvanian

3 Philadelphian

4 superb golden martagon

LIMODORUM

one leaved

LOAD FLAX

common

LINNÆA

two flowered (northern)

FLAX

common

SWEET GUM

maple leaved

TULIP TREE

white poplar

GROMWELL

1 corn

- | | | |
|--------------------------|----------|----------------------------|
| 2 officinale | } Mich. | 2 officinal |
| latifolium | | |
| 3 virginianum | } Mich. | 3 hispid |
| onosmodium hispidum | | |
| | | |
| LOBELIA | | LOBELIA |
| 1 cardinalis | | 1 cardinal flower, scarlet |
| 2 claytonia | Mich. | 2 claytons |
| 3 inflata | | 3 inflated |
| 4 kalmii | | 4 Kalm's |
| 5 pallida | } Willd. | 5 pale |
| goodenoides | | |
| 6 puberula | | 6 hairy |
| 7 syphilitica | | 7 blue |
| LONICERA | | HONEYSUCKLE |
| 1 caprifolium bracteosum | } Mich. | 1 glaucous |
| dioica | | |
| parviflora Pers. | | |
| glauca | Fras. | |
| 2 grata | | 2 evergreen |
| 3 sempervirens | | 3 trumpet |
| 4 ciliata | | 4 fringed |
| 5 diervilla | } Desf. | 5 yellow |
| diervilla lutea | | |
| 6 N. S. | Le Con. | 6 N. S. |
| LUDWIGIA | | LUDWIGIA |
| 1 macrocarpa | } Mich. | 1 alternate leaved |
| alternifolia | | |
| 2 hirsuta | Walt. | 2 hairy |
| 3 nitida | } Mich. | 3 shining |
| isnardia palustris | | |
| LUPINUS | | LUPINE |
| perennis | | perennial |
| LYCIUM | | BOX THORN |
| carolinianum | } Mich. | samphire |
| salsum | | |
| | Bartr. | |
| LYCHNIS | | LYCHNIS |
| chalcedonica | | scarlet |
| LYCOPODIUM | | CLUB MOSS |
| 1 complanatum | | 1 arbor vitæ leaved |
| 2 dendroideum | | 2 ————— |
| 3 rupestre | | 3 rock |
| LYCOPUS | | WATER HOREHOUND |
| 1 americanus | | 1 American |
| 2 uniflorus | | 2 little |

3 virginicus
LYSIMACHIA

- 1 angustifolia *Willd.*
 2 ciliata }
 cordata }
 3 quadrifolia
 4 heterophylla
 5 hirsuta *Mich.*
 6 racemosa *Mich.* }
 stricta *Ait.* }
 bulbifera *Curt.* }
 7 thyrsoflora

MAGNOLIA

- 1 acuminata
 2 glauca *Var.*

MALAXIS

- liliifolia *Swz.* }
 Ophrys liliifolia }

MALVA

- 1 americana
 2 caroliniana
 3 rotundifolia
 4 sylvestris

MEDICAGO

- lupulina

MELAMPYRUM

- lineare }
 americanum *Mich.* }

MELILOTUS

- 1 alba
 2 vulgaris

MENISPERMUM

- 1 Canadense
 2 Virginicum

MENTHA

- 1 canadensis }
 borealis *Mich.* }
 2 gracilis
 3 piperita.
 4 pulegium

MENYANTHES

- 1 trachysperma *Mich.*

3 Virginian
LYSIMACHIA

- 1 narrow leaved
 2 ciliated, heart leaved
 3 four leaved
 4 various leaved
 5 hairy
 6 bulb bearing
 7 cluster flowered, tufted

MAGNOLIA

- 1 cucumber tree, blue flowered
 2 swamp, white bay, sweet

MALAXIS

- lily leaved

MALLOW

- 1 American
 2 Carolina, creeping
 3 round leaved
 4 common

MELICK

- black, none such

COW WHEAT

- American

MELILOT

- 1 white
 2 common

MOON SEED

- 1 Canadian
 2 Virginian

MINT

- 1 northern
 2 slender
 3 pepper
 4 pennyroyal

BUCK BEAN

- 1 pitted

- 2 trifoliata
MESPILUS
 montana *N. S.*
- MIKANIA**
 scandens *Willd.*
 Eupatorium scandens }
Auct. climbing
- MIMULUS**
 1 alatus *Ait.*
 2 ringens
- MITCHELLA**
 repens
- MITELLA**
 diphylla
- MNIUM**
 1 cuspidatum
 2 rosaceum
- MONARDA**
 1 fistulosa
 2 oblongata }
 mollis *Willd.*
 3 punctata
 4 rugosa
- MONOTROPA**
 uniflora
- MORUS**
 rubra
- MUCOR**
 1 cespitosus
 2 mucedo
- MYOSOTIS**
 1 lappula
 2 scorpioides
 3 virginica
- MYRICA**
 1 cerifera
 2 gale
 3 pennsylvanica *Muhl.*
- MYRRHIS**
 scandix
- NARTHECIUM**
 1 glutinosum *Mich.*
 2 ilvense *N. S.*
- 2 marsh *trefoil*, 3 leaved
MEDLAR
 mountain
- MIKANIA**
 climbing
- MONKEY FLOWER**
 1 winged stemmed
 2 gaping flowered
- MITCHELLA**
 creeping
- CANICLE**
 two leaved, bastard American
- MNIUM**
 1 ———
 2 ———
- MOUNTAIN MINT**
 1 Robin run-away
 2 long leaved, soft,
 3 dotted, *horse mint*
 4 wrinkled, white
- BIRD'S NEST**
 one flowered, broom rape
- MULBERRY**
 red
- MUCOR**
 1 ———
 2 ———
- SCORPION GRASS**
 1 prickly seeded
 2 marsh
 3 Virginian
- CANDLE BERRY MYRTLE**
 1 wax bearing
 2 sweet, common
 3 Pennsylvanian
- CICELY**
 sweet rooted
- NARTHECIUM**
 1 clammy
 2 ———

NEOTTIA

- 1 æstivalis
 Ophrys æstivalis }
 Mich. }
 2 cernua *Willd.* }
 O. cernua }
 3 pubescens *Willd.* }
 Satyrium repens }
 Mich. }

NEPETA

cataria

NEPHRODIUM *Mich.* }
POLYPODIUM *Auc.* }

- 1 acrostichoides *Mich.*
 2 cristatum *Mich.*
 3 filix fœmina *Mich.*
 4 marginale
 5 noveboracense
 6 tenue *Mich.*
 7 thelypteroides *Mich.*

NICOTIANA

- 1 paniculata
 2 rustica

NIGELLA

damascena

NYMPHÆA

- 1 advena *Ait.*
 2 alba
 3 lutea
 4 minima
 5 odorata *Ait.*
 6 rosea
 7 *N. S.*

NYSSA

- 1 aquatica
 biflora Mich. }
 integrifolia Ait. }
 2 villosa *Mich.* }
 triflora Wang. }

CENOTHERA

- 1 biennis
 2 fruticosa
 3 grandiflora *Ait.*
 4 longiflora
 5 muricata

NEOTTIA

- 1 summer
 2 drooping, ladies traces
 3 variegated

CATMINT, or *catnep*
common

SHIELD FERN

- 1 terminal
 2 crested
 3 female
 4 marginal
 5 New-York
 6 slender
 7 marsh

TOBACCO

- 1 panicled
 2 common

FENNEL FLOWER

common

WATER LILY

- 1 striped flowered
 2 white flowered
 3 yellow flowered
 4 small
 5 sweet scented
 6 rose like
 7 *N. S.*

TUPELO TREE

- 1 water—*sour gum*
 2 rough—*Pepperidge*

TREE PRIMROSE

- 1 common
 2 perennial
 3 large flowered
 4 long flowered
 5 prickly stalked

- 6 parviflora
7 pumila
ONOCLEA
 sensibilis
OPHIOGLOSSUM
 vulgatum
ORCHIS
 1 blephariglottis *Willd.*
 2 ciliaris
 3 clavellata
 Var. tridentata
 4 flava
 Var. virescens
 5 lacera psycodes *Willd.*
 6 psycodes *L.* }
 cristata *Mich.* }
 7 rotundifolia
 8 quinqueseta *Mich.*
 9 spectabilis
 humilis *Mich.*
ORIGANUM
 vulgare
ORNITHOGALUM
 umbellatum
OROBANCHE
 1 uniflora
 2 virginiana
ORONTIUM
 1 aquaticum
 2 angustifolium
OSMUNDA
 1 cinnamomea *Mich.*
 2 claytonia *Mich.*
 3 interrupta *Mich.*
 4 regalis
OXALIS
 1 acetosella
 2 stricta
 3 violacea

PANAX
 1 quinquefolium
 2 trifolium
PANICUM
 1 crus-galli
 2 dichotomum

6 small flowered
7 dwarf
ONOCLEA
 sensitive fern
ADDER'S TONGUE
 common
ORCHIS
 1 white
 2 orange coloured
 3 yellow
 4 ragged
 5 short spurred
 6 round leaved
 7 club spurred
 8 many lipped
 9 pale, shewy

MARJORAM
 common
STAR OF BETHLEHEM
 umbel flowered
BROOM RAPE
 1 one flowered
 2 Virginian *Cancer root*
ORONTIUM
 1 water
 2 pointed leaved
OSMUNDA
 1 woolly
 2 claytons
 3 interrupted
 4 flowering fern
WOOD SORREL
 1 common
 2 upright
 3 violet coloured

GINSENG
 1 officinal
 2 three leaved
PANIC GRASS
 1 cock's foot
 2 divided branched

- 3 hispidum
 4 latifolium
 5 pubescens
 6 sanguinale
 7 viride
PARNASSIA
 1 americana
 2 asarifolia
 3 caroliniana *Mich.*
PASTINACA
 noxia
PEDICULARIS
 1 asplenifolia *Muhl.*
 2 canadensis }
 verna }
 3 galericulata
 4 gladiata *Mich.*
PENSTEMON
 pubescens *Ait.* }
 Chelone pentstemon }
PEZIZA
 1 lentifera
 2 punctata
PHALARIS
 arundinacea
PHALLUS
 impudica
PHILADELPHUS
 odorus
PHLOX
 1 divaricata
 2 maculata
 3 paniculata
 4 suaveolens *Ait.*
 5 subulata
 6 undulata
PHRYMA
 leptostachya
PHYSALIS
 pennsylvanica
PHYTOLACCA
 decandra
PINUS
 1 alba *Ait.* }
 laxa *Ehrt.* }
 2 balsamea
- 3 hispid
 4 broad leaved
 5 soft, hairy
 6 bloody
 7 green *bottle grass*
GRASS OF PARNASSUS
 1 American
 2 kidney leaved
 3 Carolinian
PARSNEP
 poisonous
LOUSE WORT
 1 fern leaved
 2 spring
 3 ———
 4 yellow flowered
PENSTEMON
 downy, purple
PEZIZA
 1 ———
 2 dotted
CANARY GRASS
 reed
PHALLUS
 ———
MOCK ORANGE
 scented
LYCHNIDEA
 1 blue, divaricated
 2 spotted
 3 panicled
 4 white flowered
 5 mountain pink
 6 wave leaved
PHRYMA
 small flowered
WINTER CHERRY
 Pennsylvanian
POKE WEED
 common
PINE or fir tree
 1 white
 2 silver, *Balm of Gilead*

- | | | |
|--------------------------|---|-----------------------------|
| 3 canadensis | } | 3 hemlock spruce |
| Abies candensis
H. P. | | |
| 4 inops Ait. | | 4 Jersey or scrub pine |
| 5 mitis Mich. | | 5 yellow pine, short leaved |
| 6 nigra Ait. | } | 6 black spruce |
| denticulata Mich. | | |
| 7 pedula Ait. | | 7 black larch |
| 8 microcarpa | | 8 red larch |
| 9 rigida Mich. f. | } | 9 pitch pine |
| resinosa Auct. | | |
| 10 rubra | | 10 red spruce fir |
| 11 serotina Mich. | | 11 pond pine |
| 12 strobis | | 12 Weymouth pine |
| 13 taxifolia | | 13 Nootka fir |
| PISUM | | PEA |
| maritimum | | sea |
| PLANTAGO | | PLANTAIN |
| 1 cordata | } | 1 heart leaved |
| Var. microphylla | | |
| 2 lanceolata | | 2 rib wort |
| 3 major | | 3 great |
| 4 maritima | | 4 sea |
| 5 media | } | 5 hoary leaved |
| Var. crassifolia | | |
| 6 virginica | | 6 Virginian |
| PLATANUS | | PLANE TREE or large but- |
| occidentalis | | ton wood |
| POA | | American |
| 1 annua | | MEADOW GRASS |
| 2 compressa | | 1 dwarf |
| 3 palustris | } | 2 blue grass |
| crocea Mich. | | |
| 4 pratensis | | 3 marsh |
| 5 reptans | | 4 common |
| 6 trivialis | | 5 creeping |
| PODALYRIA | | 6 field |
| baptista | } | PODALYRIA or Wild Indigo |
| tinctoria Willd. | | |
| PODOPHYLLUM | | dye's |
| peltatum | | DUCK'S FOOT, May apple |
| POLEMONIUM | | peltated |
| reptans | | JACOB'S LADDER |
| POLYGALA | | creeping |
| 1 cruciata | | MILKWORT |
| | | 1 cross shaped |

- | | |
|--------------------------------|-----------------------------------|
| 2 incarnata | 2 flesh coloured |
| 3 lutea | 3 yellow flowered |
| nana <i>Mich.</i> } | |
| 4 paucifolia | 4 evergreen snakeroot |
| 5 rubella | 5 polygamous |
| polygama <i>Walt.</i> } | |
| 6 sanguinea | 6 bloody |
| 7 senega | 7 Senega snakeroot |
| 8 verticillata | 8 whorled leaved |
| POLYGONUM | KNOT WEED |
| 1 arifolium | 1 halbert leaved |
| 2 aviculare | 2 knot grass |
| 3 coccineum | 3 scarlet |
| 4 fagopyrum | 4 buck wheat |
| 5 hydropiper | 5 water pepper |
| 6 lapathifolium <i>Ait.</i> | 6 pale flowered |
| 7 pennsylvanicum <i>Curt.</i> | 7 Pennsylvanian |
| 8 persicaria | 8 spotted |
| 9 sagitatum | 9 arrow leaved |
| 10 scandens | 10 climbing |
| 11 virginianum } | 11 Virginian |
| rostratum } | |
| POLYPODIUM | POLYPODY |
| 1 hexagonopterum | 1 ——— |
| 2 virginicum | 2 Virginian |
| 3 vulgare | 3 common |
| POLYTRICHUM | POLYTRICHUM |
| 1 ambiguum | 1 ambiguous |
| 2 pennsylvanicum | 2 Pennsylvanian |
| PONTERIDIA | PONTERIDIA |
| cordata | heart leaved |
| POPULUS | POPLAR TREE |
| 1 angulata <i>Ait.</i> } | 1 angular— <i>Cotton tree</i> |
| angulosa <i>Mich.</i> } | |
| 2 balsamifera | 2 Tacamahac— <i>Balsam poplar</i> |
| 3 candicans | 3 heart leaved |
| 4 grandidentata <i>Mich.</i> } | 4 Canada |
| trepida <i>Muhl.</i> } | |
| 5 heterophylla | 5 various leaved |
| 6 monilifera | 6 ——— |
| 7 tremuloides <i>Mich.</i> | 7 smooth— <i>Aspen</i> |
| PORTULACA | PURSLAIN |
| oleracea | common |
| POTENTILLA | CINQUEFOIL |
| 1 anserina | 1 wild tansy |

- | | |
|------------------------------------|-------------------------------|
| 2 canadensis | 2 Canada |
| 3 fruticosa | 3 shrubby |
| 4 floribunda <i>N. S.</i> | 4 many flowered |
| 5 hirsuta | 5 hairy |
| 6 pennsylvanica | 6 Pennsylvanian |
| 7 <i>N. S.</i> affin. <i>Penn.</i> | 7 ————— |
| 8 recta | 8 upright |
| 9 reptans | 9 creeping |
| 10 sarmentosa <i>Willd.</i> | 10 running |
| 11 simplex | 11 simple |
| POTHOS | POTHOS |
| 1 fœtida <i>Ait.</i> | } skunk cabbage |
| <i>Dracontium fœtidum</i> | |
| PRENANTHES | PRENANTHES |
| 1 alba | 1 white flowered |
| 2 altissima | 2 tall |
| 3 cordata | 3 heart leaved |
| 4 muralis | 4 wall |
| 5 spicata <i>Walt.</i> | 5 spiked |
| 6 virgata <i>seu</i> rubicunda | 6 red flowered |
| PRIMULA | PRIMROSE |
| 1 farinosa | 1 birds' eye |
| 2 mistasinica | 2 Canadian |
| PRINUS | WINTER BEBRY |
| 1 glaber | 1 evergreen— <i>Ink berry</i> |
| 2 do. <i>Var.</i> | 2 ————— |
| 3 lanceolatus <i>Don.</i> | 3 spear leaved |
| 4 lævigatus | 4 smooth |
| 5 montanus <i>N. S.</i> | 5 mountain |
| 6 padifolius | 6 broad leaved |
| 7 verticillatus | 7 whorled |
| PRUNELLA | SELF HEAL |
| 1 mariana | 1 sea |
| 2 pennsylvanica <i>Willd.</i> | } 2 Pennsylvanian |
| ovata <i>H. P.</i> | |
| 3 vulgaris | 3 common |
| PRUNUS | CHERRY TREE |
| 1 americana | 1 American |
| 2 canadensis | 2 Canadian |
| 3 montana <i>N. S.</i> | 3 mountain |
| 4 pennsylvanica <i>Ait.</i> | } 4 upright |
| borealis <i>Mich.</i> | |
| 5 nigra (<i>americana</i>) | 5 yellow plumb |
| 6 pumila | 6 dwarf plumb |
| 7 serotina | 7 wild cherry |
| 8 virginiana | 8 choke cherry |

PTERIS

- 1 aquilina
- 2 atropurpurea

PULMONARIA

- 1 sibirica
- 2 virginica

PYCNANTHEMUM

- 1 canescens *Mich.*
- 2 incanum *Mich.*

PYROLA

- 1 asarifolia
- 2 maculata
- 3 minor
- 4 rotundifolia
- 5 secunda
- 6 umbellata
- 7 uniflora

PYXIDANTHERA

- barbulata *Mich.*

PYRUS

- 1 botryapium *Willd.*
- 2 cydonia
- 3 erythrocarpa
- 4 melanocarpa
- 5 ovalis

QUERCUS

- 1 alba
- 2 bicolor
- 3 castanea
- 4 coccinea *Mich.*
- 5 falcata
- 6 filiformis
- 7 ilicifolia *Willd.* }
 banisteri *Mich.* }
- 8 macrocarpa *Mich.* }
- 9 montana *Willd.* }
 prinus monticola *Mich.* }
- 10 monticola
- 11 olivæformis
- 12 heterophylla
- 13 nigra }
 ferruginea }
- 14 obtusiloba *Mich.* }
 stellata *Willd.* }
- 15 palustris *Mich.* }
 Var. humilis }

BRAKE

- 1 common
- 2 purple

LUNG WORT

- 1 Siberian
- 2 Virginian

MOUNTAIN MINT

- 1 white
- 2 hoary

WINTER GREEN

- 1 kidney leaved
- 2 variegated leaved
- 3 small
- 4 round leaved
- 5 notched leaved
- 6 umbelled
- 7 one flowered

PYXIDANTHERA

- bearded

PEAR OR APPLE

- 1 blue fruited
- 2 common quince
- 3 red fruited
- 4 black fruited
- 5 oval leaved

OAK

- 1 common white
- 2 swamp
- 3 yellow, chesnut
- 4 scarlet
- 5 Spanish, downy, red
- 6 long stalked
- 7 scrub or barren
- 8 large fruited
- 9 rock chesnut
- 10 rock oak
- 11 mossy cup
- 12 various leaved
- 13 black jack
- 14 post white
- 15 pin

16 prinus	}	16 chesnut white
prinus palustris <i>Mich.</i>		
17 maritima		17 sea willow
18 prinoides		18 chinquapin
19 rubra		19 red
20 tinctoria		20 black, dyers'
21 triloba		21 downy black
QUERIA		QUERIA
canadensis	}	forked
Anychia dichotoma <i>Mich.</i>		

RANUNCULUS

- 1 acris
- 2 bulbosus
- 3 hirsutus *N. S.*
- 4 flammula
- 5 marilandicus
- 6 pennsylvanicus
- 7 saniculæformis
- 8 sceleratus
- 9 recurvatus
- 10 trifoliatus

RAPHANISTRUM

luteum

RHAMNUS

catharticus

RHEXIA

- 1 virginica
- 2 fungosa *N. S.*
- 3 ——— *N. S.*

RHINANTHUS

virginicus

RHODODENDRON

maximum

RHODORA

canadensis

RHUS

- 1 copallinum }
 æstivale }
- 2 glabrum
- 3 fœtans
- 4 radicans
- 5 toxicodendron
- 6 typhinum
- 7 vernix

CROW FOOT

- 1 upright
- 2 bulbous
- 3 hairy
- 4 small Spear wort
- 5 Maryland
- 6 Pennsylvanian
- 7 sanicle leaved
- 8 celery leaved
- 9 bent
- 10 three leaved

RAPHANISTRUM

marsh

BUCK THORN

purging

RHEXIA

- 1 common
- 2 fungous *N. S.*
- 3 ——— *N. S.*

YELLOW RATTLE

Virginian

ROSE BAY

mountain laurel

RHODORA

Canada

SUMACH

- 1 copal
- 2 common, smooth
- 3 stinking
- 4 climbing poison vine
- 5 trailing poison oak
- 6 woolly
- 7 varnish tree

RIBES

- 1 atropurpureum
- 2 cynosbate
- 3 floridum *Willd.*
- 4 glandulosum
- 5 gracile *Mich.*
- 6 rigens *Mich.*
- 7 *N. S.* fruct. alba.
- 8 *N. S.* Catskill

ROBINIA

- 1 pseud-acacia
- 2 viscosa
- glutinosa *Curt.* }

ROSA

- 1 caroliniana
- parviflora *Muhl.* }
- 2 canina
- 3 corymbosa
- 4 gemella
- 5 lucida *Ehrt.*
- 6 rubiginosa

RUBUS

- 1 hispidus
- 2 lucidus *N. S.*
- 3 occidentalis
- 4 odoratus
- 5 parvifolius *Walt.*
- 6 plicatus *N. S.*
- 7 procumbens
- 8 strigosus *Mich.*
- 9 villosus *Ait.* }
- vulpinus *Desf.* }
- 10 ——— *N. S.*
- 11 ——— *N. S.* Catskill

RUDBECKIA

- 1 aspera
- 2 digitata
- 3 laciniata
- 4 triloba

RUMEX

- 1 acetosella
- 2 acutus
- 3 aquaticus
- 4 crispatus
- 5 persicarioides

CURRANT

- 1 dark red
- 2 prickly fruited
- 3 large fruited
- 4 glandulous, procumbent
- 5 slender, two flowered
- 6 upright, red fruited
- 7 *N. S.*
- 8 *N. S.*

ROBINIA *Locust tree*

- 1 false acacia
- 2 clammy

ROSE

- 1 Pennsylvania
- 2 dog rose
- 3 swamp
- 4 twin flowered
- 5 shining leaved
- 6 sweet briar

BRAMBLE

- 1 strawberry leaved
- 2 shining
- 3 American raspberry
- 4 flowering raspberry
- 5 small leaved blackberry
- 6 ———
- 7 dewberry
- 8 mountain
- 9 American blackberry
- 10 *N. S.*
- 11 *N. S.*

RUDBECKIA

- 1 rough
- 2 digitated
- 3 jagged leaved
- 4 three lobed

DOCK

- 1 sheep sorrel
- 2 sharp pointed
- 3 water
- 4 curled
- 5 arsesmart leaved

- | | |
|-----------------------------|---------------------------------|
| 6 sanguineus | 6 bloody |
| 7 verticillatus. | 7 whorled |
| SAGITTARIA | ARROW-HEAD |
| 1 graminifolia | 1 grass leaved |
| 2 heterophylla | 2 various leaved |
| 3 latifolia <i>Willd.</i> | 3 broad leaved |
| 4 obtusa <i>Muhl.</i> | 4 blunt leaved |
| simplex <i>Pers.</i> } | |
| 5 pubescens | 5 hairy |
| 6 sagittifolia | 6 pointed leaved. |
| SALICORNIA | GLASS WORT |
| 1 ambigua | 1 doubtful |
| 2 herbacea | 2 marsh |
| 3 virginica. | 3 Virginian. |
| SALIX | WILLOW |
| 1 caroliniana | 1 Carolina |
| 2 conifera <i>Willd.</i> | 2 cone bearing |
| longirostris <i>Mich.</i> } | |
| 3 discolor | 3 red rooted |
| 4 incana <i>Mich.</i> | 4 hoary |
| 5 myricoides <i>Muhl.</i> | 5 gale leaved |
| 6 nigra <i>Muhl.</i> | 6 black |
| 7 palustris <i>N. S.</i> | 7 marsh. |
| 8 ——— <i>N. S.</i> | 8 <i>N. S.</i> |
| SALSOLA | SALT WORT |
| 1 kali. | 1 prickly |
| 2 soda | 2 long leaved |
| SALVIA | SAGE |
| 1 lyrata | 1 lyre leaved |
| 2 officinalis. | 2 officinal or common. |
| SAMBUCUS | ELDER |
| 1 canadensis } | 1 Canadian black berried |
| atropurpurea } | |
| 2 pubescens <i>Mich.</i> } | 2 red berried |
| rubra } | |
| SANGUINARIA | BLOOD ROOT |
| canadensis | American— <i>Puccoon</i> |
| SANGUISORBA | BURNET SAXIFRAGE |
| 1 canadensis | 1 long spiked |
| 2 media | 2 short spiked |
| SANICULA | SANICLE |
| 1 canadensis | 1 Canadian |
| 2 marilandica | 2 Maryland, black snake
root |
| SAPONARIA | SOAP WORT |
| officinalis | common |

SARRACENIA

- 1 purpurea
- 2 do. *Var.*

SAURUS

cernuus

SAXIFRAGA

- 1 nivalis (vernalis)
- 2 pennsylvanica
- 3 virginica *Mich.*

SCHEUCHZERIA

palustris

SCHÆNUS

- 1 albus
- 2 ciliaris
- 3 glomeratus
- 4 fuscus
- 5 setaceus
- 6 sparsus

SCIRPUS

- 1 capitatus
 - 2 lacustris
 - 3 macrostachius *Mich.*
 - 4 sylvaticus
 - 5 triquetrum *Mich.*
- } americanus. *Pers.* }

SCUTELLARIA

- 1 galericulata
- 2 hyssopifolia
- 3 integrifolia
- 4 lateriflora
- 5 ovalifolia *Pers.* }
- eliptica }
- 6 parviflora

SELINUM

canadense

SENECIO

- 1 aureus
- 2 balsamitæ
- 3 canadensis
- 4 hieracifolius
- 5 obovatus

SILENE

pennsylvanica *Mich.*

SINAPIS

nigra

SIDE SADDLE FLOWER

- 1 purple
- 2 ———

LIZARD'S TAIL

nodding

SAXIFRAGE

- 1 early
- 2 common American
- 3 Virginian

SCHEUCHZERIA

marsh

DOG RUSH

- 1 white
- 2 fringed
- 3 round headed
- 4 brown
- 5 bristly
- 6 spreading

CLUB RUSH

- 1 headed
- 2 bulrush
- 3 large spiked
- 4 wood
- 5 three sided

SCULL CAP

- 1 common
- 2 hyssop leaved
- 3 entire leaved
- 4 lateral flowered
- 5 oval leaved
- 6 small flowered

MILK PARSLEY

Canadian

GROUNDSEL

- 1 golden, heart leaved
- 2 balsamita like
- 3 Canadian
- 4 hawk weed leaved
- 5 obovate leaved

CATCH FLY

Pennsylvanica

MUSTARD

black

SISYMBRIUM

nasturtium

SISYRINCHIUM

- 1 anceps. *Lmk.*
 gramineum *Curt.* }
 2 mucronatum *Mich.*

SMILAX

- 1 caduca
 2 glauca *Mich.* }
 sarsaparilla }
 3 herbacea
 4 hispida
 5 laurifolia
 6 peduncularis
 7 quadrangularis *Muhl.*
 8 rotundifolia

SMYRNIUM

- 1 aureum
 2 barbinode
 3 integerimum
 4 trifoliatum }
 thapsia *L.* }

SOLANUM

- 1 dulcamara
 2 nigrum

SOLIDAGO

- 1 arguta
 2 axillaris *N. S.*
 3 aspera
 4 canadensis
 5 ciliaris
 6 flexicaulis
 7 gigantea
 8 lanceolata *Ait.* }
 spec. graminifolia }
 9 latifolia
 10 noveboracensis
 11 nemoralis *Ait.*
 12 odora *Ait.*
 13 patula
 14 rigida
 15 rugosa
 16 scabra
 17 squarrosa
 18 sempervirens
 19 ulmifolia

SISYMBRIUM

water cress

SISYRINCHIUM

- 1 grass leaved
 2 blue eyed grass

SMILAX

- 1 deciduous
 2 medicinal
 3 herbaceous
 4 hispid
 5 laurel leaved
 6 long stlked
 7 square stalked
 8 round leaved

ALEXANDERS

- 1 golden
 2 bearded
 3 entire leaved
 4 heart leaved

NIGHTSHADE

- 1 bitter sweet
 2 common

GOLDEN ROD

- 1 sharp notched
 2 —————
 3 rough leaved
 4 Canadian
 5 ciliated
 6 bent stalked
 7 gigantic
 8 spear leaved
 9 broad leaved
 10 New-York
 11 wood
 12 sweet scented
 13 open branched
 14 hard leaved
 15 wrinkled leaved
 16 rough
 17 scurfy
 18 narrow leaved
 19 elm leaved

- | | |
|------------------------------------|----------------------------|
| 20 <i>virga aurea</i> | 20 common |
| 21 <i>N. S.</i> | 21 <i>N. S.</i> |
| 22 <i>N. S.</i> | 22 <i>N. S.</i> |
| 23 <i>N. S. aff. virga. aurea.</i> | 23 _____ |
| 24 <i>N. S. aff. concolor</i> | 24 _____ |
| 25 <i>N. S. Cattskill</i> | 25 _____ |
| 26 <i>petiolaris</i> | 26 late flowered |
| SONCHUS | SOW THISTLE |
| 1 <i>alpinus</i> | 1 Alpine Canadian |
| 2 <i>acuminatus</i> | 2 pointed |
| 3 <i>arvensis</i> | 3 corn |
| 4 <i>floridanus</i> | 4 large flowered |
| 5 <i>leucophleus</i> | 5 white flowered |
| 6 <i>oleraceus</i> | 6 common |
| <i>Var. asper</i> } | 7 pale |
| 7 <i>pallidus Willd.</i> | 8 marsh |
| 8 <i>palustris</i> | 9 large leaved |
| 9 <i>macrophyllus</i> | SERVICE TREE |
| SORBUS | mountain |
| <i>montana N. S.</i> | BURR REED |
| SPARGANIUM | upright |
| <i>erectum</i> | ROUGH GRASS |
| SPARTINA | 1 smooth |
| 1 <i>glabra</i> | 2 many spiked |
| 2 <i>polystachia</i> | SPARGANOPHORUS |
| <i>Trachynotia Mich.</i> } | whorled |
| SPARGANOPHORUS | BROOM |
| <i>verticillatus Mich.</i> | common |
| SPARTIUM | SPHAGNUM, Peat Moss |
| <i>scoparium</i> | broad leaved |
| SPHAGNUM | |
| <i>vulgare Mich.</i> | |
| <i>latifolium Hed.</i> } | |
| SPIRÆA | SPIRÆA |
| 1 <i>alba</i> | 1 white flowered |
| 2 <i>aruncus</i> | 2 goats' beard |
| 3 <i>crenata</i> | 3 crenated |
| 4 <i>corymbosa</i> | 4 broad leaved |
| <i>carpinifolia Willd.</i> } | 5 St. Johns wort leaved |
| 5 <i>hypericifolia</i> | 6 lobe leaved |
| 6 <i>lobata</i> | 7 mountain |
| 7 <i>montana</i> | 8 snow ball leaved |
| 8 <i>opulifolia</i> | 9 large stipuled |
| 9 <i>stipulata</i> | 10 downy leaved |
| 10 <i>tomentosa</i> | |

- 11 trifoliata
 Gillenia trifoliata }
 Mæsch.
- STACHYS**
 1 aspera *Mich.*
 2 tenuifolia *Muhl.*
- STAPHYLEA**
 1 pinnata *Var.*
 2 trifoliata
- STATICE**
 limonium
- TEUCRIUM**
 1 canadense
 2 virginicum
- THALICTRUM**
 1 rugosum *Ait.*
 2 ----- affin.
- THESIUUM**
 umbellatum
- THLAPSI**
 1 arvense
 2 bursa pastoris
 3 campestre
- THUYA**
 occidentalis
- THYMUS**
 virginicus
- TIARELLA**
 cordifolia
- TILIA**
 1 americana
 2 glabra
 3 pubescens
- TRICHOSTEMMA**
 1 dichotoma
 2 lineare
- TRIENTALIS**
 europea
- TRIFOLIUM**
 1 arvense
 2 pennsylvanicum
 3 repens
- TRILLIUM**
 1 erectum
 atropurpureum *Curt.* }
- 11 Indian physic, ipecacu-
 anha
- HEDGE NETTLE**
 1 rough
 2 thin leaved
- BLADDER NUT**
 1 pinnated
 2 three leaved
- THRIFT**
 marsh rosemary
- GERMANDER**
 1 nettle leaved
 2 Virginian
- MEDDOW RUE**
 1 rough leaved
 2 -----
- BASTARD TOAD FLAX**
 umbelled
- BASTARD CRESS**
 1 penny cress
 2 shepherd's purse
 3 mithridate mustard
- ARBOR VITÆ**
 American—*White cedar*
- THYME**
 Virginian
- TIARELLA**
 heart leaved
- LIME OR LINDEN TREE**
 1 bass wood
 2 smooth, bass wood.
 3 white wood—*hairy*
- TRICHOSTEMMA**
 1 branched
 2 linear leaved
- WINTER GREEN**
 chick weed
- CLOVER OR TREFOIL**
 1 hare's foot
 2 Pennsylvanian
 3 white clover
- TRILLIUM**
 1 upright flowered

- | | |
|--------------------------------|--------------------------------|
| 2 erythrocarpon <i>Mich.</i> } | 2 red fruited |
| undulatum | |
| 3 grandiflorum | 3 tulip |
| 4 luteum | 4 yellow |
| 5 pendulum | 5 pendent |
| 6 pictum | 6 dotted |
| 7 pusillum | 7 dwarf |
| 8 sessile atropurpureum | 8 sessile |
| 9 umbellatum | 9 umbellated |
| TRIOSTEUM | FEVER WORT |
| perfoliatum } | perfoliate |
| majus <i>Mich.</i> } | |
| TROLLIUS | GLOBE FLOWER |
| americanus <i>Muhl.</i> | American |
| TURRITIS | TOWER MUSTARD |
| 1 hirsuta | 1 hairy |
| 2 lævigata | 2 American smooth |
| TYPHA | CAT'S TAIL or Reed Mace |
| 1 angustifolia | 1 narrow leaved |
| 2 latifolia | 2 broad leaved |
| ULMUS | ELM TREE |
| 1 americana | 1 common weeping |
| 2 aspera } | 2 slippery, red |
| fulva <i>Mich.</i> } | |
| UNIOLA | SPIKE GRASS |
| spicata } | common |
| Festuca distichophylla } | |
| UMBILICARIA | UMBILICARIA |
| 1 pustulata | 1 blistered |
| 2 vellea | 2 ————— |
| URTICA | NETTLE |
| 1 canadensis | 1 Canadian |
| 2 divaricata | 2 divaricated |
| 3 gracilis | 3 slender stalked |
| 4 procera | 4 tall |
| 5 pumila | 5 dwarf |
| 6 urens | 6 lesser |
| 7 whitlowi <i>Muhl.</i> | 7 Whitlow's* |

* *Dr. Muhlenberg's Description of the Urtica Whitlowi.*

Caule. 5 angulo, simplici, orgyali, urente.

Foliis alternis, cordato-ovatis, acutis, serratis, trinerviis, punctatis, petiolatis, supremis oppositis.

Stipula bifida.—

URTICULARIA

ceratophylla

UVULARIA

- 1 langiunosa
- 2 lanceolata
- 3 perfoliata
- 4 rosea
- 5 sessilifolia

VACCINIUM

- 1 album
- 2 cespitosum
- 3 corymbosum *L.*
 amcenum *Ait.*
 disomorphum *Mich.* }
- 4 frondosum
 glaucum *Mich.* }
- 5 ligustrinum *Mich.*
- 6 macrocarpon *Ait.*
- 7 oxycoccus
- 8 pennsylvanicum *Mich.*
- 9 resinousum *Ait.*
- 10 myrtilloides
- 11 stamineum
- 12 tenellum
- 13 venustum
- 14 virgatum pennsylvani- }
 [cum *Mich.* }

VALERIANA

pauciflora

VERATRUM

- 1 luteum
- 2 viride *Ait.*

VERBASCUM

- 1 blattaria
- 2 thapsus

VERBENA

- 1 hystata
- 2 urticifolia

HOODED MILFOIL

horn leaved

BELLWORT

- 1 woolly
- 2 spear leaved
- 3 perfoliate
- 4 rose coloured
- 5 sessile leaved

WHORTLE BERRY

- 1 white
- 2 dwarf
- 3 broad leaved—*bilberry*
- 4 bushy
- 5 privet leaved
- 6 American cranberry
- 7 common
- 8 sugar
- 9 clammy
- 10 bluets
- 11 green wooded
- 12 gale leaved
- 13 red twigged
- 14 blue huckle berry

VALERIAN

three leaved

SWAMP HELLEBORE

- 1 nodding (*blazing star*)
- 2 green flowered

MULLEIN

- 1 moth
- 2 great

VERVAIN

- 1 halbert leaved
- 2 nettle leaved

Paniculis pedunculatis, axillaribus, dichotomis, hirsutis, petiolo longioribus masculis, et terminalibus fœmineis—

Capsula orbicularis, compressa, mucronata, proxime *divaricata* et *condensis*.

Radix perennis, tuberosa.

VERNONIA

noveboracensis *Mich.*

VERONICA

- 1 anagallis
- 2 beccaburga
- 3 officinalis
- 4 serpyllifolia
- 5 virginica

VIBURNUM

- 1 acerifolium
- 2 arboreum *Bart.* }
pyrifolium }
- 3 cassinoides
- 4 cyaneum *Her.*
- 5 dentatum
- 6 lævigatum
- 7 lantanoides *Mich.*
- 8 lentago
- 9 luteum
- 10 molle
- 11 nitidum
- 12 nudum }
Var. squammatum }
- 13 opuloides
- 14 pimina *Mich.*
- 15 prunifolium

VICIA

- 1 americana
- 2 cracca
- 3 parviflora
- 4 pusila

VINCA

minor

VIOLA

- 1 cucullata *Ait.*
- 2 lanceolata
- 3 pallida *Muhl.*
- 4 palmata *Ait.*
- 5 pedata
- 6 primulifolia
- 7 pubescens *Ait.* }
pennsylvanica *Mich.* }
- 8 obliqua *Ait.*
- 9 rostrata *N. S.*
- 10 sagittata
- 11 ——— *N. S.*

VERNONIA

common

SPEEDWELL

- 1 pimpernel or water
- 2 brooklime
- 3 officinal
- 4 smooth—*Paul's betony*
- 5 Virginian

VIBURNUM

- 1 maple leaved
- 2 tall
- 3 thick leaved
- 4 ———
- 5 tooth leaved
- 6 smooth
- 7 hobble bush
- 8 pear leaved
- 9 ———
- 10 woolly
- 11 shining
- 12 naked, oval leaved
- 13 shrub cranberry
- 14 ———
- 15 plum leaved, black hued

VETCH

- 1 American
- 2 tufted
- 3 small flowered
- 4 small

PERIWINKLE

small

VIOLET

- 1 hollow leaved
- 2 spear leaved
- 3 pale
- 4 palmated
- 5 multifid
- 6 prim rose leaved
- 7 yellow flowered
- 8 oblique flowered
- 9 beak flowered
- 10 arrow leaved
- 11 *N. S.*

VITIS

- 1 hirsuta *N. S.*
- 2 labrusca }
 taurina *Walt.* }
- 3 riparia *Mich.*
- 4 vulpina }
 cordifolia *Mich.* }

XANTHIUM

orientale

XYRIS

- 1 anceps *Pers.* }
- jupicai *Mich.* }
- 2 brevifolia

ZANTHOXYLUM

fraxineum *Willd.* }
americanum }

VINE or GRAPE

- 1 hairy
- 2 fox
- 3 river or sand
- 4 winter or chicken

XANTHIUM

eastern

XYRIS

- 1 two edged
- 2 shorth leaved

TOOTH ACHE TREE

common



A notice of some new, rare, or otherwise interesting PLANTS, from the Northern and Western portions of the State of New York. By ASA GRAY, M. D.

Read December, 1834.

RANUNCULACEÆ.

1. ANEMONE CYLINDRICA (*sp. nov.*); sericeo-pubescentis; foliis ternatim sectis, segmentis lateralibus bipartitis, intermedio trifido, laciniis lineari-lanceolatis apice inciso-dentatis, involucralibus petiolatis conformibus; involucellis nullis; sepalis obovatis, obtusis, subcoriaceis; carpellis lanatis, in capitulum cylindricum congestis.

Root perennial, fibrose-fasciculate, *Stem* 1—3 feet high, and with the leaves, covered with an appressed silky pubescence. *Radical leaves* mostly on long petioles, finely and reticulately veined, light green above, paler beneath. *Peduncles* 2—6 (rarely 1), 1-flowered, all arising from the same point, 8—12 inches in length when the fruit is mature. *Leaves of the involucre* on short petioles, twice or three times the number of the peduncles, somewhat crowded. *Involucels* none. *Sepals* 5, pale yellowish-green, obovate, obtuse, somewhat coriaceous, sericeous beneath. *Carpels* acuminate into a very short style, with the apex deflexed; in every part densely covered with a long, silky tomentum, and disposed in a cylindrical elongated capitulum, about an inch in length.

HAB. In dry pine barrens, near Oneida Lake, New York. Flowers in June.

OBS. This species, although closely allied to *A. Virginiana*, Linn. is quite distinct. It must be referred to the section ANEMONANTHEA of De Cand., and be placed next to *A. alba*, which it resembles in many respects. From *A. Virginiana* it is readily distinguished by its more finely divided leaves, by the greater number and length of its peduncles, the absence of involucels, its obtuse sepals, and especially by its long, cylindrical and very woolly head of carpels. In this species also all

the flowers expand nearly at the same time, and the peduncles are not, as in *A. Virginiana*, developed one by one during the summer, so that both flowers and mature fruit are found at the same time.

2. *A. MULTIFIDA*, β HUDSONIANA, *De Cand. Prodr.* I. p. 21. *De Les, Ic.* I. tab. 16. *Hooker, Fl. Bor. Am.* (γ . *sanguinea*) I. p. 7. *A. sanguinea*, *Pursh, in Herb. Lamb.* *A. Hudsoniana*, β . *sanguinea*, *Rich. in Frankl. Jour. ed. 2. App.* p. 22.

On limestone rocks, Watertown, Jefferson county, where it was discovered by *Dr. I. B. Crawe*. My specimens agree well with *De Lessert's* figure. The mature heads of pericarps are oblong and very woolly.

3. *TROLLIUS LAXUS*, *Salisb. in Linn. Trans.* VIII. p. 303. *Pursh, Fl.* II. p. 391. *T. Americanus*, *Muhl. Cat.* p. 56. *De Cand. Syst.* p. 313. *Hook. Fl. Bor. Am.* I. p. 23.

Shady sphagnous swamps near Utica.

Flowers twice as large as those of *Ranunculus acris*. *Sepals* 5—6, ochroleucous, with a tinge of green beneath. *Petals* 15—25, minute, deep orange-yellow. *Carpels* 8—15.

4. *RANUNCULUS PURSHII*, *Hook. Fl. Bor. Am.* I. p. 15. α . "foliis omnibus capillaceo-multifidis, flore majore, caule fistuloso." *Hook. l. c.* *R. multifidis*, *Pursh, Fl.* II. p. 736. *De Cand. Prodr.* I. p. 34. *R. lacustris*, *Beck & Tracy in Transactions of the Albany Institute*, I. p. 148. tab. 5.

In stagnant water, throughout the western and northern portions of the state.

β . "foliis submersis capillaceo-multifidis, natantibus, reniformibus palmato-multifidis." *Hook. l. c. tab.* VII. B. fig. 1.

In muddy pools, near Oneida Lake.

γ . "repens, foliis inferioribus lineari-multipartitis, superioribus reniformibus palmato-multifidis." *Hook. l. c. tab.* VII. B. fig. 2. *R. Purshii*, *Rich. in Frankl. Jour. App.* p. 23.

In marshes, Watertown, Jefferson county.

CRUCIFERÆ.

5. *NASTURTIIUM NATANS*, *De Cand. Syst.* II. p. 198; *Prodr.* I. p. 139. *De Less. Ic.* II. tab. 15.

β. *AMERICANUM*; petalis calyce duplo longioribus; siliculis obovatis. *N. natans*, *Hook. Fl. Bor. Am.* I. p. 39. *Beck. Bot. Northern and Middle States*, p. 32.

HAB. Oneida Lake, where it is very abundant, in water 2—5 feet deep. In the St. Lawrence river, near Ogdensburgh, *Dr. I. B. Crawe*. Flowers in July.

OBS. This plant, which I observed at the first mentioned locality several years since, differs in some respects from the Siberian *N. natans*, as described by De Candolle and figured by De Lessert. In our specimens the flowers are about *twice as large as those of N. amphibium*, the petals are *pure white* in the living plant, *oblong*, and *twice the length of the calyx*, the mature silicles *obovate or obovate-oblong*, *more than 2 lines in length*; but in all other respects they agree minutely with De Candolle's detailed description and De Lessert's figure. The submersed leaves separate with great ease at their articulation with the stem, so that perfect specimens are not readily obtained. Although a rare plant, its geographical range is quite extensive, as Dr. Ingalls has recently found it at New Orleans.

6. *DRABA INCANA*, *Linn. Sp. Pl.* p. 897. *Hook. Fl. Bor. Am.* I. p. 54. *D. contorta*, *Ehrh. De Cand. Syst.* II. p. 348. *Prodr.* I. p. 170. *D. confusa*, *Ehrh. De Cand. l. c. Hook. Fl. Bor. Am. l. c.*

β. *GLABRIUSCULA*; læviter substellato-pubescentis; foliis radicalibus spathulato-lanceolatis, caulinis oblongis, repando-dentatis; siliculis oblongo-linearibus. *D. glabella*, *Pursh. Fl.* I. p. 344? *Hook. Fl. Bor. Am.* I. p. 54?

Whole plant covered with a minute, branched pubescence, but not hoary. *Root* perennial! *Stems* many from the same root, simple or a little branching from the base. *Radical leaves* numerous and crowded, forming a roscolate tuft, oblong or lanceolate spathulate, much attenuated at the base, sparingly dentate. *Cauline leaves* oblong

or oblong-lanceolate, sub-amplexicaul, acute, sparsely and repandly dentate; those on the young branches somewhat entire. *Flowers* in a short, somewhat compact, simple (or sometimes branching) raceme. *Lower pedicels* nearly as long as the mature silicle; the upper ones shorter. *Sepals* ovate, obtuse, with white margins. *Petals* white, broad-ovate, entire, a little more than twice the length of the sepals. *Silicles* oblong, linear, contorted, 6—8 lines long when mature, glabrous, crowned with a distinct but very short style. *Seeds* 10—15 in each cell.

OBS. This plant, which I refer to *D. incana* with some hesitation, will perhaps prove to be a distinct species. It much resembles *D. conjusa* of Hooker, (specimens of which I have examined in the herbarium of Prof. Torrey,) and which, as Prof. Hooker observes, insensibly passes into *D. incana*. His specimens, however, differ from ours in having shorter styles, a much more dense pubescence and sparingly dentate, or subentire leaves, which are somewhat ovate: the radical leaves are not, as in our plant, much attenuated at the base, so as to appear petiolate. In our plant also the silicle is glabrous, and rather linear than oblong. I suspect that the character of *D. glabella*, Pursh, is drawn from dwarf specimens of this plant. It also agrees perfectly with the *D. glabella* of Hooker's Flora, except in the number of cauline leaves, and in the calyx, which in that species is said to be very glabrous. Prof. Hooker, however, has not had an opportunity of examining the fruit.

The habit of our plant is precisely that of *Drabra ramosissima* of Desvaux (*D. arabizans*, Dursh, non Michx. *D. dentata*, Hook. & Arn. in Hooker's Journal of Botany. *Alyssum dentatum*, Nutt.); a species which is well characterized by its lanceolate, deeply dentate leaves, its compound racemose inflorescence, its shorter and pubescent silicles, and longer style.

RHAMNEÆ.

7. **CEANOTHUS OVALIS**, Bigelow, *Fl. Bost.*, ed. 2. p. 92.
C intermedius, Hook, *Fl. Bor. Am.* I. p. 124, non Pursh.

On rocks and barren grounds, Watertown, Jefferson county.

OBS. A shrub, 2—3 feet high. Flowers in May. This plant is undoubtedly quite distinct from *C. intermedius*, Pursh, which is merely a narrow-leaved form of *C. Americanus*, nearly confined to the Southern States. The specific name of Bigelow is not happily chosen, as the leaves are for the most part oblong-lanceolate.

LEGUMINOSÆ.

8. LATHYRUS PISIFORMIS, Linn. *De Cand. Prodr.* II. p. 371. *Hook. Fl. Bor. Am.* I. p. 158. *L. maritimus*, Bigel. *Fl. Bost. ed. 2.* p. 268. *Pisum maritimum*, Linn. *et aliorum*.

Shore of Lake Ontario. Flowers June—August. It agrees with our sea-shore plant in every respect.

9. L. OCHROLEUCUS, *Hook. Fl. Bor. Am.* 1. p. 158. *L. pisiformis*, Rich. in *Frankl. Jour. app.* p. 28. *L. glaucifolius*, Beck. *Bot. and Middle States*, p. 90.

Gorham, Ontario county, Dr. H. P. Sartwell: Watertown, Jefferson county, Dr. Crawe.

OBS. This species resembles *L. venosus*, Muhl. but differs in its ochroleucous flowers and larger stipules. *L. venosus* also has larger leaves, which, with the segments of the calyx, are much more prominently veined.

10. L. PALUSTRIS, Linn. Pursh, *Fl.* II. p. 147.

Along the banks of rivers and lakes. Its leaves from lanceolate (the ordinary form) to oblong-ovate.

II. L. MYRTIFOLIUS, Muhl. in Willd. *Spec.* III. p. 1091. *De Cand. Prodr.* II. p. 371. Pursh, *Fl.* II. p. 471. *L. stipulaceus*, Le Conte, in *Cat. N. Y. Plants*, p. 92.

Grows in similar situations with the preceding, from which it may not be specifically distinct. *Leaves* elliptical or oval, in 3—4 pairs, (“*folis quatuor*,” Pursh.) *Stem* naked or winged; *stipules* variable in size.

VALERIANEÆ.

12. VALERIANA SYLVATICA, *Rich. in Frankl. Jour. app.* p. 42. *Hook. Fl. Bor. Am.* I. p. 291. *Beck, Bot. N. and Middle States*, p. 164.

Very abundant in a sphagnous swamp in Wayne county, near the shore of Lake Ontario; where it was discovered, in the summer of 1833, by Dr. Sartwell. My specimens agree in every respect with those from Prof. Hooker, in Prof. Torrey's herbarium.

COMPOSITÆ.

13. DIPLOPAPPUS ALBUS, *Hook. Fl. Bor. Am.* II. p. 21. *Aster albus*, (*Willd. Herb.*) *Spreng. Syst. Veg.* III. p. 528? *Chrysopsis alba*, *Nutt. Gen.* II. p. 152, (*v. sp. in Herb. Nutt.*) *Dœllingeria?* *ptarmicoides*, *Nees ab Esenbeck, Ast.* p. 183.

On the rocky banks of Black River, near Watertown, Jefferson county; where it is very abundant, and was first noticed by Dr. Crawe. Flowers early in August.

OBS. This interesting species was discovered by Nuttall around Fort Mandan, on the Missouri: it has also been found on the shore of Lake Superior, by Dr. Pitcher, and on the banks of the Saskatchewan, by Dr. Richardson; so that its geographical range is very extensive. I have not been able to find any trace of an outer pappus in the numerous specimens which I have examined. They agree in all respects with a specimen from Prof. Hooker, (in Herb. Torrey,) except that in our plant the hairs of the inner pappus are subclavate at the extremity. Our plant appears to me to differ from *Dœllingeria* of Nees ab Esenbeck only in wanting the outer pappus. I have no means of determining whether this species is identical with *Aster albus* of Willdenow's herbarium; but as there is a species under this name in the catalogue of Muhlenberg, from whom Willdenow received many North American Asters, it is highly probable that this synonym is correctly referred.

LABIATÆ.

14. DRACOCEPHALUM PARVIFLORUM, *Nutt. Gen. II. p. 35. (v. sp. in Herb. Nutt.) Benth. Lab. p. 495.*

Barren fields and woods, Watertown, Jefferson county. Flowers from May to August.

OBS. This species, which was found by its discoverer around Fort Mandan, on the Missouri, has since been collected in British N. America by Mr. Drummond.

15. BLEPHILIA HIRSUTA, *Benth. Lab. p. 320. Monarda hirsuta. Pursh, Fl. I. p. 19.*

Abundant throughout the northern and western portions of the state of New York.

LENTIBULARIÆ.

16. UTRICULARIA INTERMEDIA, *Haync. Schrader, Fl. Germ. I. p. 55. Rœm. & Schult. Syst. I. p. 195. Spreng. Syst. I. p. 61. U. media, Wahl. Fl. Suec. I. p. 15.*

In very wet swamps, Watertown, Jefferson county, *Dr. Crawe.* Flowers in June and July.

This species is near *U. vulgaris* and *U. minor*, but is quite distinct from both. My specimens agree in all respects with the foreign plant, of which I have seen Swedish specimens in the herbarium of Dr. Torrey.

17. U. MINOR, *Willd. Sp. Pl. I. p. 112. Rœm. & Schult. Syst. I. p. 166. Wahl. Fl. Suec. I. p. 14.*

In the same locality as the preceding. *Corolla* dull yellow. Flowers in June. As far as can be determined by the comparison of dried specimens, our plant is identical with the foreign *U. minor*.

18. U. CORNUTA, *Michx. Fl. I. p. 12. Rœm. & Schult. I.*

p. 197. *Torrey, Fl. I. p. 19.* *U. personata, Le Conte, Utric. in Ann. Lyc. Nat. Hist. New York, I. p. 77.*

Occurs sparingly throughout the western portion of the state of New York. Very abundant in an extensive sphagnous swamp bordering Perch Lake, Jefferson county. Stem one to six flowered.

ORCHIDEÆ.

19. *MICROSTYLIS BRACHYPODA (sp. nov.)*; caule unifoliato; racemo subspicato floribus breviter pedicellatis; petatis lateralibus refractis; labello hastato-triangulari, cucullato, acuminato.

Root a pseudo-bulb. *Stem* 2—6 inches high, triangular, with two of the angles somewhat winged. *Leaf* solitary, (rarely two,) ovate, sheathing the lower portion of the stem. *Raceme* elongated, somewhat spiked, many (20—40) flowered. *Bractæ* minute, a little shorter than the pedicels. *Pedicels* about a line long, somewhat appressed. *Sepals* spreading, oblong-lanceolate, acute. *Lateral petals* linear, attenuate upwards, refracted and appressed to the ovary. *Lip* triangular-hastate, with a long recurved acumination; lateral lobes rounded and rolled inwards. *Anther* terminal, two celled. *Polinia* 4, collateral.

HAB. In deep shady swamps, Fairfield, Herkimer county, *Prof. Hadley.* Bridgewater, Oneida county. Flowers in July.

OBS. This species more nearly resembles *M. monophyllos*, *Lindl. Gen. & Sp. Orchid.* p. 19. (*Ophrys monophyllus*, *Linn.*) than any other with which I am acquainted. That species, however, differs from our plant, in its much longer pedicels and bracts, and also in the form of the lip, the auricles of which, in *M. monophyllos*, are directed forward. I am not certain that these characters are constant.

20. *HABENARIA ORBICULATA, Torrey, Compend. p. 318.*
H. macrophylla, Goldie, in Edinb. Phil. Jour. VI. p. 331.
Orchis orbiculata, Pursh, Fl. II. p. 588.

Scape with two orbicular leaves at the base, which spread flat on the ground. *Leaves* large, (5—8 inches in diameter,) fleshy, very smooth

and shining. *Scape* 1—2 feet high, bearing the flowers in a spiciform raceme. *Flowers* 17—20, greenish-white, spreading. *Pedicels* 3—4 lines long. *Bractææ* lanceolate, shorter than the flowers. *Sepals* conspicuously nerved; the upper one nearly orbicular, erect; the lateral ones ovate, and very oblique, so as to appear somewhat semilunar, spreading. *Petals* smaller than the sepals, ovate-lanceolate, oblique, reflexed. *Lip* linear, obtuse, longer than the ovarium, depending and recurved. *Spur* three times the length of the ovarium, incurved, clavate. *Anther* two-horned, two-celled, cells approximate. *Ovarium* $\frac{1}{2}$ — $\frac{3}{4}$ of an inch long, a little curved.

HAB. Woods throughout the Northern states, but somewhat rare. It is seldom found except in the deep shade of the Coniferæ. Flowers in July.

21. *H. HOOKERIANA*, Torrey, *Herb.* *H. orbiculata*, Goldie, *l. c. Hook. Exot. Fl.* 145. non Pursh.

Scape 8—12 inches high, bearing at the base two orbicular, oval or obovate leaves. *Leaves* fleshy, smooth and shining, 3—4 inches long. *Spike* 4—6 inches in length, somewhat loosely flowered. *Flowers* 10—20, yellowish-green, erect or a little spreading, subsessile. *Bractææ* lanceolate, nearly as long as the flowers. *Sepals* ovate-lanceolate, acute; the upper one connivent with the petals, erect; the lateral ones deflexed, so as to meet posteriorly. *Petals* a little shorter than the sepals, linear, very acute, dilated at the base. *Lip* lanceolate, acuminate, scarcely as long as the ovarium, standing forward and somewhat incurved. *Spur* straight, acute, depending, about twice the length of the ovarium. Cells of the *anther* linear-clavate, widely separated at the base by the broad stigmatic surface. *Ovarium* $\frac{1}{2}$ — $\frac{3}{4}$ of an inch in length, straight.

HAB. In similar situations with the preceding, but much more abundant in the northern part of the state. I am not aware that it has been found south of the Highlands of the Hudson river, where it occurs sparingly. Flowers in June.

OBS. These two very distinct species of *Habenaria* are still generally confounded by our botanists, although they were very clearly distinguished by Mr. Goldie, in his paper on "New and rare Plants detected in Canada during the year 1819," published in the 6th volume of the *Edinburgh Philosophical Journal*. There can, however, be little doubt that *H. macro-*

phylla, of Goldie, is the original *Orchis orbiculata*, although the question can only be *positively* decided by referring to Pursh's herbarium. The specific character of Pursh applies minutely to this plant, if we except the expression *petalis 3 superioribus conniventibus*; but he may have drawn his description from very young specimens, in which the perianth had not fully expanded; or, which is not improbable, he may have seen and confounded the two plants. The phrase, *labello lineari integerrimo obtusiusculo*, in no respect applies to *H. orbiculata* of Goldie and Hooker, in which the lip is lanceolate and very acute. The lower sepals in our plant are very oblique, as noted by Pursh; in that of Goldie and Hooker they are slightly so. Our plant has the scape 12 to 15 inches or more in height, and the leaves entirely prostrate, as described by Pursh; in that of Goldie and Hooker, the scape is seldom a foot in height, and the leaves are suberect. To this may be added the habitat, "*on the mountains of Pennsylvania and Virginia, July—August*;" a region in which the *H. orbiculata* of Goldie and Hooker has not, as far as I am aware, been detected. If this view proves correct, the specific name of Pursh must be restored to the larger species. For the *H. orbiculata* of Goldie, &c. Dr. Torrey has proposed the name *H. Hookeriana*, in honour of Wm. Jackson Hooker, LL.D. whose name is identified with North American botany, by his splendid *Flora Boreali-Americana*, and other publications on the plants of this country.

22. *H. CILIARIS*, *R. Brown in Hort. Kew.* *Orchis ciliaris*, *Willd. Sp. Pl. IV.* p. 8. Ontario county, *Dr. Sartwell*.

Flowers bright golden yellow.

23. *H. BLEPHARIGLOTTIS*, *Hook. Exot. Fl. 87.* *Orchis blephariglottis*, *Willd. Sp. Pl. IV.* p. 9. Watertown, Jefferson county; Utica, Oneida county. Flowers pure white.

This species and the preceding grow in similar situations

and frequently in company, and are not readily distinguished, except by the colour of the flowers. But, as Prof. Hooker justly remarks, in *H. ciliaris*, the lip is more thickly fringed, and the upper petals are likewise fringed; whereas in *H. blephariglottis* these are quite naked.

24. *H. BRACTEATA*, R. *Brown in Hort. Kew.* Orchis bracteata, *Willd. Sp. Pl.* IV. p. 34.

In deep woods, Fairfield, Herkimer county.

25. *H. DILATATA*, *Hook. Exot. Fl.* 95? *non Torrey, Compend, &c.* Orchis dilatata, *Pursh, Fl.* II. p. 588.

Root fasciculated. *Stem* 1—2 feet high, multangular, leafy. *Leaves* lanceolate, upper ones shorter. *Spike* 2—4 inches long, somewhat sparsely flowered. *Bractææ* linear-lanceolate; the lower ones equal to the flowers, the uppermost shorter. *Flowers* white. *Sepals* ovate obtuse, the lateral ones somewhat oblique, spreading or reflexed; the upper one connivent with the linear-lanceolate petals, and somewhat arched over the column. *Lip* linear, entire obtuse, dilated at the base. *Spur* as long as the lip, a little shorter than the ovary; obtuse, somewhat incurved. *Cells of the anther* subdistant at the base. *Glands of the pollinia* distinct.

HAB. In deep sphagnum swamps, not uncommon in the northern part of the state. I have also seen specimens from Quebec, and from Sault St. Marie. Flowers June—July.

OBS. The plant described above agrees entirely with *Orchis dilatata* of Pursh, but is not the plant commonly known to our botanists under that name. The true *O. dilatata*, as I consider it, has white flowers with the lip linear and distinctly dilated at the base. The plant referred to this species in Torrey's Compendium, Beck's Flora, &c. has greenish flowers, with the lip lanceolate, acutish, not distinctly dilated at the base, and cannot be distinguished from *O. hyperborea* of Pursh. I have seen no specimens corresponding in all respects with the figure and detailed description of the *Hubenaria dilatata* of Hooker, *Exot. Fl. l. c.* His plant appears to connect this with the succeeding species.

26. *H. HYPERBOREA* *R. Brown in Hort. Kew. V. p. 193. Rich. in Frankl. Jour. App. p. 33. (v. sp. in Herb. Torr.)* *Orchis hyperborea, Willd. sp. Pl. IV. p. 37? Pursh, Fl. II. p. 588.*

Throughout the Northern states, in similar situations with the preceding: not uncommon. Flowers in July.

OBS. This species differs from the preceding principally in having greenish-yellow flowers, with a lanceolate lip which is not dilated at the base. The spur is about one half the length of the ovarium, obtuse or somewhat acute and incurved. The size of the plant is quite variable. It often occurs 6—12 inches in height, with a somewhat ovate or oblong spike of flowers. In this state it agrees entirely with specimens of *H. hyperborea* collected in the arctic regions of America by Dr. Richardson. In favourable situations it not unfrequently attains the height of 2 or 3 feet, with a virgate spike 6—8 inches in length, and in this state is the *H. dilatata* of most American botanists.

27. *H. HERBIOLA*, *R. Brown, in Hort. Kew. V. p. 193. Orchis herbiola, Pursh. Fl. II. App. p. 743.*

Watertown, Jefferson county. Flowers in June.

OBS. Flowers greenish-yellow. Lip oblong, obtuse, bidentate at the base, with a projecting tooth on the palate.

28. *CYPRIPEDIUM ARIETINUM*, *R. Brown in Hort. Kew. Pursh, Fl. II. p. 595. Arietinum Americanum, Beck, Fl. N. & Middle States, p. 352.*

Near Oneida Lake.

SMILACEÆ.

29. *STREPTOPUS AMPLEXIFOLIUS*, *De Cand. Fl. Fran III. p. 174.*

β. AMERICANUS (Rœm. & Schult. VII. p. 311.); stigmatifere integro; pedunculis supra medium geniculatis. *S. distortus, Michx. Fl. I. p. 200. Torrey, Fl. I. p. 353.*

In deep swamps near Utica.

JUNCEÆ.

30. JUNCUS STYGIUS, *Linn. Willd. Sp. Pl.* II. p. 215.
Wahl. Fl. Suec. 1. p. 213.

In an extensive sphagnous swamp bordering Perch Lake, Jefferson county : August. This species has not previously been known as a native of North America.

31. J. SETACEUS, *Rostkow, Junc.* p. 13. *tab.* 1. *Torrey, Fl.* 1. p. 360.

Shore of Lake Ontario, near Sackett's Harbour.

32. J. ECHINATUS, *Muhl. Gram.* p. 207. *Ell. Bot. S. Car. & Georgia*, I. p. 410.

With the preceding ; perhaps not distinct from *J. polycephalus*, *Michx.*

PODOSTEMEÆ.

33. PODOSTEMON CERATOPHYLLUM, *Michx. Fl.* II. p. 165.
tab. 44.

In flowing water, Watertown, Jefferson county, *Dr. Craue.*

GRAMINEÆ.

34. VILFA HETEROLEPIS, (*sp. nov.*) ; foliis setaceis ; panícula pyramidata, sparsiflora ; gluma inferiore subuliformi, superiore ovata, cuspidata, subduplo breviori ; valvulis perianthio subæqualibus, muticis, gluma extima paulo minori.

Root perennial. *Culm* 1—2 feet in height, smooth. *Leaves* convolute-setaceous, with the margins hispidly scabrous upward ; the lower ones equalling the culm ; the upper ones much shorter. *Lower sheaths* pilose ; upper ones smooth. *Panicle* pyramidal, spreading or subcontracted ; branches solitary, nearly simple, few and loosely flowered. *Glumes* purplish ; the outer one reduced to a subula, about one half the length of the inner one, which is strikingly membranaceous in texture, ovate or ovate-oblong, one-nerved, with the nerve produced into a short cusp. *Valves of the perianth* oblong-lanceolate, rather obtuse, thin and membranaceous, a little shorter than the superior glume. *Inferior valve*, obscurely one-

nerved, slightly apiculate. *Superior valve* two-nerved, a little shorter than the outer one. *Stamens* 3. *Anthers* large, linear, orange-red. *Stigmas* 2, hairy. *Styles* very short. *Caryopsis* subglobose, coriaceous, smooth and shining.

HAB. On rocks, Watertown, Jefferson county, *Dr. Crawe*. Flowers Aug.—Sept. I have also specimens collected near New Haven, Connecticut, by Mr. J. D. Dana. In Muhlenberg's herbarium there is a fragment of this grass with a specimen of *V. juncea*, from the late Dr. Baldwin. The locality is not noted on the label, but it was most probably collected in Delaware. Dr. Torrey has also received specimens from the vicinity of Montreal.

35. *V. VAGINIFLORA*, *Torrey*, in *Gray's Gram. & Cyp. I.* n. 3. *Agrostis virginica*, *Muhl. Gram.* p. 74. *Torrey, Fl. I.* p. 89. *non Linn.*

Watertown, Jefferson county.

36. *PANICUM XANTHOPHYSUM*, *Gray, Gram. & Cyp. I.* n. 28.

Whole plant light green, becoming yellowish in drying. *Root* perennial. *Culm* simple or branching from the base, 12—15 inches high, glabrous. *Leaves* broad-lanceolate, 3—6 inches in length, 4—6 lines broad, acute, strongly nerved, nearly smooth, ciliate at the base. *Sheaths* villose, shorter than the joints. *Peduncles* elongated when old. *Panicle* sub-simple, few-flowered, with the branches appressed, nearly smooth, *Spikelets* globose-obovate, as large as in *P. latifolium*. *Glumes* pubescent; the inferior one oblong, acutish, 3-nerved, about half the length of the 9-nerved superior one. *Abortive floret* staminiferous, 2-valved; inferior valve equalling the superior glume; superior valve shorter membranaceous. *Perfect floret* cartilaginous, rather obtuse, smooth and shining, equalling the superior glume.

HAB. In dry pine barrens, near Oneida Lake; and Hamilton, Madison county, *Dr. J. S. Douglas*. Flowers June and July. This interesting species has also been found at Conway,

Maine, and on the White Mountains of New Hampshire by *Dr. Pickering*, and at Burlington, Vermont by *J. Carey, Esq.* also near Lake Winnipeg, by *Dr. Richardson*.

CYPERACEÆ.

37. *CAREX CHORDORRHIZA*, *Willd. Sp. Pl. IV. p. 219. Wahl. Fl. Suec. II. p. 588.*

In an elevated sphagnous swamp, Bridgewater, Oneida county. I have recently received this plant, hitherto unknown in this country, from Seneca county, *Dr. Sartwell*, and St. Lawrence county, *Dr. Crawe*.

38. *C. LIVIDA*, *Willd. Sp. Pl. IV. p. 28. Wahl. Fl. Suec. II. p. 601. Schk. Car. tab. ssss. fig. 211. C. limosa, var. livida, Wahl. Act. Holm. 1803, p. 162. C. Grayana, Dewey, Caricog. in Am. Jour. Sc. XXV. p. 141. tab. S. fig. 59.*

In a sphagnous swamp near Utica. This species has also been detected on the Rocky Mountains by Mr. Drummond; and at Hudson's Bay by Dr. Richardson. My specimens agree in every respect with an European specimen of *C. livida* in the herbarium of the late Rev. Mr. Schweinitz; but I have never, except in a single specimen, noticed the distant or sub-radical peduncles, as in Schkuhr's figure. Wahlenberg, however, in his Flora Suecica, remarks that the disposition of the pistillate spikes upon the culm is variable.—Whole plant glaucous. Culm 4—10 inches in height. Glumes of the pistillate spike for the most part obtuse, but sometimes a little acute. Flowers in June.

39. *C. FOLLICULATA*, *Linn. Sp. Pl. n. 1387. Rudge, in Linn. Trans. VII. p. 98. tab. 9. f. 4. non Schkuhr et Auct. C. xanthophysa, Wahl. Car. n. 73. Dewey, Caricog. l. c. VII. p. 274, & X. tab. D. f. 15. Schw. & Torr. Carr. in Ann. Lyc. Nat. Hist. New York, I. p. 339. Spreng. Syst. Veg. III. p. 824. C. folliculata, β . xanthophysa, *Muhl. Gram. p. 244. C. rostrata, Mich. Fl. II. p. 173. (vide Torrey.)**

In cedar swamps, &c. not uncommon in the western part of the state. Flowers in June and July.

OBS. It appears, by a letter from the late Sir James E. Smith to Prof. Torrey, that the plant well known to American botanists as *C. xanthophysa*, is *C. folliculata* of the Linnæan herbarium. The specific character of Linnæus, "spicis terminalibus pedunculatis, mascula fœmineaque, capsulis subulatis longitudine spicæ," would at once be noticed as inapplicable to *C. folliculata* of Schkuhr and succeeding botanists. The figure of Rudge, in the Linnean Transactions, well represents our *C. xanthophysa*, with only two (sub-approximate) pistillate spikes; a form which is by no means uncommon. The specimen from which the figure of Rudge was taken, is said to be the same as one under the name of *C. folliculata* in the Banksian herbarium. It is evident, therefore, that the original name of Linnæus must be restored to this species.

40. *C. INTUMESCENS*, Rudge, in *Linn. Trans.* VII. p. 97. tab. 9. f. 3. *C. folliculata*, Schk. *Cur. f.* 52. *Michx. Fl.* II. p. 172. *Willd. Sp. Pl.* IV. p. 281. *Schw. & Torr. Car.* p. 338. non Linn.

In wet meadows and swamps; common. Flowers early in June.

OBS. This plant, the *C. folliculata* of Schkuhr, Willdenow, and all American botanists, is well figured by Rudge, in the Transactions of the Linnean Society as above quoted. It not unfrequently bears a single pistillate spike, as figured by Schkuhr.

β. *GLOBULARIS*; culmo crassiore; spicis fertilibus globosis, multi- (20—30) floris.

HAB. In meadows; Utica. Flowers in July.

OBS. This variety is characterized by its larger and coarser habit, and by its globose, many-flowered pistillate spikes. It flowers a month later than the ordinary form of the species, and when young might readily be mistaken for *C. lupulina*.

41. *C. BLEPHAROPHORA*, (*sp. nov.*) ; spica mascula solitaria, erecta ; femineis ternis vel quaternis, oblongo-cylindræis, nutantibus ; stigmatibus tribus ; perigyniis ovatis, rostratis, bidentatis, glumam ciliolatam, obtusiusculam, æquantibus ; foliis bracteisque ciliatis.

Culm 12—18 inches in height, smooth and slender, leafy at the base. *Leaves* linear, much shorter than the culm, ciliate, and with the sheaths pubescent on the nerves. *Bracteæ* minute, squamaceous, not sheathing the peduncles, cuspidate, with the cusps somewhat hispidly ciliate ; the lower one nearly an inch in length. *Stam. spike* oblong, obscurely trigonous, on an erect peduncle about an inch long. *Glumes* oblong, membranaceous. *Pist. spikes* 3—4, oblong-cylindric, rather densely flowered, on filiform, nodding peduncles about their own length ; the upper spikes often more or less sterile (not staminiferous), the lowest sometimes remote. *Perigynium* (fruit) ovate, obsoletely triquetrous when young, smooth, attenuated into a straight beak nearly as long as itself ; orifice bidentate. *Glumes* ovate, rather obtuse, one-nerved, membranaceous, ciliate, equalling the fruit. *Caryopsis* triquetrous.

HAB. In moist shady places, Bridgewater, Oneida county, in company with *C. aurca* and *C. flava*. Flowers in June.

OBS. This species should be placed between *C. sylvatica* and *C. miliacea*. It somewhat resembles *C. patula*, *De Cand. Syn. Fl. Gall.* p. 144 ; which differs, however, in having foliaceous bracteæ, trigonous fruit, and naked glumes.

42. *C. ARISTATA*, *R. Brown, in Rich. App. Frankl. Jour.* p. 36. *C. atherodes*, *Spreng. Syst.* III. p. 828.

Watertown, Jefferson county, *Dr. Craue.*

Our plant agrees entirely with specimens in the herbarium of Dr. Torrey, collected at Cumberland House, &c. by Dr. Richardson.

43. *C. HITCHCOCKIANA*, *Dewey, Caricog. l. c.* X. p. 274, *tab. E. fig. 17.*

Watertown, Jefferson county, *Dr. Craze*; Penn-Yan, Yates county, *Dr. Sartwell*, Cayuga county, *J. Carey*.

FILICES.

44. ASPIDIUM ACROSTICHOIDES, *Willd. Sp. Pl. V. p. 225.*

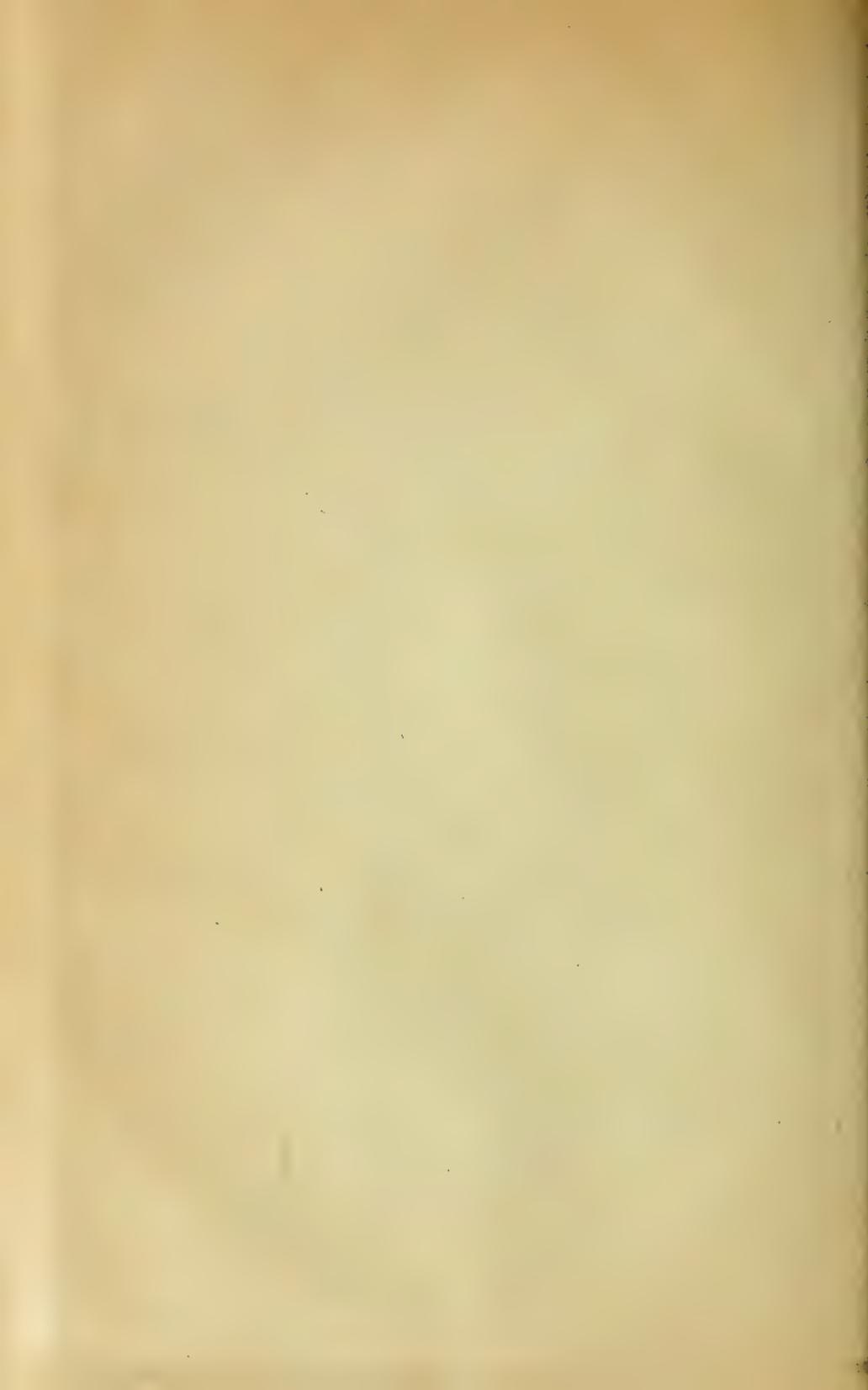
β. INCISUM; pinnis inequaliter inciso-dentatis: soris plerumque distinctis. *A. Schweinitzii, Beck, Bot. N. and Middle States, p. 449.*

HAB. In woods and shady ravines, near Hamilton College; growing with, and insensibly passing into, the ordinary form of the species.

OBS. Dr. Beck suggests that this plant may be identical with a species brought from the North West coast of America by Menzies, and mentioned by J. E. Smith, under *A. auriculatum*. Dr. Torrey's herbarium contains a specimen of this plant, collected by Dr. Sconler. It differs widely from our plant, and is without doubt a distinct species.

45. PTERIS GRACILIS, *Michx. Fl. II. p. 262. Pursh, Fl. II. p. 668.*

Penn-Yan, Ontario county, *Dr. Sartwell*.



No. 50.



IN ASSEMBLY,

January 24, 1840.

COMMUNICATION

From the Governor, transmitting several reports
relative to the Geological Survey of the State.

EXECUTIVE CHAMBER, }
ALBANY, *January 24, 1840.* }

TO THE ASSEMBLY.

GENTLEMEN,

I transmit herewith the several annual reports of the
gentlemen engaged in the Geological Survey of the State.

WILLIAM H. SEWARD.

REPORT

Of Dr. Torrey, on the Botanical Department of the Survey.

To His Excellency, WILLIAM H. SEWARD,
Governor of the State of New-York.

SIR :

As Botanist under the act for a Geological Survey of the State, I present you with the following catalogue, preparatory to my final report on the department committed to my charge. When I received my commission, no specific duties were assigned to me, except to make a thorough examination of the vegetable productions of the State, to collect and preserve seven sets of each species, and to arrange and name the whole. One of the sets was to be put up in volumes, for reference, and deposited in the Capitol at Albany; the others to be placed at the disposal of the Executive.

In compliance with these instructions, I have made numerous journeys in various parts of the State, and have prepared extensive collections of botanical specimens. I have also been greatly aided by several botanical friends, particularly by Dr. Asa Gray, who has devoted much time to the study of the plants of New-York, Dr. Peter D. Knieskern of Oriskany, and Dr. H. P. Sartwell of Penn-Yan. I am likewise indebted to many other botanists and naturalists for the communication of specimens, or localities of rare or interesting plants, among whom I take pleasure in naming Prof. Bailey of West-Point; I. Carey, Esq. of New-York; Dr. Hadley of Fairfield; Dr. Bradley of Greece; Dr. Emmons and Prof. Hall, of the geological corps, and Prof. Dewey of Rochester. I have also availed myself of information formerly received from many other botanists who have explored various parts of the State. To Dr. Crawe, I am indebted for some rare species from St. Lawrence and Jefferson counties; to Dr. Barratt, for

valuable observations on the plants of the Highlands of New-York ; to Dr. Aiken, for specimens and remarks on the plants of the central parts of the State ; to Prof. Eaton, the late Mr. H. H. Eaton, and Dr. Wright, for information relating to the botany of Rensselaer county ; to Drs. L. C. Beck and Eights, for rare plants of Albany county and other parts of the State, and to Dr. Matthew Stevenson for a catalogue of the plants of Washington county, as well as for many valuable specimens. Other friends whose names appear in the following pages have rendered valuable assistance.

Although so much has been accomplished towards the preparation of a Flora of the State, it is not pretended that all the plants within our limits are yet discovered. Many interesting districts have not been visited, and even in those which have been most examined, new plants are not unfrequently found. A considerable number of species are extremely limited in their geographical range, and others disappear soon after flowering, so that unless a district be visited several times in a season, many plants may be overlooked.

The State of New-York is an interesting botanical region. The geographical range of plants being limited by the characters of the soil and rocks, as well as by temperature, and the geological features of the State being greatly diversified, our Flora contains a considerable number of genera and species that are not found in some of the neighboring districts. The extended tertiary and alluvial formations of Long-Island, afford many plants peculiar to this portion of the State, besides the species that are confined to the immediate neighborhood of the sea. Our primitive formation yields a great proportion of the species inhabiting the New-England States. In the central and western counties where transition-rocks abound, we find many plants of Ohio, Indiana, and the country bordering Lake Superior, while on the lofty mountains of Essex county a true alpine vegetation exists.

The whole number of species indigenous and naturalized in our State, including the lower orders of the cryptogamia, probably exceeds 2,400 species. It is however the phenogamous or flowering plants that have chiefly occupied my attention, although I have not neglected the cryptogamia tribes with the exception of the fungi, which are so perishable that few of them can be preserved for reference. Of phenogamous or flowering plants 1,350 species have been found within the limits of the State, and of ferns and plants allied to them, 53 species. The mosses

have not yet been carefully studied, but many specimens of them are preserved in my collection, and the number of them belonging to the State is estimated at 150. Of hepaticæ and characææ we have 30 species. The lichens are more than 150, and the number of fungi in the State is at least 300. The interesting tribe of the algæ includes a considerable number of species which are now receiving the special attention of Prof. Bailey of West-Point, from whom I expect to receive an account of them to annex to my final report.

Of the flowering plants already discovered in the State, 277 are trees or shrubs, 150 are reputed to possess medical properties, 250 are ornamental herbaceous species, and 140 are plants which have been introduced from other countries, and are now naturalized in our soil. Of proper grasses, our Flora contains 116 species, 24 of which are of foreign origin. In the nearly allied tribe of the sedges, there are 140 species, more than half of which belong to the genus *Carex*.

The following catalogue, embracing all the flowering plants and ferns hitherto detected in the State, is arranged according to the natural method. Only such synonyms are added as seemed necessary for distinguishing the species with certainty. I have also recorded the locality, general or special, of each plant, together with the time of flowering, popular names, and occasionally some remarks. The species that are believed to be naturalized, have the mark (§) placed before them.

It is my purpose in my final report to prepare full descriptions of all these plants, in as popular language as the subject will admit of, with particular attention to their economical and medicinal uses. It is desirable, however, before the publication of this report, to render our list of native plants as complete as possible, and it is my earnest desire that every botanist in the State, who may receive this catalogue, will communicate to me any species not herein enumerated. Localities of rare plants, and remarks on such as are useful, injurious or obscure, will enable me to prepare a more complete, and therefore more useful Flora, than I could give by my unassisted labors. I shall feel greatly obliged for local catalogues of plants, drawn up somewhat after the manner of the present list, with the precise time of flowering, and the period when the fruit or seed ripens. When there is any doubt as to the names of plants, dried specimens, with numbers annexed, can be sent to me for examination. It will always afford me pleasure to receive collections from any part of the State, and to name the plants which they contain.

In some cases, it will be well, in order to exhibit the natural appearance and colour of the flower and other parts, to send drawings of the plants, made from nature. Specimens and descriptions of medicinal plants, are particularly desired, with an account of their virtues and popular use. Also information respecting the various kinds of timber trees, the quantity, quality and uses of each species ; notices of weeds and other injurious plants, with the best modes of eradicating them ; and, in a word, any interesting facts relating to the economical or scientific botany of the State, will be thankfully received.

JOHN TORREY.

CATALOGUE OF PLANTS.

CLASS I. EXOGENS, OR MONOCOTYLEDONOUS PLANTS.

ORDER RANUNCULACEÆ. THE CROWFOOT TRIBE.

CLEMATIS, *Linn.* *Virgin's Bower.*

ochroleuca, *Ait.* Long Island, near New-York. June.

virginiana, *L.* *Common Virgin's Bower.* Hills and copses. Aug.

verticillaris, *D. C.* Rocky places. April-May.

ANEMONE, *L.* *Wind Flower.*

nemorosa, *L.* Woods. April-May.

cylindrica, *Gray.* Western part of the State. May-June.

virginiana, *L.* Rocky woods, &c. July.

multifida, *D. C.* Var. *hudsoniana*, *D. C.* Watertown, Jefferson county, *Dr. Craze.* June. The only known locality of this plant in the State.

pennsylvanica, *L.* Rocky places, near streams. June-July.

HEPATICA, *Dill.* *Liver-leaf, Liver-wort.*

triloba, *Chaix.* Woods. March-April.

RANUNCULUS, *L.* *Crowfoot.*

aquatilis, *L.* Var. *capillaceus*, *D. C.* Ponds and small streams. June-August.

flammula, *L.* Inundated places. July-August.

reptans, *L.* Borders of lakes and rivers, north and west of Albany. June-August.

pusillus, *Poir.* Boggy places, near New-York, and on Long Island. July.

cymbalaria, *Pursh.* Salt marshes along the seacoast of New-Jersey, and at Salina. August.

RANUNCULUS, (continued.)

abortivus, *L.* Rocky woods. April-June.

sceleratus, *L.* Ditches and overflowed places. June-August.

Purshii, *Richardson.* *R. multifidus,* *Pursh.* *R. lacustris,* *Beck*
& *Tracy.* Ponds and wet places. May-July.

acris, *L.* *Buttercups.* Meadows and pastures. June.

repens, *L.* *R. Clintonii,* *Beck.* *R. intermedius,* *Eaton.* Wet
shady places. May-July.

pennsylvanicus, *L.* Wet places, rare. June-August.

recurvatus, *Poir.* Shady places, in rich soils. May-June.

fascicularis, *Muhl.* Rocky woods. April-May.

bulbosus, *L.* *Common Buttercups.* May. Introduced.

CALTHA, *L.* *Marsh Marigold.*

palustris, *L.* Swamps. April-May.

Var. *integerrima,* *Torr. & Gr.* *C. integerrima,* *Pursh.* Near
Peekskill. *Dr. Crandell.*

TROLLIUS, *L.* *Globe Flower.*

laxus, *Salisb.* Sphagnous swamps, western part of the State.
May.

COPTIS, *Salisb.* *Gold Thread.*

trifolia, *Salisb.* Swamps. May-June.

AQUILEGIA, *L.* *Columbine.*

canadensis, *L.* Rocks. May-July.

DELPHINIUM, *L.* *Larkspur.*

♂ *consolida,* *L.* *Common Larkspur.* Fields and road sides. July.

ACONITUM, *L.* *Monkshood.*

uncinatum, *L.* Mountains, in wet places, Chenango county.
Major I. Le Conte. This plant has not been
found within the limits of this State, since it was
discovered by *Maj. Le Conte.*

ACTÆA, *L.*

alba, *Bigel.* *Baneberry, White Cohosh.* Rocky woods. May.

rubra, *Bigel.* *Red Cohosh.* Rocky Woods. May.

CIMICIFUGA, *L.* *Bugbane.*

racemosa, *Ell.* *Actæa racemosa,* *L.* *Blacksnake-root.* Dry
woods. July.

THALICTRUM, *L. Meadow Rue.*

dioicum, *L. Rocky woods. April-May.*

cornuti, *L. Wet meadows. June-July.*

anemonoides, *Michx. Woods, in rich soils. April-May*

ORDER MAGNOLIACEÆ. THE MAGNOLIA TRIBE.

MAGNOLIA, *L.*

glauca, *L. Sweet Bay. Swamps, Long Island. Not found elsewhere in the State. May-June.*

acuminata, *L. Cucumber Tree. Lewiston and Portage, Dr. Sartwell. Also in Cattaraugus, where it is a tall tree with a trunk often more than four feet in diameter. Prof. I. Hall.*

umbrella, *Lam. Umbrella Tree. "Northern part of the State of New-York." Michaux. No other botanist has found this tree within the limits of this State.*

LIRIODENDRON, *L. Tulip Tree.*

tulipifera, *L. White-wood. Woods. May-June.*

ORDER MENISPERMACEÆ. THE MOONSEED TRIBE.

MENISPERMUM, *L. Moonseed.*

canadense, *L. Banks of rivers and thickets. June-July.*

ORDER BERBERIDACEÆ. THE BARBERRY TRIBE.

BERBERIS, *L.*

§ vulgaris, *L. Barberry Bush. Hedges, fields. Not found far in the interior.*

LEONTICE, *L.*

thalictroides, *L. Blue Cohosh. Woods. April.*

JEFFERSONIA, *Bart. Twin-leaf.*

diphylla, *Pers. Rich calcareous, northern and western parts of the State. April.*

PODOPHYLLUM, *L. May Apple.*

peltatum, *L. Woods and meadows. May.*

ORDER CABOMBACEÆ. THE WATER-SHIELD TRIBE.

BRASENIA, *Schreb.* *Water Shield.*

peltata, *Pursh.* Floating in still water. July.

ORDER CERATOPHYLLACEÆ.

CERATOPHYLLUM, *L.* *Hornwort.*

echinatum, *Gray.* In ponds, or slow-flowing water. August.

ORDER NELUMBIACEÆ.

NELUMBIUM, *Juss.*

luteum, *Willd.* *Great Yellow Water Lily.* Sodus Bay, Lake Ontario. *Dr. Sartwell.* June.

ORDER NYMPHÆACEÆ. THE WATER-LILY TRIBE.

NYMPHÆA, *Tourn.* *White Water Lily.*

odorata, *Ait.* In water. June–September.

NUPHAR, *Smith.* *Yellow Pond Lily.*

lutea. Var. *Kalmiana*, *Torr. & Gr.* *N. Kalmiana*, *Pursh.* In water. June.

advena, *Ait.* *Spatterdock.* In water. June–August.

ORDER SARRACENIACEÆ.

SARRACENIA, *L.* *Sidesaddle Flower.*

purpurea, *L.* Swamps. May–June.

Var. *heterophylla.* *S. heterophylla*, *Eaton.* Junius, Seneca county. *Dr. Sartwell.* The flowers of this variety are of a dull yellow colour, and the leaves are somewhat different from those of the ordinary form; but the plant does not appear to be a distinct species.

ORDER PAPAVERACEÆ. THE POPPY TRIBE.

SANGUINARIA, *L.* *Blood-root.*

canadensis, *L.* Open woods. March–April.

CHELIDONIUM, *L. Celandine.*

‡ majus, *L.* Waste grounds, and along fences. May–October.

ORDER FUMARIACEÆ. THE FUMITORY TRIBE.

DIELYTRA, *Borkh.*

cucullaria, *D. C.* *Breeches Flower.* Shady woods, in rich soil.
April.

canadensis, *D. C.* *Squirrel Corn.* Rocky woods. April.

eximia, *D. C.* *Fumaria eximia, Ker.* *D. formosa, T. & G.* not
of *D. C.* nor *Fumaria formosa, Andr.* *Corydalis*
formosa, Pursh. Yates county. *Dr. Sartwell.*

ADLUMIA, *Raf.*

cirrhosa, *Raf.* *Climbing Fumaria.* Shady rocks. July–Sept.

CORYDALIS, *D. C.*

aurea, *Willd.* Rocky woods. April–August.

glauca, *Pursh.* Rocky places. May–July.

FUMARIA, *L. Fumitory.*

‡ officinalis, *L.* Fields and cultivated grounds. May–August.

ORDER CRUCIFERÆ. THE CRUCIFEROUS TRIBE.

NASTURTIUM, *R. Br.*

palustre, *D. C.* Wet places. June–August.

hispidum, *D. C.* Wet places. Highlands of New-York. *Dr.*
Barratt.

natans. Var. *americanum, Gray.* Oneida lake, *Dr. Gray.* Og-
densburgh, *Dr. Crawe.* July.

BARBAREA, *R. Br.*

vulgaris, *R. Br.* *Winter Cress.* Along streams, and road sides.
May–June.

TURRITIS, *Dill. Tower Mustard.*

glabra, var. *Torr. & Gr.* Rocks, Watertown. *Dr. Crawe.*

ARABIS, *L. Wall Cress.*

hirsuta, *Scop.* Rocky places. Rare.

lyrata, *L.* Rocks. April–May.

lævigata, *D. C.* Rocky woods, and along rivers. May

canadensis, *L.* With the preceding. June–July.

CARDAMINE, *L.*

rotundifolia, *Michx.* *C. rhomboidea*, *D. C.* Wet meadows, and about shady springs. April–May.

pratensis, *L.* *Cuckoo Flower*. Swamps, western part of the State. April–May.

hirsuta, *L.* *C. pennsylvanica*, *Muhl.* *C. virginica*, *L.* Wet places, and on rocks. May–June.

DENTARIA, *L.* *Toothwort.*

laciniata, *Muhl.* Rich shady soils. April–May.

maxima, *Nutt.* Western part of the State. *Nuttall.* I have never found this plant, nor has it been observed by any other botanist save its discoverer.

diphylla, *Michx.* *Pepper Root*. Rich shady soils. April–May.

SISYMBRIUM, *Allioni.*

§ officinale, *Scop.* *Hedge Mustard*. Road sides, &c. May–August.

thaliana, *Gay.* Rocks and sandy fields. May.

ERYSIMUM, *L.* *Hedge Mustard.*

cheiranthoides, *L.* Along streams, in the interior of the State. July–August.

SINAPIS, *L.* *Mustard.*

§ nigra, *L.* *Black Mustard*, Fields and waste places. June–August.

§ arvensis, *L.* Wet meadows and fields. Common in the interior of the State. Called *Wild Mustard*, and *Charlock*.

DRABA, *L.*

arabisans, *Michx.* On rocks along the borders of lakes in the northern part of the State. May.

caroliniana, *Walt.* Sandy fields near New-York. April–June.

verna, *L.* *Whitlow Grass*. Fields and hill sides. March–April.

CAMELINA, *Crantz.* *Gold of Pleasure.*

§ sativa, *Crantz.* Fields and cultivated grounds. May–June.

THLASPI, *Dill.*

§ arvense, *L.* New-York. June–July. *Pursh.* I have not found this plant within the limits of the State.

LEPIDIUM, *L.* *Pepper-wort.*

‡ *campestre*, *L.* Waste places. June–July.

virginicum, *L.* Fields and road sides. June–August.

CAPSELLA, *Vent.* *Shepherd's Purse.*

‡ *bursa-pastoris*, *Mærch.* Fields and waste places. May–Sept.

CAKILE, *Tourn.*

maritima, *Scop.* *Sea Rocket.* Seashore of Long Island. July–August.

ORDER CAPPARIDACEÆ. THE CAPER TRIBE.

POLANISIA, *Raf.*

gravcolens, *Raf.* Gravelly banks of rivers and lakes. June–August.

ORDER POLYGALACEÆ. THE MILKWORT TRIBE.

POLYGALA, *Tourn.* *Milkwort.*

sanguinea, *L.* *P. purpurea*, *Nutt.* Fields and meadows. July–September.

cruciata, *L.* Sphagnous swamps. August–September.

verticillatá, *L.* Dry sandy soils. June–October.

senega, *L.* *Seneca Snake-root.* Dry rocky woods. May–June.

polygama, *Walt.* Sandy fields and woods. June–July.

paucifolia, *Willd.* Sphagnous swamps. May.

Var. *alba.* Sand plains near Albany. *Dr. J. Eights.*

ORDER VIOLACEÆ. THE VIOLET TRIBE.

VIOLA, *L.* *Violet.*

pedata, *L.* Dry sandy woods. May–June.

palmata, *L.* Low grounds. May.

cucullata, *Ait.* Fields and woods, in damp soils. April–May.

Selkirkii, *Goldie.* Woody hill sides, western part of the State.

sagittata, *Ait.* *V. primulifolia*, *Pursh*, not of *L.* Hills and fields. April–May.

rotundifolia, *Michx.* Shady rocky woods. May.

blanda, *Willd.* Wet meadows. April–May.

primulæfolia, *L.* Wet meadows. April–June.

lanceolata, *L.* Wet meadows and swamps. April–May.

VIOLA, (continued.)

- striata, *Ait.* Wet meadows. April–May.
 Muhlenbergii, *Torr.* Swamps and shady woods. April–May.
 rostrata, *Pursh.* Moist rocky places. May.
 pubescens, *Ait.* Dry woods. April–May.
 canadensis, *L.* Shady woods: May–July.
 tricolor. Var. arvensis, *D. C.* Dry hills. May.

SOLEA, *Ging.*

- concolor, *Ging.* Wet shady woods; western part of the State.
 April–May.

ORDER DROSERACEÆ. THE SUNDEW TRIBE.

DROSERA, *L.* *Sundew.*

- rotundifolia, *L.* Sphagnous swamps. June–August.
 longifolia, *L.* Sphagnous and sandy swamps. June–August.
 filiformis, *Raf.* Wet sandy places, Suffolk county; Long Island.
 August–September.

PARNASSIA, *Tourn.* *Grass of Parnassus:*

- caroliniana, *Michx.* Wet meadows. July–August.

ORDER CISTACEÆ. THE ROCK-ROSE TRIBE.

HELIANTHEMUM, *Tourn.*

- canadense, *Michx.* Dry sandy places. June.

LECHEA, *L.*

- major, *Michx.* Dry woods and hills. July–September.
 thymifolia, *Pursh.* Sandy shore of Long Island. July–September.
 minor, *Lam.* Dry fields and open woods. June–September.

HUDSONIA, *L.*

- ericoides, *L.* Sandy woods, Suffolk county. May.
 tomentosa, *Nutt.* Sandy fields near the sea, Suffolk county; and
 on Lake Champlain. May.

ORDER HYPERICACEÆ. THE ST. JOHN'S-WORT TRIBE.

HYPERICUM, *L.* *St. John's Wort.*

- pyramidatum, *Ait.* Banks of rivers. July.
 Kalmianum, *L.* Rocks, Falls of Niagara, &c. August.

HYPERICUM, (continued.)

‡ perforatum, *L.* *Common St. John's Wort.* Fields, pastures, &c. July–August.

corymbosum, *Muhl.* Open woods and meadows. July–August.

ellipticum, *Hook.* Moist grounds along rivers, northern and western parts of the State.

mutilum, *L.* *H. parviflorum, Muhl.* Low grounds. July–Sept.

canadense, *L.* Wet sandy soils. June–August.

sarothra, *Michx.* Sandy places. June–August.

ELODEA, *Adans.*

virginica, *Nutt.* Swamps. July–August.

ORDER ILLECEBRACEÆ. THE KNOT-GRASS TRIBE.

ANYCHIA, *Michx.*

dichotoma, *Michx.* Dry hills and woods. June–August.

SPERGULA, *Bartl.*

‡ arvensis, *L.* Fields and waste places. May–October.

rubra, *Torr. & Gr.* *Arenaria rubra, L.* Sandy fields and salt marshes April–November.

ORDER CARYOPHYLLACEÆ. THE PINK TRIBE.

MOLLÛGO, *L.* *Indian Chickweed.*

verticillata, *L.* Sandy soils. June–September.

HONCKENYA, *Ehrh.*

peploides, *Ehrh.* *Arenaria peploides, L.* Seashore of Long Island.

SAGINA, *Bartl.* *Pearl-wort.*

procumbens, *L.* Wet ground. May–August.

erecta, *L.* Dry hills near New-York: May.

ARENARIA, *L.* *Sand-wort.*

squarrosa, *Michx.* Sandy fields, Suffolk county. April–Sept.

stricta, *Michx.* Rocks and barren places, northern and western part of the State. May–July:

groenlandica, *Spreng.* Crevices of rocks on the highest summits of the Shawangunk and Adirondack mountains. July–August.

ARENARIA, (continued.)

- ♂ serpyllifolia, *L.* Sandy field, and on rocks. April–July.
 lateriflora, *L.* Damp, rather shady places. June.

STELLARIA, *L.* *Stitch-wort.*

- ♂ media, *Smith.* Fields & cultivated grounds. March–December.
 longifolia, *Muhl.* Damp shady places. June.
 borealis, *Bigel.* Wet shady swamps. Western and northern parts of the State.

CERASTIUM, *L.* *Mouse-ear Chickweed.*

- ♂ vulgatum, *L.* Cultivated grounds, road sides, &c. April–September.
 ♂ viscosum, *L.* Fields, &c. May–September.
 arvense, *L.* Rocky places. May–July.
 oblongifolium, *Torr.* Rocky hills. April–June.
 nutans, *Raf.* Low moist grounds. May.

SILENE, *L.* *Catch-fly.*

- stellata, *L.* Dry woods. June–August.
 antirrhina, *L.* Dry stony places. April–June.
 ♂ nocturna, *L.* Old fields. July–August.
 pennsylvanica, *Michx.* Dry rocks. April–June.
 virginica, *L.* Yates county. *Dr. Sartwell.*

LYCHNIS, *D. C.*

- ♂ githago, *Lam.* *Agrostema githago, L. Corn Cockle.* Cultivated fields. June.

SAPONARIA, *L.* *Soap-wort.*

- ♂ officinalis, *L.* Waste grounds. July–August.
 ♂ vaccaria, *L.* Cultivated places. July–August.

ORDER PORTULACACEÆ. THE PURSELANE TRIBE.

PORTULACA, *L.*

- ♂ oleracea, *L.* *Purselane.* Cultivated and waste places. July–August.

CLAYTONIA, *L.* *Spring Beauty.*

- virginica, *L.* Low grounds and moist woods. March–May.
 caroliniana, *Michx.* Woods, usually in highlands; northern and western parts of the State. April.

ORDER ELATINACEÆ. THE WATER-PEPPER TRIBE.

ELATINE, *L.* *Water-wort.*

americana, *Arn.* *Crypta minima*, *Nutt.* Overflowed borders of ponds, Long Island. July–September.

ORDER LINACEÆ. THE FLAX TRIBE.

LINUM, *L.* *Flax.*

virginianum, *L.* Dry hills and woods. May–August.

§ *usitatissimum*, *L.* *Common Flax.* Fields, &c. June–July.

ORDER GERANIACEÆ. THE GERANIUM TRIBE.

GERANIUM, *L.*

maculatum, *L.* Open woods, &c. April–July.

carolinianum, *L.* Dry barren soils. May–June.

pusillum, *L.* Fields and road sides. Long Island, and western part of the State. May–July. West Point. *Prof. Bailey.*

robertianum, *L.* *Herb Robert.* Wet rocks. June–October.

dissectum, *L.?* Yates county. *Dr. Sartwell.*

ERODIUM, *L'Her.* *Cranesbill.*

§ *cicutarium*, *L'Her.* Island in Oneida lake. *Dr. Kneiskern.*

ORDER BALSAMINACEÆ. THE BALSAM TRIBE.

IMPATIENS, *L.* *Lady's Slipper.* *Balsam.*

pallida, *Nutt.* Moist shady places. July–September. Rare near the seacoast.

fulva, *Nutt.* Wet shady places. June–September.

ORDER LIMNANTHACEÆ.

FLÆRKEA, *Willd.*

proserpinacoides, *Willd.* Wet places, in the interior of the State. April–May.

ORDER OXALIDACEÆ. THE WOOD-SORREL TRIBE.

OXALIS, *L.* *Wood Sorrel.*

acetosella, *L.* Woods, west and north of Catskill mountains. June.

OXALIS, (continued.)

violacea, *L.* Rocky woods. April–May.

stricta, *L.* Cultivated grounds, fields, &c. June–September.

ORDER ZANTHOXYLACEÆ.

ZANTHOXYLUM, *L.*

americanum, *Mill., Torr. & Gr.* *Z. fraxineum, Willd. Prickly Ash.* Rocky woods. April–May.

PTELEA, *L.*

trifoliata, *L.* *Shrubby Trefoil.* Shore of Lake Erie. June.

ORDER ANACARDIACEÆ. THE CASHEW TRIBE.

RHUS, *L.* *Sumac.*

typhina, *L.* *Stag's-horn Sumac.* Rocky hills. June.

glabra, *L.* *Smooth Sumac.* Rocky places. July–August.

copallina, *L.* *Mountain Sumac.* Rocky hills. July–August.

venenata, *D. C.* *Poison Sumac, Poison Elder.* Swamps. June.

toxicodendron, *L.* *Poison Oak, Poison Ivy.* Borders of woods, &c. June.

Var. radicans, *Torr. R. radicans, L. Poison Ivy, Mercury,* &c. Woods, and along fences. June.

aromatica, *Ait.* Dry rocky places. Catskill, &c. April–May.

ORDER MALVACEÆ. THE MALLOW TRIBE.

MALVA, *L.* *Mallows.*

§ rotundifolia, *L.* Road sides and waste grounds. May–Sept.

ALTHÆA, *L.* *Marsh Mallow.*

§ officinalis, *L.* Borders of salt marshes, Flushing, Oysterbay, &c, Long Island, August–September.

ABUTILON, *Dill.*

§ avicennæ, *Gært.* *Sida abutilon, L.* Waste places, Road sides, &c. August–September.

HIBISCUS, *L.*

virginicus, *L.* Borders of salt marshes, Long Island.

moscheutos, *L.* *Mallow Rose.* Borders of marshes, particularly near the salt water. August–September.

ORDER TILIACEÆ. THE LINDEN TRIBE.

TILIA, L. *Linden or Lime Tree. Bass-wood.*

americana, L. Woods. June.

ORDER VITACEÆ. THE VINE TRIBE.

VITIS, L. *Vine.*

labrusca, L. *Fox Grape.* Woods and thickets. June.

æstivalis, Michx. *Summer Grape.* Woods and river banks.
June.

riparia, Michx. *Winter Grape.* Thickets along rivers.

AMPELOPSIS, Michx.

quinquefolia, Michx. *Virginian Creeper, American Joy.* Borders of woods, and along fences. July.

ORDER ACERACEÆ. THE MAPLE TRIBE.

ACER, L. *Maple.*

pennsylvanica, L. *Striped Maple, Moose-wood, Dog-wood.*
Mountain woods. May.

spicatum, Lam. *Mountain Maple.* Rocky hills. May-June.

saccharinum, Wang. *Sugar Maple.* Woods. April-May.

dasycarpum, Ehrh. *White Maple, Soft Maple, Silver-leaved Maple.* Banks of rivers, Fishkill, &c. March-April.

rubrum, L. *Red or Swamp Maple.* Swamps and borders of streams. March-April.

ORDER CELASTRACEÆ.

STAPHYLEA, L. *Bladder-nut.*

trifolia, L. Rocky woods, particularly along rivers. May.

CELASTRUS, L.

scandens, L. *Bittersweet, Wax-work.* Borders of woods, fences, &c. June.

EUONYMUS, L. *Spindle Tree.*

atropurpureus, Jacq. *Burning Bush.* Shady woods. June-July.

americanus, L. *Strawberry Tree.* Wet woods and swamps. June.

ORDER RHAMNACEÆ. THE BUCKTHORN TRIBE.

RHAMNUS, *L.* *Buckthorn.*

catharticus, *L.* Rocky woods, Highlands of New-York. *Dr. Barratt.*

alnifolius, *L'Her.* Sphagnous swamps. May-June.

CEANOTHUS, *L.*

americanus, *L.* *New-Jersey Tea.* Woods and copses. June-July.

ovalis, *Bigel.* Barren rocky places, northern counties. May.

ORDER LEGUMINOSÆ. THE BEAN TRIBE.

VICIA, *L.* *Vetch.*

americana, *Muhl.* Shady moist places. June.

cracca, *L.* Borders of woods, &c. April-June.

caroliniana, *Walt.* Banks of rivers. April-May.

§ sativa, *L.* *Common Vetch, Tare.* Fields, &c. July.

ERVUM, *L.* *Tare.*

§ ? hirsutum, *L.* Borders of rivers. May-June.

LATHYRUS, *L.*

maritimus, *Bigel.* *Pisum maritimum, L.* Sandy shores and hill sides, particularly near salt water. June-July.

ochroleucus, *Hook.* Sandy hill sides. June-July.

myrtifolius, *Muhl.* Banks of rivers, &c. July-August.

palustris, *L.* Wet borders of streams. July-August.

PHASEOLUS, *L.* *Kidney Bean.*

perennis, *Walt.* Woods and borders of swamps. July-August.

diversifolius, *Pers.* Sandy shores. August-October.

helvolus, *L.* Sandy fields. August-September.

APIOS, *Boerh.*

tuberosa, *Mæench.* Moist shady places. July.

AMPHICARPÆA, *Elliott.*

monoica, *Torr. & Gr.* Woods and thickets. August-September.

ROBINIA, *L.* *Locust Tree.*

pseudacacia, *L.* *Common Locust.* Not indigenous in this State, but almost naturalized in some places. May-June.

TEPHROSIA, *Pers.*

virginiana, *Pers.* Dry sandy soils. June-July.

TRIFOLIUM, *L.* Clover, Trefoil.

§ arvense, *L.* Stone Clover, Rabbit-foot. Dry soils. June-August.

§ pratense, *L.* Red Clover. Meadows, fields, &c. May-Sept.

repens, *L.* White Clover. Pastures, &c. April-November.

§ agrarium, *L.* Hop Clover. Sandy soils. June-August.

MELILOTUS, *Tourn.* Melilot.

§ officinalis, *Willd.* Yellow Melilot. River banks. June-August.

leucantha, *Koch.* White Melilot. River banks. June-August.

MEDICAGO, *L.* Medick.

§ sativa, *L.* Lucerne. Fields. June-July.

§ lupulina, *L.* Fields and cultivated grounds. June-August.

ASTRAGALUS, *L.* Milk Vetch.

canadensis, *L.* Rocky banks of rivers. June-August.

PHACA, *L.* Bastard Vetch.

neglecta, *Torr. & Gr.* Gravelly banks of rivers and lakes, western counties. June-July.

STYLOSANTHES, *Swartz.*

elatior, *Swartz.* Sandy woods, Suffolk county. July-August.

DESMODIUM, *D. C.*

nudiflorum, *D. C.* Dry rocky woods. July-August.

acuminatum, *D. C.* Dry woods. July.

canadense, *D. C.* Dry woods. August.

canescens, *D. C.* Moist rich soils. July-August.

Dillenii, *Darlingt.* Rich woodlands. August.

cuspidatum, *Torr. & Gr.* D. bracteatum, *D. C.* Banks of rivers, and rocky thickets. August.

marilandicum, *Boott., (D. C.?)* Hedysarum marilandicum, *L.*
H. obtusum, *Willd. &c.* Fields and woods.
July-August.

rigidum, *D. C.* Hill sides. August-September.

ciliare, *D. C.* Borders of woods, &c. August.

paniculatum, *D. C.* Dry woods and copses. August.

rotundifolium, *D. C.* Rocky woods. August.

LESPEDEZA, Michx.

procumbens, *Michx.* Sandy fields and hill sides. August.
 repens, *Torr. & Gr.* L. prostrata, *Pursh.* Sandy fields. Aug.
 violacea, *Pers., Torr. & Gr.* (L. divergens.)

Var. 1. sessiliflora, *Torr. & Gr.* L. sessiliflora, *Michx.*

Var. 2. angustifolia, *Torr. & Gr.* L. reticulata, *Pers.*

Dry woods and thickets. August–September.
 capitata, *Michx.* L. frutescens, *Ell.* Sandy fields, &c. August–
 September.
 hirta, *Ell.* L. polystachya, *Michx.* Sandy fields. August–
 September.

LUPINUS, L. Lupine.

perennis, *L.* *Wild Lupine.* Sandy woods. June.

CROTALARIA, L. Rattlebox.

sagittalis, *L.* Dry woods and sandy fields. July–August.

BAPTISIA, Vent.

tinctoria, *R. Br.* *Wild Indigo.* Sandy woods and fields. July–
 August.

GLEDITSCHIA, L.

triacanthos, *L.* *Honey Locust.* Not indigenous in this State,
 but often planted about houses, and nearly natu-
 ralized in some places.

CASSIA, L.

marilandica, *L.* *Wild Senna.* Banks of streams. July–August.
 nictitans, *L.* *Wild Sensitive Plant.* Sandy places. August.
 chamæcrista, *L.* *Magothy-bay Bean.* Sandy places. July–
 August.

CERCIS, L. Judas Tree.

canadensis, *L.* Niagara county?

ORDER ROSACEÆ. THE ROSE TRIBE.**PRUNUS, Tourn. Plum.**

americana, *Marshall.* P. nigra, *Ait.* *Yellow Plum.* Banks of
 streams, borders of fields, &c. April.
 maritima, *Wang.* P. sphærocarpa, *Michx.* P. pygmæa, *Willd.*
 P. littoralis, *Bigel.* *Beach Plum.* Sandy fields

and hill sides near the seacoast, Long Island.
May.

CERASUS, Juss. Cherry.

- pumila, *Michx.* *Sand Cherry*. Rocky or sandy shores. May.
pennsylvanica, *Loisel.* C. borealis, *Michx.* Rocky woods. May.
virginiana. Prunus virginiana, *L.* P. serotina, *Torr. fl., Beck,*
 &c.; not of *Ehrh.* *Choke-Cherry*. Rocky
 hills. May.
serotina, *Loisel.* Prunus serotina, *Ehrh.* Cerasus virginiana,
 Michx. *Wild Cherry, Black Cherry*. Woods.
 June.

SPIRÆA, L. Meadow-sweet.

- opulifolia, *L.* *Nine-bark*. Rocky river banks. June.
salicifolia, *L.* *Queen of the Meadow*. Along brooks, and on
 rocky hills. June-July.
tomentosa, *L.* *Steeple-bush, Hardhack*. Low grounds. July.

GILLENIA, Mœnch.

- trifoliata, *Mœnch.* *Indian Physic, Bowman's-root*. Woods. June.
stipulacea, *Nutt.* Western part of the State. *David Thomas, Esq.*

SANGUISORBA, L. Burnet Saxifrage.

- canadensis, *L.* Wet meadows, &c. August-September.

AGRIMONIA, L. Agrimony.

- eupatoria, *L.* Dry woods and fields. July.

POTENTILLA, L. Cinquefoil.

- fruticosa, *L.* Bog meadows. June-September.
arguta, *Pursh.* Rocky hills. June.
argentea, *L.* Rocks and barren fields. June-September.
canadensis, *L.* P. simplex, *Michx.* *Five-finger, Barren Strawberry*.
 Fields and woods. April-August.
 §? norvegica, *L.* Old fields, &c. June-August.
tridentata, *Ait.* Clefts of rocks, on mountains. June-July.
palustris, *Scop.* Comarum palustre, *L.* Swamps. June.

GEUM, L. Avens.

- canadense, *Murr.* G. strictum, *Ait.* Swamps and fields. July.
virginianum, *L.* G. album, *Gmel.* Woods, &c. June-July.
rivale, *L.* *Water Avens*. Bogs and wet meadows. May-June.

COMAROPSIS, Richard.

fragarioides, *D. C.* Woods. May-June.

DALIBARDA, L.

repens, *L.* Moist shady places. June-August.

FRAGARIA, L. Strawberry.

virginiana, *Mill.* Wild Strawberry. Old fields, &c. May-June.

canadensis, *Michx.* Rocky hills. May-June.

RUBUS, L. Bramble.

odoratus, *L.* Flowering Raspberry. Rocky places. June-Aug.

strigosus, *Michx.* Red Raspberry. Rocks and hill sides. May.

occidentalis, *L.* Black Raspberry, Thimble-berry. Borders of woods, and in thickets. May.

cuneifolius, *Pursh.* Sandy fields, Long Island. May-June.

villosus, *Ait.* Blackberry, High Blackberry. Old fields, &c. May-June.

procumbens, *Muhl.* *R. trivialis, Pursh.* *R. hispidus, D. C.*

hispidus, L. *R. obovalis, Michx.* *R. obovatus, Pers., Darlingt.* Shady swamps. June.

triflorus, Richards. *R. saxatilis, var. canadensis, Michx.* *R. canadensis, Torr. fl.* Swamps. June.

ROSA, L. Rose.

♂ *rubiginosa, L.* Sweet Brier. Fields, &c. June.

carolina, L. Swamp Rose. Wet thickets. June-July.

parviflora, Ehrh. *R. caroliniana, Michx.* Old fields, &c. June.

CRATÆGUS, Lindl. Hawthorn.

crus-galli, L. Cockspur Thorn, Newcastle Thorn. Borders of woods, &c. June.

punctata, Ait. Woods and along streams. May-June.

pyrifolia, Ait. Rocky woods, &c. May-June.

coccinea, L. White Thorn. Borders of woods. May.

AMELANCHIER, Medic., D. C.

canadensis, Torr. & Gr. *Mespilus canadensis, L.* Shad-flower, June-berry, Snowy Medlar.

Var. 1. *botryapium, Torr. & Gr.* *A. botryapium, D. C.*

Var. 2. *oligocarpa, Torr. & Gr.* *Pyrus sanguinea, Pursh.*

Var. 3. *rotundifolia, Torr. & Gr.* *Aronia ovalis, Pers.*

Var. 4. *oblongifolia, Torr. & Gr.*

Rocky woods and low grounds. April-May.

PYRUS, *Lindl.* *Apple, Pear, &c.*

§ malus, *L.* *Apple Tree.* Naturalized in some places. May.
 coronaria, *L.* *Sweet-scented Crab-apple.* Woods. April-May.
 aucuparia, *Gært.* Sorbus aucuparia, *L., Michx.* *S. americana*
 and microcarpa, *Pursh.* *Mountain Ash.* Moun-
 tain swamps and shady hill sides. May. Not
 found south of the Highlands.

arbutifolia, *L. f.*

Var. 1. erythrocarpa. *P. arbutifolia, D. C.*

Var. 2. melanocarpa. *P. melanocarpa, D. C.*

Choke-berry. Woods and hill sides. May-June.

ORDER MELASTOMACEÆ.

RHEXIA, *L.*

virginica, *L.* *Deer Grass.* Swamps. August.

ORDER LYTHRACEÆ. THE LOOSE-STRIFE TRIBE.

LYTHRUM, *L.* *Loose-strife.*

hyssopifolia, *L.* In the State of New-York. *Nuttall.*

CUPHEA, *L.*

viscosissima, *Jacq.* Fields, &c. northern and western counties.
 September.

DECODON, *Gmel.*

verticillatum, *Ell.* Swamps. August.

ORDER ONAGRACEÆ. THE EVENING PRIMROSE TRIBE.

EPILOBIUM, *L.* *Willow Herb.*

angustifolium, *L.* *E. spicatum, Lam.* Banks of rivers and low
 grounds. July.

alpinum, *L.* Adirondack mountains. August.

coloratum, *Muhl.* Wet places. July-August.

molle, *Torr.* *E. strictum, Muhl.* Sphagnous swamps. August.

palustre, *L.* Swamps. August.

Var. albiflorum, *Lehm.* *E. oliganthum, Michx.* *E. squamatum,*
Nutt. Sphagnous swamps. August-September.

GAURA, *L.*

biennis, *L.* Dry soil, river banks, &c. August.

CENOTHERA, L. Evening Primrose.

pumila, L. *C. chrysantha* and *pumilla*, *Michx.* Fields and meadows. June–July.

fruticosa, L. *C. canadensis*, *Goldie.* Dry places. June–Aug.

Var. *ambigua*, *Nutt.* Stony fields. August.

biennis, L. *C. grandiflora*, *Ait.* *C. parviflora*, L. Fields and meadows. June–August.

LUDWIGIA, L.

palustris, *Ell.* Stagnant water. July–October.

alternifolia, L. Swamps. July–August.

CIRCÆA, Tourn. Enchanter's Nightshade.

lutetiana. Var. 1. *canadensis*, L.

Var. 2. *alpina*. *C. alpina*, L.

Damp shady woods. July–August.

SUB-ORDER HALORAGEÆ.

PROSERPINACA, L. Mermaid Weed.

palustris, L. In water. July–August.

MYRIOPHYLLUM, Vaill. Water Milfoil.

spicatum, L. Deep water. July–August.

verticillatum, L. Ponds and streams. July–September.

heterophyllum, *Michx.* Ponds and streams. July–September.

ambiguum, *Nutt.* Ponds and muddy places, Long Island. July–August.

tenellum, *Bigel.* Borders of ponds, northern counties. August.

HIPPURIS, L. Mare's-tail.

vulgaris, L. Ponds and lakes, Schenectady, *Dr. Beck.* Cayuga lake, *Dr. I. Smith.* Ditches near Coldspring, Putnam county, *Prof. Bailey.*

ORDER CALLITRICHACEÆ. THE WATER-CHICKWEED TRIBE.

CALLITRICHE, L. Water Chickweed.

verna, L. *C. heterophylla*, *Pursh.* In water. May–September.

Var.? *linearis*. *C. linearis*, *Pursh.* In water. August.

Var.? *terrestris*. *C. terrestris*, *Raf.* Muddy places. July.

ORDER CUCURBITACEÆ. THE GOURD TRIBE.

SICYOS, *L.* *Single-seeded Cucumber.*

angulatus, *L.* Cultivated grounds and river banks. August.

HEXAMERIA, *Torr. & Gr.*

echinata, *Torr. & Gr.* *Momordica echinata, Willd.* *Sicyos lobatus, Michx.* Moist alluvial soils. August.

ORDER GROSSULARIACEÆ. THE CURRANT TRIBE.

RIBES, *L.* *Currant and Gooseberry.*

prostratum, *L'Herit.* *R. rigens* and *trifidum, Michx.* Rocky places; northern and western counties. May.

floridum, *L'Herit.* *R. recurvatum, Michx.* *Wild Black Currant.* Woods and hedges. May.

hirtellum, *Michx.* *R. saxosum, Hook.* Rocky places. May.

rotundifolium, *Michx.* *R. triflorum, Willd.* *Wild Gooseberry.* Rocky woods, and on mountains. May-June.

lacustre, *Poir.* Catskill mountains. May-June.

cynosbati. *L.* Mountain woods. May-June.

ORDER CACTACEÆ. THE CACTUS TRIBE.

OPUNTIA, *Tourn.* *Indian Fig.*

vulgaris, *D. C.* *Cactus opuntia, L.* *Prickly Pear.* Rocks, and in sand. June-July.

ORDER CRASSULACEÆ. THE HOUSE-LEEK TRIBE.

SEDUM, *L.* *Stone-crop.*

telephioides, *Michx.* Rocks on Seneca lake. *Prof. J. Hall.*

PENTHORUM, *L.*

sedoides, *L.* Low wet places. July-August.

ORDER SAXIFRAGACEÆ. THE SAXIFRAGE TRIBE.

SAXIFRAGA, *L.* *Saxifrage.*

virginiensis, *Michx.* Rocks. April-May.

pennsylvanica, *L.* Swamps and bogs. May-June.

CHRYSOSPLENIUM, L. Golden Saxifrage.

americanum, *Schwein.* *C. oppositifolium*, *Michx.* and most American botanists; not of *Linn.* In water. April-May.

MITELLA, L. False Sanicle, Bishop's Cap.

diphylla, *L.* Rocky wet banks. May.

nuda, *L.* *M. cordifolia*, *Lam.* *M. prostrata*, *Michx.* Moist rocky places. May-June.

TIARELLA, L. Mitre-wort.

cordifolia, *L.* Rocky woods. May-June.

HEUCHERA, L. Alum-root.

americana, *L.* Shady rocks. June-July.

ORDER HAMAMELACEÆ. THE WITCH HAZEL TRIBE

HAMAMELIS, L. Witch Hazel.

virginiana, *L.* Woods. October-November.

ORDER UMBELLIFERÆ. THE UMBELLIFEROUS TRIBE.

HYDROCOTYLE, L. Marsh Penny-wort.

umbellata, *L.* Var. *umbellulata*, *D. C.* Sandy swamps, Long Island. July-August.

americana, *L.* Moist shady places and swamps. July.

CRANTZIA, Nutt.

linearis, *Nutt.* Muddy banks of rivers, West Point. *Prof. Bailey.*

SANICULA, L. Sanicle.

marilandica, *L.* Woods. June-August.

CICUTA, L.

maculata, *L.* *Water Hemlock.* Wet grounds. July-August.

bulbifera, *L.* Swamps. August.

ZIZIA, Koch.

aurea, *Koch.* Rocky hills. June.

cordata, *Koch.* Meadows, and banks of rivers. May-June.

integerrima, *D. C.* Dry hills. May.

DISCOPLEURA, *D. C.*

capillacea, *D. C.* Brackish swamps. July–September.

CRYPTOTÆNIA, *D. C.*

canadensis, *D. C.* *Chærophylloides canadense*, *Pers.* *Hone-wort.*
Woods. June.

SIUM, *L.* *Water Parsnip.*

latifolium, *L.* *S. lineare*, *Michx.* Swamps. July.

SELINUM, *L.*

canadense, *Michx.* *Cnidium canadense*, *Spreng.* Swamps, Ori-
skany, Oneida county. August.

BUPLEURUM, *L.* *Modesty, Thoroughwax.*

† rotundifolium, *L.* Cultivated grounds and waste places. Aug.

ANGELICA, *L.*

atropurpurea, *L.* *Common Angelica.* Low grounds. June.

hirsuta, *Muhl.* *A. triquinata* of American authors; not of *Michx.*
Dry thickets, and borders of woods. August.

ARCHEMORA, *D. C.*

rigida, *D. C.* *Sium rigidius*, *L.* *Cowbane.* Swamps. August.

PASTINACA, *L.* *Parsnep.*

† sativa, *L.* *Common Parsnep.* Old fields. June–August.

HERACLEUM, *L.* *Cow Parsnep.*

lanatum, *L.* Low grounds. June.

DAUCUS, *L.* *Carrot.*

† carota, *L.* Fields and road sides. July–September.

OSMORHIZA, *Raf.*

longistylis, *D. C.* *Sweet Cicely.* Woods, in rich soil. May.

brevistylis, *D. C.* Shady rocky woods. May.

CONIUM, *L.* *Hemlock.*

† maculatum, *L.* *Poison Hemlock.* Waste places. June–July.

ORDER ARALIACEÆ. THE ARALIA TRIBE.

ARALIA, *L.*

nudicaulis, *L.* *Wild Sarsaparilla.* Rocky woods. May–June.

ARALIA, (continued.)

racemosa, *L.* *Spikenard.* Woods. July.

hispida, *L.* *Wild Elder.* Rocks. July.

PANAX, *L.* *Ginseng.*

quinquefolium, *L.* *Common Ginseng.* Woods. July.

trifolium, *L.* *Dwarf Ginseng, Ground-nut.* Moist shady woods.
April.

ORDER CORNACEÆ. THE DOG-WOOD TRIBE.

CORNUS, *L.* *Dog-wood.*

canadensis, *L.* *Dwarf Dog-wood.* Woods and swamps. May-
June.

florida, *L.* *Common Dog-wood.* Woods. May.

circinata, *L'Herit.* Margins of streams. June.

sericea, *L'Herit.* *Swamp Dog-wood.* Low grounds. June.

stolonifera, *Michx.* *C. alba*, of American botanists; not of *Linn.*

Wet banks of streams, and swamps. June.

paniculata, *L'Herit.* Banks of streams. June.

alternifolia, *L.* Shady woods. May-June.

ORDER CAPRIFOLIACEÆ. THE HONEYSUCKLE TRIBE.

SAMBUCUS, *L.* *Elder.*

canadensis, *L.* *Common Elder.* Low grounds, &c. June-July.

pubens, *Michx.* *Red-berried Elder.* Rocky woods. May.

VIBURNUM, *L.*

prunifolium, *L.* *Black Haw, Sloe.* Woods. May-June.

lentago, *L.* Woods, along streams. May.

cassinoides, *L.*; not of authors. Swamps, northern counties.

nudum, *L.* Swamps. June.

dentatum, *L.* Moist rocky places. June.

pubescens, *Pursh.* Rocks. June.

lantanoïdes, *Michx.* *Hobble-bush.* Mountain woods. May-June.

acerifolium, *L.* *Arrow-wood, Dogmackie.* Woods. June.

oxycoccus, *Pursh.* *Bush Cranberry.* Rocky woods. June.

TRIOSTEUM, *L.*

perfoliatum, *L.* *Fever-root, Horse Gentian, Wild Coffee.* Rocky
woods. May-June.

DIERVILLA, *Tourn.*

Tournefortii, *Michx.* Rocky woods. June–July.

LONICERA, *L.* *Honeysuckle.*

flava, *Sims.* Catskill mountains. June–July. *Pursh.*

hirsuta, *Eaton.* *Caprifolium pubescens*, *Goldie.* Rocky woods.
June.

parviflora, *Lam.* Rocky woods. June.

grata, *Ait.* Mountains, New-York. *Pursh.* I have not found this
species.

ciliata, *Muhl.* Rocky hills. May–June.

cærulea, *L.* *L. villosa*, *Muhl.* *Xylosteum villosum*, *Michx.* X.
solonis, *Eat.* Rocky hills, Poughkeepsie. May.

oblongifolia, *Hook.* *Xylosteum oblongifolium*, *Goldie.* Rocks.
June.

sempervirens, *Ait.* Rocks near water, Island of New-York. May.

SYMPHORICARPOS, *Dill.*

vulgaris, *Michx.* *Symphoria glomerata*, *Pers.* Yates county.
Dr. Sartwell.

racemosus, *Michx.* Rocky river banks. July.

LINNÆA, *Gronov.*

borealis, *L.* *Twin-flower.* Shady moist woods and swamps.

ORDER RUBIACEÆ. THE MADDER TRIBE.

HEDYOTIS, *L., Hook.*

glomerata, *Ell.* Damp shady soils, near New-York. August.

cærulea, *Hook.* *Houstonia cærulea*, *L.* Wet banks and woods.
April–September.

longifolia, *Hook.* *Houstonia longifolia*, *Michx.* Woods, &c. June.

ciliolata, *Hook.* *Houstonia ciliolata*, *Torr.* Wet rocks and banks,
near the Great Lakes. June–July.

MITCHELLA, *L.* *Partridge-berry.*

repens, *L.* Woods. June.

CEPHALANTHUS, *L.* *Button-bush.*

occidentalis, *L.* Swamps and along streams. July–August.

GALIUM, *L.* *Bedstraw, Goose-grass.*

trifidum, *L.* Low wet places. July.

GALIUM, (continued.)

- tinctorium, *L.* Moist shady woods. June–July.
 asprellum, *Michx.* Wet thickets. July.
 aparine, *L.* Shady rocky places, and along fences. May.
 triflorum, *Michx.* Moist woods. July.
 pilosum, *Ait.* Dry woods and thickets. June.
 circæzans, *Michx.* Woods, in rich soil. June–July.
 lanceolatum, *Torr.* Moist woods. July.
 boreale, *L.* Dry woods. July–August.

ORDER VALERIANACEÆ. THE VALERIAN TRIBE.

FEDIA, *Mœnch.* *Lamb Lettuce.*

radiata, *Michx.* Meadows and banks of rivers. May.

VALERIANA, *L.* *Valerian.*

sylvatica, *Richardson.* Sphagnous swamps in Wayne county
Dr. Sartwell.

ORDER DIPSACEÆ. THE SCABIOUS TRIBE.

DIPSACUS, *L.* *Teasel.*

♂ sylvestris, *L.* *Wild Teasel.* Waste places. July.

ORDER COMPOSITÆ.

VERNONIA, *Schreb.* *Iron-weed.*

noveboracensis, *Willd.* Low grounds. August.

LIATRIS, *Schreb.* *Blazing Star.*

scariosa, *Willd.* Sandy fields. September.

flexuosa, *Thomas, in Sill. Jour. Oct. 1839.*

EUPATORIUM, *L.*

sessilifolium, *L.* Rocky woods. August.

perfoliatum, *L.* *Boneset, Thoroughwort.* Wet grounds. August.

purpureum, *L.* *E. verticillatum, Willd.* Low grounds. August.

maculatum, *L.* *E. trifoliatum, L. E. ternifolium, Ell., D. C.*
 Swamps, and borders of wet woods. August.

Perhaps not distinct from the preceding.

ageratoides, *L. f.* Woods and rocky banks. August–September.

teucrifolium, *Willd.* Low grounds. August.

MIKANIA, *Willd.*

scandens, *Willd.* Wet thickets. August.

NARDOSMIA, *Cass.*

palmata, *Hook.* *Tussilago palmata*, *Ait.* Swamps near Saratoga.
Dr. Steele.

TUSSILAGO, *Tourn. Coltsfoot.*

farfara, *L.* Moist banks. April. Introduced?

ASTER, *L. Starwort.*

novæ-angliæ, *Ait.* Low grounds. September.

patens, *Ait.* *A. amplexicaulis*, *Michx.* Dry woods. August-September.

phlogifolius, *Muhl.* Dry woods. August.

cordifolius, *L.* Woods. September.

paniculatus, *Ait.* Dry woods. August-September.

heterophyllus, *Willd.* Rocky banks and thickets. September.

diversifolius, *Michx.* Dry woods. September.

preanthoides, *Muhl.* Low grounds. September.

puniceus, *L.* Swamps. September.

novæ-belgii, *L.* Near Albany. *Dr. Beck.*

parviflorus, *Nees.* Old fields. September.

divergens, *Ait.* Fields and thickets. September.

fragilis, *Willd.* Swamps. September.

tradescantii, *L.* Thickets. August-October.

ericoides, *L.* Wet bushy places. September.

diffusus, *Ait.* Old fields. September.

miser, *L.* Old fields. September-October.

multiflorus, *Ait.* Fields and dry banks. September.

concinus, *Willd.* Swamps. September.

mutabilis, *Ait.* Rocky river banks. September.

lævis, *L.* Moist shady banks. September.

rubricaulis, *Lam.* *A. cyaneus*, *Hoffm.* Borders of woods. Sept.

bellidiflorus, *Willd.* Meadows. September.

A few other species of this genus have been collected, but not determined.

TRIPOLIUM, *Nees.*

flexuosum, *Nees.* *Aster flexuosus*, *Nutt.* Salt marshes. Sept.

subulatum, *Nees.* *A. subulatus*, *Michx.?* Salt marshes.

SERICOCARPUS, *Nees*.

solidaginoides, *Nees*. *Aster solidaginoides*, *Willd.* Dry woods.
July–August.

conyzoides, *Nees*. *Aster conyzoides*, *Willd.* Dry woods and
thickets. July–August.

HELEASTRUM, *D. C.*

album, *D. C.* *Chrysopsis alba*, *Nutt.* Rocky banks of Black
river, Jefferson county. August. *Dr. Crawe.*

BIOTIA, *D. C.*

macrophylla, *D. C.* *Aster macrophyllus*, *L.* Rocky woods. Au-
gust–September. *B. Schreberi*, *latifolia* and
glomerata, *D. C.* do not appear to be more than
varieties of this species.

corymbosa, *D. C.* Dry woods. July–August.

DIPLOSTEPHIUM, *Cass.*

amygdalinum, *Cass.* *Aster amygdalinus*, *L.* Also? *A. umbel-*
latus, *Ait.* Low grounds. August–September.

cornifolium, *D. C.* *A. cornifolius*, *Muhl.* Woods. August.

acuminatum, *D. C.* *A. acuminatus*, *Michx.* Mountain woods.
September.

DIPLOPAPPUS, *Cass.*, *D. C.*

linariæfolius, *Lindl.* *Aster linariifolius*, *L.* Rocks and sandy
woods.

ERIGERON, *L. Fleabane.*

philadelphicum, *L.* Woods. June–August.

pulchellum, *Michx.* *E. bellidifolium*, *Muhl.* *Poor Robert's Plan-*
tain. Woods. May–June.

purpureum, *Ait.* Sides of hills, &c. June.

canadense, *L.* *E. pusillum*, *Nutt.* *Horse-weed*, *Butter-weed.*
Fields, &c. August–September.

STENACTIS, *Nees*.

annua, *Nees*. *Aster annuus*, *L.* *Erigeron heterophyllum*, *Nutt.*
Fields and meadows. June–July.

strigosa, *D. C.* *Erigeron strigosus*, *Muhl.* Fields and woods.
June–August.

CHRYSOPSIS, Nutt.

- mariana, *Nutt.* Dry sandy woods. September.
 falcata, *Ell.* Sandy fields, Suffolk county. September.

SOLIDAGO, L. Golden-rod.

- canadensis, *L.* Woods. August–September.
 gigantea, *Ait.* Low grounds. August.
 ciliaris, *Muhl.* Dry fields and woods. August.
 rugosa, *Mill.* Woods and low grounds. August–September.
 altissima, *L.* Low grounds. August–September.
 nemoralis, *Ait.* *S. puberula, Nutt.?* Dry woods and fields. Aug.
 patula, *Muhl.* Low grounds. September.
 ulmifolia, *Muhl.* Low grounds. August–September.
 arguta, *Ait.* Rocky banks. August.
 odora, *Ait.* Mountain woods and thickets. August–September.
 bicolor, *L.* Woods and thickets. August–September.
 flexicaulis, *L.* Rocky woods. September.
 Var. latifolia. *S. latifolia, L.* Rocky banks. September.
 serotina, *L.* Rocky banks. September.
 juncea, *Ait.* Swamps. September.
 cæsia, *L.* Thickets. September.
 squarrosa, *Muhl., Nutt.* Rocky hills. August–September.
 sempervirens, *L.* Borders of salt and brackish meadows. Sep-
 tember–October.
 virgaurea, *L.* var. alpina. Summit of Mount Marcy, Essex county.
 August.
 rigida, *L.* Highlands of New-York. *Dr. Barratt.*
 graminifolia, *Ell.* *S. lanceolata, Willd.* Low grounds. August.
 tenuifolia, *Pursh.* Sandy soils. August–September.

BACCHARIS, L. Ploughman's Spikenard.

- halimifolia, *L.* Seacoast of Long Island. September–October.

PLUCHEA, Cass.

- fœtida, *Torr. & Gr.*; not of *D. C.* *P. marilandica* and *campho-*
rata, D. C. *Baccharis fœtida, L.* *Conyza mar-*
ilandica, Michx., Ell. Borders of salt marshes.
 August.

INULA, L.

- ♂ helenium, *L.* *Elecampane.* Fields and road sides. July.

SILPHIUM, *L.*

ternatum, *Retz.* Near Niagara. *Dr. Eddy.*

POLYMNIA, *L.*

uedalia, *L.* Rocky woods. July–August.

canadensis, *L.* Shady hill sides. June–July.

XANTHIUM, *L.* *Clot-weed, Cockle-bur.*

♂ strumarium, *L.* Borders of fields, &c. August–September.

echinatum, *Murr.* *X. macrocarpum*, var. *glabratum*, *D. C.* *X. orientale*, *Linn. f.*, *Muhl.* *X. maculatum*, *Raf.*
Sandy shores, near salt water. August.

♂ spinosum, *L.* Road sides and waste places. September.

AMBROSIA, *L.* *Hog-weed.*

elator, *L.* *Rag-weed, Bitter-weed.* Old fields. August–Sept.

trifida, *L.* Along fences, and in low grounds. August.

IVA, *L.* *False Jesuit's Bark.*

frutescens, *L.* *High-water Shrub.* Salt marshes. August.

HELIOPSIS, *Pers.*

lævis, *Pers.* Banks of streams. August.

RUDBECKIA, *L.*

laciniata, *L.* Moist thickets. July–August.

OBELISCARIA, *Cass.*

pinnata, *Cass.* *Rudbeckia pinnata*, *Vent.* Shore of Lake Erie.
Dr. Sartwell.

COREOPSIS, *L.* *Tickseed Sunflower.*

trichosperma, *Michx.* Cedar swamps, Long Island. August.

ACTINOMERIS, *Nutt.*

alternifolia, *D. C.* *A. squarrosa*, *Nutt.* *Coreopsis alternifolia*, *L.*
Borders of Crooked lake, Yates county. *Dr. Sartwell.*

HELIANTHUS, *L.* *Sunflower.*

divaricatus, *L.* Woods and hill sides. July–August.

frondosus, *L.* Woods. July and August.

decapetalus, *L.* Woods and thickets. August.

trachelifolius, *Willd.* Low grounds. August–September.

altissimus, *L.* Swamps. August.

BIDENS, L. *Bur Marigold.*

connata, L. Swamps and low grounds. September.

frondosa, L. Along fences, &c. August–September.

cernua, Willd. *B. petiolata*, Nutt.? Swamps. August–Sept.

chrysanthemoides, Michx. Low grounds. August–September.

Beckii, Torr. Lakes and ponds near Schenectady, *Dr. Beck.*
Western part of New-York, *Dr. Aikin* and *Dr. Gray.*

bipinnata, L. *Spanish Needles.* Fields and rocky hills. August–September.

HELENIUM, L.

autumnale, L. Swamps. August–September.

MARUTA, Cass.

♂ *cotula*, Cass. *Anthemis cotula*, L. *May-weed*, *Stinking Chamomile.* Road sides, &c. June–September.

ACHILLEA, L. *Yarrow, Milfoil.*

♂ *millefolium*, L. Fields, pastures, &c. June–August.

LEUCANTHEMUM, Tourn.

♂ *vulgare*, Lam. *Chrysanthemum leucanthemum*, L. *Ox-eye Daisy.* Pastures, &c. June–August.

ARTEMISIA, L. *Wormwood.*

♂ *vulgaris*, L. *Mugwort.* Fields and road sides. September.

canadensis, L. *Wild Wormwood.* Sandy shores of Lake Erie.
July–August. *Dr. Beck.*

caudata, Michx. Sandy seacoast of Long Island. September.

TANACETUM, L. *Tansey.*

♂ *vulgare*, L. *Common Tansey.* Road sides, &c. July–Aug.

GNAPHALIUM, L., D. Don. *Cudweed.*

decurrens, Ives. Fields and borders of woods. August.

polycephalum, Michx. *Life Everlasting*, *Balsam.* Old fields,
&c. August–September.

uliginosum, L. Low grounds. July–August.

purpureum, L. Dry open woods. July. *G. sylvaticum*, Pursh.
(not of Linn.), *G. americanum*, Pursh. (not of Mill.), and *G. pennsylvanicum*, Willd. seem not to be distinct from this species.

FILAGO, *Tourn.*

♂? *germanica*, *L.* *Gnaphalium germanicum*, *Willd.* Old fields, Staten Island, &c. August–September.

ANTENNARIA, *R. Br.*

plantaginea, *R. Br.* *Gnaphalium plantagineum*, *L.* Dry woods and hills. April–May.

margaritacea, *R. Br.* *Gnaphalium margaritaceum*, *L.* Dry woods and hills. August.

ERECTITES, *Raf.*

hieracifolia, *Raf.* *Senecio hieracifolius*, *Raf.* *Fire-weed.* Low grounds. August.

ARNICA, *L.*

montana, *L.* Sources of the Hudson, Essex county. August.

CACALIA, *L.*

suaveolens, *L.* In the State of New-York. *B. D. Greene, Esq.*

atriplicifolia, *L.* Near Geneseo.

SENECIO, *L. Groundsel.*

vulgaris, *L.* Road sides, &c. Long Island. August.

balsamitæ, *Willd.* Rocky banks of streams. June.

aureus, *L.* *S. obovatus*, *Muhl.* *S. gracilis*, *Ph.* Meadows, and along streams; sometimes on rocks. May–June.

CENTAUREA, *L. Knapweed.*

♂ *cyanus*, *L.* *Bluebottle.* Cultivated grounds. July.

CNICUS, *Vaill.*

♂ *benedictus*, *L.* *Blessed Thistle.* Road sides, &c. June.

CIRSIUM, *Tourn. Thistle.*

lanceolatum, *Scop.* *Carduus lanceolatus*, *L.* *Common Thistle.* Fields, road sides, &c. June–September.

altissimum, *Spreng.* *Carduus altissimus*, *L.* Old fields. August.

discolor, *Spreng.* *Cnicus discolor*, *Muhl.* Fields and thickets. August.

pumilum, *Spreng.* *Carduus pumilus*, *Nutt.* *Cnicus odoratus*, *Muhl.* Old fields. July.

muticum, *Michx.* Swamps. September.

♂ *arvense*, *Scop.* *Cnicus arvensis*, *Hoff.* *Canada Thistle.* Fields and road sides. July–September.

LAPPA, Tourn.

‡ major, *Gært.* *Arctium lappa*, var. *L.* *A. lappa*, *Willd.* *Common Burdock.* Old fields, &c. July–Sept.

CICHORIUM, L.

‡ intybus, *L.* *Chicory*, *Wild Succory.* Fields, &c. August.

CYNTHIA, D. Don.

virginica, *Don.* *Troximon virginicum*, *Pursh.* Dry sandy soils. May–July.

KRIGIA, Schreb.

virginica, *Willd.* Woods and fields. May–June.

LACTUCA, Tourn. Lettuce.

elongata, *Muhl.* *L. canadensis*, *L.?* Thickets and borders of woods. July.

integrifolia, *Bigel.* Hill sides, &c. July.

TARAXACUM, Hall.

‡ dens-leonis, *Desf.* *Leontodon taraxacum*, *L.* *Dandelion.* Pastures, road sides, &c. March–November.

SONCHUS, L., Cass. Sow Thistle.

‡ oleraceus, *L.* Old fields and cultivated grounds. August–Sept.

‡ palustris, *L.* New-York. *Muhlenberg.*

HIERACIUM, L. Hawk-weed.

venosum, *L.* *H. Gronovii*, *L.* in part. Dry open woods, &c. May–June.

Gronovii, *L.* in part.; *Michx.* β . Woods and meadows. August–September.

Var. *marianum*. *H. marianum*, *Willd.* Woods. August.

canadensis, *Michx.* *H. virgatum* and? *fasciculatum*, *Pursh.* *H. Kalmii*, *Torr. comp.*, *Beck*, &c.; not of *Linn.* Highlands of New-York, and in the western parts of the State.

paniculatum, *L.* Dry woods. August.

NABALUS, Cass.

altissimus, *Hook.* *N. alatus*, *Hook.* *Prenanthes altissima*, *L.*

albus, *Hook.* *Prenanthes alba*, *L.* Dry woods, &c. August–September.

NABALUS, (continued.)

- Var. 1. *serpentaria*. *Prenanthes serpentaria*, *Pursh*. *Nabalus serpentarius*, *Hook*. Fields and copses. August.
- Var. 2. *nanus*. *Prenanthes alba*, var. *nana*, *Bigel*. *Nabalus nanus* and? *N. Bootii*, *D. C.* High mountains of Essex county. August.

MULGEDIUM, *Cass*.

- floridanum*, *D. C.* *Sonchus floridanus*, *L.* Rocky hills. August.
- acuminatum*, *D. C.* *S. acuminatus*, *Willd.* Woods. August.

ORDER LOBELIACEÆ.

LOBELIA, *L.*

- Dortmanna*, *L.* *Water Gladiole*. Shallow water. Long Island, *Dr. Barratt*. West Point, *Prof. Bailey*. Northern part of the State, *Dr. Emmons*. August–September.
- Kalmii*, *L.* Wet rocks, &c. July–August.
- Claytoniana*, *Michx.* Woods and meadows. June.
- siphilitica*, *L.* Wet meadows and swamps. September.
- Var. *alba*. Near Peekskill.
- cardinalis*, *L.* *Cardinal Flower*. Wet places. August–Sept.
- inflata*, *L.* *Indian Tobacco*. Fields, road sides, &c. August.

ORDER CAMPANULACEÆ. THE BELL-FLOWER TRIBE.

CAMPANULA, *L.* *Bell Flower*.

- rotundifolia*, *L.* Rocky banks, and on mountains. June–August.
- amplexicaulis*, *Michx.* *C. perfoliata*, *L.* Fields, &c. June–July.
- americana*, *L.* *C. acuminata*, *Michx.* Moist shady places, western counties. July.
- aparinoides*, *Pursh.* *C. erinoides*, *Muhl.*; not of *Linn.* Swamps and wet thickets. June–July.

ORDER ERICACEÆ. THE HEATH TRIBE.

ANDROMEDA, *L.*

- mariana*, *L.* Sandy woods and fields. June–July.
- polifolia*, *L.* Sphagnous swamps. June.
- racemosa*, *L.* Wet thickets. June.

ANDROMEDA, (continued.)

paniculata, *L.* (in part.), *Willd. &c.* *A. ligustrina*, *Muhl.* *Vaccinium ligustrinum*, *L.* *Pepper-bush.* Moist woods and thickets. June.

calyculata, *L.* Swamps. April.

ARBUTUS, *L.* *Bear-berry.*

uva-ursi, *L.* Dry sandy soils. April–May.

GAUTIERA, (incorrectly written *Gaultheria* by most botanists.)

procumbens, *L.* *Partridge-berry.* Sandy woods. May–June.

CLETHRA, *L.* *Sweet-scented Pepper-bush.*

alnifolia, *L.* Swamps and wet thickets. August.

RHODODENDRON, *L.* *Rose-bay.*

maximum, *L.* *Great Laurel.* Swamps. June–July.

canadense. *Rhodora canadensis*, *L.* Mountain bogs. May.

nudiflorum, *Torr.* *Azalea nudiflora*, *L.* *Wild Honeysuckle.*
Woods and thickets. April–May.

viscosum, *Torr.* *Azalea viscosa*, *L.* Woods and swamps. June.

hispidum, *Torr.* *Azalea hispida*, *Pursh.* Borders of mountain lakes, New-York. *Pursh.* I have not found this species.

KALMIA, *L.* *Laurel.*

latifolia, *L.* *Calico-bush*, *High Laurel.* Rocky hills. May–June.

angustifolia, *L.* *Dwarf Laurel*, *Sheep Laurel.* Low wet places. June.

glauca, *L.* Sphagnous swamps. April–May.

Var. *rosmarinifolia*, *Pursh.* Swamps near Albany, &c.

EPIGÆA, *L.* *Mountain Tea.*

repens, *L.* *Ground Laurel*, *Trailing Arbutus.* Sandy woods and hills. April.

LEDUM, *L.*

latifolium, *L.* *Labrador Tea.* Swamps. May–June.

SUB-ORDER VACCINEÆ.

VACCINIUM, *L.* *Whortleberry* or *Huckleberry.*

stamineum, *L.* *Deer-berry.* Dry woods. May–June.

- dumosum, *Andr.* Sandy woods. June.
 frondosum, *L.* *Blue Tangles.* Woods. June.
 resinosum, *Ait.* Dry woods and rocky hills. May.
 corymbosum, *L.* *Swamp or High Huckleberry.* Shady swamps.
 May.
 pennsylvanicum, *Lam.* *Blue Huckleberry.* Rocky woods. May.
 tenellum, *Ait.* *Dwarf Blue Huckleberry.* Dry woods. May.
 uliginosum, *L.* Sources of the Hudson in the Adirondack mountains. July-August.

OXYCOCCUS, Pers. *Cranberry.*

- macrocarpus, *Pursh.* *Common Cranberry.* Swamps. June.
 vulgaris, *Pers.* Sphagnous swamps, northern and western counties. June.

LASIERPA, Torr.

- hispidula, *Torr.* *Vaccinium hispidulum, L.* *Gaultheria serpyllifolia, Pursh.* Swamps. April-May. The fruit of this genus is incorrectly described in my Flora of the Northern States.

SUB-ORDER PYROLEÆ.

PYROLA, L. *Winter-green.*

- rotundifolia, *L.* Woods.
 chlorantha, *Swartz.* *P. asarifolia, Torr., Beck;* not of *Michx.* Woods, northern and western counties. June-July.
 elliptica, *Nutt.* *Shin-leaf.* Dry woods. July.
 minor, *L.* Western part of New-York. *Pursh.* I have not found this species, and doubt whether it is a native of the State.
 secunda, *L.* Dry woods. June-July.
 uniflora, *L.* Woods, northern and western counties. June.
 uliginosa, *Torr. & Gr.* Sphagnous swamps, Oneida county, and northern part of the State. *Dr. Gray* and *Dr. Kneiskern.*

CHIMAPHILA, Pursh.

- umbellata, *Nutt.* *Pipsissawa.* Dry woods. June.
 maculata, *Pursh.* Dry woods. June.

SUB-ORDER MONOTROPEÆ.

MONOTROPA, *L.* *Bird's-nest.*

uniflora, *L.* *Indian Pipe.* Woods. June–July.

HYPOPITHYS, *Dill.* *Pine-sap.*

lanuginosa, *Nutt.* Moist woods. July–August.

PTEROSPORA, *Nutt.*

andromedea, *Nutt.* Clayey soils. Near Albany, *Dr. James, Eaton.* Seneca lake, *Dr. Gray.* Near Niagara Falls, *Whitlow.* Little Falls of the Mohawk, *Cooper.* Port Henry, Lake Champlain, *Prof. A. Hopkins.* Near Sacket's-Harbor, *Dr. Wood.* July.

ORDER EBENACEÆ. THE EBONY TRIBE.

DIOSPYROS, *L.* *Persimmon.*

virgidiana, *L.* Woods. May.

ORDER AQUIFOLIACEÆ. THE HOLLY TRIBE.

ILEX, *L.* *Holly.*

opaca, *Ait.* Sandy woods, Long Island. June.

NEMOPANTHES, *Raf.*

canadensis, *Raf.* *Ilex canadensis, Michx.* Mountains. May.

PRINOS, *L.* *Winter-berry.*

verticillatus, *L.* Swamps. June–July.

lævigatus, *Pursh.* Cedar swamps. June.

glaber, *L.* *Ink-berry.* Swamps. July.

ORDER OLEACEÆ. THE OLIVE TRIBE.

LIGUSTRUM, *L.* *Privet* or *Prim.*

‡ vulgare, *L.* Woods and along fences. May–June.

FRAXINUS, *L.* *Ash.*

sambucifolia, *Willd.* *Black Ash.* Wet woods and swamps. April.

acuminata, *Lam.* *F. americana, Michx. f.* Woods. May.

ORDER APOCYNACEÆ. THE DOG-BANE TRIBE.

APOCYNUM, *L.* *Dog's-bane.*

- androsæmifolium, L.* Borders of woods, and along fences. June.
cannabinum, L. *A. hypericifolium, Ait.* *A. pubescens, R. Br.*
 Banks of streams, and on hill sides. July.

ORDER ASCLEPIADACEÆ. THE MILKWEED TRIBE.

ASCLEPIAS, *L.* *Milkweed, Swallow-wort.*

- syriaca, L.* *Common Milkweed.* Fields, &c. June-July.
phytolaccoides, L. Rocky woods. June-July.
variegata, L. *A. hybrida, Michx.* Dry woods. June-July.
purpurascens, L. Borders of woods and thickets. July.
incarnata, L. Low grounds. July-August.
obtusifolia, Michx. Sandy woods and hill sides. June-July.
quadrifolia, Jacq. Rocky woods. June.
verticillata, L. Dry hills. July.
tuberosa, L. *Pleurisy-root, Butterfly-weed.* Sandy fields. July-August.

ACERATES, *Ell.*

- viridiflora, Ell.* *Asclepias viridiflora, Raf.* Sandy fields. July.

PERIPLUCA, *L.*

- græca, L.* Western part of the State, indigenous or naturalized,
Nuttall. Near Rochester, *Dr. Bradley.* I
 have never found this plant, nor have I received
 it from any part of the United States.

ORDER GENTIANACEÆ. THE GENTIAN TRIBE.

GENTIANA, *L.* *Gentian.*

- saponaria, L.* *Soap Gentian.* Borders of swamps. September.
 Var.? *linearis, Griseb.* *G. pneumonanthe, Michx., Bigel.;* not
 of *Linn.* Wet grassy places. Sources of the
 Hudson, Essex county, August 7th. This is
 probably a distinct species.
quinqueflora, Lam. Woods. August.
crinita, Fræl. Rocky open woods. September.

HALENIA, *Borkh.*

deflexa, *Griesb.* *Swertia deflexa*, *Smith.* Northern part of the State. *Prof. Hadley.*

FRASERA, *Walt.*

carolinensis, *Walt.* *American Columbo.* Swamps. Western part of the State. *Prof. Hadley.*

SABBATIA, *Adans.*

stellaris, *Pursh.* Salt marshes. August.

angularis, *Pursh.* *Centaury.* Meadows and old fields. July-August.

chloroides, *Pursh.* Salt marshes. August.

ERYTHRÆA, *Rich.*

Muhlenbergii, *Griseb.* *E. centaurium*, *Beck*, not of *Pers.* Open woods and fields, Rockland county. July. Near Oswego, *Dr. Aikin.*

ramosissima, *Pers.?* Borders of salt marshes, Long Island. July.

CENTAURELLA, *Michx.*

autumnalis, *Pursh.* Dry meadows, &c. August.

LIMNANTHEMUM, *Gmel.*

lacunosum, *Grisèp.* *Villarsia cordata*, *Ell.* In water. August.

MENYANTHES, *L.*

trifoliata, *L.* *Buckbean.* Marshes. May.

ORDER BIGNONIACEÆ. THE TRUMPET-FLOWER TRIBE.

CATALPA, *Juss.* *Bean Tree.*

cordifolia, *Duham.* Planted about habitations: not indigenous in any part of the State. July.

ORDER PEDALIACEÆ. THE OIL-SEED TRIBE.

MARTYNIA, *L.*

§ *proboscidea*, *L.* *Unicorn Plant.* Cultivated grounds, &c. August.

ORDER POLEMONIACEÆ: THE GREEK-VALERIAN TRIBE.

PHLOX, *L.*

divaricata, *L.* Dry woods and rocky banks. May.

subulata, *L.* *Mountain Pink*. Rocky hills. May.

POLEMONIUM, *L.* *Greek Valerian, Jacob's Ladder.*

reptans, *L.* Cattaraugus county. *Dr. Bradley.*

ORDER CONVULVULACEÆ. THE BINDWEED TRIBE.

CONVOLVULUS, *L.* *Bind-weed.*

§ *arvensis*, *L.* Near Fort Ticonderoga, Lake Champlain, *Mr.*

—————. Near Albany, *Dr. Beck.*

sepium, *L.* Moist thickets. June–July.

spithamæus, *L.* Dry woods and fields. June.

panduratus, *L.* *Wild Potato-vine, Mechoacanna, Man-of-the-earth.* Borders of woods and hill sides. July–August.

CUSCUTA, *L.* *Dodder.*

americana, *L.* Low grounds. August.

§ *epilinum*, *Weihe.* *C. europæa*, *Beck, Darlington, &c.*; not of *Linn.* *Flax Dodder.* Parasitic on flax. June.

ORDER BORAGINACEÆ. THE BORAGE TRIBE.

LITHOSPERMUM, *L.* *Gromwell.*

§ *arvense*, *L.* *Corn Gromwell.* Cultivated grounds, pastures, &c. May.

latifolium, *Michx.* Sandy fields and river banks. May. *L. denticulatum*, *Lehm.* is said to grow in the State of New-York, but I have never received specimens of the plant from any part of the United States.

BATSCHIA, *Gmel.*

canescens, *Michx.* *Puccoon.* Northern part of the State, *Prof. Hadley.* June.

ONOSMODIUM, *Michx.*

hispidum, *Michx.* Dry hills. July.

SYMPHYTUM, *L. Comfrey.*

‡ officinale, *L.* Cultivated grounds. June.

LYCOPSIS, *L. Small Bugloss.*

‡ arvensis, *L.* Sandy fields. June–July.

MYOSOTIS, *L. Scorpion Grass.*

palustris, *Roth.* Ditches and wet grounds. May–July.

arvensis, *Sibth.* Sandy woods. May–June.

ECHINOSPERMUM, *Lehm.*

‡ lappula, *Lehm.* Road sides and fields. July.

virginicum, *Lehm.* Borders of woods and thickets. July.

CYNOGLOSSUM, *L. Hound's-tongue.*

officinale, *L.* Road sides, &c. May–June.

virginicum, *L.* Woods, in rich soil. May–June.

PULMONARIA, *L. Lungwort.*

virginica, *L.* Sandy alluvial soil, western counties. May.

ECHIUM, *L. Viper's Bugloss.*

‡ vulgare, *L. Blue Thistle.* Fields and hill sides. June.

ORDER HYDROPHYLLACEÆ.

HYDROPHYLLUM, *L.*

virginicum, *L.* Moist shady places. June.

canadense, *L.* Woods. June.

ORDER LABIATÆ. THE MINT TRIBE.

LYCOPUS, *L. Water Horehound.*

sinuatus, *Ell., Benth.* *L. europæus*, *Pursh* and others, not of
Linn. *L. americanus*, *Muhl.* Overflowed places.
August.

virginicus, *L. Bugle-weed.* Low wet places and woods. July–
August.

MENTHA, *L. Mint.*

‡ viridis, *L. Spearmint.* Moist grounds. July–August.

‡ piperita, *L. Peppermint.* Moist grounds. August.

canadensis, *L. M. borealis, Michx.* Wet thickets and meadows.
August.

ISANTHUS, Michx.

cæruleus, *Michx.* Sandy banks of rivers. July–August.

MONARDA, L. Horse-mint.

fistulosa, *L., Benth.* *M. allophylla, Michx.* *M. clinopodia, L.*
M. oblongata and rugosa, Ait. Rocky banks and
thickets. July.

didyma, *L. M. Kalmiana, Pursh.* *Oswego Tea.* Wet thickets.
August.

punctata, *L.* Dry sandy fields. September.

BLEPHILIA, Raf.

hirsuta, *Raf., Benth.* *Monarda hirsuta, Pursh.* Wet woods.
August.

RYCNANTHEMUM, Michx.

incanum, *Michx.* Rocky woods. July–August.

Torrei, *Benth.* Rocky hill sides, Rockland county. August.

lanceolatum, *Pursh, Benth.* *Blephilia verticillatum, Michx. B.*
lanceolatum, Willd. Thickets and rocky hills.
July–August.

linifolium, *Pursh.* Moist thickets and exsiccated swamps. July.

ORIGANUM, L. Marjoram.

♂ vulgare, *L. Wild Marjoram.* Rocky banks. July–August.

COLLINSONIA, L. Horse Balm.

canadensis, *L. Knot-root.* Rocky shady soils. July–August.

CUNILA, L.

mariana, *L. Dittany.* Rocky hills. August–September.

HEDEOMA, Pers.

pulegioides, *Pers. Pennyroyal.* Dry sterile soils. August.

MICROMERIA, Benth.

Nuttallii, *Torr. & Gr. M. glabella, Benth., Lab. p. 371, excl.*
syn. Michx. Hedeoma glabella, Nutt. excl. syn.
Wet rocks, Niagara Falls. August.

MELISSA, L. Balm.

♂ clinopodium, *Benth. Clinopodium vulgare, L. Wild Basil.*
Rocky banks. July–August.

♂ officinalis, *L. Common Balm.* Road sides, &c. August.

PRUNELLA, L. *Heal-all.*

♂? *vulgaris, L.* Open woods, &c. July–September.

SCUTELLARIA, L. *Scullcap.*

pilosa, Michx. Dry open woods and thickets. June–August.

integrifolia, L. Moist thickets. June–July.

galericulata, L. Borders of swamps. August.

lateriflora, L. *Mad-dog Scullcap.* Low wet grounds. August.

parvula, Michx. Shores of Lakes Erie and Ontario. *Dr. Gray.*

LOPHANTHUS, Benth.

nepetoides, Benth. *Hyssopus nepetoides, L.* Thickets and along fences. July–August.

Var. *scrophularifolius, L. scrophularifolius, Benth.* *Hyssopus scrophularifolius, Willd.* With the preceding.

NEPETA, L. *Catnep.*

♂ *cataria, L.* *Common Catnep.* Road sides, &c. July–August.

♂ *glechoma, Benth.* *Glechoma hederacea. Ground Ivy, Gill.*
Road sides, and shady grassy places. May–June.

DRACOCEPHALUM, L.

parviflorum, Nutt. Barren fields and woods, Jefferson county, *Dr. Crave, Dr. Gray.* Rocky banks of small lakes, St. Lawrence county. June–August.

PHYSOSTEGIA, Benth.

virginiana, Benth. *Dracocephalum virginianum, L.* Banks of rivers; western counties. July.

LAMIUM, L. *Dead Nettle.*

♂ *amplexicaule, L.* Cultivated grounds and fields. April–May.

LEONURUS, L. *Motherwort.*

♂ *cardiaca, L.* Rubbish and waste places. June.

STACHYS, L. *Hedge Nettle.*

palustris, L. Low damp grounds. July–August.

aspera, Michx. Wet thickets, along rivers. July–August.

hyssopifolia, Michx. Wet meadows, Long Island. July.

GALEOPSIS, L. *Hemp Nettle.*

♂ *tetrahit, L.* Waste places, road sides, &c. July–August.

♂ *ladanum, L.* Old fields, northern counties. July.

MARRUBIUM, *L. Horehound.*

‡ vulgare, *L.* Rocky banks, fields, &c. July–August.

TRICHOSTEMA, *L.*

dichotomum, *L.* Sandy fields. August.

TEUCRIUM, *L. Germander.*

canadense, *L.* *T. virginicum*, *L.* Low grounds. July.

ORDER SOLANACEÆ. THE NIGHTSHADE TRIBE.

SOLANUM, *L. Nightshade.*

‡ dulcamara, *L. Bittersweet.* Road sides and fields. July–Aug.

‡ nigrum, *L.* Old fields and waste places. July–August.

carolinianum, *L.* Borders of woods, Long Island. July.

PHYSALIS, *L. Winter Cherry.*

viscosa, *L., Aikin.* Road sides, fields, &c. July. I fully agree with Dr. Aikin in his view of this species as given in Eaton's Manual, Ed. 7, p. 436.

NICANDRA, *Adans.*

‡ physaloides, *Pers.* Cultivated grounds. July–September.

NICOTIANA, *L.*

‡ rustica, *L.* Naturalized in the western part of the State. *Nuttall.*

DATURA, *L. Thorn Apple, Jamestown Weed.*

‡ stramonium, *L.* Waste grounds. July–September.

Var. tatula. *D. tatula*, *L.* With the preceding.

HYOSCYAMUS, *L. Henbane.*

‡ niger, *L.* Road sides, &c. June.

ORDER SCROPHULARIACEÆ. THE FIGWORT TRIBE.

VERBASCUM, *L. Mullein.*

‡ thapsus, *L. Common Mullein.* Old fields, road sides, &c. June.

blattaria, *L.* Road sides, &c. June–July.

‡ lychnitis, *L.* Old fields, near Oneida lake. June–July.

Var. hybrida. Intermediate between this species and *V. thapsus*.
With the preceding.

VERONICA, *L. Speedwell.*

- § serpyllifolia, *L.* Meadows and pastures. May–August.
 scutellata, *L.* Wet meadows and swamps. May–June.
 anagallis, *L.* *Water Speedwell.* Ditches. June–August.
 beccabunga, *L.* *Brooklime.* Wet places. June.
 § officinalis, *L.* *Common Speedwell.* Dry woods. June.
 peregrina, *L.* *Neck-weed.* Cultivated grounds. May.
 § arvensis, *L.* Dry banks and fields. May.
 § hederifolia, *L.* Near Brooklyn, Long Island. April.
 virginica, *L.* *Leptandra virginica, Nutt.* Borders of woods, &c.
 July.

BUCHNERA, *L.*

- americana, *L.* Sandy soils, western counties. July.

SCROPHULARIA, *L. Figwort.*

- marilandica, *L.* *S. lanceolata, Pursh.* Dry woods, and along fences. July–August.

LINARIA, *Tourn. Toad Flax.*

- § vulgaris, *Ait.* *Antirrhinum linaria, L. Continental Weed, Ran-*
sted Weed. Road sides and fields. June–Oct.
 canadensis, *Spreng.* *Antirrhinum canadense, L.* Sandy soils,
 wet or dry. June–July.
 § elatine, *Desf.* *Antirrhinum elatine, L.* Shore of Cayuga lake.
Dr. Gray.

MIMULUS, *L. Monkey Flower.*

- ringens, *L.* Wet grounds. August.
 alatus, *L.* Low grounds, along rivers, &c. August.

GRATIOLA, *L. Hedge Hyssop.*

- virginica, *L.* Overflowed places. July–August.
 aurea, *Muhl.* Sandy swamps, Long Island.

LINDERNIA, *L.*

- dilatata, *Muhl.* Low wet places. July–August.
 attenuata, *Muhl.* With the preceding.

CHELONE, *L. Snake-head.*

- glabra, *L.* Margin of swamps. August–September.

PENTSTEMON, *L'Her.*

- pubescens, *Ait.* Hill sides. June.

COLLINSIA, *Nutt.*

verna, *Nutt.* Rich alluvial soil. Near Utica, May, *Dr. Gray.*
Ithaca, *Dr. Aikin.*

LIMOSELLA, *L. Mudwort.*

subulata, *Ives.* Muddy banks of rivers. West Point, *Prof. Bailey.*

GERARDIA, *L.*

purpurea, *L.* Borders of swamps. August–September.

maritima, *Raf.* Salt marshes. August–September.

tenuifolia, *Vahl.* Dry woods. August.

flava, *L.* Woods. July–August.

quercifolia, *Pursh.* Woods. August.

pedicularia, *L.* Dry hills and sandy woods. August.

PEDICULARIS, *L. Lousewort.*

lanceolata, *Michx.* *P. pallida*, *Pursh.* Swamps near New-York.
September.

canadensis, *L.* *P. gladiata*, *Michx.* Borders of woods. June.

CASTILLEIA, *Mutis.*

coccinea, *Spreng.* *Euchroma coccinea*, *Nutt.* Wet meadows.
May.

MELAMPYRUM, *L. Cow Wheat.*

americanum, *Michx.* Woods. June–July.

ORDER OROBANCHACEÆ. THE BROOM-RAPE TRIBE.

OROBANCHE, *L. Broom Rape.*

americana, *L. Caveer-root.* Woods. July.

uniflora, *L.* Woods. May–June.

EPIPIHEGUS, *Nutt. Beech-drops.*

americanus, *Nutt.* Under the shade of beech trees. September.

ORDER VERBENACEÆ. THE VERVAIN TRIBE.

VERBENA, *L. Vervain.*

hastata, *L.* Low grounds. July–August.

spuria, *L.* Sandy fields and waste places. August.

urticifolia, *L.* Road sides. July.

angustifolia, *Michx.* Sandy woods and river banks. August.

PHRYMA, *L.* *Lopseed.*

leptostachya, *L.* Borders of woods. July.

ORDER ACANTHACEÆ. THE JUSTICIA TRIBE.

JUSTICIA, *L.*

americana, *Vahl.* In water; western counties. July–August.

ORDER JENTIBULACEÆ.

UTRICULARIA, *L.* *Bladder-wort.*

inflata, *Walt.* *U. ceratophylla*, *Michx.* Ponds, Long Island.
July.

vulgaris, *L.* Ponds and slow streams. August.

intermedia, *Hayne.* Swamps, Jefferson county. June–July. *Dr.*
Gray.

minor, *Willd.* With the preceding, *Dr. Gray.* Near Albany,
Dr. Beck.

cornuta, *Michx.* Swamps. August.

PINGUICULA, *Butter-wort.*

vulgaris, *L.* Wet rocks, Genesee Falls. May. *Prof. Hadley.*

ORDER PRIMULACEÆ. THE PRIMROSE TRIBE.

PRIMULA, *L.* *Primrose.*

mistassinica, *Michx.* Yates county. *Dr. Sartwell.*

TRIENTALIS, *L.* *Chickweed, Wintergreen.*

americana, *Pursh.* Wet woods and swamps. May.

HOTTONIA, *L.* *Water Feather.*

inflata, *Ell.* Stagnant water, Westchester county. *Beck.*

LYSIMACHIA, *L.* *Loosestrife.*

stricta, *Ait.* Low grounds. July.

quadrifolia, *L.* Borders of woods, &c. June–July.

ciliata, *L.* Borders of woods and streams. June–July.

thyrsiflora, *L.* Marshes. June.

revoluta, *Nutt.* Wet rocks, Niagara Falls. August.

ANAGALLIS, *L.* *Pimpernel.*

♂ *arvensis*, *L.* *Red Chickweed.* Road sides and fields. June–
September.

SAMOLUS, *L.* *Water Pimpernel.*

valerandi, *L.* Wet grounds. July–September.

ORDER PLUMBAGINACEÆ. THE LEADWORT TRIBE.

STATICE, *L.* *Marsh Rosemary.*

limonium, *L.* Borders of salt marshes. August–October.

ORDER PLANTAGINEÆ. THE PLANTAIN TRIBE.

PLANTAGO, *L.* *Plantain.*

cordata, *Lam.* Banks of streams, near New-York and Fishkill.
June.

♂ major, *L.* *Common Plantain.* Fields, road sides, &c. June–
September.

virginica, *L.* Sterile fields and dry hills. May–June.

♂ lanceolata, *L.* *Narrow-leaved Plantain, Ripple Grass.* Fields
and meadows. May–August.

maritima, *L.* Salt marshes. August–September.

pusilla, *Nutt.* Arid hills, Island of New-York. May. Is this a
dwarf form of *P. sparsiflora*, *Michx.*?

ORDER AMARANTHACEÆ. THE AMARANTH TRIBE.

AMARANTHUS, *L.*

♂ albus, *L.* Cultivated grounds. August.

♂ hybridus, *L.* Gardens and waste grounds. August.

♂ retroflexus, *L.* Waste grounds and cultivated fields. August.

pumilus, *Nutt.* Sandy coast of Long Island. August.

ORDER CHENOPODIACEÆ. THE GOOSEFOOT TRIBE.

CHENOPODIUM, *L.* *Goosefoot.*

♂ ambrosioides, *L.* Road sides. August–September.

♂ album, *L.* Cultivated grounds, and about houses. July–Sept.

♂ anthelminticum, *L.* *Wormseed.* Road sides. August–Sept.

♂ botrys, *L.* *Jerusalem Oak.* Road sides. August.

♂ hybridum, *L.* Fields and waste grounds. August.

♂ rubrum, *L.?* Western part of the State. August.

SHOBERIA, *C. A. Meyer.*

maritima, *C. A. Meyer.* *Chenopodium maritimum*, *L.* Salt
marshes. August–September.

ATRIPLEX, *L.* *Orach.*

laciniata, *L.* Borders of salt marshes. August.

arenaria, *Nutt.* Sea beach of Long Island. August–September.

ACNIDA, *L.* *Water Hemp.*

cannabina, *L.* Borders of salt marshes. July–August. *A. rusco-
carpa*, *Michx.* seems to be scarcely distinct from
this.

SALICORNIA, *L.* *Glasswort.*

herbacea, *L.* Salt marshes. August–September.

SALSOLA, *L.* *Saltwort.*

soda, *L.* *S. caroliniana*, *Michx.* Sandy shores about New-York,
and on the seacoast of Long Island. Near West
Point, *Prof. Bailey.* August–September.

BLITUM, *L.*

♂? capitatum, *L.* *Strawberry Blite.* Banks of rivulets. June.

maritimum, *Nutt.* Salt marshes near New-York. *Atriplex?*

ORDER PHYTOLACCACEÆ. THE POKEWEEED TRIBE.

PHYTOLACCA, *L.* *Poke, or Pokeweed.*

decandra, *L.* Hill sides, borders of fields, &c. June–October.

ORDER POLYGONACEÆ. THE BUCKWHEAT TRIBE.

POLYGONUM, *L.* *Knot-weed.*

♂ aviculare, *L.* About houses, road sides, &c. June–October.

Var. glaucum. *P. glaucum*, *Nutt.* Seacoast. August–Sept.

♂ erectum, *L.* Road sides, waste places, &c. August–Sept.

tenuë, *Michx.* Rocky hills and dry banks. July–August.

virginianum, *L.* Rocky woods in rich soil. July–August.

hydropiper, *L.* *P. hydropiperoides*, *Pursh.* *Water Pepper.* Low
wet grounds. August.

mite, *Pers.* *P. hydropiperoides*, *Michx.* Swamps. August–
September.

♂ persicaria, *L.* *Lady's Thumb.* Waste places, and gardens.
July–September.

amphibium, *L.*

Var. 1. natans, *Michx.* Floating in ponds. August.

POLYGONUM, (continued.)

- Var. 2. *emersum*, Michx. *P. coccineum*, Willd. Margin of ponds and rivers. August–September.
- Var. 3. *strigosum*. Head of Seneca lake. *Dr. Gray*.
- Var. 4. *acuminatum*. Cayuga lake. *Dr. Aikin*.
- pennsylvanicum*, L. Borders of fields, wet thickets, &c. July–August.
- § *orientale*, L. *Prince's Feather*. Cultivated grounds. July–September.
- sagittatum*, L. Wet thickets. August.
- arifolium*, L. Wet thickets and river banks. August.
- scandens*, L. *Climbing Buckwheat*. Shady thickets, &c. Aug.
- § *convolvulus*, L. *Black Bindweed*. Cultivated grounds. July.
- § *fagopyrum*, L. *Buckwheat*. Fields. Scarcely naturalized. September.
- cilinode*, Michx. Rocky thickets, northern counties. July.

RUMEX, L. *Dock*.

- § *crispus*, L. *Curled Dock*. Fields. June–July.
- § *obtusifolius*, L. Fields and borders of woods. June–July.
- verticillatus*, L. Swamps. June–July.
- britannica*, L. *Yellow-rooted Water Dock*. Swamps. June–July.
- § *acetosella*, L. *Sheep Sorrel*. Fields and road sides. May–July.

ORDER LAURACEÆ. THE CINNAMON TRIBE.

LAURUS, L.

- benzoin*, L. *Wild Allspice*, *Fever Bush*, *Benjamin Tree*. Swamps. April.
- sassafras*, L. *Common Sassafras*. Woods. April.

ORDER ELEAGNACEÆ. THE OLEASTER TRIBE.

SHEPHERDIA, Nutt.

- canadensis*, Nutt. Rocky banks of streams and lakes, northern and western counties. May.

ORDER THYMELACEÆ. THE MEZEREUM TRIBE.

DIRCA, *L.* *Leather-wood.**palustris, L.* Woods, near streams. April.

ORDER SANTALACEÆ. THE SANDERS-WOOD TRIBE.

NYSSA, *L.**multiflora, Walt.* *N. sylvatica, Michx. sylv.* *N. villosa, Willd.*
Black Gum. Woods. May-June.COMANDRA, *Nutt.**umbellata, Nutt.* *Bastard Toad-flax.* Rocky hills. June.

ORDER ARISTOLOCHIACEÆ. THE BIRTHWORT TRIBE.

ARISTOLOCHIA, *L.**serpentaria, L.* *Virginia Snake-root.* Shady woods. June.ASARUM, *L.**canadense, L.* *Wild Ginger, Coltsfoot.* Rocky woods. May.

ORDER EMPETRACEÆ. THE CROWBERRY TRIBE.

EMPETRUM, *L.* *Crowberry.**nigrum, L.* Summit of Mount Marcy and Mount McIntyre. July.
Found also on Whiteface Mountain, by *Dr. Emmons* and *Prof. Hall.*

ORDER EUPHORBIACEÆ. THE EUPHORBIVM TRIBE.

ACALYPHA, *L.* *Three-seeded Mercury.**virginica, L.* Fields and road sides. June-August.EUPHORBIA, *L.* *Spurge.**hypericifolia, L.* *E. maculata, Michx.* Road sides and sandy fields. July-September.*maculata, L.* *E. depressa, Torr. in Ell. sk.* Cultivated grounds and sandy fields. July-September.*polygonifolia, L.* *E. maritima, Nutt.* Seacoast. August.*obtusata, Pursh.* Sandy fields and river banks. July-August.

ORDER URTICACEÆ. THE NETTLE TRIBE.

URTICA, *L.* *Nettle.*

pumila, *L.* Wet grounds. July–August.

♂ *dioica*, *L.* *Stinging Nettle.* Waste grounds, road sides, &c.
July.

canadensis, *L.* *U. divaricata*, *L.* Shady rocky places, along
streams. July–August.

BÆHMERIA, *Willd.*

cylindrica, *Willd.* Moist shady woods and thickets. July–Aug.

PARIETARIA, *L.* *Pellitory.*

pennsylvanica, *Muhl.* Shady rocky hill sides. July.

CANNABIS, *L.* *Hemp.*

♂ *sativa*, *L.* Fields, and along fences. June–July.

HUMULUS, *L.* *Hop.*

♂ *lupulus*, *L.* Borders of woods and rivers. August.

MORUS, *L.* *Mulberry.*

rubra, *L.* *Red Mulberry.* Woods. May.

♂ *alba*, *L.* *White Mulberry.* About houses: naturalized in some
places. May.

ORDER SAURURACEÆ.

SAURURUS, *L.* *Lizard's-tail.*

cernuus, *L.* Swamps and borders of streams. July.

ORDER PODOSTEMACEÆ.

PODOSTEMUM, *Michx.*

ceratophyllum, *Michx.* *Lacis ceratophylla*, *Bong.* On stones in
Black river. *Dr. Craue.*

ORDER AMENTACEÆ.

SUB-ORDER CUPULIFERÆ. THE NUT TRIBE.

CARPINUS, *L.* *Hornbeam.*

americana, *Michx.* Rocky woods. April.

OSTRYA, Scop. *Hop Hornbeam*.

virginica, Willd. *Iron-wood*. Rocky woods. April–May.

CORYLUS, L. *Hazel-nut*.

americana, Walt. *Wild Filbert*. Thickets, &c. April.

rostrata, Ait. Mountain woods. April.

FAGUS, L. *Beech*.

sylvatica, L. *F. sylvestris*, Michx. *f. sylv.* *Common Beech*,
White Beech. Woods, in fertile soil. May.

CASTANEA, Gært. *Chestnut*.

vesca, var. *americana*, Michx. *Chestnut*. Woods. June.

pumila, Michx. *Chinquapin*. Woods, Long Island. Mr. W.
R. Prince.

QUERCUS, L. *Oak*.

tinctoria, Bartr. *Black Oak*, *Quercitron*. Woods. May.

rubra, L. *Red Oak*. Dry hilly woods. May.

palustris, Michx. *Water or Pin Oak*. Borders of swamps.

ilicifolia, Willd. *Q. banisteri*, Michx. *Barren Scrub Oak*.
Sandy woods, and on mountains. May.

stellata, Willd. *Q. obtusiloba*, Michx. *Post Oak*. Sandy
woods, Long Island.

olivæformis, Michx. *f. sylv.* Banks of the Hudson, near Albany.
This has not been found by any other botanist
than the younger Michaux.

alba, L. *White Oak*. Woods.

bicolor, Willd. *Swamp White Oak*. Borders of swamps.

montana, Willd. *Rock Chestnut Oak*. Rocky woods, along
rivers.

prinoides, Willd. *Q. chinquapin*, Michx. *f.* *Dwarf Chestnut
Oak*. Sandy woods.

coccinea, Wang. *Scarlet Oak*. Woods.

SUB-ORDER BETULÆ. THE BIRCH TRIBE.

BETULA, L. *Birch*.

populifolia, Ait. *White Birch*. Rocky and sandy woods.

papyracea, Ait. *Canoe Birch*. Forests in the north part of the
State.

BETULA, (continued.)

- lenta*, L. *B. carpinifolia*, Michx. *Cherry Birch*, *Sweet Birch*.
Woods.
- excelsa*, Ait. *B. lutea*, Michx. *f. sylv.* *Yellow Birch*. Woods,
and borders of swamps.
- nana*, L. *Dwarf Birch*. High mountains of Essex county.

ALNUS, Willd. *Alder*.

- serrulata*, Willd. *Common Alder*. Swamps and wet thickets.
March.
- incana*, Willd.? Sources of the Hudson, Essex county.

SUB-ORDER SALICINÆ. THE WILLOW TRIBE.

SALIX, L. *Willow*.

- ♂ *viminialis*, L. *Osier*, *Basket Willow*. Banks of streams. April.
- Muhlenbergiana*, Willd. Dry woods and sandy thickets. April.
- tristis*, Muhl. Dry woods. April–May.
- pedicellaris*, Pursh. Swamps, usually on mountains. May.
- conifera*, Wang. *S. eriocephala*, Michx.? Wet thickets. April.
- myricoides*, Muhl. Swamps. April.
- prinoides*, Pursh. Swamps. April. Distinct from the preceding?
- discolor*, Willd. Low grounds. April.
- longifolia*, Muhl. River banks. May.
- ♂ *babylonica*, L. *Weeping Willow*. About houses. April.
- nigra*, Marsh. Banks of streams. May.
- longirostris*, Michx. Wet thickets and woods. April.
- rigida*, Muhl. Borders of swamps. April.
- lucida*, Muhl. With the preceding. April.
- cordata*, Muhl. Low wet grounds. April.
- grisea*, Willd. Low grounds. April.
- ♂ *vitellina*, L. About houses, and along brooks. April.
- uva-ursi*, Pursh? Mount Marcy. July. Whiteface Mountain,
Dr. Emmons.

I have several other undetermined species of Willow, collected
in this State.

POPULUS, L. *Poplar*.

- balsamifera*, Michx. *Balsam Poplar*, *Tacamahac*. Shores of
Lake Champlain. Michx. *f.*
- ♂ *candicans*, Ait. About houses. April.

POPULUS, (continued.)

- tremuloides, *Michx.* *American Aspen*. Dry woods. April.
 tremula, *L.* *P. grandidentata*, *Michx.* *Large Aspen*. Woods.
 lævigata, *Ait.* *P. canadensis*, *Michx. f.* *Cotton-wood*. Western
 part of New-York. *Michaux.*
 nigra, *Michx.* *P. hudsonica*, *Michx. sylv.* *P. betulifolia*, *Pursh.*
Black Poplar. Banks of the Hudson above Al-
 bany, *Michx. fil.* Borders of Oneida lake.

SUB-ORDER MYRICEÆ. THE GALE TRIBE.

MYRICA, *L.*

- gale, *L.* *Sweet Gale*. Borders of lakes, generally in moun-
 tainous tracts. May.
 cerifera, *L.* *Bayberry*, *Wax Myrtle*. Woods and thickets. May.

COMPTONIA, *Banks.*

- asplenifolia, *Ait.* *Sweet Fern*. Dry woods. April-May.

SUB-ORDER PLATANÆÆ. THE PLANE TRIBE.

PLATANUS, *L.* *Plane Tree*.

- occidentalis, *L.* *Button-wood*, *Sycamore*. Banks of rivers. May.

SUB-ORDER STYRACIFLUEÆ.

LIQUIDAMBAR, *L.* *Sweet Gum Tree*.

- styraciflua, *L.* *Bilested*. Woods. April.

ORDER ULMACEÆ. THE ELM TRIBE.

ULMUS, *L.* *Elm*.

- americana, *L.* *White Elm*. Low woods. April-May.
 fulva, *Michx.* *U. rubra*, *Michx. f. sylv.* *Slippery Elm*, *Red Elm*.
 Rocky banks of rivers. April.
 racemosa, *Thomas*. Western counties, *Mr. Thomas*, *Dr. Kneis-*
kern.

CELTIS, *L.* *Hackberry*.

- occidentalis, *L.* *Hoop Ash*, *Beaver-wood*. Woods. May.

ORDER JUGLANDACEÆ. THE WALNUT TRIBE.

JUGLANS, L. *Walnut*.

nigra, L. *Black Walnut*. Woods. May.

cinerea, L. *Butternut*. Woods. May.

CARYA, Nutt. *Hickory*.

sulcata, Nutt. *Juglans laciniosa, Michx. sylv. Thick Shell-bark Hickory*. Fertile woods.

alba, Nutt. *Juglans squamosa, Michx. sylv. Shell-bark Hickory, Kiskytom*. Fertile woods.

tomentosa, Nutt. *Common Hickory, Mochee-nut*. Woods.

amara, Nutt. *Bitter-nut*. Dry woods. May.

porcina, Nutt. *Pig-nut, Broom Hickory*. Dry fertile woods.

CLASS II. GYMNOSPERMS.

ORDER CONIFERÆ. THE FIR TRIBE.

PINUS, L. *Pine*.

resinosa, Ait. *P. rubra, Michx. f. sylv. Red Pine*. Heldeberg mountain. Beck.

rigida, L. *Pitch Pine*. Woods, in poor soil.

strobus, L. *White Pine, Weymouth Pine*. Fertile soils, and swamps.

variabilis, Lamb. *P. mitis, Michx. Yellow Pine*. Banks of the Hudson, a little below Albany. *Michx. fil.*

ABIES, Juss. (ABIES and LARIX, Tourn.)

nigra, Michx. f. sylv. *A. denticulata, Michx. fl. Pinus nigra, Ait. Black or Double Spruce*. Wet rocky soils and swamps. The Red Spruce, *Pinus rubra, Lamb.* appears to be only a variety of this species.

alba, Michx. *Pinus alba, Ait. White or Single Spruce*. Rocky damp soils and swamps.

balsamea, Mill. *A. balsamifera, Michx. Pinus balsamea, Ait. Mountains*. Not found south of Catskill.

canadensis, Michx. *Pinus canadensis, L. Hemlock Spruce*. Rocky woods, and along mountain ravines.

pendula. *Pinus pendula, Ait. Larix americana, Michx. American Larch, Tamarack, Hackmatack*. Swamps.

THUYA, L. *Arbor Vitæ*.

occidentalis, L. Rocky hills, along rivers. May.

CUPRESSUS, L. *Cypress*.

thuyoides, L. *White Cedar*. Swamps, Long Island. May.

JUNIPERUS, L. *Juniper*.

virginiana, L. *Red Cedar*. Rocky banks and dry hills. Sir W. Hooker considers this species as identical with *J. sabina*. May.

communis, L. *Common Juniper*. Dry rocky woods. May.

SUB-ORDER TAXINEÆ.

TAXUS, L. *Yew*.

canadensis, L. *American Yew, Running or Ground Hemlock*. Moist rocky places. April.

CLASS III. ENDOGENS, OR MONOCOTYLEDONS.

ORDER AMARYLLIDACEÆ. THE NARCISSUS TRIBE.

HYPOXIS, L. *Star Grass*.

erecta, L. Woods. May-July.

ORDER IRIDACEÆ. THE IRIS TRIBE.

SISYRINCHIUM, L. *Blue-eyed Grass*.

anceps, L. Meadows. July.

Var. mucronatum. *S. mucronatum, Michx.* Sandy woods, Long Island, &c..

IRIS, L.

versicolor, L. *I. virginica, Pursh.* *Blue Flag*. Wet grounds. June-July.

virginica, L. *I. prismatica, Pursh.* *I. gracilis, Bigel.* Margins of swamps. June.

ORDER HYDROCHARACEÆ. THE FROG-BIT TRIBE.

HYDROCHARIS, L. *Frog's-bit*.

cordifolia, Nutt. Braddock's Bay, Lake Ontario. *Dr. Bradley*.

UDORA, *Nutt.*

canadensis, *Nutt.* *Elodea canadensis*, *Michx.* Lakes and still water. August.

VALISNERIA, *L.*

spiralis, *L.* *V. americana*, *Michx.* Slow flowing water. Common in the Hudson north of the Highlands. Aug.

ORDER ORCHIDACEÆ. THE ORCHIS TRIBE.

HABENARIA, *Willd., R. Br.*§ 1. *Platanthera*, *Rich., Lindl.*

orbiculata, *Torr.* *Orchis macrophylla*, *Goldie.* Woods. June-July.

Hookeriana, *Torr.* *Orchis orbiculata*, *Hook.* Woods. June.

ciliaris, *R. Br.* Swamps. July-August.

blephariglottis, *Hook.* Swamps. July-August.

dilatata, *Spreng.* Swamps, northern counties. June-July.

hyperborea, *R. Br.* Swamps. June-July.

flava, *Gray in Sill. Jour.* 1840. *Orchis flava*, *L.* *Habenaria*

herbiola, *R. Br.* Moist woods. June-July.

psycodes, *Gray, l. c.* *Orchis psycodes*, *L.* *O. fimbriata*, *Ait.*

O. fissa and *incisa*, *Muhl.* and *Willd.*

Var. *grandiflora*, *Gray, l. c.* *Orchis grandiflora*, *Bigel.* Meadows and swamps. June-July.

lacera, *Gray, l. c.* *Orchis lacera*, *Michx.* *O. psycodes*, *Willd.;* not of *Linn.*

obtusata, *R. Br.* Sphagnous swamps and wet woods, northern counties. June-July.

§ 2. *Peristylus*, *Lindl.*

bracteata, *R. Br.* Shady woods. June.

tridentata, *Hook.* Swamps. July-August.

ORCHIS, *L.*

spectabilis, *L.* Rocky woods. May.

MICROSTYLIS, *Nutt.*

ophioglossoides, *Nutt.* Swamps, and about the roots of trees. June.

brachypoda, *Gray.* Deep shady swamps. Fairfield, Herkimer county, *Prof. Hadley.* Oneida county, *Dr. Gray* and *Dr. Bradley.* July.

LIPARIS, *Rich.*

liliifolia, *Rich.* *Malaxis liliifolia*, *Sw.* Swamps and shady woods.
June–July.

loeseli, *Rich.* *Malaxis correana*, *Bart.* Swamps. Clinton, Oneida
county, *Dr. Bradley.*

TIPULARIA, *Nutt.*

discolor, *Nutt.* Parma, Monroe county. July. *Dr. Bradley.*

APLECTRUM, *Nutt.*

hyemale, *Nutt.* *Putty-root*, *Adam & Eve.* Shady fertile woods,
northern and western counties. July. *Dr. Gray*
and *Dr. Bradley.* Washington county, *Dr. Ste-*
venson.

CORALLORHIZA, *Swartz.* *Coral-root.*

verna, *Nutt.* Sphagnous swamps. May.

odontorhiza, *Nutt.* Damp fertile woods. August–September.

multiflora, *Nutt.* Woods. August–September.

The last two species may not be distinct.

ARETHUSA, *L.*

bulbosa, *L.* Sphagnous swamps. June.

POGONIA, *Juss.*

ophioglossoides, *R. Br.* Swamps. June–July.

verticillata, *Nutt.* Swamps. Oneida county, *Dr. Kneiskern.*
Eaton, Madison county, *Dr. Bradley.*

TRIPHORA, *Nutt.*

pendula, *Nutt.* Rocky woods. June–July.

CALOPOGON, *R. Br.*

pulchellus, *R. Br.* Swamps. June–July.

SPIRANTHES, *Rich.*

tortilis, *Rich.* *Neottia tortilis*, *Sw.* Moist grounds, open woods,
&c. July–August.

Var. *gracilis*, *Torr.* *Neottia gracilis*, *Bigel.* With the pre-
ceding.

cernua, *Rich.* *Neottia cernua*, *Sw.* Swamps and wet thickets.
August–September.

Var. ? *latifolia*, *Torr.* *S. æstivalis*, *Rich.?* Swamps; particular-
ly on mountains. July.

LISTERA, *R. Br.*

cordata, *R. Br.* Sphagnous swamps. June–July.

GOODYERA, *R. Br.*

pubescens, *R. Br.* Shady fertile woods. July–August.

repens, *R. Br.* Shady moist woods, northern counties. July.

CYPRIPEDIUM, *L. Ladies' Slipper.*

pubescens, *Willd.* *C. parviflorum*, *Ait.* *Mocasin Flower*, *Noah's Ark.* Rocky moist woods. May.

acaule, *Ait.* Dry woods and sandy thickets. May.

spectabile, *Sw.* Swamps. June–July.

arietinum, *Ait.* Near Oneida lake. *Dr. Gray.*

ORDER PONTEDERIACEÆ.

PONTEDERIA, *L.*

cordata, *L.* *Pickereel-weed.* In water. July–August.

Var. *angustifolia*, *Torr.* *P. angustifolia*, *Pursh.* Mountain lakes. *Pursh.*

SCHOLLERA, *Schreb.*

graminifolia, *Muhl.* *Leptanthus gramineus*, *Michx.* In flowing waters. July–August.

HETERANTHERA, *Ruiz and Pavon.*

reniformis, *R. & P.* *Leptanthus reniformis*, *Michx.* Muddy banks of rivers, Fishkill, Hudson, &c. July–August.

ORDER MELANTHACEÆ. THE COLCHICUM TRIBE.

ZIGADENUS, *Michx.*

glaucus, *Nutt.* Shore of Lake Erie. *Dr. Beck.*

LERMANTHIUM, *Willd.*

virginicum, *Willd.* *Melanthium virginicum*, *L.* Wet meadows. Orange county. *Dr. Horton*, fide *Beck.* Is not this *L. hybridum*?

VERATRUM, *L. White Hellebore.*

virida, *Ait.* Swamps. May.

HELONIAS, L., Gray.

dioica, Pursh. *Veratrum luteum*, L. *Blazing Star*, *Devil's-bit*.
Wet meadows and borders of woods. May-June.

ORDER TRILLIACEÆ.

TRILLIUM, L. Three-leaved Nightshade.

erythrocarpum, Michx. *T. pictum*, Pursh. Shady woods. May.
erectum, L. *T. atropurpureum*, Curt. Shady rocks. May.

Var. 1. *album*, Pursh. *T. pendulum*, Willd. Western coun-
ties.

Var. 2. *flavum*. Hamilton, Madison county. *Dr. Douglass*.
cernuum, L. Woods. May.

grandiflorum, Salisb. Shady woods, in rich soil. May.

MEDEOLA, L. Indian Cucumber.

virginica, L. Rocky woods and thickets. June.

ORDER LILIACEÆ. THE LILY TRIBE.

LILIUM, L. Lily.

philadelphicum, L. Thickets and borders of woods. June.

canadense, L. Wet meadows. June-July.

superbum, L. Wet meadows. July.

ERYTHRONIUM, L. Dog's-tooth Violet.

americanum, Smith. Wet meadows and woods. April.

albidum, Nutt. Near Albany. *Dr. Beck* and *Dr. Eights*.

ALLIUM, L.

canadense, L. Jefferson county. *Dr. Crawe*.

§ *vineale*, L. *Wild Garlic*. Pastures and meadows. June-July.

triccoccum, Ait. *Wild Leek*. Woods, in rich soil; western and
northern counties. July.

ALETRIS, L. Star Grass.

farinosa, L. *Colic-root*. Sandy thickets. June.

CONVALLARIA, L.

§ *Polygonatum*, Desf.

multiflora, L. *C. polygonatum*, Muhl. *C. pubescens*, Willd.

Polygonatum canaliculatum & *latifolium*, Pursh.

Rocky woods, &c. May-June.

CONVALLARIA, (continued.)

‡ *Maianthemum*, Desf.

bifolia, L. Shady woods, about the roots of trees. May.

‡ *Smilacina*, Desf.

stellata, L. Rocky banks. May-June.

trifolia, L. Sphagnous swamps, northern and western counties.
June.

racemosa, L. Rocky woods, in rich soil. June-July.

‡ *Clintonia*, Raf.

borealis. *Dracæna borealis*, Ait. *Clintonia borealis*, Raf. Moist rocky woods, &c. June,

STREPTOPUS, Michx.,

roseus, Michx. Rocky woods, particularly on mountains. May-June.

amplexifolius, var. *americanus*, Gray. *S. distortus*, Michx. Deep swamps, near Utica. Near Fairfield, Prof. Hadley.

lanuginosus, Michx. Cattaraugus and Monroe counties, Dr. Bradley. Near Rochester, Dr. Harris. Near Auburn, Mr. Carey.

UVULARIA, L. Bellwort.

perfoliata, L. Woods and rocky banks. May.

Var. *major*, Michx. *U. grandiflora*, Smith. Western counties. Also near Albany.

sessilifolia, L. Woods. May.

ASPARAGUS, L.

‡ *officinalis*, L. *Common Asparagus*. Borders of salt marshes, Long Island, and near New-York. June.

ORNITHOGALUM, L. Star of Bethlehem.

‡ *umbellatum*, L. Pastures and wet meadows. May.

ORDER COMMELINACEÆ. THE SPIDER-WORT TRIBE.

TRADESCANTIA, L. Spider-wort.

virginica, L. Near Buffalo, Dr. Kinnicutt. May.

ORDER ALISMACEÆ. THE WATER-PLANTAIN TRIBE.

SAGITTARIA, *L.* Arrow-head.

sagittifolia, *L.* Ditches and wet grounds. July–August.

Var. 1. vulgaris, *Hook.* *S. sagittifolia*, *Ph.*

— 2. latifolia, *Torr.* Var. macrophylla, *Hook.* *S. latifolia*
and obtusa, *Ph.*

— 3. pubescens, *Torr.*

— 4. hastata, *Torr.* *S. hastata*, *Pursh.*

— 5. gracilis, *Torr.* *S. gracilis* and heterophylla, *Ph.*

— 6. simplex, *Hook.* *S. simplex*, graminea & acutifolia, *Ph.*

— 7. rigida, *Torr.* *S. rigida*, *Pursh.*

pusilla, *Nutt.* Muddy banks of streams. August.

ALISMA, *L.* Water Plantain.

plantago, *L.* *A. parviflora*, *Pursh.* In water. July–August.

ORDER JUNCEÆ. THE RUSH TRIBE.

LIZULA, *D. C.*

campestris, *D. C.* Meadows and dry woods. April–May.

pilosa, *Willd.* Open woods, banks of rivers, &c. Northern and
western counties. May.

melanocarpa, *Desv.* High mountains of Essex county. July.

JUNCUS, *L.* Rush.

effusus, *L.* Low wet grounds. June.

filiformis, *L.* Borders of lakes, northern and western counties.
July.

balticus, *Willd.* Sandy shore of Lake Erie and the St. Lawrence.
July.

nodosus, *L.* *J. polycephalus*, *Michx.* *J. echinatus*, *Ell.?* Wet
meadows and swamps. June.

tenuis, *Willd.* Low grounds, and in dry places. June–July.

acuminatus, *Michx.* Borders of ponds, &c. July.

marginatus, *Rostk.* Sandy wet places. June–July.

bufonius, *L.* Wet low grounds. July.

trifidus, *L.* Summit of Mount Marcy, Essex county.

bulbosus, *L.* Salt marshes. July–August.

stygius, *L.* Sphagnous swamps, near Perch lake, Jefferson county.
August. *Dr. Gray.*

ORDER RESTIACEÆ.

SUB-ORDER ERICAULONEÆ.

ERIOCAULON, *L.* *Pipewort.*

septangulare, *With.* *E. pellucidum, Michx.* Ponds and muddy banks. August.

ORDER XYRIDACEÆ.

XYRIS, *L.* *Yellow-eyed Grass.*

caroliniana, *Walt.* Sandy swamps, Long Island. July.

ORDER SMILACEÆ. THE SMILAX TRIBE.

SMILAX, *L.* *Rough Bindweed.*

rotundifolia, *L.* *Cat Brier, Green Brier.* Thickets and woods. June.

caduca, *L.* Sandy fields and hill sides. June. Perhaps not distinct from the preceding.

herbacea, *L.* Meadows and borders of woods. May-June.

ORDER DIOSCOREACEÆ. THE YAM TRIBE.

DIOSCOREA, *L.* *Yam.*

villosa, *L.* Thickets. June-July.

ORDER ARACEÆ. THE ARUM TRIBE.

ARUM, *L.*

dracontium, *L.* *Green Dragon, Dragon-root.* Low grounds. Valley of the Mohawk, &c. May-June.

triphillum, *L.* *Indian Turnip.* Moist shady places. May.

PELTANDRA, *Raf.*

virginica, *Raf.* *Arum virginicum, L. Lecontea virginica, Cooper.*
Rensselaeria virginica, Beck. Swamps and wet shady thickets. June-July.

CALLA, *L.* *Water Arum.*

palustris, *L.* Swamps; northern counties. July.

SYMPLOCARPUS, *Salisb.* *Skunk Cabbage.*

fœtida, *Nutt.* Low grounds. February-March.

ORONTIUM, *L.* *Golden Club, Floating Arum.*
aquaticum, L. In shallow water. May.

ACORUS, *L.* *Calamus, Sweet Flag.*
calamus, L. Wet meadows and swamps. May-June.

ORDER TYPHACEÆ. THE CAT-TAIL TRIBE.

TYPHA, *L.* *Cat-tail, Reed Mace.*
latifolia, L. Borders of swamps and rivers. June-July.
angustifolia, L. With the preceding.

SPARGANIUM, *L.* *Burr Reed.*
ramosum, L. In shallow ponds and streams. June.
simplex, Smith. *S. americanum, Nutt.* Borders of streams. July.

ORDER FLUVIALES.

NAJAS, *L.*
canadensis, Michx. Ponds and slow-flowing water. July.

ZOSTERA, *L.* *Grasswrack.*
marina, L. Seashore and salt-water bays.

ZANNICHELLIA, *L.* *Triple-headed Pondweed.*
palustris, L. *Z. intermedia, Torr.* Ditches and shallow ponds;
 most common in brackish water. July.

RUPPIA, *L.*
maritima, L. Salt-water ditches. July.

POTAMOGETON, *L.* *Pondweed.*
natans, L. Ponds and slow-flowing water. July.
heterophyllus, Schreb.? *P. fluitans* of American botanists. Ponds,
 &c.
diversifolius, Bart. Flowing water. July-August.
perfoliatus, L. Flowing water. July.
prælongus, Wulf. *P. luceus* of American botanists. Slow-flowing
 deep water. July-August.
compressus, L. *P. zosteræfolius, Schum.?* Flowing water. July.
gramineus, Michx. *P. pauciflorus, Pursh.* Small streams. July-
 August.
pectinatus, L. *P. marinus, Michx.* Fresh and brackish water.
 July.

ORDER JUNCAGINACEÆ. THE ARROW-GRASS TRIBE.

TRIGLOCHIN, *L.* *Arrow Grass.*

- palustre, *L.* Marshes. Near Buffalo, *Dr. Kinnicut.* Salina.
 maritimum, *L.* Salt marshes, near New-York and Salina. July.
 elatum, *Nutt.* Marshes. Gorham, *Dr. Aikin.* Near Bridge-
 water, &c. *Dr. Gray.* June-July.

SCHEUCHZERIA, *L.*

- palustris, *L.* Sphagnous swamps; western and northern counties.
 July. Near Albany, *Dr. Beck.*

ORDER PISTIACEÆ. THE DUCKWEED TRIBE.

LEMNA, *L.* *Duckweed, Duck's-meat.*

- polyrrhiza, *L.* Ditches and stagnant waters.
 gibba, *L.* Near Liverpool, Onondaga county. *Pursh.*
 minor, *L.* Stagnant waters.
 trisulca, *L.* Ditches and ponds. July.

ORDER CYPERACEÆ. THE SEDGE TRIBE.

DULICHIMUM, *Rich.*

- spathaceum, *Pers.* Borders of ponds, &c. August-September.

CYPERUS, *L.* *Galingale.*

- flavescens, *L.* Boggy places, especially near salt water. August-
 September.
 diandrus, *Torr.* Wet places, near salt water. September.
 Var. castaneus, *Torr.* Muddy and sandy shores. August-
 September.
 Nuttallii, *Torr.* Borders of salt marshes. August.
 Michauxianus, *Schultz.* Borders of salt marshes. August.
 strigosus, *L.* Low moist grounds. August.
 repens, *Ell.* C. phymatodes, *Muhl.* Wet sandy places. August.
 filiculmis, *Vahl.* C. mariscoides, *Ell.* Dry sterile soils. Sept.
 Grayii, *Torr.* Sandy fields, Long Island. August-September.
 dentatus, *Torr.* Sandy wet places. September.
 inflexus, *Muhl.* C. uncinatus, *Pursh.* Sandy banks of rivers and
 lakes, north and west of Albany. Albany. Aug.
 Schweinitzii, *Torr.* Sandy shore of Lake Ontario, near Brad-
 dock's Bay. *Dr. Bradley.*

CYPERUS, (continued.)

ovularis, *Torr.* *Mariscus ovularis*, *Vahl.* Sandy soils, in dry and moist situations. August–October.

MARISCUS, *Vahl.*

retrofractus, *Vahl.* Sandy soils, near New-York. July.

FUIRENA, *Rottb.*

squarrosa, var. γ . *Torr. Cyp.* Bogs and swamps, Long Island.

Var. 2. *pumila*, *Torr. Cyp.* Wet sandy places, Long Island.
August–September.

ELEOCHARIS, *R. Br.*

palustris, *R. Br.* Low wet places. May–June.

olivacea, *Torr.* Sandy swamps, Long Island. July.

intermedia, *Schultes.* Wet places, and in shallow running water.
Oneida county. *Dr. Gray.*

obtusa, *Schultes.* *Scirpus capitatus*, *Walt.*; not of *Linn.* Bogs and ditches. July.

tuberculosa, *R. Br.* Sandy swamps, Long Island. August.

acicularis, *R. Br.* Borders of ponds. June.

tenuis, *Schultes.* Bogs and margin of swamps. May.

pygmæa, *Torr.* Salt marshes, near New-York. August.

SCIRPUS, *L.* Club-rush.

planifolius, *Muhl.* Dry woods and bogs.

subterminalis, *Torr.* Slow-flowing water. August.

rostellatus, *Torr.* Yates county. *Dr. Sartwell.*

cæspitosus, *L.* High mountains of Essex county. July.

debilis, *Pursh.* Sandy shores, in wet places. July.

lacustris, *L.* *Bulrush.* In fresh water. June.

maritimus, *L.* Salt marshes. Near New-York, and on Long Island.

Var. *fluviatilis*, *Torr.* Swamps and borders of lakes; western and northern counties.

triqueter, *L.* Swamps and wet meadows, both salt and fresh.

mucronatus, *Vahl.?* Swamp near West Point. *Prof. Bailey.*

atrovirens, *Muhl.* Wet meadows and swamps. June.

brunneus, *Muhl.* Swamps. August.

eriphorum, *Michx.* Borders of swamps, and wet meadows.

lineatus, *Michx.* Near Poughkeepsie. *Mr. Dudgeon.* This species has not been found in the State by any other botanist.

ERIOPHORUM, L. Cotton Grass.

alpinum, L. Sphagnous swamps; northern and western counties. May-June.

vaginatum, L. Deep sphagnous swamps; northern and western counties. Also on the high mountains of Essex.

virginicum, L. Swamps. July.

polystachyum, L. Boggy meadows. June.

angustifolium, Reichard. Sphagnous swamps; northern and western counties. *Dr. Gray.* June.

Var. *brevifolium, Torr.* Near Utica. *Dr. Gray.*

FIMBRISTYLIS, Vahl.

spadicea, Vahl. Wet meadows, particularly near salt water. Island of New-York.

ISOLEPIS, R. Brown.

subsquarrosa, Schrad. *Scirpus subsquarrosus, Muhl.* Sandy shores of lakes and rivers; northern and western counties. August.

capillaris, Ræm. & Schult. *Scirpus capillaris, L.* Sandy fields. July.

TRICHELOSTYLIS, Lestib.

mucronulata, Torr. *Scirpus mucronulatus, Michx.* *S. autumnalis, Pursh.* Moist sandy soils; rarely in dry places. July-September.

RHYNCHOSPORA, Vahl.

alba, Vahl. Swamps. July.

capillacea, Torr. Swamps, Yates county, *Dr. Sartwell.* On limestone rocks, Jefferson county, *Dr. Gray.*

fusca, Ræm. & Schult. Genesee county, *Dr. Bradley.*

gracilentata, Gray. Putnam county, *Dr. Barratt.*

glomerata, Vahl. Low moist grounds. July-August.

cephalantha, Gray. Sandy swamps. Long Island.

CLADIUM, Browne.

mariscoides, Torr. *Schoenus mariscoides, Muhl.* Wet meadows. July.

SCLERIA, Bergius.

reticularis, Michx. Sandy swamps, Long Island. August.

SCLERIA, (continued.)

laxa, Torr. *S. reticularis*, Muhl.; not of Michx. With the preceding.

triglomerata, Michx. Wet thickets and borders of swamps. July.

verticillata, Muhl. Swamps, Yates county. Dr. Sartwell.

pauciflora, Muhl. Greece, Monroe county. Dr. Bradley.

CAREX, L. Sedge.

dioica, L.? Swamps, Yates county. Dr. Sartwell.

exilis, Dewey. Sphagnous swamps, Oneida county. Dr. Kneiskern.

chordorrhiza, Ehrh. Northern and western counties. June.

disperma, Dew. Swamps; often on mountains.

rosea, Schk. Woods and low grounds. May.

Var. *retroflexa*, Torr. & Gr. *C. retroflexa*, Muhl. Wet places. May.

cephalophora, Muhl. Dry woods and hill sides. April.

sparganioides, Muhl. Low grounds and thickets. May.

stipata, Muhl. Wet meadows. April.

bromoides, Schk. Moist woods and wet meadows. May.

vulpinoidea, Michx. *C. multiflora*, Muhl. Swamps and low grounds. May.

decomposita, Dew. Yates county. Dr. Sartwell.

paniculata, var. *teretiuscula*, Wahl. Swamps. May.

Muhlenbergii, Schk. Rocky woods. May.

bromoides, Schk. Swamps. May.

trisperma, Dew. Shady swamps, and mountain woods. June.

Deweyana, Schw. Moist woods. June.

tenuiflora, Wahl. Swamps. Near Ogdensburgh, Dr. Crawe. Oriskany swamp, Oneida county, Dr. Kneiskern.

stellulata, Good. *C. scirpoides*, Schk. *C. sterilis*, Willd. Swamps and wet meadows. May.

curta, Good. *C. Richardi*, Michx. Swamps.

scoparia, Schk. Wet meadows. May.

Var. *lagopodioides*. *C. lagopodioides*, Willd. Wet meadows.

festucea, Schk. Moist woods and meadows. May.

cristata, Schw. Swamps and wet meadows. May.

straminea, Willd. Swamps. May.

Var. *minor*. *C. tenera*, Dew. Swamps. May.

aurea, Nutt. Wet borders of streams, and in swamps. June.

saxatilis, L. Summit of Mount Marcy, Essex county. August.

CAREX, (continued.)

- cespitosa*, *L.?* *Schk.* Swamps; northern and western counties.
acuta, *L.?* *Schk.* Bog meadows. May.
aquatilis, *Wahl.* Wet borders of lakes, western counties. *Dr. Gray.*
crinita, *Lam.* Swamps, and along streams. May-June.
leucoglochis, *Ehrh.* *C. pauciflora*, *Willd.* Sphagnous swamps; northern and western counties.
polytrichoides, *Muhl.* Moist woods and low grounds. May.
Willdenovii, *Schk.* Jefferson county, *Dr. Gray.* Yates county, *Dr. Sartwell.* Moist shady places. June.
pedunculata, *Muhl.* Woods and hill sides. April-May.
squarrosa, *L.* Low wet grounds. May.
Buxbaumii, *Wahl.* Swamps; northern and western counties. June.
triceps, *Michx.* *C. hirsuta*, *Willd.* Meadows and open moist woods. May-June.
virescens, *Muhl.* Woods and shady hill sides. May-June.
gracillima, *Schw.* Woods and wet meadows. May.
formosa, *Dew.* Wet meadows. May.
Davisii, *Torr. & Schw.* *C. Torreyana*, *Dew.* Moist banks of rivers; western counties. May.
lanuginosa, *Michx.* *C. pellita*, *Muhl.* Wet meadows and swamps. May.
vestita, *Willd.* Wet grounds. May-June.
pennsylvanica, *Lam.* *C. marginata*, *Muhl.* Dry woods. April.
 Var. *Muhlenbergii*, *Gray.* *C. varia*, *Muhl.* With the preceding.
novæ-angliæ, *Schw.* Mount Marcy, Essex county. June.
pubescens, *Muhl.* Woods and rocky hill sides. May.
striata, *Michx.* *C. polymorpha*, *Muhl.* *C. Halseyana*, *Dew.* Swamps; western counties. June.
oligocarpa, *Schk.* *C. Sartwelliana*, *Gay.* Western counties. *Dr. Sartwell.*
 Var. *major.* *C. Hitchcockiana*, *Dew.* With the preceding.
laxiflora, *Muhl.* Wet meadows. May.
conoidea, *Schk.* Moist woods, in fertile soil. April-May.
tetanicæ, *Schk.* Wet meadows. May.
eburnea, *Boott.* *C. alba*, *Dewey* and American botanists; not of *Hænke.* Limestone hills, northern and western counties. June.

CAREX, (continued.)

- anceps, *Muhl.* *C. striatula*, *Michx.* *C. plantaginea* & *conoidea*,
Muhl. Woods and low grounds. April–May.
- plantaginea*, *Lam.* Shady ravines. April.
- Careyana*, *Dew.* Woods near Auburn. *Mr. Carey.*
- digitalis*, *Willd.* *C. oligocarpa*, *Schw.*, *Torr.* & *Dew.*; not of
Schk. Rocky woods. May.
- sylvatica*, *Huds.* Borders of swamps. June.
- debilis*, *Michx.* *C. flexuosa*, *Muhl.* Wet woods. June.
- livida*, *Willd.* *C. Grayana*, *Dew.* Sphagnous swamps, Oneida
county. June. *Dr. Gray* and *Dr. Kneiskern.*
- æderi*, *Ehrh.* *C. viridula*, *Michx.* Wet rocks and sandy shores.
Lake Ontario, &c. June.
- flava*, *L.* Meadows and low grounds. May.
- folliculata*, *L.* *C. xanthophysa*, *Wahl.* Swamps. June–July.
- subulata*, *Mich.* Cedar swamps, Long Island. June–July.
- intumescens*, *Rudge.* *C. folliculata*, *Schk.*; not of *Linn.* Wet
woods. June.
- lupulina*, *Muhl.* Swamps. June.
Var. *polystachya*, *Torr.* & *Schw.* Putnam county. *Dr. Barratt*
Var. *pedunculata*, *Gray.* Shore of Lake Erie. *Dr. Gray.*
- tentaculata*, *Muhl.* Low wet meadows. June.
- retrorsa*, *Schw.* Swamps. June.
- oligosperma*, *Michx.* *C. Oakesiana*, *Dew.* Wet borders of small
lakes, Essex county. July.
- bullata*, *Schk.* Swamps. June.
Var.? *cylindræa*, *Torr.* & *Gr.* *C. vesicaria*, α and β , *Dew.*
Swamps.
- physocarpa*, *Boott.* *C. vesicaria*, *Schw.* & *Torr.*; not of *Linn.*
C. ampullacea, *Dewey.*
- Schweinitzii*, *Dew.*
- aristata*, *R. Br.* Watertown, New-York. *Dr. Craue.*
- trichocarpa*, *Muhl.* Swamps. May.
- lacustris*, *Willd.* Borders of lakes. June.
- scabrata*, *Schw.* Shady swamps. May.
- hystericina*, *Muhl.* Wet meadows. May.
- pseudo-cyperus*, *L.* Swamps. May.
- longirostris*, *Torr.* Shady rocky places; northern counties. June.
- limosa*, *L.* Sphagnous swamps; northern and western counties.
June.

CAREX, (continued.)

- Var. *irrigua*, *Wahl.* *C. paupercula*, *Michx.* With the preceding.
- flexilis*, *Rudge.* *C. blepharophora*, *Gray.* Moist shady places. Oneida county, *Dr. Gray.* Essex county, *Dr. Kneiskern.* June.
- miliacea*, *Muhl.* Wet grassy banks. May.
- pallescens*, *L.* Wet grounds. May.
- umbellata*, *Schk.* Rocky hills. June.

ORDER GRAMINEÆ. THE GRASS TRIBE.

The Grasses are here arranged nearly as they are described in my Flora of the Middle and Northern States, and in *Dr. Beck's Botany.* A more natural arrangement of them will be adopted in my final report.

· AGROSTIS, *L.* Bent Grass.

- ♂ *stricta*, *Willd.* Sandy fields, near Oneida lake. June.
- ♂ *polymorpha*, *Huds.* *A. vulgaris* and *alba*, *L.* *Red-top*, *Fiorin Grass*, *Herd's Grass.* Meadows, road sides, &c. June–August.
- Michauxii*, *Trin.* *Trichodium laxiflorum*, *Michx.* *Thin Grass.* Fields and meadows.
- cryptandra*, *Torr.* Near Buffalo, *Dr. Aikin.* Probably a *Vilfa.*

BRACHYELYTRUM, *P. de Beauv.*

- aristatum*, *P. de B.* *Muhlenbergia aristata*, *Roth.* *Dilepyrum aristosum*, *Michx.* Rocky hills and woods. June.

MUHLENBERGIA, *Schreb.*

- mexicana*, *Trin.* *Agrostis mexicana*, *L.* *A. lateriflora*, *Michx.* *A. mexicana* and *filiformis*, *Muhl.* Wet grounds. August.
- sobolifera*, *Trin.* *Agrostis sobolifera*, *Muhl.* Rocky hill sides. August.
- Willdenovii*, *Trin.* *Agrostis tenuiflora*, *Willd.* Rocky woods. July–August.
- sylvatica*, *Torr.* *Agrostis sylvatica*, *Torr. fl.* Rocky hill sides, near rivers. August.
- glomerata*, *Trin.* *Agrostis setosa*, *Muhl.* *Polypogon racemosus*, *Nutt.* Swamps. August–September.

MUHLENBERGIA, (continued.)

- cinna, *Trin.* *Cinna arundinacea*, *L.* Swamps and wet shady woods. August.
diffusa, *Schreb.* Rocky hill sides and fields. August.

VILFA, *Adans.*

- serotina, *Torr. in Gray's Gram. & Typ.* *Agrostis serotina*, *Torr. fl.* Sandy swamps, Long Island. September.
vaginæflora, *Torr. l. c.* *Agrostis virginica*, *Muhl.*, not of *Linn.* Sandy soils and sterile hill sides. September-October.
longifolia, *Torr. l. c.* *Agrostis longifolia*, *Torr. fl.* Sandy fields, Long Island. September.
heterolepis, *Gray.* Rocks, Jefferson county. *Dr. Gray.* August-September.

ALOPECURUS, *L.* Fox-tail Grass.

- ♂ pratensis, *L.* Fields and pastures. June.
geniculatus, *L.* Wet meadows. June.
Var. aristulatus, *Torr.* *A. aristatus*, *Michx.* With the preceding.

PHLEUM, *L.* Cat-tail Grass.

- ♂ pratense, *L.* Timothy, *Herd's Grass.* Fields. June-August.

PHALARIS, *L.* Canary Grass.

- arundinacea, *L.* Swamps. July
♂ canariensis, *L.* Fields and pastures.

MILIUM, *L.* Millet Grass.

- effusum, *L.* Wet woods. July. Northern and western counties.
pungens, *Torr.* Rocky hills. N.

PIPTATHERUM, *P. de Beauv.*

- nigrum, *Torr.* *Oryzopsis melanopa*, *Muhl.* Rocky woods. August.

STIPA, *L.* Feather Grass.

- avenacea, *L.* Dry woods and hillsides. June.

ORYZOPSIS, *Michx.*

- asperifolia, *Michx.* Mountain Rice. Woody hill sides; western counties. April-y.

PANICUM, *L.* *Panic Grass.*

♂ crus-galli, *L.* Fields and cultivated grounds. August–Sept.
hispidum, *Muhl.* Border of salt marshes. August–September.
clandestinum, *L.* Woods and thickets. July–August.

Var. pendunculatum. ♂. pedunculatum, *Torr. fl.* Woods.
latifolium, *L.* Woods and moist thickets. June.

dichotomum, *L.* Woods and moist low grounds. A very polymorphous species, including *P. nitidum*, *Lam.* and of the Flora of the Northern & Middle States, as well as numerous species described in more recent works.

agrostoides, *Muhl.* Wet meadows. July–August.

depauperatum, *Muhl.* Pectum, *Ræm. & Schult.* *P. involutum*,
Torr. fl. *P. strictum*, *Pursh*, not of *R. Br.*
Dry woods and sterile hills. May–June.

virgatum, *L.* Sandy shores. August.

verrucosum, *Muhl.* *P. bile*, *Ell.* Sandy swamps, Long Island.

prolificum, *Lam.* *P. giculatum*, *Muhl.* Wet meadows, and also in sandy fields. September.

xanthophysum, *Gray.* Dry pine barrens; western counties.
June–July. *Dr. Gray, Dr. Sartwell.*

capillare, *L.* Sandy fields and cultivated grounds; also in dry woods. August–September.

SETARIA, *P. de Beauv.*

♂ viridis, *P. de B.* *Bæ Grass.* Cultivated grounds. July.

♂ glauca, *P. de B.* *Fossil Grass.* Fields and road sides. July.

DIGITARIA, *Haller.* *Crab Grass.*

♂ sanguinalis, *Scop.* *Common Crab Grass.* Cultivated grounds, &c. August–September.

glabra, *R. & S.* Sandfields. August–September.

filiformis, *Muhl.* Sandfields. August.

PASPALUM, *L.*

ciliatfolium, *Michx.* Sandy fields, August–September.

laeve, *Michx.* Grassy banks and moist meadows. August.

CENCHRUS, *L.* *Hedgehoggrass.*

tribuloides, *L., Muhl.* ♂. echinatus, *Muhl.* Sandy shores of Long Island and the Island of New-York. July–August.

ARISTIDA, L.

- dichotoma, *Michx.* Barren fields. July.
 gracilis, *Ell.* Sandy fields. Long Island.

CALAMAGROSTIS, Roth.

- canadensis, *P. de Beauv.* Wet meadows. August.
 coarctata, *Torr. in Gray's Gram & Cyp.* C. canadensis, *Nutt.*
 Arundo coarctata, Torr. fl. Wet thickets. Aug.
 inexpansa, *Gray.* Swamps; northern and western counties. July.
 arenaria, *Roth.* *Arundo arenaria, L.* Sandy seacoast of Long
 Island. August–September.

ANTHOXANTHUM, L. *Sweet-scented Vernal Grass.*

- ♂ odoratum, L. Moist meadows and open woods. June–August.

AIRA, L. *Hair Grass.*

- flexuosa, L. Dry woods and rocky hills. June.
 cespitosa, L. A. aristulata, *Torr. fl.* Moist situations, along
 rivers. June.
 atropurpurea, *Wahl.* Sources of the Hudson, Essex county. Aug.

TRISETUM, Pers.

- palustre, *Torr.* Avena pennsylvanica, L. A. palustris, *Michx.*
 Wet meadows. May–July.
 purpurascens, *Torr.* Avena striata, *Michx.* Northern and wes-
 tern counties. Wet woods and banks of rivers.
 June.
 molle, *Trin.* Avena mollis, *Michx.* Rocky banks of rivers;
 northern and western counties. July.

HOLCHUS, L. *Soft Grass.*

- ♂ lanatus, L. Wet meadows. July.

HIEROCHLOA, Gmel.

- borealis, R. & S. Holchus odoratus, L. H. fragrans, *Ph. Se-*
 neca Grass. Wet meadows. May.
 alpina, R. & S. High mountains of Essex county. June.

URALEPIS, Nutt.

- aristulata, *Nutt.* Sandy shores about New-York, and on the sea-
 coast of Long Island. August.

ARUNDO, L. *Reed Grass.*

- phragmites, L. Borders of ponds and swamps. August.

DANTHONIA, *D. C.*

spicata, *P. de Beauv.* Woods and fields. June–August.

FESTUCA, *L. Fescue Grass.*

§ *duriuscula*, *L.* Sandy fields. June.

tenella, *Willd.* Sandy fields and dry banks. June.

§ *elatior*, *L.* Wet meadows. June.

§ *pratensis*, *Huds.* Fields and meadows. June.

nutans, *Willd.* Woods and rocky shady places. June.

fascicularis, *Lam.* Borders of salt marshes, Long Island. August.

GLYCERIA, *R. Br. Manna Grass.*

fluitans, *R. Br.* Stagnant waters and ponds. June.

acutiflora, *Torr.* Wet meadows. June.

POA, *L. Meadow Grass.*

§ *annua*, *L.* Fields and cultivated grounds. April–August.

dentata, *Torr.* Swamps. June–July.

aquatica, *L.* Wet meadows. July–August.

§ *pratensis*, *L.* Meadows, road sides, &c. May–July.

§ *trivialis*, *L.* Wet meadows. June–July.

compressa, *L. Blue Grass.* Fields, woods, and sandy shores.
June.

serotina, *Ehrh. Red-top.* Wet meadows. June–July.

nemoralis, *L.* Woods and meadows. June–July.

nervata, *Willd.* Wet meadows. June.

Torreyana, *Spreng.* *P. elongata*, *Torr.*, not of *Willd.* Wet
meadows. July.

canadensis, *Torr. Briza canadensis*, *Michx.* Swamps. July.

capillaris, *L.* Sandy fields and dry hills. August.

hirsuta, *Michx.* Sandy fields, Long Island. August.

alpina, *L.* Summit of Mount Marcy, Essex county.

pilosa, *L. P. pectinacea*, *Michx.* Sandy fields. July–August.

reptans, *Michx.* Wet sandy shores, north and west of Albany.

§ *eragrostis*, *L.* Sandy fields. July–September.

Obs. An undetermined species, probably new, occurs in woods, in the northern and western counties. It will be fully described in my final report.

UNIOLA, *L. Spike Grass.*

gracilis, *Michx.* Salty swamps, Long Island. August.

spicata, *L.* Salt marshes. August–September.

TRICUSPIS, P. de Beauv.

seslerioides, *Torr.* *Poa seslerioides, Michx.* Sandy fields. Aug.

DACTYLIS, L. Orchard Grass.

♂ glomerata, *L.* Fields and meadows. June.

KÆLERIA, Pers.

pennsylvanica, *D. C.* Rocky woods. May-June.

truncata, *Torr.* Dry woods. June.

BROMUS, L. Brome Grass.

♂ secalinus, *L.* *Chess*, or *Cheat*. Cultivated grounds. June.

ciliatus, *L.* Dry woods. June.

purgans, *L.* *B. canadensis, Michx.* Woods and river banks.
June-July.

♂? sterilis, *L.* Penn-Yan, Yates county. *Dr. Sartwell.*

ATHEROPOGON, Muhl.

apludoides, *Muhl.* Rocky hills, Dutchess and Orange counties.
August.

ELEUSINE, Gært. Dog's-tail Grass.

♂ indica, *Lam.* Cultivated grounds, pavements of streets, &c.
July-November.

SECALE, L. Rye.

♂ cereale, *L.* Old fields. June.

ELYMUS, L. Lyme Grass, Wild Rye.

virginicus, *L.* River banks. July-August.

canadensis, *L.* River banks and rocky hill sides. July.

striatus, *Willd.* Dry rocky hills. July.

hystrix, *L.* Rocky woods. July.

TRITICUM, L. Wheat.

♂ repens, *L.* *Couch Grass.* Fields and cultivated grounds. July.

LOLIUM, L. Darnel.

♂ perenne, *L.* Meadows and pastures. June.

ANDROPOGON, L. Beard Grass.

scoparius, *Michx.* Dry hills and barren fields. August.

virginicus, *L.* Exsiccated swamps. September.

macrourus, *Michx.* Brackish swamps. September-October.

ANDROPOGON, (continued.)

- furcatus, *Muhl.* Rocky banks. September–October.
nutans, *L.* Sandy fields and rocky hills. September.

LEERSIA, *Swartz.* *White Grass.*

- virginica, *Willd.* Wet woods and thickets. August.
oryzoides, *Swartz.* Ditches and swamps. August–September.

ZIZANIA, *L.* *Wild Rice, Water Oats.*

- aquatica, *Lamb.* *Tuscarora Rice.* Fresh or brackish water. Aug.

OBS. *Z. fluitans*, *Michx.* according to the herbarium of that botanist, was not found in Lake Champlain, as stated by mistake in the *Flora Boreali-Americana*, but near Charleston, South-Carolina.

CLASS IV. ACROGENS.

ORDER EQUISETACEÆ. THE HORSE-TAIL TRIBE.

EQUISETUM, *L.* *Horse-tail.*

- limosum, *L.* Swamps and borders of ponds. June.
sylvaticum, *L.* Moist woods.
hyemale, *L.* *Scouring Rush.* Swamps and wet banks. May–June.
variegatum, *Sleich.* Wet sandy places, among rocks. Niagara, *Dr. Kinnicutt.*
arvense, *L.* Low grounds. April.
scirpoides, *Michx.* Shady rocky places; northern counties.

ORDER FILICES. THE FERN TRIBE.

SUB-ORDER POLYPODIÆ.

POLYPODIUM, *L.* *Polypody.*

- vulgare, *L.* Rocky woods and hill sides. July.
hexagonopterum, *Michx.* Moist woods. July.
phegopteris, *L.* *P. connectile*, *Michx.* Shady woods. July.
calcareum, *Smith.* Moist shady woods; northern and western counties. July.

ASPIDIUM, *Swartz.* *Shield Fern.*

- acrostichoides, *Willd.* Shady rocky hill sides. June–August.
Var. incisum, *Gray.* *A. Schweinitzii*, *Beck.* Shady ravines, near Hamilton College. *Dr. Gray.*

ASPIDIUM, (continued.)

thelypteris, *Sw.* *A. noveboracense*, *Willd.*

Goldianum, *Hook.* Shady woods. July.

marginale, *Sw.* Rocky hill sides. July.

dilatatum, *Sw.* *A. intermedium*, *Willd.* Shady woods. July.

asplenoides, *Sw.* *Nephrodium filix-fœminea* and *asplenoides*,
Michx. Shady woods. July.

lancastricense, *Sw.* *A. cristatum* of American botanists, not of
Swartz. Swamps. July.

CYSTOPTERIS, *Bernh.*

fragilis, *Bernh.* *Cyathea fragilis*, *Sm.* *Aspidium tenue*, *Sw.* *A.*
atomarium, *Willd.* *Nephrodium tenue*, *Michx.*
Moist rocks. June-July.

bulbifera, *Bernh.* *Aspidium bulbiferum*, *Willd.* *Nephrodium*
bulbiferum, *Michx.* Shady rocky places. July.

DICKSONIA, *L'Herit.*

pilosiuscula, *Willd.* *Nephrodium punctilobulum*, *Michx.* Shady
rocky places. July.

WOODSIA, *R. Br.*

obtusa. *W. Perriniana*, *Hook. & Grev.* *Aspidium obtusum*, *Sw.*
Rocky woods. July.

ilvensis, *R. Br.?* *Nephrodium rufidulum*, *Michx.* Sides of rocky
hills. June.

ASPLENIUM, *L.* *Spleenwort.*

rhizophyllum, *L.* *Camptosorus rhizophyllum*, *Presl.* Moist rocks;
generally on limestone. July.

angustifolium, *Michx.* Shady woods. July.

ebeneum, *Willd.* Rocky woods. July.

trichomanes, *L.* *A. melanocaulon*, *Willd.* Shady rocks. July.

thelypteroides, *Michx.* *Diplazium thelypteroides*, *Presl.* Shady
rocky woods. July.

ruta-muraria, *L.* *Wall-rue Spleenwort.* Shady limestone rocks.
July.

WOODWARDIA, *Smith.*

angustifolia, *Smith.* *W. onocleoides*, *Willd.* Swamps: rare.
August.

virginica, *Sw.* *Doodia virginica*, *Presl.* Swamps. July.

SCOLOPENDRIUM, *Smith. Hart's-tongue.*

officinarium, Sw. Sides of limestone rocks, near Chittenango Falls.
July.

PTERIS, *L. Brake.*

aquilina, L. *Common Brake, or Bracken.* Woods and thickets.
July–August.

atropurpurea, L. Limestone rocks. June–July.

CRYPTOGRAMMA, *R. Br.*

gracile. Pteris gracilis, Michx. *Allosorus gracilis, Presl.* Rocks.
Near Whitehall, *Dr. Beck.* Yates county, *Dr.*
Sartwell. Northern counties. July–August.

ADIANTUM, *L. Maidenhair.*

pedatum, L. Shady woods. July.

STRUTHIOPTERIS, *Willd.*

germanica, Willd. *S. pennsylvanica, Willd.* Borders of swamps.
July–August.

ONOCLEA, *L.*

sensibilis, L. *Ragiopteris onocleoides, Presl.* Moist woods and
thickets. July.

obtusilobata, Schk.? *Ragiopteris obtusiloba, Presl.?* Near Salem,
Washington county. *Dr. I. Smith.*

SUB-ORDER OSMUNDEÆ.

OSMUNDA, *L. Flowering Fern.*

Claytoniana, L. *O. interrupta, Michx.* Low moist grounds.
June–July.

cinnamomea, L. Low grounds. July.

Var. *frondosa, Torr. & Gray.* Frond leafy below; fructiferous
at the summit. *O. Claytoniana, Beck.*

regalis, L. *O. spectabilis, Willd.* Wet meadows and thickets.
July.

LYGODIUM, *Swartz. Climbing Fern.*

palmatum, Sw. Western part of the State; locality not recorded.

SUB-ORDER OPHIOGLOSSÆ.

OPHIOGLOSSUM, *L.* *Adder's-tongue.*

vulgatum, *L.* Low grounds and thickets. June.

BOTRYCHIUM, *Swartz.* *Moonwort.*

fumarioides, *Sw.* Moist woods. July–August.

dissectum, *Muhl.* Moist woods. August–September.

virginicum, *Sw.* B. gracile, *Michx.* Woods and rocky hills.
May–June.

simplex, *Hitchcock.* Highlands of New-York. *Dr. Barratt.*

ORDER LYCOPODIACEÆ. THE CLUB-MOSS TRIBE.

LYCOPODIUM, *L.* *Club Moss.*

clavatum, *L.* Dry woods. July.

complanatum, *L.* Dry woods. July.

obscurum, *L.* L. dendroideum, *Michx.* Shady woods. July.

annotinum, *L.* Sandy woods and hill sides. July.

inundatum, *L.* Wet places; western counties. July.

rupestre, *L.* Dry rocks. July.

selago, *L.* Summit of Mount Marcy. July. Whiteface Mountain. *Prof. Hall* and *Dr. Emmons.*

lucidulum, *Michx.* Shady woods and swamps. July–August.

apodum, *L.* L. albidulum, *Michx.* Moist woods. July–August.

ISÆTES, *L.* *Quillwort.*

lacustris, *L.* Bottom of Oswego River, near the Falls. *Pursh.*

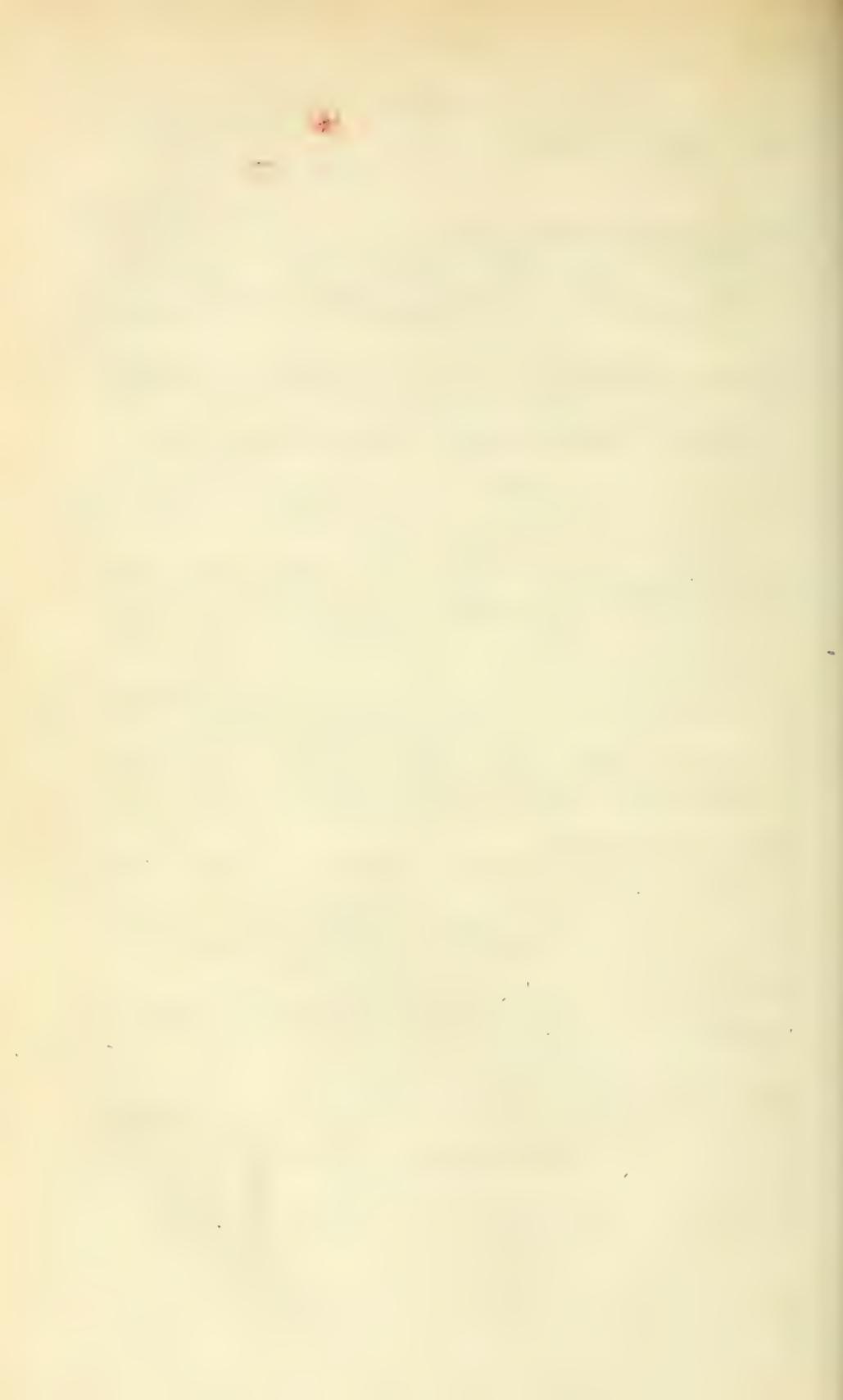
ORDER SALVINIÆ.

SALVINIA, *Guett.*

natans, *Hoff.* Lakes of still water; western part of the State.
Pursh.

AZOLLA, *Lam.*

caroliniana, *Lam.* Ponds and lakes; near New-York. Braddock's Bay, Lake Ontario, *Dr. Bradley.*



A CATALOGUE
OF THE
MEDICINAL PLANTS,
INDIGENOUS AND EXOTIC,
GROWING IN THE STATE OF NEW-YORK.

WITH A BRIEF ACCOUNT OF THEIR
COMPOSITION AND MEDICAL PROPERTIES.

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M E D I C I N A L P L A N T S

o 7

NEW-YORK.

THE State of New-York, embracing an area equal to the whole of Great Britain, abounds in natural resources of an almost inexhaustible character; furnishing as many incitements to mental and physical labor, as any territory of the same extent on the habitable globe. These resources are, through the liberality of the state government, and the enterprise of private individuals, becoming rapidly developed, and in a few more years, at farthest, we shall doubtless have the materials for acquiring a very complete knowledge of the entire natural history of the state. We have thought that we should do our readers a service, and add our mite towards the advancement of this great work, if we presented in our pages, in a moderate compass, as full a list of the medicinal plants of the state, as our present means of information would enable us to supply; and we have accordingly prepared such a catalogue from all the sources within our reach; which we now offer to the profession. In doing this, we have drawn largely from the recent "*Flora of the State of New-York*," by Dr. Torrey; without which, indeed, the work could not have been accomplished. We have also followed Dr. T.'s arrangement, as the best within our knowledge. One object of our catalogue is, to aid the profession throughout the state, in further investigating our indigenous *materia medica*; and to this end, we have adopted the natural system of arrangement, as the only one which can serve as a useful guide to the medical man in pursuing the study of this interesting science. By comparing the medicinal properties of all the plants, belonging to the same natural order, he will be able to understand how far botanical affinities aid in arriving at a knowledge of their therapeutic effects, and to avail himself of these analogies in prosecuting further researches.

The whole number of flowering plants hitherto discovered in this state, according to Prof. Torrey, is about 1450 species. Of these about 1200 are herbaceous, and 150 ornamental. We have 250 species of woody plants, including eighty that attain the size of trees. There are also about 150 species of plants that are known to possess medicinal properties. Of exotics, now naturalized, we have 160 species, many of which have probably been introduced with grain, and other agricultural products, from abroad. Of such, are nearly all the weeds which prove so troublesome to the farmer. To the same source we are also indebted for many of our useful species, as most of our different grasses, which spring up spontaneously on every hand.

Of *Ferns* we have about sixty species belonging to the Flora of the state, some of which are medicinal. The *Mole Fern* does not grow within the limits of the state. Our *Mosses*, *Liverworts*, *Lichens*, and *Sea-weeds*, have as yet been but very imperfectly investigated; though many of them would undoubtedly furnish valuable resources to the medical man. When these have become more fully known, we shall no longer send to Iceland, Ireland, and the East Indies, for mucilaginous mosses, and other remedies of this class. Our *Fungi* are almost innumerable, constituting, probably, at least 3000 species, but few of which have been thoroughly studied. Here is a wide field for such as wish to distinguish themselves by making discoveries in a *terra incognita*. At present our knowledge scarcely suffices to enable us to distinguish such as are poisonous from those which are edible and nutritious. Where is the genius, which is to illustrate this dark region? Where the man, whose name is to be connected with this branch of natural science, in all future time?

It is not to be supposed, that the botany of this state is as yet fully explored. A large majority of our phanerogamous plants have undoubtedly been discovered; but yet we believe that numerous interesting plants of this class yet remain undetected, besides thousands of the cryptogamic order. The geological features of our state are greatly diversified, and so is its range of temperature: and the geographical range of plants is as extensive, being governed by both these circumstances. Already we can number as many species as are found in the whole of New England. But we have mountainous and alpine regions in our state, elevated some 6000 feet above the ocean, which furnish an alpine vegetation, and which yet remain almost unexplored. We have many plants on our Atlantic borders, as Long Island, which are found no where else in the state; and the same remark will apply to the valley of the Hudson, and to our mountainous and western and northern regions. We have many marine plants growing on the borders of our northern lakes, showing that their waters were formerly saline. According to Dr. Torrey, our most numerous dicotyledonous

orders are the RANUNCULACEÆ, which constitute about 1-38th of the flowering plants; the CRUCIFERÆ, 1-45th; the LEGUMINOSÆ, 1-26th; ROSACEÆ, 1-25th; UMBELLIFERÆ, 1-39th; COMPOSITÆ, 1-9th; ERICACEÆ, 1-34th; LABIATÆ, 1-32d; SCROPHULARIACEÆ, 1-39th. Of monocotyledonous plants there are but three large orders, viz., ORCHIDACEÆ, which form about 1-39th of our flowering plants; CYPERACEÆ, 1-9th, and GRAMINEÆ, 1-12th; which proportions vary but little from the average of the whole Flora of North America.

We have omitted the botanical description of the different orders, genera, and species, as it would have extended our article beyond the limits of our pages; the reader, moreover, is supposed to be furnished with *Torrey & Gray's "Flora,"* *Eaton & Wright's "Manual,"* *Wood or Beck's "Botany,"* with the aid of which he will be easily enabled to identify any given species. The student in his walks for exercise, and the country practitioner in his daily rides, will find an abundant source of amusement and mental recreation, in studying the various plants which may be presented to their observation.

DIVISION I.—FLOWERING OR PHENOGAMOUS PLANTS.

CLASS I.—EXOGENOUS PLANTS.

SUB-CLASS I.—POLYPETALOUS EXOGENOUS PLANTS.

NATURAL ORDERS.

RANUNCULACEÆ, *Juss.*—(THE CROW FOOT TRIBE.)

The plants belonging to this order are generally acrid and caustic, though they vary in their physical properties. In some of them we detect a peculiar acrid principle, of a volatile nature, dissipated by heat, or by simple drying; neither acid nor alkaline; in others, as the *Accutium* and *Delphinium*, the active ingredient is an alkaloid, highly deleterious even in minute doses. In some, the only marked properties are those of the pure bitters, as in *Coptis* (Gold Thread) & *Hydrastis*.

CLEMATIS, (Virgin's Bower,) three species in the state. OCHROLEUCA; VIRGINIANA; and VERTICILLARIS. The VIRG. has been considerably employed as an emetic, diaphoretic, and alterative. Most of the species have a somewhat acrid taste, and are vesicant; externally as revellants, and externally and internally in the treatment of chronic rheumatism. An infusion of the bruised leaves and flowers forms a good lotion for the removal of spots and freckles from the skin, and a decoction of the root is useful as a purge in hydropic cases.

ANEMONE, *Linn.*, five species. NEMOROSA, *Linn.* CYLINDRICA, *Gray.* VIRGINIANA, *Linn.* MULTIFIDA, *Poir.* PENNSYLVANICA, *L.* The medicinal properties of Anemone are similar to those of the *Clematis*, only more active. The *Nemorosa* acts as a poison to cattle,

producing bloody urine and convulsions. An ointment of it speedily cures *Tinea capitis*. In the recent state most of the species are acrid and rubefacient. They contain a peculiar crystallizable principle, called *anemonin*, which is converted into *anemonic acid*, by the action of alkalis. The *A. VIRGINIANA*, *Linn.*, (Thimble weed), is supposed to possess the power of curing the bite of the Rattlesnake. A decoction of the root of the *Nemorosa*, would probably prove useful in chronic rheumatism.

HEPATICA TRILOBA, *Chaix.*, (Liverwort or Liverleaf) A mild, demulcent, tonic and astringent; slightly diuretic and deobstruent, scentless and almost insipid. A decoction of it may be drank *ad libitum*. Its medical properties are very slight.

RANUNCULUS, *Linn.*, (Crowfoot Butter-cup.) Of this we have fourteen species, nearly all of which are more or less acrid and caustic, when fresh, but nearly inert when dried.

The *FLAMMULA*, *Linn.*, (Spearwort,) which grows in low wet grounds and ditches, is one the most acrid of the genus, and is sometimes employed as a vesicant, and the distilled water as an emetic. Most of the species, when applied to the skin, in a fresh state, act as vesicatories; they are apt, however, to cause ulcerations difficult to heal; useful as counter-irritants in rheumatism, neuralgia, etc., or whenever we wish to make a powerful impression on the surface. The acrid principle is volatile, dissipated by heat or drying, and may be separated by distillation. When chewed, the plant excites violent inflammation in the mouth and fauces, and if swallowed, a burning sensation in the stomach, and inflammation. None of the species should be used internally. The *bulbosus* and *acris* are among the most acrid. Decoction inert.

CALTHA PALUSTRIS, *Linn.*, (Marsh Marigold), used as a pot-herb. A syrup prepared from it is a popular remedy for coughs. Slight medicinal properties.

TROLLIUS LAXUS, *Salisb.*, (Globe Flower,) has the same properties as the *Ranunculus*.

COPTIS TRIFOLIA, *Salisb.*, (Common Gold Thread). A well-known herbaceous plant, with perennial roots, of a bright yellow color, growing in swamps and boggy woods. A pure and powerful bitter without any astringency; more palatable than any of the pure bitters, imparting its virtues to water and alcohol; useful in all cases where a pure tonic is indicated, also as a local application in aphthous and other ulcerations of the mouth. A very useful stomachic in atonic dyspepsia and loss of appetite, in form of infusion or tincture. Its virtues depend on a bitter extractive matter, which is precipitated by nitrate of silver and acetate of lead. Contains neither resin, gum, nor tannin. Dose of substance, 10 to 30 grs.; of the tincture \mathfrak{z} j., prepared with \mathfrak{z} j. of root to O.j. diluted alcohol. Might be substituted in many cases for exotic bitters.

HELLEBORUS* VIRIDIS, *Linn.*, (Green Hellebore). This is an exotic, but naturalized on Long Island. Its medicinal properties, like those of the other species of Hellebore, do not depend, like the *Ranunculus*, on an acrid volatile principle, but a permanent resinous substance, which is weakened but not destroyed by drying. Like the *H. niger*, the *viridis* is a hydragogue purgative and emmenagogue, and equally valuable; if anything, more certain and energetic. The acrid properties of the fresh root are owing to a volatile acid, similar to the *cevodic*. Chiefly useful as an emmenagogue in cases of torpid function; an alterative deobstruent in chronic rheumatism, in form of *tincture*.

DELPHINIUM,† *Linn.*, (Larkspur). We have one species of this exotic naturalized, the **CONSOLIDA**, *Linn.*, (the common Larkspur of our gardens,) which owes its active properties to a peculiar alkali, *delphinia*, which resides chiefly in the seeds, a tincture of which has been recommended in asthma, calculus, and as an anthelmintic, in doses of 20 to 30 drops. It is very active, in small doses, exciting nausea, vomiting, and inflammation of the mucous membrane. A decoction of the flowers was formerly considered efficacious in diseases of the eyes. The tincture will speedily destroy lice in the hair. *Root* the only officinal part, although all parts are endowed with an acrid and bitter principle, which is more abundant in the seeds, which also contain much oil. The Larkspur is too harsh and violent in its operation for internal use, and is now chiefly employed in veterinary practice, to destroy vermin on horses and other animals. The name *consolida* was given to the above species from its supposed efficacy in the healing of wounds.

ACONITUM,‡ *Linn.*, (Wolfsbane). We have one native species of this plant, according to Major Leconte, growing in this state, (Chenango county), viz., the **UNCINATUM**, *Linn.*, which has bright blue flowers, and a tuberous root. Like all the other species, it contains a peculiar alkaloid, of a very active nature, *aconitine*. The **NAPELLUS**, *Linn.*, the officinal species, is cultivated as an ornamental plant in our gardens. Its active properties are considerably lessened by cultivation. *Root* most powerful, though all parts of the plant are active.

Internally, aconite operates powerfully on the cerebro-spinal system, diminishing its power, and thus producing to a greater or less extent, paralysis of sensation and motion. Applied externally, it first produces heat and tingling, then numbness, or loss of feeling; hence useful in

* From the Greek, *hellein*, to cause death, and *bora*, food, the plant being poisonous.

† From the Greek, *delphin*, a dolphin, from the shape of the upper sepal.

‡ From *Acone*, a town in Bithynia.

neuralgia, rheumatism, and other painful local affections. Owing to its extreme activity, it should be used internally with great caution. Dose of powdered leaves, one to two grs. ; extract, half a gr. to one gr. ; and of the tinct., six to twenty drops.

ACTÆA,* *Linn.*, (Baneberry). We have two species of this genus growing in this state, viz., the RUBRA (*Bigel*) and the ALBA (*Bigel*), both of which go under the name of *White Cohosh*. Of the one, the berries are of a bright *cherry-red*, and of the other, *milk-white*. The root officinal.

Medical and physical properties of the two species, nearly identical. The *Actæa* is purgative and emetic, in small doses alterative. Dr. Torrey states that it is a mild astringent and tonic. This plant is often confounded with the *Cimicifuga*, and employed in the place of it. This has arisen from the fact that Linnæus placed *Cimicifuga* in the class *Actæa* ; though *Pursh* afterwards formed it into a distinct genus. They are now properly ranked as two distinct genera. Its properties deserve further examination.

CIMICIFUGA,† *Linn.*, (Bugbane-Cohosh). One species grows in this state, the RACEMOSA, *Ell.*, (Black Snake-root, Black Cohosh, Rattle-weed), the *Macrotys* of *Rafinesque*. The root. This is the *true Cohosh*, and is a very useful medicine in many diseases ; much used by the Indians as emmenagogue, and in rheumatism. A stimulating tonic, increasing the cutaneous, urinary, and bronchial secretions, although slightly narcotic ; chiefly valuable in rheumatism, chronic affections of the liver and lungs ; useful as an alterative, in combination with iodine, in many chronic diseases ; good diaphoretic ; used by the Indians as an antidote against the bite of the rattlesnake ; a mild sedative to the nervous system. In large doses, produces vertigo, impaired vision, nausea and vomiting, and a reduction of circulation ; useful in dropsy, hysteria, chorea, and early stages of phthisis. Dose of saturated tincture, ʒ i. to ʒ ij. ; of decoction, made with ʒ i. of root to O.j. water ; O.ss. to O.j., in 24 hours. Its powers depend on a somewhat volatile oil and bitter resin, both soluble in alcohol, and partly so in water.

ZANTHORIZA,‡ *Marsh.*, (Yellow Root). We have one species, the APIIFOLIA, which has a secondary place in the United States Pharmacopœia. It is tonic, and resembles very closely columbo, quassia, and the other simple tonic bitters. May be profitably used in some cases. Root is from three inches to one foot long, half an inch thick, and intensely bitter ; imparts its color and taste to water ; qualities depend on a bitter gum and resin ; given in decoction, tincture or powder.

* From the Greek, *akte*, elder, which its leaves resemble.

† From the Latin, *cimex*, a bug, and *fugo*, to drive away.

‡ From the Greek, *xanthus*, yellow, and *rhiza*, root.

HYDRASTIS* *CANADENSIS*, *Linn.*, (Yellow Root). A powerful tonic bitter. A decoction of root and fresh juice much used in ophthalmia of a chronic kind; powdered root a popular application in cancer; slightly narcotic; powdered root said to blister; given in tincture, powder, and decoction. Its virtues deserve further investigation. Used by the Indians as a permanent yellow dye.

The above are all the genera of **RANUNCULACEÆ** growing in the State of New-York, which are known to possess medicinal properties. There are, indeed, but two other genera, the **AQUILEGIA**, *Linn.*, (Columbine), and **THALICTRUM**, † *Linn.*, (Rue Anemone), belonging to this natural order, in the state, and these, so far as known, are entirely inert. It will be seen, that although there is a general resemblance in the properties of the different genera, yet that, in some instances, there is a striking dissimilarity, as between the *Coptis* and *Zanthoriza*, pure bitters, destitute of acidity, and the powerfully acrid *Aconite* and *Hellebore*. Whatever, therefore, may be the external or internal natural structural affinities, we perceive that a knowledge of the medicinal properties of one plant of any natural order, is not always a safe guide to those of another, belonging to the same order.

ORDER II. **MAGNOLIACEÆ**, *Juss.*—(THE MAGNOLIA TRIBE.)

MAGNOLIA ‡ *GLAUCA*, *Linn.*, (Common Magnolia. Sweet Bay). This tree, from 8 to 30 feet high, the only species of the genus, is found in cedar swamps on Long Island, but not elsewhere in the state. *Bark*, stimulating, aromatic, tonic, and diaphoretic, used by the Indians in autumnal fever and rheumatism. The warm decoction acts as a gentle laxative, then as a diaphoretic; the cold decoction, powder, or tincture, as tonic; hence successfully used in intermittent fever, and remittents of a typhoid type, etc.—A *tincture* of the cones and seeds useful in chronic rheumatism, and as a prophylactic against intermittents. Dose of powdered bark, ʒ ss. to ʒ j., decoction or infusion, *ad libitum*. The bark affords a green resin, a volatile oil, and a peculiar crystallizable principle analogous to *Liriodendrin*.—The other species of magnolia possess similar properties.

M. ACUMINATA, *Linn.*, (Cucumber tree). Grows in middle and western parts of the state, medicinal virtues same as former. The **TRIPETALA** (Umbrella magnolia) probably grows in our southern tier of counties, as it is found in Pennsylvania.

LIRIODENDRON TULIPIFERA, *Linn.* Grows in this state; common names, tulip tree, poplar, American poplar, etc. Medical properties closely resemble those of the magnolia—diuretic, diaphoretic, tonic, an-

* From the Greek, *hudor*, water, from its growing in moist places.

† From the Greek, *thallo*, to be green, or flourishing.

‡ Named in honor of Professor Magnol, a French botanist.

tiperiodic, anthelmintic. Bark should be collected during winter—dose ʒj. to ʒij. pulverized. Taste pungent, aromatic, bitter. Dr. Emmet discovered in the bark of this tree a new principle which he called *Liriodendrine*, solid, brittle, and inodorous at 40°, fusible at 180°, and volatile at 270° F. Soluble in alcohol, consists of a resin and volatile oil. Infusion best form of administration.

This article has been used with success in intermittents, dyspepsia, chronic rheumatism, and wherever a mild stimulant tonic is indicated. These two genera are all that are embraced in this order that belong to our state, and the same virtues belong to both.

ANONACE, *Juss.*—(CUSTARD-APPLE TRIBE.)

The order ANONACE (CUSTARD-APPLE TRIBE) furnishes but one plant indigenous to our state, viz., *UVARIA TRILOBA*, which is found in Monroe, Niagara, and Chautauque counties. It occurs as a shrub or tree from 6 to 10 feet high, with a smooth grayish bark, slender branches, and leaves 6 to 8 inches long, 2½ to 3½ inches wide, on short petioles; flowers purple, mixed with yellow; fruit oval, 2 to 3 inches long, and yellowish. The medical properties of this plant have not been tested in this country; but they deserve investigation, from the fact that the same genus in Java, possesses powerfully-stimulating, aromatic properties, and the same probably belong to it here.

MENISPERMACEÆ, *Juss.*

The COCCULUS or MOONSEED TRIBE, includes the *Cocculus indicus*; the *Columbo*; *Pauciflora brava*, etc. North America furnishes six, the state of New York, one genus belonging to this order. They contain narcotic, or bitter tonic properties, or both combined.

MENISPERMUM* CANADENSE, *Linn.*, (Canadian Moonseed). Not an uncommon plant in this state; found on the banks of rivers, woods, and in thickets. It is a climbing plant, and the root possesses very valuable tonic and diuretic properties. In Virginia, it is employed extensively by physicians and in domestic practice, as a substitute for sarsaparilla in scrofulous and other chronic affections; as an alterative. Deserves further trial.

BERBERIDACEÆ, *R. Brown.*

The BARBERRY TRIBE furnishes four genera in our state, all of them possessing valuable medicinal properties, viz., BERBERIS, LEONTICE, PODOPHYLLUM, and JEFFERSONIA.

BERBERIS† VULGARIS, *Linn.*, (Common Barberry). A shrub, 3

* From *mene*, the moon, and *sperma* seed; the seeds being *lunata*.

† *Berberys*, the Arabic name of the plant.

to 8 feet high, leaves of a bluish green color, acid; flowers pale yellow; berries red and very acid; a naturalized exotic. The berries have a grateful, sour, astringent taste, and contain malic and citric acids; they are refrigerant, astringent, and antiscorbutic, and useful in febrile diseases, in the form of drink. The fruit is often made into a sweetmeat, and the jelly mixed with water, makes a grateful drink. Root and inner bark are used for a yellow dye; the coloring principle is called *berberin*; this may be isolated in the form of distinct crystals, and, in doses of from one to ten grains, acts as a tonic and purgative; cultivated in gardens; useful as a wash in aphthous sore mouth; Griffith says, it acts like rhubarb, and with equal promptness and activity.

LEONTICE THALICTROIDES, *Linn.*, (Blue Cohosh, Pappoose Root, Squaw Root). Much employed by root-doctors and empirics, formerly used by the Indians, from whom they pretend to have learned its medicinal properties. It is demulcent, diuretic, emmenagogue, and antispasmodic; and has been employed with success in rheumatism, dropsy, amenorrhea, and nervous disorders. The Indians think it facilitates parturition. The plant has never been analyzed; but well deserves a more careful investigation.

PODOPHYLLUM PELTATUM,* *Linn.*, (May-apple. Mandrake, Hog Apple). A very certain and somewhat drastic cathartic, resembling jalap in its mode of operation, inducing watery stools, in doses of from ten to thirty grains, of the powdered root. Root contains a peculiar principle, *Podophyllin*, which belongs to the same group as *salicine*; also *resin*; to which its medicinal properties are owing. Combined with bitartrate of potass, this article is useful in the treatment of dropsy, rheumatism, and scrofulous affections. The extract in small doses is said to diminish the pulse, and relieve cough; hence employed in hemoptysis, catarrh and other pulmonary affections.—(*Officinal*, U. S. P.)

JEFFERSONIA† DIPHYLLO, *Pers.*, (Twin Leaf, Rheumatism Root). The root of this plant is stimulant, diaphoretic, diuretic, and antispasmodic, highly useful in chronic rheumatism; hence its popular name. An infusion has been employed with success in chronic ophthalmia; also as a detergent wash in foul ulcers, and cancerous sores; also possesses decided alterative properties, and deserves trial in cases where such remedies are indicated.

CABOMBACEÆ, *Richard.*—(THE WATER-SHIELD TRIBE.)

This furnishes the BRASENIA PELTATA, *Pursh*, (Water-Shield,) at

* From the Greek *pous*, a foot, and *phyllon*, a leaf; the leaf resembling the foot of some birds.

† Named after Mr. Jefferson.

astringent demulcent in pectoral and bowel complaints. Plant abounds in mucilage, which possesses similar properties to the Irish moss, and might be substituted for it.

NELUMBIACÆ, *Bartl.*—(SACRED-BEAN TRIBE.)

NELUMBIUM LUTEUM,* *Wild.*, (Great Yellow Water-lily). The only plant furnished by this order in our state, is found in Big Sodus Bay, Lake Ontario. The rhizomes resemble those of the sweet potato, and are as farinaceous, agreeable and wholesome as the potato; found 12 to 18 inches below the surface of the earth, nutritious rather than medicinal; used as food by the Tartars and Indians; root contains large quantities of fecula.

NYPHÆACÆ, *Salisb.*—(POND-LILY TRIBE.)

NYPHÆA ODORATA,† *Ait.*, (Great White Water-lily). Root or rhizome is used for dyeing a brown color; bitter to taste; powerfully astringent and tonic; contains much tannin and gallic acid; fresh root useful as a discutient poultice; forms a good injection in leucorrhœa, gonorrhœa, and dysentery, etc.; considered aphrodisiac by the ancients; a popular remedy in bowel complaints; and useful as a gargle in ulcerated sore-throat; one of the Thompsonian remedies.

NUPHAR LUTEA, *Smith*, (Yellow Pond-lily, small flowered).

NUPHAR ADVENA,‡ *Ait.*, (Common Yellow Pond-lily). These two species possess similar properties with the *nymphaea*, and may be employed in same cases; they should be further investigated. The *advena* is a popular tonic, and fresh root forms an excellent poultice when bruised; contains much starch. The roots of all the water lilies are edible; though somewhat acrid when raw, they are bland and nutritious when cooked; petioles and leaves are eaten for greens; leaves employed to dress blisters, cooling and emollient; flowers have proved successful in dysuria.

PAPAVARACÆ, *Juss.*—(THE POPPY TRIBE.)

Three species only furnished by this tribe in our state are medicinal.

SANGUINARIA|| CANADENSE, *Linn.*, (Blood Root). An acrid narcotic, acting as a powerful emetic, in doses of x. grs. of the powdered root, succeeded by burning heat of stomach, vertigo, prostration, etc. In small doses, deobstruent and expectorant; useful in chronic pulmo-

* *Nelumbo*, the Ceylon name.

† From its inhabiting the water like the *nymphs*.

‡ The ancient name attached to it by Dioscorides.

|| From *sanguis*, blood.

nary and hepatic cases, and chronic rheumatism. It is too stimulating for acute attacks. Owes its powers to an alkaloid principle, *Sanguinarina*, discovered by the late Dr. Dana. Dose of powdered root, as expectorant, two to three grains; of tincture, gtt. x. to xxx.; we have known $\frac{3}{5}$ ss. prove fatal. To be used cautiously, and in combination with ipecac., antimony, or opiates.

PAPAVÉR SOMNIFÉRUM, *Linn.*, (Common Poppy), growing in waste grounds, scarcely naturalized. This is the opium poppy, too well known to need description here.

CHELIDONIUM MAJUS,* *Linn.*, (Common Celandine). A very valuable plant, and altogether too much neglected. A stimulating aperient, diuretic, deobstruent and sudorific; useful in chronic, hepatic, and bronchial affections, and cutaneous diseases; also in scrofula. Externally, the fresh juice is used as a caustic to remove warts: also to stimulate old and indolent ulcers, and promote healthy granulations; also to remove specks from cornea, diluted with some bland fluid. Cataplasm of fresh leaves useful as an application in herpes and psora. Dose of dried root, $\frac{5}{5}$ ss. to $\frac{5}{5}$ j.; of fresh juice, 30 to 40 drops, with water; watery extract, five to ten grs.; vinous tincture, $\frac{5}{5}$ j. to $\frac{5}{5}$ ij.

FUMARIACEÆ, *De Cand.*—(THE FUMITORY TRIBE).

This order furnishes the common *fumatory*, FUMARIA OFFICINALIS,† the herbage of which is bitter, slightly diaphoretic and aperient. The juice was formerly administered in cutaneous diseases, and obstructions of the liver. The DICENTRA,‡ *Endl.*, CORYDALIS and ADLUMIA, *Raf.*, which formerly belonged to the above genus, are made distinct genera by Dr. Torrey, and they all possess similar properties. The common fumitory abounds in saline substances and bitter extractive. It is gently tonic; in large doses, laxative and diuretic; in smaller doses, alterative. A good remedy in visceral obstructions, particularly of the liver, and in scorbutic and cutaneous affections. Culen gave the expressed juice $\frac{5}{5}$ ij. in a day. It may be given in decoction of the acrid or fresh leaves, or in form of extract.

CRUCIFERÆ, *Juss.*

The CRUCIFEROUS TRIBE furnish several medicinal plants in this state, chiefly exotic, and possessing similar properties. NASTURTIUM PALUSTRE,|| *D. C.*, (Marsh Cress). N. HISPIDUM, *D. C.*, (Hispid

* From *chelidon*, the Greek for swallow—as the plant flowers about the time this bird arrives in the spring.

† From *fumus*, smoke, in allusion to its smell.

‡ From *dis*, and *kentron*, a spur.

|| From *nasus tortus*, distorted nose; so named from its supposed effect in distorting the nasal muscles.

Cress). *N. NATANS*, (Floating Cress). *BARBAREA VULGARIS*, *R. Brown*. (Scurvy Grass). *TURRITUS STRIATA*,* *Graham*, (Tower Mustard). *ARABIS HIRSUTA*, *Scop.*, (Hairy Wall-Cress). *A. DENTATA*, (Toothed Wall-Cress). *A. LYRATA*, *LEVIGATA*, and *CANADENSIS*. All anti-scorbutic, and useful in visceral obstructions. Some of them used as salad. The expressed juice may be given in doses of $\bar{3}$ j. to $\bar{3}$ ij.

We have three species of *CARDAMINE*,† or Bitter Cress, possessing same properties; also three species of *DENTARIA*, (Tooth-wort), of which the *Dyphilla*, (Pepper-wort), is well known for its pungent rhizoma, which is owing to a stimulating, evanescent, volatile principle.

SYMBRIUM OFFICINALE, *Scop.*, (Hedge Mustard); diuretic and expectorant, useful in chronic coughs, hoarseness, and ulceration of mouth and fauces. The juice may be mixed with honey or sugar, or the seeds taken in substance.

SINAPIS NIGRA, *Linn.*, (Black Mustard). A well-known stimulating condiment. *S. ARVENSIS*, (Wild Mustard), possessing similar properties.

RAPHANUS,‡ (The Radish).

VIOLACEÆ, *De Cand.*—(THE VIOLET TRIBE).

VIOLA, *Linn.* Of thirty-three species of this genus in the United States, fifteen are found in this state;|| some of them possessing valuable medicinal properties. Of these the most important are the *ODORATA*, *PEDATA*, *SAGITTATA*, *TRICOLOR*, and *CUCULLATA*. The roots of most of these species are emetic and purgative, in about the same doses as *Ipecac.*, for which they have been proposed as a substitute. Their active properties are owing to a peculiar principle, *violine*, closely allied to *emetine*, in composition and action. A syrup, made of the flowers of the violet, is a very mild and pleasant laxative for infants and young children.

The *V. PEDATA*, *Linn.*, is one of our most useful expectorants and demulcents. The *Tricolor*, *Linn.*, is a good depurative and alterative, and highly useful in nephritic, cutaneous, and other chronic affections. The herbaceous parts of all the species are mucilaginous, emollient, and slightly laxative, and the roots of all are expectorant, as they contain more or less of the active principle, *violine*. (*V. Pedata Off.*, *U. S.*

* From *turris*, a tower—from the pyramidal form of the plant.

† From the Greek, *cardia*, heart, and *damao*, to fortify, from its supposed power in strengthening the heart.

‡ From *ra*, quickly, and *phainomai*, to appear; from its speedy germination.

|| These are the following, viz.: *Pedata*, *Palmata*, *Cucullata*, *Selkirkii*, *Sagittata*, *Rotundifolia*, *Blanda*, *Mimulæfolia*, *Lanceolata*, *Striata*, *Muhlenberghii*, *Rostrata*, *Pubescens*, *Canadensis*, *Tricolor*.

P.) For a full account of their medicinal properties, see *N. Y. Jour. of Med.*, vol. vii., by Dr. Williams, (p. 321). Dr. W. has used the infusion of the *V. OVATA*, internally, and fomentations of the plant externally, successfully, in cases of chronic affections of the eyes, which had resisted the use of all other medicines. He states that this species yield a larger quantity of mucilage than any of the others, and hence is much used in dysentery, diarrhœa, strangury, and other affections of urinary organs.

HYPERICACEÆ.—(THE ST. JOHN'S-WORT TRIBE.)

This order yields us eight species of *HYPERICUM*, some of which possess active medicinal properties. The *Perforatum*, *Linn.*, or common St. John's-wort, was introduced from Europe. It has a peculiar balsamic odor, which is developed by rubbing the plant. Taste bitter resinous and astringent. The flowers tinge spirits and oil of a fine, purple color, and the dried plant, boiled with alum, dyes wool of a yellow color. The flowers impart a fine yellow to water, and some say redden alcohol and the fixed oils. Chief constituents, volatile oil, resin, tannin, and coloring matter. The flowers are astringent, and form a popular remedy for wounds and bruises. Dr. Wood considers the properties of the plant analogous to those of the turpentine. Used by the common people in a great variety of complaints. Its exact value not known.

The *H. Corrymbosum*, *Muhl.*, has black dots and lines, which are minute vesicles filled with an intense purple coloring matter, partially soluble in water, but wholly in alcohol. It is allied to the coloring principle of logwood, and formed from the materials of the pellucid vesicles, by the action of oxygen.

CARYOPHYLLACEÆ, *Juss.*

The PINK TRIBE yields the different species of Chick-weed and Sand-wort, some of which form excellent external emollient applications, but possess no active properties. The *SILENE PENNSYLVANICA*, *Mich.*, and *VIRGINIANA*, *Linn.*, (Wild Pink), have some reputation as anthelmintics. The *SAPONARIA** *OFFICINALIS*, *Linn.*, (Soap-wort,) also belongs to this order. Contains a peculiar brown extractive matter, called *saponin*, which forms thirty-four per cent. of the dried root. The plant owes its medicinal properties to this principle, as well as its property of forming a lather like soap, when agitated with water, (see Wood and Bache). A valuable alterative, and may be used with much benefit in venereal and scrofulous affections, cutaneous diseases, and visceral obstructions. Some physicians deem it superior to sarsapa-

* From the Latin, *sapo*, soap, its mucilage having been used for that purpose.

rilla, in form of decoction or extract. The decoction should be given in quantity of from two to four pints daily, or the inspissated juice in doses of $\frac{3}{4}$ ss. in 24 hours. The *Saponine* is doubtless allied to the active constituent of sarsaparilla, *sarsaparillin*.

STELLARIA* MEDIA, *Smith*, (Common Chick-weed). A useful demulcent for poultices.

MALVACEÆ, *Juss.*

The MALLOWS TRIBE furnish several good demulcents, as they all abound, more or less, in mucilage. Of these the most important are the MALVA SYLVESTRIS, (or common Mallows), and the ALTHEREA † OFFICINALIS, *Linn.*, (Marsh Mallow), both of which are usefully employed in catarrhal, dysenteric, and nephritic complaints, and wherever mucilages are indicated; also form good cataplasms in external inflammation. A conserve of marsh mallows is one of the best demulcents, in irritation and inflammation of the respiratory organs.

Three species of HIBISCUS, belong to this order, one of which, *H. Virginicus*, (Sweating weed), has some valuable properties.

LINACEÆ, *De Cand.*

The FLAX TRIBE embrace both the wild, LINUM VIRGINIANUM, *Linn.*, and the cultivated flax, L. USITATISSIMUM, *Linn.* Useful as demulcents and in the arts.

GERANIACEÆ, *De Cand.*—(THE GERANIUM TRIBE.)

GERANIUM‡ MACULATUM, *Linn.*, (Spotted Crane's bill). A powerful astringent, equal to Kino and Rhatany; used in secondary stages of bowel complaints, and in passive hemorrhages. A decoction of it in milk, a popular remedy in cholera infantum; useful as a wash and gargle in aphthous affections of the mouth, and ulcerations of fauces and tonsils; may be employed with advantage wherever pure astringents are indicated; used in powder, tincture, extract, and decoction. Contains gallic acid, tannin, mucilage, amadin, red coloring matter, resin, and a peculiar crystallizable principle. Might be substituted for foreign astringents.

Besides this species, we have the G. CAROLINIANUM, *Linn.*, PUSILLUM, *Linn.*, and ROBERTIANUM, *Linn.*, all of which are more or less astringent and diuretic. Griffith says they have been found useful in diseases of the kidneys and bladder.||

* From *stella*, a star, in allusion to the shape of its flower.

† From the Greek, *altho*, to cure.

‡ From *geranos*, a crane, the pointed fruit resembling the bill of that bird.

|| Medical Botany, p. 211.

OXALIACEÆ, *De Cand.*

The WOOD-SORREL TRIBE furnishes us with three species of OXALIS;* the O. ACETOSELLA, *Linn.*, (common Wood Sorrel), O. VIOLACA, *Linn.*, (Violet Wood Sorrel), O. STRIATA, *Linn.*, (Yellow Wood Sorrel); all of which have a pleasant acid flavor, and may be used as refrigerants. The expressed juice of the common wood sorrel yields, when purified and evaporated, crystals of binoxalate of potash, formerly sold under the name of *Salt of Sorrel*, for the purpose of removing ink-stains from linen.

This plant is a good antiscorbutic, and the juice forms a cooling drink in febrile complaints; when boiled with milk, it forms a very agreeable and pleasant whey. The plant is a popular remedy as an external application in cases of cancer; but often does harm by causing irritation and ulceration.

BALSAMINACEÆ, *A. Richard.*—(THE BALSAM TRIBE.)

IMPATIENS† PALLIDA, (Touch-me-not, Snap-weed). IM. FULVA, Balsam weed, Jewel weed). Emetic, cathartic, diaphoretic, and diuretic; have an acrid burning taste. An ointment made by boiling the recent plants in lard, is useful in piles. The flowers may be used for dyeing yellow. Well known plants, which deserve further trials.

ANACARDIACEÆ, *R. Brown.*—(THE CASHEW TRIBE.)

Yields the different species of RHUS, viz.: RHUS‡ TYPHINA, *Linn.*, GLABRA, COPALLINA, VENENATA, TOXICODENDRON, and AROMATICA; all of which are found in New-York, and the order contains no other genus in the state. The VENENATA (poison sumach) is remarkable for its poisonous properties, although many persons are not susceptible to it. The symptoms caused by it are itching, redness, and tumefaction, succeeded by heat, pain, vesication, and fever. The best applications are a solution of borax or acet. lead. This species not used in medicine. R. GLABRA, *Linn.*, (Smooth Sumach). Officinal part, the berries, though the bark and leaves are astringent, and used in tanning leather and in dyeing. Excrescences are produced under the leaves, containing large quantities of tannin and gallic acid; might be substituted for oak-galls. The berries contain *malic* acid, to which they owe their sour taste; are astringent and refrigerant; used as a cooling drink in fevers, and a gargle in ulceration and inflammation of the throat. The inner bark of the root is used for same purpose; useful as a wash in mercurial salivation.

* From the Greek, *oxys*, sharp, or sour.

† Named in allusion to the sudden bursting of the seed vessels.

‡ From the Greek, *rhoas*, red, from the color of the fruit.

RHUS TOXICODENDRON, *Linn.*, (Poison Oak, Poison Ivy). The *radicans* is a variety of this species; its medical properties resemble those of the *nux vomica*; acts upon the motor tract of the spinal cord; hence has been used in paralysis; also in rheumatism and cutaneous diseases, as an alterative. Dose of powder, gr. ss., gradually increased till some effect is produced. The active principle is so volatile that it cannot be given in decoction or extract. The juice is yellowish and milky; becomes permanently black on exposure to air, and when applied to linen or cotten forms an indelible dye, not subject to fade, nor eradicable by chemical agents. All vegetables which possess poisonous properties contain a similar principle of a peculiar character. All the plants belonging to the above order have a resinous, gummy, or milky caustic juice, though their fruit is often edible and pleasant. The West India *Mango* belongs to it.

* **XANTHOXYLACEÆ**, *Juss.*—(THE PRICKLY ASH TRIBE).

ZANTHOXYLUM* *AMERICANUM*, *Mill.*, (common Prickly Ash). This well-known shrub possesses medicinal properties almost identical with those of the *mezereon* and *guaic.*, and might often be substituted for them in the same complaints, with advantage. Stimulant, diaphoretic, deobstruent; used chiefly in chronic rheumatism and cutaneous diseases. Dose of powder, gr. x. to ʒj.; *decoction*, boil ʒj. of bark in O.ijj. water to one quart, and give from ʒiv. to ʒxij. in a day. Contains a peculiar crystallizable principle, *zanthoxylin*, to which its virtues are owing. Besides this, it contains fixed oil, resin, gum, and coloring matter. The whole plant is endowed with active properties, though the bark only is officinal. This is acrid, pungent and aromatic.

PTELEA† *TRIFOLIATA*, *Linn.*, (Swamp Dog-wood, Stinking Ash). A strong infusion of the leaves and young shoots of this plant, are said by Schœpf, to be anthelmintic; the fruit is aromatic and bitter, and forms a good substitute for hops.

HIPPOCASTINACEÆ, *De Cand.*

The HORSE CHESTNUT TRIBE furnishes us but one genus, the *ÆSCALUS HIPPOCASTINUM*, (Horse Chesnut), a native of Asia, but cultivated as a shade tree, both in this country and Europe. Fruit and bark have been used in medicine. The former abounds in starch, but has a rough, disagreeable, bitter taste; of which it may be deprived by maceration in an alkaline solution. The starch is readily separated, and equal at least to that obtained from the potato. The powdered kernel of the fruit is a useful sternutory, in diseases of the head and

* From the Greek, *xanthos*, yellow, and *xylon*, wood.

† The Greek name of the Elm, from *ptao*, to fly, in allusion to the winged seed vessels.

eyes. The bark of the branches, from three to five years old, collected in the spring, has been successfully employed as a substitute for Cinchona. It contains bitter extractive and tannin, which are taken up by boiling water, and to which it owes its astringent and tonic properties. Given in intermittents, etc., in substance, decoction and infusion, in the same manner and doses as the Peruvian bark.

CELASTRACEÆ, R. Brown.

The SPINDLE TREE TRIBE furnish several valuable medicinal plants in New-York, among which are, the

CELASTRUS SCANDENS, (Bitter Sweet). The bark, emetic, discutient, anti-syphilitic, slightly narcotic, has valuable alterative properties, and is a popular remedy in hepatic affections. Deserves further investigation. Torrey states that the plant is "narcotic and stimulating, and employed as a domestic medicine in the western states."

EUONYMUS* ATROPURPUREUS, Jacq., (Burning Bush, sometimes called *Wahoo*), though the same name is given to the *ear-leaved Magnolia*, and the *Ulmus alata*.†

EUONYMUS AMERICANUS, Linn., (Strawberry Tree).

The seeds of both species of this shrub, are emetic and purgative; the bark a very efficient alterative. A quack preparation, in which the first species forms the principal ingredient, under the name of *Wahoo*, has considerable repute, in this state, in the cure of many chronic diseases, where a depurative alterative is indicated. We believe the tree has valuable deobstruent properties, which entitle it to the attention of the profession generally.

RHAMNACEÆ, Juss.—(THE BUCK-THORN TRIBE.)

RHAMNUS‡ CATHARTICUS, (Common Buck-thorn). This is found in the highlands of this state, and naturalized in many places, (Eaton's Manual). A shrub seven or eight feet high; berries, officinal; their odor is unpleasant, taste bitter, acrid, and nauseous. Contain a peculiar coloring matter, acetic acid, mucilage, sugar, a peculiar principle, *rhamnin*, and a nitrogenous substance. The berries and expressed juice actively purgative; apt to cause nausea and griping, with much thirst and dryness of mouth; chiefly useful as hydragogue cathartic in

* From *Euonyme*, mother to the Furies; in allusion to the injurious effects produced by the fruit of this plant.

† The Trees of America, native and foreign, by D. J. Browne. Harpers: New York, 1846.

‡ From the Greek, *rhamnus*, a branch.

dropsy. The *syrup* is the best form of giving it. This is often made, in this city, of the berries of the *Cratægus*. We have another species, *R. Alnifolius*, growing in swamps in the northern parts of the state, whose berries have similar properties.

CEANOTHUS AMERICANUS, *Linn.*, (New Jersey Tea). The leaves of this shrub were used for tea, during the revolutionary war. Root slightly bitter and astringent; imparts a red color to water; a useful alterative, in syphilis, hepatic, and cutaneous diseases; has been employed with success in dysentery, in the form of strong infusion of the leaves; forms a valuable local application in aphthous affections of the mouth and fauces. Ferriën states that a strong decoction of it cures gonorrhœa in two or three days, (Griffith). The Indians use it as a febrifuge, as well as an astringent. We regard it as a valuable article.

VITACEÆ, *Juss.*—(THE VINE TRIBE.)

The VINE TRIBE of our state yields four indigenous species. These are *VITIS LABRUSCA*, *Linn.*, (Fox Grape); *V. ÆSTIVALIS*, *Michx.* (Summer Grape); *V. CORDIFOLIA*, *Michx.*, (Frost Grape); *V. RIPARIA*, *Michx.*, (Winter Grape). It is said by Mr. Adlum, that there are 200 varieties of the wild grape in the United States. Rafinesque has described forty-one indigenous species. The *Fox* grape is about three-fourths of an inch in diameter, globose, usually dark purple, when ripe, sometimes amber-colored, or greenish-white, of a strong musky odor, and somewhat rancid taste, filled with a tough pulp. The *Isabella*, *Schuykill*, or *Alexanders*, the *Catawba*, and *Bland's* grape, are varieties of this species. The berries of the *Summer* grape are about one-fourth of an inch in diameter, globose, deep blue, or almost black, of a pleasant flavor. The berries of the *Frost* grape are about one-fourth of an inch in diameter, nearly black when mature, very acerb, but pleasant after having been frozen. The *Winter* grapes are about one-fourth of an inch in diameter, and dark purple or amber-color when ripe. When ripe these, like other grapes, possess valuable medicinal properties, being wholesome, antiseptic, cooling, diuretic and laxative, and prove beneficial in many diseases. Thus we have what is called the *Grape cure* in Germany, which consists in confining patients with chronic diseases entirely to a diet of grapes. Palatable wines may also be made of our indigenous grapes, possessing the same medicinal qualities as those of foreign wines.

POLYGALACEÆ, *Juss.*—(THE MILK-WORT TRIBE.)

The plants of this, like many of the other natural orders, differ con-

siderably in their medicinal properties. Some are bitter and tonic : some emetic, purgative and diuretic ; some are merely emetic, others are diuretic and sudorific ; while others still are poisonous. *POLYGALA** *SENEGA*, *Linn.*, the *Seneca Snake Root* is a not uncommon plant in this state, in dry rocky woods, and flowering from May to July. Expectorant, emetic, sudorific, diuretic, emmenagogue, cathartic, diaphoretic, etc., according to dose and manner of administration ; most valuable as an expectorant in croup, and other pulmonary affections. In amenorrhea, it proves most useful in recent cases. The Senega contains two peculiar acids, the *Polygalic* and the *Virgineic*, on which its virtues depend. (*Quevenne, in Jour. de Pharm.* xxii.)

POLYGALA SANGUINEA, *Linn.*, (Purple Milk-wort). According to Dr. B. S. Barton, this species possesses the same medicinal properties as the former, and may be used in the same cases. We have never tested it.

POLYGALA PAUCIFOLIA, according to Rafinesque, has active properties ; the root having a sweet, pungent, and aromatic taste, while, like the Senega, it is stimulant, sudorific, expectorant, etc., but milder in its action than the latter plant ; used in warm infusion and decoction. Dr. Griffith says that the root appears to have the properties of a tonic and bitter, similar to the *P. amara* and *P. rubella*, and that his observations do not agree with those of Rafinesque. (*Med. Botany*, p. 227.)

LEGUMINOSÆ, *Linn.*—(THE BEAN TRIBE.)

VICIA, four species, two exotic and two indigenous. Cultivated in Europe as herbage for cattle, under the names of *Winter* and *Summer Tare*.

PHASEOLUS, † *Linn.*, (Kidney Bean). Three wild indigenous species. *PERENNIS* ; *DIVERSIFOLIUS* ; *HELVOLUS*. *PH. VULGARIS*, *Linn.*, (Kidney Bean, Pole Bean). *LUNATUS*, (Lima Bean). Cultivated for the table. Less nutrient and flatulent than peas, and the ordinary white beans. Chiefly employed in the young and green state of their legumina. The substance, when boiled, is of the oleraceous kind ; but though sweeter and more nutrient than these, is still tender and easily digested.

APIOS, ‡ *Boerh.*, (Ground Nut). *TUBEROSA*. (Sometimes called Wild

* From the Greek *poly*, much, and *gala*, milk ; from its supposed power of increasing the secretion of milk.

† Latin *phaseolus*, a little boat, from the shape of the legumes.

‡ Greek *apios*, a pear—form of root.

Bean). Root produces fleshy *tubers*, about the size of chesnuts, which are esculent and nutritious, for which the plant is supposed worthy of culture. Legume about two inches long.

AMPHICARPEA* MONOICA, *Torr. and Gr.*, (Common Hog Nut). A very curious plant. Root fibrous and branching. Nutritious. Annually producing numerous small subterraneous flowers. (Torrey.)

ROBINIA PSEUDACACIA, *Linn.*, (Common Locust Tree). The inner bark is sometimes used for emetic purposes. The wood is one of the most valuable for many purposes in the arts. When newly cut, it weighs 63 pounds 3 ounces to a cubic foot; when dry, 46 pounds. The wood is remarkable for strength and durability; hence much employed in ship-building, and for posts, and underground structures. The tree is very apt to be destroyed by the *Clytus Pictus*, and the *Casus Robinia*, (Locust-tree Carpenter Moth). (See *Peck*, in *Mass. Agricult. Rep. and Jour.*, Vol. V.) The leaves are a good substitute for grass and clover as provender for cattle, for which it is cultivated, and mown every year; also branches cut off every other year, when it has attained the height of ten feet. This is done at mid-summer, when succulent, and dried for winter's use. The roots are very sweet, and afford an extract which might be substituted for liquorice. The flowers have been employed medicinally as antispasmodic, and distilled into an agreeable, refreshing syrup, which is drank with water, to quench thirst. The flowers retain their fragrance when dried, and those of a single tree are sufficient to perfume a whole garden.

ZEPHIROSLA† VIRGINIANA, *Pers.*, (Goat's Rue). An infusion of the root is a very popular vermifuge.

TRIFOLIUM, *Linn.*, five species. ARVENSE, (Stone Clover). PRATENSE, *Linn.*, (Red Clover). REFLEXUM, *Linn.*, (Buffalo Clover). REPENS, *Linn.*, (White Clover). AGRARIUM, (Yellow Clover). The *Pratense* is well known as a most valuable fodder plant, making the best sort of hay, either by itself or mixed with other grasses. Probably a biennial. The *Reflexum* affects the salivary glands, and is common in the Western States. The *Repens* also acts powerfully on the salivary glands, sometimes producing complete salivation. (Elliot.)

MELILOTUS OFFICINALIS, *Willd.*, (Yellow Melilot). When dry, this plant has an agreeable odor, much like that of the sweet-scented vernal grass. Said to be the chief ingredient used for flavoring the *Gruyère cheese*. Three species. Formerly included among emollients, but contains very little mucilage.

* From *amphi*, on both sides, and *carpos*, fruit, producing fruit both above and below ground.

† From the Greek *zephros*, ash-colored.

GENISTA* TINCTORIA, *Linn.*, (Dyer's Green-weed) An exotic. The plant yields a coloring matter that is used for dyeing wool yellow. It has also been employed in medicine as a diuretic and mild purgative. The seeds are emetic and cathartic, in doses of ʒj. to ʒij.; also diuretic and useful in dropsy.

BAPTISIA† TINCTORIA, *R. Brown*, (Wild Indigo). An indigenous, perennial plant. Medicinal properties reside chiefly in the cortical portion of the root. In large doses emetic and cathartic, in smaller mildly laxative. Said to be useful in scarlet fever, typhus fever, and that state of the system which attends gangrene; also externally to ulcers. The plant yields a quantity of coarse Indigo, resembling the *fig blue*.

CASSIA MARILANDICA, *Linn.*, (American Senna). A well-known cathartic. Taste slightly nauseous, leaves contain resin, extractive, and a volatile oil, equal to foreign, only requiring a larger quantity.

CERCIS CANADENSIS, *Linn.*, (Red-Bud, or American Judas Tree). Niagara county. The flowers are acid, and used by the French Canadians for salads and pickles.

GYMNOCLADUS‡ CANADENSIS, *Linn.*, (Coffee Tree). Trunk thirty to fifty feet high, one foot or more in diameter; branches few and thick; *bark* bitter and acrid; leaves one to three feet long; legume six-ten inches long, two inches broad; seeds half an inch in diameter. On Seneca and Cayuga lakes. According to Michaux, the wood of this tree is well suited to cabinet-making, and its strength renders it proper for building. Like the locust, it has the power of rapidly converting its sap into perfect wood. Much esteemed as an ornamental tree.

ROSACEÆ, *Juss.*—(THE ROSE TRIBE.)

PRUNUS§ AMERICANA, *Marshall*, (Red Plum, Yellow Plum.) A tree eight to ten feet high, fruit half an inch in diameter, oval or nearly globose, mostly reddish-orange when ripe, with a juicy yellow pulp, and a thick tough skin. Palatable when cultivated, but rather acerb in a wild state.

PRUNUS MARATIMA, *Wang.*, (Beach Plum, Sand Plum). Two to five feet high; fruit usually purple, and sometimes crimson; two varie-

* From the Celtic *gen*, a small bush.

† From the Greek *bapto*, to dye, some of the plants yielding a coloring matter, like indigo.

‡ From *gymnos*, naked, and *klados*, branch—its branches are few and large.

§ The Latin name for plum.

ties ; one has fruit often an inch in diameter, and somewhat oval ; the fruit of the other is the size of a small cherry. When fully ripe agreeably flavored, but mostly acerb and astringent. Sold in N. York market under the name of *Beach Plum*. Both species laxative and nutritious. The pulp might make a useful addition to cathartic decoctions, or be used in preparing laxative confections. (*Off. Prep. Pruni Pulpa, U. S. P.*)

CERASUS PUMILA, Michx.*, (Sand Cherry). Stem, trailing ; two to three feet long ; fruit small, dark-red, eatable. Rare.

C. PENNSYLVANICA, Loisel., (Bird Cherry). Tree twenty to twenty-five feet high ; fruit, size of a large pea, red, austere, scarcely eatable.

C. VIRGINIANA, De Cand., (Choke Cherry). A shrub or small tree. Fruit, size of a pea, bitter, astringent, scarcely eatable. Pulp forms a good astringent jelly in dysentery and diarrhœa.

CERASUS VULGARIS, Mill., (Red or Sour Cherry, Morello Cherry). Extensively employed for pies and pastries. One of the most valuable varieties. Refrigerant, laxative, antiseptic. The juice forms a cooling drink in fevers ; is also nutritious. Cullen considers cherries as decidedly *sedative*, owing to the malic acid present.

C. SEROTINA, De Cand., (Wild Cherry, Black Cherry). A well-known tree, erroneously called *C. Virginiana* by some writers. Bark only officinal. Taste agreeably bitter and aromatic. *Chem. comp.* Starch, tannin, resin, gallic acid and fatty matter, lignin, red coloring matter, salts of lime, potash and iron. Volatile oil and hydrocyanic acid are obtained from it by distillation, but they do not exist ready-formed in the bark, but result from the reaction of water upon *emulsin* and *amygdalin*, two of its constituents. These two peculiar principles are contained in distinct cells, in the seeds of the *Amygdalea*, and when the kernels are bruised, and especially when heat is applied, they immediately react on each other, and give rise to the formation of *prussic acid* and some other products. The wild cherry bark is one of our best tonics, as it combines sedative properties—the power of calming irritation and diminishing nervous excitability ; hence it is well adapted to cases of gastric debility, attended with general or local irritation ; lowers the action of the heart ; useful in latter stages of phthisis, hectic fever, atonic dyspepsia, nervous irritability ; intermittents, and convalescence from inflammatory and other diseases. Cold infusion is the best form of administration—syrup and powder also used. (See *Wood & Bache*, p. 578. *Off. Prep. Inf. Prun. Virg.*)

* The name of a town in Asia, whence the Cherry originally came.

*SPIRÆA** *TOMENTOSA*, *Linn.*, (Hard Hack, Steeple Bush). A well-known plant; all parts medicinal; contains tannin, gallic acid, and bitter extractive. Medical properties, tonic and astringent; hence used in diarrhœa, cholera infantum, and general debility; more agreeable to the stomach than most other astringents. Given in decoction or extract—dose of former $\frac{3}{4}$ i— $\frac{3}{4}$ ij., of latter 5 to 15 grains. The *S. Sali-cifolia*, (Queen of the Meadows,) has probably similar properties.

GILLENIA TRIFOLIATA, *Macnch.*, (Indian Physic). G. STIPULACEA, *Nutt.*, (American Ipecacuanha). These two valuable plants grow in the western and southwestern counties of this State. Stem, herbaceous; root, perennial, and officinal. A very mild and efficient emetic and cathartic. In small doses, tonic and deobstruent—resembles ipecac. in its mode of operation, more than any other indigenous article. Dose of powdered root, 20 to 30 grains.

GEUM† *RIVALE*, *Linn.*, (Water Avens, Purple Avens). The root, a good tonic and powerful astringent; decoction, powder or extract; in passive hemorrhages, leucorrhœa, diarrhœa, dyspepsia, and the debility of phthisis pulmonalis. The root is a popular medicine made into a syrup, for “cleansing the blood.” Also said to be used as a substitute for *chocolate*.

SANGUISORBA‡ *CANADENSIS*, (American Great Burnet). Tonic and astringent.

AGRIMONIA§ *EUPATORIA*, *Linn.*, (Common Agrimony). The herb and root. The former has a weak, but agreeable aromatic odor, and a rough, bitterish, aromatic taste; root more bitter and astringent; contains a volatile oil. A mild tonic and astringent, also deobstruent. Has been recommended in jaundice, uterine hemorrhage, visceral obstructions, and diseases of the skin; also as a gargle in affections of the throat. The Indians use it in fevers. Given in substance, infusion or decoction.

POTENTILLA|| *NORVEGICA*, *Linn.* *TRIDENTATA*, *Ait.* *CANADENSIS*, *Linn.* *ARGENTEA*, *Linn.* *ARGUTA*, *Pursh.* *FRUTICOSA*, *Linn.* *ANSERINA*, *Linn.* All these species of *Cinquefoil* are good mild astringents, and may be used with advantage where such remedies are indicated.

FRAGARIA VIRGINIANA, *Ehrh.*, (Wild Strawberry). The Strawberry deserves a place among medicinal, as well as dietetical plants

* The *speireia* of Theophrastus.

† From the Greek *geuma*, an agreeable flavor, the root being aromatic.

‡ From *sanguis*, blood, and *sorbes*, to absorb, because used to stop bleeding.

§ From the Greek *argeme*, cataract, which this plant was supposed to cure.

|| From the Latin *potens*, in allusion to its supposed medicinal properties.

The fruit is laxative, refrigerant, diuretic and sedative, and constitutes an excellent article of diet for invalids and convalescents. The root and leaves are mildly astringent.

RUBUS* ODORATUS, *Linn.*, (Flowering Raspberry). R. TRIFLORUS, *Rich.*, (Dwarf Raspberry). STRIGOSUS, *Michx.* (Red Wild Raspberry). OCCIDENTALIS, *Linn.*, (Black Raspberry). VILLOSUS, *Ait.*, (Common Blackberry). CANADENSIS, *Linn.*, (Dewberry, Low Blackberry). HISPIDUS, *Linn.*, (Running Swamp Blackberry). CUNEIFOLIUS, *Pursh.*, (Sand Blackberry). The roots of all these species contain tannin, and are tonic and astringent. That of the *Villosus* is a favorite domestic remedy in bowel affections. The watery decoction sets well on the stomach, or it may be given boiled with milk or rennet whey, $\frac{3}{4}$ i. of smaller roots boiled in a pint to half a pint, of which $\frac{3}{4}$ i.— $\frac{3}{4}$ ij. are to be given three times a-day, in diarrhœa, chronic dysentery, etc. The berries, made into a jelly, form a good remedy in dysentery, and fresh are a healthy article of diet to invalids.

ROSA CAROLINA, *Linn.*, (Swamp Rose). R. LUCIDA, *Ehrh.*, (Dwarf Wild Rose). R. BLANDA, *Ait.*, (Early Wild Rose). R. RUBIGINOSA, *Linn.*, (Sweet Briar). The petals might be used to form a mild, laxative syrup, while the roots are moderately astringent. They should be further investigated.

CRATÆGUS,† *Linn.*, (Thorn Tree). Five species. OXYACANTHA, *Linn.*, (Hawthorn). CRUS-GALLI, *Linn.*, (Cockspur Thorn). COCCINEA, (White Thorn). TOMENTOSA, *Linn.*, (Black Thorn). PUNCTATA, *Jacq.*, (Common Thorn). The fruit of some of these are edible. The bark is sometimes substituted for that of the *Rhamnus Cath.*, in making *Syrup of Buckthorn*. A useful shrub for making hedges.

PYRUS, *Linn.*, (Apple, Pear). P. CORONARIA, (Crab Apple). Fruit yellowish-green, hard, very acid and fragrant. Juice forms a good gargle in sore throat.

PYRUS ARBUTIFOLIA, *Linn.*, (Chokeberry). A shrub; fruit, size of a large whortleberry. Sweetish, but very astringent. Two varieties, one *white*, the other *black*.

LYTHRACEÆ, *Juss.*—(THE LOOSE STRIFE TRIBE.)

LYTHRUM HYSSOPIFOLIA and SALICARIA, *Linn.*, (Purple Loose Strife). Contains tannin and much mucilage, hence astringent and demulcent; popular in dysentery and diarrhœa.

* From the Celtic *rub*, red, the color of the fruit in many of the species.

† From the Greek *kratos*, strength, in allusion to the wood.

ONAGRACEÆ, *Juss.*—(THE EVENING PRIMROSE TRIBE.)

CENOTHERA BIENNIS, *Linn.* *FRUTICOSA*, *Linn.* *LINEARIS*, *Michx.* *CHRYSANTHA*, *Michx.* *PUMILA*, *Linn.*, (Evening Primrose, Cure-all, etc.). The *Biennis* is chiefly used in medicine. Bark and leaves mucilaginous, slightly acrid. Dr. Griffith states that he has cured infantile eruptions, as tetter, with a decoction of this plant, when all other means had failed. (*Med. Bot.* p. 304.) He directs a strong decoction, with which the parts affected are to be bathed several times a day. Forms a good emollient in ulcers.

LYTHRUM HYSSOPIFOLIA, *Linn.*, (Common Purple Loose Strife). The whole plant demulcent and astringent; useful in diarrhœa and chronic dysentery. Decoction of the root ($\frac{3}{4}$ i. to O. j.) the best form of exhibition, in doses of $\frac{3}{4}$ ij., three times a day. A useful remedy.

CACTACEÆ, *Juss.*—(THE CACTUS TRIBE.)

OPUNTIA VULGARIS, *Mill.*, (Prickly Pear). Common around New-York and on Long Island. Fruit two inches long. A rubefacient and vesicant.

GROSSULACEÆ, *De Can.*—(THE CURRANT TRIBE.)

RIBES, (Currant and Gooseberry). Five species. *CYNOSBATI*, (Prickly Gooseberry.) *ROTUNDIFOLIUM*, (Round-leaved Gooseberry). *LACUSTRE*, (Swamp Gooseberry). *FLORIDUM*, (Wild Black Currant). *PROSTRATUM*, (Fetid Currant). Currant juice is laxative, refrigerant and antiseptic. Its wine contains 20 per cent. of alcohol. The black currant is astringent.

SAXIFRAGACEÆ.—(THE SAXIFRAGE TRIBE.)

HEUCHERA AMERICANA, (Common Alum Root). A powerful astringent. An extract from the roots of this plant, would probably be equal to that of the Rhatany or Catechu. The basis of some of the *cancer* powders of empirics. Employed by the Indians as an application to wounds and ulcers.

HAMAMELACEÆ, *R. Brown.*—(WITCH HAZEL TRIBE.)

HAMAMELIS VIRGINICA, *Linn.*, (Witch Hazel). The bark of this plant has a bitter, astringent, somewhat sweetish and pungent taste. Is employed by the Indians as a sedative and discutient to painful tumors, and external inflammations. It is a popular remedy in the shape of a poultice or decoction, in hemorrhoidal and ophthalmic affections; also infusion of leaves in bowel complaints and hemorrhages. Seeds are edible, like the hazelnut. Deserves further trials. Erroneously supposed to have the power of indicating water and ores.

CRASSULACEÆ, *Juss.*—(THE HOUSE LEEK TRIBE.)

SEDUM, *Linn.*, (Stone Crop). P. TELEPHIUM, *Linn.*, (Orpine or Live-for-ever). An astringent demulcent. A popular remedy in dysentery and hemoptysis; also as a vulnerary. Formerly employed externally to cicatrize wounds.

UMBELLIFERÆ, *Juss.*—(THE UMBELLIFEROUS TRIBE.)

This well-known order furnishes many medicinal plants, differing, however, in their properties. They are all furnished with a volatile oil or balsam; which, in the fruit, is lodged in longitudinal canals (*vittæ*) in the carpels; some furnish gum-resins, and a few are pervaded in every part with an alkaloid, acro-narcotic principle. Many species are used as articles of food, and still more are medicinal.

SANICULA MARILANDICA, *Linn.*, (Long-styled Sanicle). S. CANADENSIS, *Linn.*, (Canadian Sanicle, Black-snake Root). Under which latter name they are employed as domestic medicines, as diaphoretic, stimulant and stomachic. They deserve further examination.

CICUTA MACULATA, *Linn.*, (Water Hemlock, Spotted Cowbane). Common in swamps. The most dangerous vegetable poison indigenous to the U. States, often mistaken by children for the root of *Sweet Sicily*, (*Osmorhiza longistylis*), called *Beaver Poison* and *Musquash* in the western part of the State. Causes the usual symptoms of the *acro-narcotics*. The whole plant poisonous, but the root most active. Has a strong aromatic taste and odor, and the bark contains a yellowish, viscid juice. Seldom employed in practice, but is occasionally given as a sedative, and to relieve pain in scirrhus and cancer.

HERACLEUM LANATUM, *Michx.*, (Masterwort, Cow Parsnip). Root has a strong, disagreeable odor and acrid taste. The leaves and root stimulate the skin, when applied to it. Poisonous when growing in damp places. In medicine, it is stimulant and carminative. Has been used with success in epilepsy, attended with flatulence and gastric disorder. (*Thatcher's Dispensatory*.)

ARCHANGELICA ATROPURPUREA, (Common Angelica). The root contains bitter extractive, gum, an acrid soft resin, volatile oil, etc. An aromatic stimulant and tonic. *Vittæ* filled with a pungent and rather disagreeable aromatic oil. A popular aromatic tonic and carminative, used in flatulent colic and cardialgia. The stems are sometimes candied as sweetmeats. In a recent state, the root is acrid, and said to be poisonous.

DAUCUS CAROTA, *Linn.*, (Wild Carrot). An indigenous plant. A very powerful diuretic. A strong decoction, drunk freely, very useful in nephritic complaints, and in the passage of urinary calculi. For

gravel, the patient should drink copiously of a strong infusion, warm. A useful remedy.

CONIUM* *MACULATUM*, *Linn.*, (Poison Hemlock). The leaves and seed contain resin, extractive, gum, albumen, a green fecula, saline matters, and two volatile substances; one an *oil*, on which the odor of the plant depends; the other an alkaline principle, *coniin*, *conine*, *conicine*, etc. This is the active principle of the plant, and is a colorless oily liquid, lighter than water, and causing death almost as soon as hydrocyanic acid. (See *Wood & Buche*.) Narcotic, without being decidedly stimulant or sedative to the circulation. Generally believed to possess anodyne, antispasmodic, antiprodisiac, deobstruent and diuretic properties. Has no curative virtues in scirrhus or cancer, though decidedly palliative.

PANAX *QUINQUEFOLIUM*, *Linn.*, (Common Ginseng). A favorite article among the Chinese, forming an ingredient in nearly all their prescriptions; formerly exported in large quantities to Canton, from this country. The root, which is fleshy, and spindle-shaped, has a feeble odor, and a sweet, slightly aromatic taste, like liquorice. Has no other medicinal properties than those of a mild and pleasant demulcent.

CORNUS† *FLORIDA*, *Linn.*, (Common Dogwood). A valuable tonic and astringent; its properties closely resemble those of the Peruvian bark. Has been used with success in intermittent and typhoid fevers. May be given in powder, decoction, or extract. *Decoct.*, officinal.

C. *ALTERNIFOLIA*, *Linn.*, (Alternate-leaved Dogwood). The bark of this species forms one of the *Shaker medicines*; is diaphoretic, tonic and astringent.

C. *CIRCINATA*, *Linn.*, (Round-leaved Dogwood). Possesses similar virtues to the *Florida*, used in same way; taste bitter, astringent and aromatic. The late Dr. Ives used an infusion made by pouring O. j boiling water on to $\frac{3}{4}$ j. of the coarsely-powdered bark. Dose $\frac{3}{4}$ j. to $\frac{3}{4}$ ij.

C. *SERICEA*, *Linn.*, (Swamp Dogwood). Possesses similar virtues to the above species. The same remark will apply to the *C. Paniculata*.

PASTINACA SATIVA, *Linn.*, (Common or Wild Parsnip). Esculent.

OSMORHIZA LONGISTYLIS, *De Can.*, (Sweet Sicily). A very pleasant carminative. Children often mistake the *Cicuta* for it.

To these indigenous plants may be added various cultivated exotics, as **CARUM**, (Caraway). **FENICULUM**, (Fennel). **ANETHUM**, (Dill).

* The *koneion* of Theophrastus, from *konos*, a cone or top, whose whirling motion resembles the giddiness produced by this plant.—*Hooker*.

† From the Latin, *cornus*, horn, from the hardness of the wood.

CUMINUM, (Cumin). CORIANDRUM, (Coriander,) etc. All useful carminatives, and some of them employed in domestic economy.

ARALIACEÆ, *Juss.*

ARALIA RACEMOSA, *Linn.*, (Spikenard). The root and leaves are in great repute as aromatic tonics. Usually taken in form of tincture.

A. NUDICAULIS, *Linn.*, (Wild Sarsaparilla). A well-known medicinal plant, possessing gently stimulating and diaphoretic properties. A decided alterative, and useful in rheumatic, syphilitic, and cutaneous diseases. Prepared and given in the same manner as the genuine sarsaparilla.

A. SPINOSA, (Angelica Tree, Toothache Tree). Cultivated in gardens as an ornamental shrub. A stimulant diaphoretic. An infusion of recent root, emetic and cathartic; used with advantage in chronic rheumatism and cutaneous affections.

ARABIA HISPIDA, *Michx.*, (Wild Elder). A valuable diuretic in dropsies, in decoction. (*Peck*, in *Am. Jour. Med. Sci.*, xix., 117.)

SUB-CLASS II.—MONOPETALOUS EXOGENOUS PLANTS.

CAPRIFOLIACEÆ.—(THE HONEYSUCKLE TRIBE.)

TRIOSTEUM PERFOLIATUM, *Linn.*, (Feverwort, Horse Gentian). Cathartic, emetic, and diuretic. Powdered bark of root most active; in doses of 20 grs. acts as cathartic, 30 to 40 emetic. Its active properties are taken up by water and alcohol. Extract purges in doses of 10 grs.; 5 lbs. of the root produces 2 lbs. of extract. Leaves are diaphoretic. The hard seeds have been used as a substitute for coffee. This plant deserves further trials. (See *Wood* and *Bache*, p. 721.)

SAMBUCUS NIGRA, *Linn.*, (Common Elder). Inner bark aperient and deobstruent, also emetic in large doses. Infusion of flowers diaphoretic. Elder ointment is a soothing application to ulcers, burns, etc. The berries furnish a juice, which diluted with water, forms a cooling and laxative drink in fevers. Wine of the berries is an excellent cordial, much used in domestic practice.

VIBURNUM PRUNIFOLIUM, *Linn.*, (Black Haw-Sloe). Fruit one-third of an inch long, bluish black, and slightly glaucous when mature. The fruit, when mature, is sweetish and esculent.

V. LENTAGO, *Linn.*, (Sweet Viburnum). A tree 15–20 feet high. Fruit rather larger than the preceding species, bluish black, with a glaucous bloom; the pulp thin and sweetish. The fruit is sweet and esculent after the action of frost.

V. DENTATUM, *Linn.*, (Arrow Wood). 10 to 12 feet high, used by

the aborigines for making arrows—also for *fuse-sticks* in blasting, the pith having been removed.

V. PAUCIFLORUM, *Syl.*, (Mountain Bark Cranberry). From two to four feet high, fruit roundish oval, compressed, red.—Mountains of Essex county.

V. OPULUS, *Linn.*, (Bush Cranberry, High Cranberry). From 3 to 10 feet high. The fruit is acid, half an inch long, juicy, slightly bitter, translucent when dry, used as a substitute for cranberries. Common *snow-ball* is a variety of this species.

RUBIACEÆ, *Juss.*—(THE MADDER TRIBE.)

GALIUM* APARINE, *De Can.*, (Common Cleavers or Goose Grass). An annual succulent plant, inodorous, has a bitterish and somewhat acrid taste. Expressed juice aperient, diuretic, antiscorbutic; has been used in dropsy, congestion of spleen, scrofula, and scorbutic eruptions; $\frac{3}{4}$ iij. of the juice twice a day; also used as an ointment to scrofulous swellings. We have several other species of galium possessing the same medicinal properties. Probably one of our most valuable diuretics, highly useful in suppression of urine and nephritic complaints; has considerable popular reputation in scorbutus and hemoptysis; also in gonorrhœa and inflammatory affections of the kidneys; cold infusion should always be employed, drank freely.

CEPHALANTHUS OCCIDENTALIS, *Linn.*, (Button-bush, Pond Dogwood). Tonic and deobstruent. Deserves further trial.

MITCHELLA REPENS, *Linn.*, (Partridge Berry). Berries one-third of an inch in diameter; edible, but insipid. Slightly diuretic and alterative.

VALERIANACEÆ.—(THE VALERIAN TRIBE.)

VALERIANA† SYLVATICA, (Tall Swamp Valerian). This plant is closely allied to the *Dioica*, and possesses similar medicinal properties, acting as a stimulant and antispasmodic; useful in hysteria, in form of infusion or powder of root—contains considerable volatile oil, to which it owes its effects.

COMPOSITEÆ, *Linn.*—(THE COMPOSITE TRIBE.)

LIATRIS SPICATA, *Willd.*, (Tall Button Snakeroot). An indigenous perennial plant, has a tuberous root, possessing a terebinthinate odor, and a warm, bitter taste. Is tonic, diaphoretic, alterative and

* From the Greek *gala*, milk, one of the species having been used to curdle milk.

† From the Latin *valeo*, to be strong, from its supposed virtues.

diuretic ; decoction has cured gonorrhœa ; forms useful gargle in sore throat ; useful in gravel, scrofula, and dropsy ; one of the *Shaker medicines*. We have several species of this plant. All that have tuberos roots appear to be diuretic.

EUPATORIUM* PURPUREUM, *Linn.*, (Joe Pye Weed). This well-known plant, sometimes called *gravel-weed*, has a bitter, aromatic, and astringent taste, and is diuretic and diaphoretic ; is a popular remedy for the cure of *gravel*.

E. PERFOLIATUM, *Linn.*, (Boneset, Thoroughwort). Tonic, diaphoretic ; in large doses, emetic and aperient ; useful in colds and the commencement of fevers, to induce sweating ; also in hot decoction in the cold stage of intermittents. The cold decoction to be given during the intervals. Its diaphoretic properties are most important, though it is given with benefit in general debility, dyspepsia, and where simple, bitter tonics are indicated.

E. TEUCRIFOLIUM, (Wild Horehound). Less bitter and disagreeable than the last, though nearly equally medicinal. Tonic, diaphoretic, diuretic, and aperient ; used successfully in intermittents. We have *eight* species of *eupatorium* growing in the State of New-York, all of which possess similar properties.

The *E. Aromaticum* (*sweet-scented Hemp weed*,) the *E. Ageritoides*, (White Snakeroot,) and several other species of this plant, possess similar properties.

TUSSILAGO † FARFARA, *Linn.*, (Common Coltsfoot). A well-known and popular emollient, demulcent and tonic—and in pulmonary affections, acute and chronic. Its expectorant properties are slight. Cullen recommends the expressed juice in scrofula. Usual form of administration is decoction ; ʒ ij. of the plant boiled in O. ij. to one. The leaves, flowers and root are all used. The latter is bitter, as well as mucilaginous. The "*Essence of Coltsfoot*," is a balsam dissolved in alcohol, and often injurious. The dried leaves are sometimes smoked for the relief of asthma.

ASTER, ‡ Tourn. We have twenty-six known species of Aster growing in this State, some of which have valuable medicinal properties. Those which have aromatic roots are stimulant, diaphoretic, diuretic, and antispasmodic ; the *Novæ-Angliæ* is employed, in decoction, as an external application in cutaneous eruptions.

ERIGERON, *Linn.*, (Fleabane). **E. CANADENSE**, *Linn.*, (Horse Weed). **E. BELLIDIFOLIUM**, *Muhl.*, (Poor Robert's Plantain). **E.**

* From *Eupator*, king of Pontus, who used this plant as a medicine.

† From the Latin *tussis*, cough, for which the plant is used.

‡ From the Greek *aster*, a star, the shape of the flower.

PHILADELPHICUM, *Linn.*, (Philadelphia Fleabane). **E. ANNUM**, *Pers.*, (Sweet Scabious Daisy). **E. STRIGOSUM**, *Muhl.*, (Fleabane Daisy). All the above species are diuretic, tonic, astringent, and antilithic. They have been employed successfully in nephritic and dropsical complaints, as hydrothorax. The *Canadense* is astringent in perhaps a greater degree than the others, and was employed by the late Dr. Dupuy, of this city, in diarrhœa, dysentery, and other profluvîæ, in form of infusion and decoction, extract and tincture. We prefer the *Canadense*, although the other species are highly medicinal. Dr. Williams speaks highly of this plant, in the *New-York Journal of Medicine*, vol. 7, p. 36-7. It deserves more frequent use. The *Annum*, (*Sweet Scabious Daisy, etc.*) is one of the Shaker remedies, and is a very valuable diuretic and astringent. It has a considerable reputation as an alterative; a syrup of it promotes expectoration in dry coughs, and it is a decided emmenagogue.

SOLIDAGO,* *Linn.*, (Golden Rod). Out of sixty species of this plant, growing in the United States, New-York furnishes at least twenty-five, some of which are valuable medicines.

S. ODORA, *Ait.*, (The Sweet-scented Golden Rod), which has flowers of a deep, golden yellow color, is aromatic, carminative, and stimulant; diaphoretic when given in warm infusion, and successfully to allay pain from flatulence; to allay nausea, and cover the taste of unpleasant medicines usually given for these purposes in infusion, the *vol. oil* is also used. The dried flowers form a good substitute for *tea*. It is also astringent, and has lithontriptic properties. The bruised leaves exhale the odor of anise-seed, and yield by distillation a fragrant volatile oil, which is used as a remedy for flatulence and to allay nausea.

SOLIDAGO VIRGA-AUREA, *Linn.*, (Common Golden Rod). The flowers are aperient, diuretic and tonic; the leaves gently astringent; a useful remedy in nephritic complaints and suppression of urine, in form of infusion made of the flowers. An infusion of the leaves is useful in general debility and chronic fluxes, as diarrhœa and dysentery, leucorrhœa, etc.

INULA HELENIUM, *Linn.*, (Common Elecampane). A naturalized plant, contains a peculiar principle, analogous to starch, called *inulin*; a white concrete substance called *heleine*, intermediate in its properties between the essential oils and camphor, also bitter extractive, a bitter resin, gum, albumen, lignin, wax, *vol. oil*, saline matters, etc. Elecampane is tonic and gently stimulant; has diaphoretic, diuretic, em-

* From the Latin *solido*, to make firm, in allusion to its supposed vulnerary qualities.

menagogue, and expectorant properties; chiefly employed in chronic pulmonary disorders; also a popular remedy in cutaneous disorders. Given in powder and decoction.

PLUCHEA CAMPHORATA, *De-Can.*, (Sea-side Marsh Fleabane). A strong-scented plant, growing near the sea-side, exhaling an odor of camphor, a useful stimulant, and powerful antispasmodic, diaphoretic and diuretic.

RUDBECKIA LACINIATA, *Linn.*, (Thimble Weed). Diuretic, balsamic, useful in nephritic diseases, especially albuminuria. Given freely in decoction.

HELENIUM* AUTUMNALE, *Linn.*, (Sneeze Weed). All parts of this plant are bitter, and somewhat acrid; has been used as a sternutatory or errhine, in form of powdered leaves and flowers. It is also tonic and diaphoretic, and is recommended in intermittents. As an errhine, Griffith says, it is not equal in power to the *Asarum*, or the brown powder of the *Kalmia*, but is useful where these cannot be procured.

MARUTA COTULA, *De Cand.*, (May Weed.) A troublesome weed, introduced from Europe; has a strong, unpleasant smell, and an acrid, bitter, and nauseous taste. The whole plant is officinal. It is tonic, diaphoretic, emetic, and very similar to chamomile in its medicinal properties. It might be employed in some cases with equal benefit, if its taste were not so unpleasant. The fresh plant bruised and applied to the skin, vesicates; but the blisters readily heal.

ANTHEMIS† ARVENSIS, *Linn.*, (Wild Chamomile). This plant resembles the common chamomile in its medicinal effects, and is used in place of it in Germany. The flowers have an acrid taste, but no smell. Tonic and anthelmintic.

ACHILLEA‡ MILLEFOLIUM, *Linn.*, (Common Yarrow). The whole herb medicinal. The flowers and leaves have a pleasant, aromatic odor, and a bitter, astringent, pungent taste; contains vol. oil, bitter extractive, and tannin, to which its virtues are owing; active principles extracted by water and alcohol. A mild aromatic and astringent, used in Sweden in place of hops in brewing beer; useful in intermittents, diarrhœa, general debility, and nervous affections. Infusion the best form of administration. The vol. oil is also given in a dose of 20 to 30 drops.

HELIANTHUS TUBEROSUS, *Linn.*, (Jerusalem Artichoke). Cultivated in gardens for the firm fleshy tubers at the root, which are pickled and used as a condiment.

* Named after *Helen*, wife of Menelaus, who used this, or a similar plant, as a cosmetic.

† From the Greek *anthemis*, flower.

‡ Named after *Achilles*, a disciple of Chiron.

H. ANNUUS, *Linn.*, (Common Sun Flower). Seed yield a valuable oil, useful for lamps; also has medicinal properties.

TANACETUM* *VULGARE*, *Linn.*, (Common Tansey). A well-known domestic tonic, stomachic, and anthelmintic, useful in atonic dyspepsia, hysteria, and intermittents; also in amenorrhœa; and the oil is often taken to produce abortion. The *seeds* are most effectual as a vermifuge. Dose of the powder from ʒss. to ʒi., two or three times a day; infusion is the best form. For a fatal case of poisoning by the oil, see *Am. Jour. Med. Sci.* (16, 256).

ARTEMISIA, † *Linn.*, (Worm-wood). We have three species of this plant, viz. the *Canadensis*, the *Caudata*, and the *Vulgaris*; all of which are bitter tonics, and might be employed where such medicines are indicated. They are anthelmintic, stomachic, and antispasmodic, and owe their virtues to an essential oil.

GNAPHALIUM‡ **POLYCEPHALUM**, *Michx.*, (Life Everlasting Balsam). A sweet-scented plant, employed as a popular remedy in dysentery and other bowel affections; an infusion of it is also used in pulmonary and hemorrhagic affections; and externally, as a fomentation, in bruises, local swellings, and tumors.

ERECTITES **HIERACIFOLIUS**, *Raf.*, (Fire-weed). The whole plant has a rank, nauseous odor, and a disagreeable, bitterish taste. In large doses, emetic—employed in diarrhœa; the essential oil is recommended for piles; and externally, fomentations with the bruised plant, in cases of contusions, wounds, ulcers, etc.

CACALIA **ATRIPLICIFOLIA**, *Linn.*, (Indian Plantain). The leaves are sometimes used as an application to wounds.

SENECIOS **AUREUS**, *Linn.*, (Life Root, Squaw Weed). This plant is sometimes called *Gravel Root*, and by the Indians *Nun-qua*. It is a certain diuretic and diaphoretic; it increases the force of the circulation, without producing any febrile symptoms; is particularly useful in cases of anemia, attended with cold extremities, and feeble circulation; a powerful emmenagogue, when given in form of the warm infusion; also antispasmodic, particularly recommended where the capillary circulation is feeble. (*Graham*, in *N. York Jour. of Med.*, vol. 3, p. 366).

ARNICA **MOLLIS**, *Hooker*, (Soft Arnica). According to Dr. Thomson, (*Lond. Disp.*), the European species, (*Montana*), contains an *iga-*

* Name altered from the Greek *athanasia*, a, not, and *thanatos*, death, because its flowers are lasting.

† From *Artemis*, the *Diana* of the Greeks.

‡ From the Greek *gnaphalon*, soft down, or wool.

§ So named from *Senex*, an old man.

saurate of strychnia or brucia, to which it owes its medicinal power. It has proved successful in intermittents, and is used with benefit in palsy, tumors and amaurosis. Some of the American species, according to Hooker, (*Am. Bor.*, p. 330), approach so very closely to the *Montana* in their characters, as to be varieties of it. It is worth investigating whether the *A. Mollis*, which is found in Essex county and some other parts of the State, does not possess the same virtues, and may be substituted for the European plant.

CENTAUREA* CYANUS, *Linn.*, (French Pink). CNICUS,† *Vaill.*, (Blessed Thistle). CARDUS BENEDICTUS, (Common Blessed Thistle). An annual herbaceous plant, with yellow flowers, naturalized. The leaves, gathered when in flower, contain a *vol. oil*, and a peculiar principle, *onicin*, crystallizable and very bitter, analogous to *salicin* in composition and effects. The plant tonic, diaphoretic, emetic—cold infusion as a mild and certain tonic; the hot decoction, a good diaphoretic; and in large doses, emetic. The medicinal properties closely resemble those of the chamomile.

LAPPA‡ MAJOR, *Goert.*, (Burdock). A well-known naturalized plant. The *root* has a mucilaginous and sweetish taste, with slight degree of bitterness and astringency; contains *inulin* and *sugar*; *seeds* aromatic, bitterish, and acrid; aperient, alterative and sudorific—one of our very best deobstruents. The infusion of root is a domestic remedy for colic and nephritic complaints, and the leaves applied externally for cutaneous eruptions. The ashes afford much potash. This article may be used with perhaps as much advantage as sarsaparilla, in syphilitic, rheumatic, nephritic, scrofulous, and cutaneous diseases, in form of decoction, made of $\bar{3}$ ij. recently bruised root in O. iij. water, boiled to two, a pint to be taken in 24 hours. Seeds are a useful diuretic, in doses of $\bar{3}$ j. in emulsion, or powder.

CICHORIUM INTYBUS, *Linn.*, (Wild Succory, or Chicory). A plant mentioned by Dioscorides, used very anciently in hepatic obstructions. The whole plant bitter without acrimony; taste astringent in root; young leaves sometimes eaten as salad; gently tonic, aperient, and deobstruent; useful, freely taken in hepatic congestion, jaundice, and other visceral obstructions; also in pulmonary affections—strong decoction preferable, used freely; the root, dried and roasted, is sometimes used as a substitute for coffee, also to flavor or adulterate it. The *garden endive* is a species of this plant.

* The *Centaur*, *Chion*, is said to have cured himself of a wound received from Hercules, with this plant.

† From the Greek, *knizo*, to prick or wound.

‡ From the Celtic word *llap*, because it lays hold of everything near it.

HIERACIUM* VENOSUM, *Linn.*, (Rattlesnake Weed). One of the numerous plants said to be an antidote to the bite of the rattlesnake. The *scabrum* exudes a milky juice, and probably would be found a useful medicine.

NABALUS ALBUS, *Tor. & Gr.* (The Prenanthes of Linneus, Rattlesnake's Root, White Lettuce, etc.) Another supposed specific for the bite of venomous serpents.

N. FRASERI, *De. Can.*, (Gall of the Earth). Root intensely bitter; tonic and deobstruent; diuretic; ? also recommended for the bite of the rattlesnake.

TARAXACUM† DENS-LEONIS, (Common Dandelion). Diuretic, tonic, aperient, and alterative; useful in hepatic and other visceral engorgements, and derangements of digestive organs; it increases the secretion of bile, in torpid conditions of the organ, but is contraindicated in cases of irritation or inflammation of stomach and bowels. Given in form of extract, or decoction. Soda increases its activity, and aromatics correct its tendency to produce griping or flatulence. *Off. U. S. P.*

LOBELIACEÆ, *Juss.*—(THE LOBELIA TRIBE.)

LOBELIA INFLATA, *Linn.*, (Indian Tobacco). An acrid narcotic; diaphoretic, expectorant, emetic, and cathartic; an infusion causes speedy and severe emesis, attended with long-continued and distressing nausea, copious sweating, and great, general relaxation. In large and repeated doses it causes inflammation of the mucous membrane of the stomach and bowels, and death, attended with the usual symptoms of the acro-narcotic poisons. Too violent and distressing in its effects for ordinary use. Tincture useful in asthma, and as an expectorant, with laudanum or ipecac. Much abused by Thomsonians and other quacks. Contains a peculiar principle, *lobelina*. *Off. U. S. P.*

L. CARDINALIS. Medicinal properties somewhat similar to those of *inflata*, but less active; supposed to be useful as a remedy for worms.

L. SYPHILITICA. Emetic, cathartic, and diuretic. Same remarks apply to this species.

L. GLAYTONIANA. Said to be a good diuretic. (See Williams, in *New-York Jour. of Med.*, vol. 7, p. 175). Seven species grow in the State of New-York.

* From the Greek, *hierax*, a hawk; the ancients supposed the hawk, and other birds of prey, used the juice of this plant to sharpen their sight.

† From the Greek *tarasso*, to disturb.

ERICACEÆ, *Endl.*—(THE HEATH TRIBE.)

ARCTOSTAPHYLOS* *UVA URSI*, *Spreng.*, (Bear-berry). The *uva ursi* of the shops, a low evergreen shrub, with trailing stems, gathered in autumn; the leaves taste bitterish, strongly astringent, ultimately sweetish; contain tannin, resin, gum, extractive, and gallic acid; tannin abounds to that extent that they are sometimes used in tanning leather; active principles soluble in water and alcohol; astringent, tonic, diuretic, antilithic, and lithontriptic, exerts a direct and specific influence on kidneys and urinary organs; useful in diseases of bladder and kidneys, as nephritis, calculus, catarrh of bladder, or urethra, incontinence of urine, gleet, leucorrhœa, hemorrhagia, diabetes, etc. Also in all passive hemorrhages, in decoction or powder. (*Off. U. S. Phar.*) I found this plant in great abundance on the shores of Lake Superior, where it is smoked with tobacco by the Indians, under the name of "*Kinnikinnick*."

EPIGEA† *REPENS*, *Linn.*, (Trailing Arbutus). This plant has the same medicinal virtues as the *uva ursi*, and might be substituted for it. It is a popular domestic remedy for gravel, and is put up and sold by the Shakers under the name of *Gravel Plant*.

CLETHRA *ALNIFOLIA*, *Linn.*, (Sweet Pepper Bush). A diaphoretic, stimulant, fragrant, the leaves and flowers; a handsome plant growing in swamps and thickets in the south part of the State.

GAUTIERA‡ *PROCUMBENS*, *Linn.*, (Partridge Berry). A well-known, small, shrubby, indigenous, evergreen plant. The leaves and whole plant possess aromatic properties, similar to *sweet birch*, which reside in a volatile oil; the leaves contain much tannin, and are astringent—a cordial stimulant, united with astringency—adapted well to cures of chronic diarrhœa; chiefly used to impart an agreeable flavor to other preparations. The oil or infusion may be used—has been employed successfully as an emmenagogue. (*U. S. P.*) The oil is sold under the name of *Oil of Wintergreen*. Berries are edible, and have a very pleasant flavor. The oil is recently ascertained by M. Cahours to be a *salicylite of the oxide of methyl*, and composed of an acid called the *salicylic*, (hitherto found only in the oil of spirea,) united with the ether of wood-spirit, (*Methylic Ether*).

ANDROMEDA§ *POLYFOLIA*, *Linn.*, (Sorrel Tree, Sour Tree, Andromeda, etc.).

* From the Greek, *arktos*, a bear, and *staphyle*, a grape.

† From the Greek, *epi*, upon, and *ge*, the earth—prostrate.

‡ Named after *Dr. Gautier*, a French physician of Quebec.

§ No allusion to the fable of Andromeda.

A. ARBOREA. *Schoepf* states that this species is found in this State, though not mentioned by Torrey. The leaves and wood contain malic acid, with tannin, and hence form a useful combination in many cases of disease. Rafinesque says they form a refreshing, cooling, anti-febrile drink, allaying thirst, etc.; useful where a refrigerant astringent is needed; very similar to the fruit of the *Rhus Glabrum* or *Sumac*.

A. MARIANA, Linn., (Kill Lamb, Stagger-bush). A species supposed to be poisonous to lambs and calves, producing a disease called the staggers; a decoction is said to be useful as a wash in ulcers.

RHODODENDRON,* Linn., (Rose Bay). We have seven species indigenous of this beautiful genus growing in the State of New-York, under the names of *Great Laurel*, *Wild Honeysuckle*, etc. Their medical properties have never been investigated, so far as we know, although they richly deserve it. If we mistake not, like the *Rhododendron Chrysanthemum* of Siberia, some of the species will be found to have valuable stimulant, diaphoretic, and narcotic properties, and prove valuable remedies in the treatment of rheumatism, palsy, gout, etc.

KALMIA† LATIFOLIA, Linn., (Laurel, Calico-bush). Leaves, narcotic, poisonous. Sheep, and some other animals, are occasionally poisoned by eating the leaves of this plant. Barton says that the flesh of partridges and pheasants that have fed on the leaves in winter, has often caused symptoms of poisoning and even death. Not employed in medicine. Dr. Barton says he has seen 20 grains of the recently powdered leaves given at once without perceptible effect.

K. ANGUSTIFOLIA, (Dwarf Laurel, Sheep Laurel). K. GLAUCA, (Swamp Laurel). Both of these species possess the same qualities as the *latifolia*.

LEDUM PALUSTRE, Linn., (Labrador Tea). The *leaves* have an aromatic, balsamic odor, and bitter taste; contain vol. oil and tannin; tonic, astringent, and slightly narcotic; decoction of leaves is used as a wash, and internally in cutaneous affections, attended with irritation and itching; also in diarrhœa and dysentery; used in Germany, in brewing, as a substitute for *hops*. This plant was used as a substitute for tea, during the revolutionary war.

VACCINIUM CORYMBOSUM, Linn., (Tall Swamp Huckleberry). Berry nearly one-third of an inch in diameter, dark blue, covered with a bloom, sub-acid and well-flavored.

V. PENNSYLVANICUM. (Dwarf Blue Huckleberry). Berries large, bluish black, covered with a glaucous bloom, sweet and well-flavored.

* From the Greek, *rhodon*, a rose, and *dendron*, a tree.

† In honor of *Peter Kalm*, a Swedish botanist.

V. VACCILLANS. (Low Blue Huckleberry). Berries dark blue, glaucous, very sweet and well-tasted.

V. ULIGNIOSUM. (Alpine Bilberry). Berries deep blue; at sources of the Hudson.

V. CANADENSE, *Kalm.* (Black Bilberry). Berries bluish black, sweet and palatable. (Swamps in certain parts of the State.)

V. STAMINEUM, *Linn.,* (Deer Berry, Squaw Huckleberry). Berry large, globose, somewhat pyriform, usually greenish, but sometimes purplish, of a bitterish and somewhat astringent taste, but not unpleasant when fully ripe.

All the above species are nutritious and palatable as food, and constitute a very healthy article of diet to invalids, either in their fresh state or made into a jelly.

VACCINIUM OXYCOCCOS, *Linn.,* (Small Cranberry). *V. MACROCARPON,* *Ait.,* (Common Cranberry). Both of these species are extensively used as sauce, and as a nutritious diet and drink in febrile diseases. A drink made of cranberry jelly is extremely refreshing and antifebrile.

GAYLUSSACIA HIRTELLA,* *Torrey & Gray,* (Dwarf Swamp Huckleberry). Fruit black and shining when ripe, glandularly pubescent, watery and rather insipid.

G. FRONDOSA. (Blue Tangle, Dangle Berry). Fruit large, globose, sweet and well-flavored.

G. RESINOSA, *Torrey & Gray,* (Black Huckleberry). Fruit slightly acid, but agreeable.

Same remarks apply to these, as to the former species of this esculent and healthy fruit.

CHIMAPHILLA† UMBELLATA, *Aubl.,* (Pipsissewa, Prince's Pine). A well-known evergreen, tonic, diuretic, astringent, antilithic and lithontriptic: employed by the Indians in scrofula, rheumatism, and nephritic diseases: useful in dropsy; in broken-down habits, its medicinal properties are similar to those of the *uva ursi*, adapted to same cases of disease; an excellent tonic in simple debility of digestive organs; good alterative in cutaneous affections and scrofula.

C. MACULATA, *Pursh,* (Spotted Winter Green). Properties similar to the *umbellata*: both contain extractive, gum, resin, tannin, saline matters, etc.: bitter, astringent, and sweetish to the taste; but slightly aromatic.

* From *Gay Lussac*, the French chemist.

† From the Greek, *chcima*, winter, and *phileo*, to love.

AQUIFOLIACEÆ, *De Cand.*—(THE HOLLY TRIBE.)

Ilex Opaca, *Ait.*, (American Holly). An evergreen tree, 10 to 30 feet high. A viscid substance called *bird-lime* is prepared from its inner bark. The leaves are bitter, and diaphoretic; *tonic*, contain a peculiar bitter principle, *ilicin*; berries are the size of a large pea, persistent, bright red, and are purgative, diuretic, and emetic; ten or twelve will generally prove cathartic. This plant has been employed successfully in the cure of intermittents, jaundice, and dropsy. Found near Kingsbridge, island of New York.

*Prinos** *Verticillatus*, *Linn.*, (Black Alder, Common Winter Berry). This shrub has round berries, size of a pea, scarlet when ripe, and several clustered together.—*The bark*. Taste bitter and astringent, tonic and astringent, recommended in diarrhœa, dropsy, intermittents, and diseases connected with debility; a very useful remedy in cutaneous diseases, taken internally in form of strong decoction, and applied as a wash; also in gangrenous and ill-conditioned ulcers. The decoction should be made by boiling $\frac{3}{5}$ ij. of the bark in 3 pints of water to a quart. Dose $\frac{3}{5}$ ij. to $\frac{5}{5}$ ij. Dose of powder $\frac{3}{5}$ ss. to $\frac{3}{5}$ i.

P. Glabra, *Linn.*, (Inkberry, Evergreen Winterberry). Has the same medicinal properties as the above.

EBENACEÆ, *Vent.*—(THE EBONY TRIBE.)

Diospyros† *Virginiana*, *Linn.*, (Persimmon, U. S. P.). The *bark* and *fruit*; grows in moist places in the southern parts of the State. Fruit roundish, about one inch in diameter, reddish orange when ripe, fleshy, very astringent until acted on by frost, then soft and luscious; when green the fruit is excessively astringent. In the southern and western States it is made into cakes with bran, and used in preparing beer, with the addition of water, hops, and yeast. A spiritous liquor is obtained by distilling the fermented infusion. The unripe fruit is recommended by Dr. Mettauer, of Va., in chronic dysentery, diarrhœa, and uterine hemorrhage, in form of infusion, syrup, or vinous tincture. Bark is used as a tonic in intermittents, and to make an astringent gargle in ulcerated sore throats, etc. The ripe fruit is grateful, and it is said possesses anthelmintic properties.

PLANTAGINACEÆ, *Juss.*—(THE PLANTAIN TRIBE.)

Plantago Major, *Linn.*, (Common Plantain). The leaves and

* From the Greek *prio*, to saw, the leaves being serrated.

† From the Greek *Dios*, Jupiter, and *pyros*, fruit, meaning heavenly fruit

root refrigerant, alterative, diuretic, and astringent, employed by the ancients in hemorrhages, visceral obstructions, phthisis, dysentery, etc.; externally to ulcers and scrofulous tumors, and as a dressing to blisters and sores, given in a strong decoction, or the expressed juice.

P. CORDATA, Lam., (Heart-leaved Plantain).

P. LANCEOLATA, Linn., (Rib Grass, English Plantain). These two species have the same properties as the former, and may be substituted for them. The same remark will probably apply to the *P. VIRGINICA*, Linn., (White Plantain,) *P. MARATIMA*, Linn., (Sea Plantain,) and *P. PUSILLA*, Nutt., (Dwarf Plantain).

PLUMBAGINACEÆ, Juss.—(THE LEADWORT TRIBE.)

STATICE LIMONIUM, Linn., (Common Marsh Rosemary). This is the *S. Caroliniana* of Pursh, Bigelow, Griffith, and others. Found on our seacoast. The root bitter, and powerfully astringent; virtues imparted to water and alcohol. Contains 12 per cent. of tannin, no gallic acid. Bigelow thinks it equal in astringency to galls. A very useful remedy where powerful astringents are indicated, as the latter stages of diarrhœa, and as a gargle in ulcerated sore throat. Given in infusion, decoction, extract, or tincture.—(See *Dr. Mott's Inaug. Thesis, Experiment. Inquir. on Statice, &c.*)

OROBANCHACEÆ, L. C. Rich.—(THE BROOM RAPE TRIBE.)

OROBANCHE AMERICANA*, Linn., (Squaw Root, Cancer Root). The plant has an unpleasant, nauseous, bitter, and astringent taste, used internally in bowel complaints. The powder has considerable reputation as a local application to cancerous ulcers. Supposed to have been an ingredient of *Martin's Cancer Powder*, (Barton,) Wood and Bache. Astringent, antiseptic, antisyphilitic, considered at the west as a specific in gonorrhœa and syphilis.

EPIPHEGUS† AMERICANA, Nutt., (Beech Drops, Cancer-root), has the same properties as the above; they are often confounded, though different species. (See *Torrey's Flora*). Has considerable reputation in dysentery and diarrhœa, etc., though its powers are probably overrated.

BIGNONIACEÆ, Juss.—(THE TRUMPET FLOWER TRIBE.)

CATALPA‡ SYRINGEFOLIA, Sims., (Catalpa, Indian Bean), more

* From the Greek *orobos*, a vetch, and *anchein*, to strangle, from its supposed injurious effects.

† From the Greek *epi*, upon, and *phegas*, the beech, because it grows upon the roots of this tree.

‡ Corruption of *catawba*, the Indian name for this tree.

esteemed for ornament than use. The wood has a fine texture, and takes a good polish. Supposed to possess medicinal properties. The seeds have been employed with success in asthma— $\frac{3}{4}$ iv. of seeds to be boiled in $\frac{3}{4}$ xij. of water down to $\frac{3}{4}$ vi., the whole to be given night and morning. (*Jour. Phil. Col. Phar.* 6. 352.)

SCROPHULARIACEÆ, R. Br.—(THE FIGWORT TRIBE.)

VERBASCUM* THAPSUS, *Linn.*, (Common Mullein). The leaves and flowers have a slight narcotic smell, mucilaginous and bitter taste, impart their virtues to water by infusion; demulcent and emollient, and possess mild anodyne properties; hence used in catarrh and other pectoral complaints. The decoction of leaves is a good remedy in diarrhœa and dysentery, and a good anodyne external emollient. The flowers, when dried in the sun, yield a fatty oil, which is useful in piles. A good emollient ointment may also be prepared by boiling the leaves in lard.

The V. BLATTARIA, *Linn.*, (Moth Mullein), and B. LYCHNITIS, *Linn.*, (White Mullein), probably possess similar virtues.

SCROPHULARIA MARILANDICA, *Linn.*, (Figwort). This plant, which is nearly allied to the *S. Nudosa* of Europe, probably possesses similar virtues, i.e., is anodyne, diuretic, diaphoretic, tonic, anthelmintic, and alterative; hence employed in scrofula, from which circumstance its name is derived. The bruised root has considerable reputation in domestic practice, as a poultice for reducing inflammation in tumors.

LINARIA† VULGARIS, *Maench.*, (Common Toad Flax, Great Dragon). The herb, collected when in flower, tastes bitter, slightly acrid, and weakly saline, diuretic and cathartic. The infusion has been employed with success in dropsy, jaundice, and cutaneous affections, also in the latter as external fomentations, or an ointment, by boiling the flowers in lard. The flowers may be used for dyeing yellow.

COLLINSIA‡ VERNA, *Nutt.*, (Early parti-colored Collinsia). CHELONE§ GLABRA, *Linn.*, (Snake Head). Several varieties. The leaves inodorous, but very bitter, contain gallic acid and bitter extractive; tonic and cathartic; in small doses laxative and deobstruent. Rafinesque says it acts powerfully on the liver. It is much employed as

* Altered from *barbascum*, the leaves being covered with a *barba* or beard.

† From the Latin *linum*, flax, which the leaves resemble.

‡ In honor of *Z. Collins*, an eminent botanist of Philadelphia.

§ From the Greek *chelone*, a tortoise, the flower resembling the head of that animal.

a tonic by the Thomsonians, under the name of *Balmomy*. The Shakers use it also, and put it up for sale. It deserves a fuller examination.

GRATIOLA VIRGINICA, *Linn.*, (Common Hedge Hyssop).

G. AUREA, *Muhl.*, (Golden Hedge Hyssop). The European Hedge Hyssop is an active, drastic cathartic, diuretic, and emetic, and contains *Veratria*. The above species have not been fully investigated, but if we mistake not, they will be found to possess similar properties. The *Aurea* certainly has very powerful properties, and we believe might be substituted for the *Officinalis*. We would recommend a tincture of it to be tried in rheumatism and gout, as it probably operates in a manner similar to colchicum and veratrum.

VERONICA OFFICINALIS, *Linn.*, (Common Speedwell). This plant has an astringent, warm, bitterish taste, and is considered diuretic, diaphoretic, tonic, and expectorant; formerly much employed in pectoral and cutaneous diseases, nephritic complaints, and wounds. Has been used as a substitute for tea.

V. BECCABUNGA, *Linn.*, (Brookline). A very succulent plant, forms a good emollient fomentation and poultice, formerly considered depurative and alterative.

V. PEREGRINA, *Linn.* Once employed in scrofulous affections. (See *Bart. Med. & Phys. Jour.* 3, p. 24.)

PAEDEROTA VIRGINICA, *Torrey*, (Culver's Root, or Physic, formerly Leptandria Virginia, *Nutt.*). *The root*. This is bitter and nauseous, and yields its virtues to boiling water; acts powerfully as emetic and cathartic, when fresh—not so active when dry. Dose, xx. grs. to ʒj.

VERBENACEÆ, *Juss.*—(THE VERVAIN TRIBE.)

VERBENA* HASTATA, *Linn.*, (Tall Blue Vervain).

V. URTICIFOLIA, *Linn.*, (Common Vervain). A plant held sacred by the ancients, and employed in their religious rites; still worn around the neck for the cure of scrofula. It is bitter to the taste, and has tonic and emetic properties. Its medicinal virtues are not great.

LABIATÆ, *Juss.*—(THE MINT TRIBE.)

MENTHA† VIRIDIS, *Linn.*, (Spearmint). M. PIPERITA, *Linn.*, (Peppermint). M. CANADENSIS, *Linn.*, (Canadian Mint). These species of mint are well known remedies as stimulants, in cases of flatulence,

* An alteration of the Celtic word *ferfaen*, from *fer* to drive away, and *faen* a stone, in allusion to its medicinal virtues.

† From *Miathe*, a daughter of Caeytus, who, according to fable, was changed into this plant.

gastric debility, etc. The last is the only one indigenous to this country. The two former are grateful aromatic cordials, and used to allay nausea, relieve spasmodic pains of the digestive organs, expel flatus, and correct the taste of nauseating medicines. In fomentation over the stomach, they relieve nausea and vomiting, especially in cholera infantum of young children. In infusion or vol. oil. *Off. U. S. P.*

LYCOPUS* VIRGINICUS, *Linn.*, (Bugle-weed). The whole herb; taste slightly bitter, odor peculiar, virtues imparted to boiling water. A mild astringent, narcotic, and depurative; has been used with success in incipient phthisis, and hemorrhage from the lungs. It lessens the frequency of the pulse, quiets irritation, and allays cough. Infusion best form of using it. (See *N. York Med. & Phys. Jour.* 1, 179.)

MONARDA† DIDYMA, *Linn.*, (Oswego Tea). M. FISTULOSA, *Linn.*, (Horse Mint, Wild Bergamot). M. PUNCTATA, *Linn.*, (Horse Mint). All these species are more or less aromatic and pungent to the taste, and abound in vol. oil, which is separated by distillation. They are carminative and stimulant. The oil forms an excellent stimulating embrocation in rheumatism, flatulent colic, and in cases where such remedies are needed. (See *Phil. Med. Recorder*, vol. 1, p. 494.)

PYCNANTHEMUM‡ INCANUM, *Michx.*, (Common Mountain Mint). P. MUTICUM, *Pers.*, (Hairy-leaved Mountain Mint). P. LANCEOLATUM, *Pursh*, (Virginian Thyme). We have six species of mountain mint, most of which are used as domestic remedies to answer the same indications as the other species of mint.

ORIGANUM§ VULGARE, *Linn.*, (Common Wild Marjorum). This plant has a warm, pungent taste, and a peculiar aromatic odor, which are owing to a volatile oil. It is a stimulant, tonic, diaphoretic, and emmenagogue. The oil forms a good external stimulant as an embrocation in toothache, neuralgia, rheumatism, etc. *Off. U. S. P.*

COLLINSONIA|| CANADENSIS, *Linn.*, (Common Horse-balm, Stone Root, Knot Root). An indigenous plant, having a strong and disagreeable smell, and a warm pungent taste. Diuretic, diaphoretic, tonic, and astringent. The active principle is volatile, hence the fresh plant is to be preferred. The decoction of the fresh root is highly recommended in cystitis, gravel, leucorrhœa, and dropsy, and it is a popular

* From the Greek *lykos*, a wolf, and *pous*, foot; its leaves resembling the foot of that animal.

† In honor of *Monardes*, a Spanish botanist of the 16th century.

‡ From the Greek *pyknos*, dense, and *antheon*, a flower, the flowers being in clusters.

§ From *oros*, mountain, and *ganeas*, joy; because many of the species are fragrant and beautiful, and grow in hilly places.

|| In honor of *Peter Collinson*, of London, a distinguished patron of botany.

application in the form of fomentation, to ulcers, wounds, and bruises. It is apt to excite nausea and vomiting. The *Shakers* put up the root and sell it under the name of *Stone-root*; it is chiefly employed for diuretic and tonic purposes. The oil or tincture are the best preparations.

CANILA MARIANA, *Linn.*, (Common Ditany). A small indigenous herb, having a pungent taste and agreeable odor, depending on an essential oil. It is a gently-stimulating aromatic and diaphoretic; a warm tea of it, like that of the mints, is a popular mode of inducing perspiration, in colds and fevers; to relieve colic, and promote the menstrual flow.

HEDEOMA* PULEGIOIDES, *Pers.*, (Pennyroyal). A well-known indigenous annual plant, a very pleasant aromatic stimulant, emmenagogue, and diaphoretic; given in warm infusion on going to bed; also in flatulent colic, and sick stomach. The oil is a favorite mode of administration with some. *Off. U. S. P.*

MELISSA† CLINPODIUM, *Benth.*, (Wild Basil, Field Thyme). *M. OFFICINALIS*, (Common Balm). These species contain a small quantity of essential oil of a peculiar flavor; it forms one of the best diaphoretic drinks in febrile complaints, and is very acceptable to the stomach.

SCUTELLARIA‡ LATERIFLORA, *Linn.*, (Mad-dog Scull-cap). Has no sensible properties—had a considerable reputation at one time as a preventive of hydrophobia: at present few place any confidence in it as a prophylactic. (See *Barton in Phil. Med. and Phys. Jour.*, vol. 1.)

S. INTEGRIFOLIA, *Linn.* (Entire-leaved Scull-cap. This species is intensely bitter, and possesses decided tonic properties.

NEPETA§ CATARIA, *Linn.* (Common Catnep, Cat-mint). The whole plant—odor unpleasant, bitter aromatic taste; a useful carminative in diseases of children. It is anodyne and decidedly antispasmodic, hence an excellent remedy in a paroxysm of hysteria—has considerable reputation in the treatment of amenorrhœa and chlorosis; also as an anthelmintic. Given to infants and young children in infusion.

LEONURUS|| CARDIACA, *Linn.*, (Common Motherwort). Formerly in high repute as a medicine—a gentle, stimulating diaphoretic, and emmenagogue.

* From the Greek *hedys*, sweet, and *osme*, odor.

† From the Greek *melissa*, a bee, because its flowers are much sought after by that insect.

‡ From the Latin *scutella*, a little cup, from the appearance of the calyx.

§ From the Greek *nepa*, a scorpion, the bite of which it was once supposed to cure.

|| From the Greek *leon*, a lion, and *vara*, a tail, from a fancied resemblance of the plant.

MARRUBIUM VULGARE, *Linn.*, (Common Horehound). The whole plant is official. Stimulant, diuretic and tonic—in large doses laxative; a popular remedy in coughs, colds, and diseases of pulmonary organs, in the form of expressed juice, syrup or candy. We have known severe cases of chronic cough cured by the expressed juice taken in warm new milk.

BORAGINACEÆ, *Juss.*—(THE BORAGE TRIBE.)

PULMONARIA* *VIRGINICA*, *Linn.*, (Virginian Lungwort). As the species of this plant are emollient and demulcent, and have enjoyed a high reputation in pulmonary diseases, Dr. Griffith thinks they owe their efficacy to a reliance on the doctrine of signatures, the leaves having spots bearing some resemblance to the lungs.—The *virg.* is astringent, and is much used in some parts of the country in coughs and colds, and diseases of respiratory organs.

LITHOSPERMUM† *OFFICINALE* AND *ARVENSE*, *Linn.*, (Gromwell, Stone-weed). The seeds have a greyish-white, pearly color, and a stony hardness. Formerly much employed as lithontriptic, from the supposed resemblance between the remedy and the complaint. Not used at present.

SYMPHYTUM‡ *OFFICINALE*, *Linn.*, (Common Comfrey). A highly-mucilaginous plant, slightly astringent; it resembles closely the mallow; both contain an acid malate of *Altheine*. (*Jour. de Pharm.*, xiii., 635.) A popular remedy in catarrh, diarrhœa, dysentery, etc.

CYNOGLOSSUM§ *OFFICINALE*, *Linn.*—(HOUND'S TONGUE.)

C. VIRGINICUM, *Linn.*, (Wild Comfrey). These plants have anodyne, demulcent, and astringent properties, and are employed as local applications to scrofulous sores, burns, tumors, sprains, etc. The *Officinale* contains an odorous principle, tannin, and several salts. Dr. Griffith thinks the plant too much neglected. (*Med. Botany*, p. 500.)

CONVOLVULUS|| *PANDURATUS*, *Linn.*, (Wild Potato Vine). Indigenous; the root very large, 2 or 3 feet in length, about 3 inches thick, branched at bottom, has a somewhat acrid taste. Feebly cathartic, slightly diuretic, and useful in calculous complaints, and strangury;

* From the Latin *pulmones*, the lungs; they having been a remedy for diseases of this organ.

† From *lithos*, a stone, and *sperma*, seed, which are very hard.

‡ From the Greek *symphyo*, to grow together, in allusion to its healing qualities.

§ From the Greek *kyon*, a dog, and *glossa*, a tongue, from the shape of the leaves.

|| From the Latin *convolvere*, to entwine.

40 grains of the root purge; might be given in extract. A favorite remedy with some botanic doctors. (*Wood & Bache.*)

SOLANACEÆ, *Juss.*—(THE NIGHT-SHADE TRIBE.)

NICOTIANA* RUSTICA, *Linn.*, (Wild Tobacco). A naturalized plant, probably introduced by the Indians; contains *nicotina*, like common tobacco.

DATURA STRAMONIUM, *Linn.*, (Jamestown Weed). A powerful acro-narcotic; the seeds and leaves both contain the active principle *daturia*; a useful article in neuralgia and rheumatism, externally and internally used; also in asthma; it is slightly laxative; used to dilate the pupil. Cataplasms and ointment made of the leaves are also useful preparations, the latter in piles and painful ulcers, etc.

HYOSCYAMUS† NIGER, *Linn.*, (Common Henbane). A powerful narcotic, antispasmodic and anodyne, with laxative properties. Its poisonous effects are owing to an active principle, *hyoscyamia*; our most valuable anodyne, next to opium. Exotic.

SOLANUM DULCAMARA, *Linn.*, (Bitter-sweet, Woody Night-Shade). Supposed to possess deobstruent and alterative properties, very slightly narcotic, not poisonous, also diuretic and diaphoretic; given in decoction.

SOLANUM NIGRUM, *Linn.*, (Common Night-Shade.) A powerful narcotic; poisonous; introduced from Europe.

S. TUBEROSUM, *Linn.*, (Common Potato). The stalks possess narcotic properties, also the epidermis of the tubers, especially when much exposed to light. A good preventive of scurvy when eaten raw with vinegar; its nutritious properties depend chiefly on starch.

GENTIANACEÆ, *Juss.*—(THE GENTIAN TRIBE.)

GENTIANA‡ SOPONARIA, *Linn.* (Soap Gentian). G. QUINQUE-FLORA, *Laur.* Five-flowered Gentian. G. CRINITA, Large fringed Gentian. Pure bitter tonics, fully equal to the imported Gentian, (*Lulea*,) and might be substituted for it; stomachic. In a fresh state they prove laxative. We have three other species, equally medicinal.

FRASERA§ CAROLINIENSIS, *Walt.*, (American Columbo). A good

* From *John Nicot*, who introduced the weed into Europe.

† From *hyos*, a hog, and *cyamos*, a bean, because hogs are said to feed on the fruit, which resembles a bean.

‡ From *Gentius*, a king of Illyria, who brought the plant into use.

§ From *John Fraser*, a collector of North American plants.

bitter, reported by many as equal to imported Columbo. When recent, it is emetic and cathartic, and operates like rhubarb; when dried, simply tonic. Employed much at the west and south, and kept in the shops. Powder and infusion.

ERYTHREA* CENTAURIUM, *Pers.*, (Common Centaury). A pure bitter and tonic, no astringency, and slight aroma.

SABBATIA† ANGULARIS, *Pursh*, (American Centaury). An excellent, pure, bitter tonic, without astringency. Two other species, *Stellaris*, (*Pursh*), and *Chloroides*, (*Pursh*), have the same properties.

MENYANTHES‡ TRIFOLIATA, *Linn.*, (Buckbean, Marsh Trefoil). A good tonic, combining laxative and diuretic properties. In small doses astringent. (See *Wood and Bache*.) Said also to be emmenagogue.

APOCYNACEÆ. *Juss.*—(THE DOGBANE TRIBE.)

APOCYNUM§ ANDROSEMIFOLIUM, *Linn.*, (Dog's Bane). Contains bitter extractive matter, caoutchouc, and vol. oil. *Root*, diaphoretic and emetic, in full doses causes emesis, without previous nausea, or much muscular relaxation. A stimulant to digestive organs in small doses.

A. CANNABINUM, *Linn.* (Indian Hemp). Emeto-cathartic, diuretic, and diaphoretic; produces copious watery evacuations, followed by general perspiration; uncertain as a diuretic, most useful as a hydragogue in dropsy.

ASCLEPIADACEÆ, *R. Br.*—(THE MILK WEED TRIBE.)

ASCLEPIAS|| CORNUTI, *Decaisne*, (Silk Weed, Milk Weed). Diuretic, diaphoretic, anodyne and expectorant. The young plants resemble asparagus; the dried leaves are employed in preparing the indigo dye in woollen manufactories.

A. INCARNATA, *Linn.*, (Swamp Silk Weed). The root, emetic and cathartic, also diaphoretic.

A. TUBEROSA, *Linn.*, (Pleurisy Root). Well known from its beautiful orange-colored flowers; a good diaphoretic and expectorant, slightly tonic. In large doses, cathartic. Has been found useful in catarrh, pneumonia, pleurisy and other pectoral complaints; also, in rheuma-

* From the Greek *erythros*, red, the color of the flowers.

† After *L. Sabbati*, an Italian botanist of last century.

‡ From the Greek *mene*, a month, and *anthos*, a flower, in allusion to its emmenagogue virtues.

§ From *apo*, from, and *kyon*, a dog, it being thought poisonous to that animal.

|| The Greek name of *Æsculapius*, to whom the genus is dedicated.

tism and dysentery, in infusion or powder. We have six other species of this genus, all of which possess medicinal properties.

OLEACEÆ, Hoff.—(THE OLIVE TRIBE.)

LIGUSTRUM* VULGARE, Linn., (Common Privet). The bark contains a peculiar substance, *ligustrin*, mannite, starch, sugar, extractive, tannin, bitter resin, etc. The berries are black, are cathartic, and used for dyeing. The leaves are astringent, as are the flowers; used in aphthous affections of the mouth and fauces as a wash. (*Am. Jour. Phar.*, XII, 347.)

APELATOUS EXOGENOUS PLANTS.

ARISTOLOCHIACEÆ, Juss.—(THE BITTERWORT TRIBE.)

ARISTOLOCHIA SERPENTARIA, Linn. (Virg. Snake Root). An invaluable diaphoretic, stimulant and tonic. Contains much volatile oil, and a yellow bitter principle; also, diuretic; particularly adapted to cases of typhus fever, and eruptive diseases where the grade of action is low, and the eruption slow in appearing. In powder, infusion or extract. Off. U. S. P.

ASARUM† CANADENSE, Linn., (Wild Ginger, Canada Snake Root). An aromatic, stimulant, tonic, containing a very fragrant essential oil, etc. Forms a pleasant adjuvant to tonic infusions and decoctions; in powder or tincture.

CHENOPODIACEÆ, Vent.—(THE GOOSEFOOT TRIBE.)

AMBRINA ANTHELMINTICA, Spach. (Worm Seed, Jerusalem Oak). A valuable anthelmintic, well adapted to cases of lumbrici in children, in doses of ℞j. to ℞j, followed by oil. The seeds of the *A. Ambrosioides* (Mexican Tea), is sometimes substituted for the true Worm seed, but the seeds have a weaker odor, and are less offensive. The oil is a good form of giving it. These plants would probably prove useful in nervous affections. Formerly *Chenopodium*.‡

* From the Latin *liguro*, to tie, from its flexibility.

† From the Greek, *a* not, and *seria*, a band, because it was rejected from the garlands of flowers employed by the ancients.

‡ From *chenos*, a goose, and *pous*, foot, the leaves resembling the foot of this bird.

POLYGONACEÆ, *Juss.*—(THE BUCKWHEAT TRIBE.)

POLYGONUM* FAGOPYRUM, *Linn.*, (Buckwheat). Furnishes nutritive seeds, not so nutritive as the cereal grains, containing only half its weight of fecula.

P. HYDROPIPER, *Linn.*, (Smart Weed). Recommended by Dr. Eberle, and others, as a powerful emmenagogue, in form of saturated tincture; also, stimulant and diuretic. (See Eberle's Practice, 4th ed., v. 1, 441.)

P. AVICULARE, *Linn.*, (Knot Grass). A mild astringent, formerly employed as a styptic and vulnerary.

We have seventeen species of this genus growing in this State, the leaves of many of which are acrid and pungent, and will vesicate when applied to the skin. They lose this property, however, by drying. The roots of some of these species will probably be found good alteratives. Off. U. S. P.

RUMEX CRISPUS, *Linn.*, (Curled Dock). **R. BRITANNICA**, *Willd.*, (Yellow-rooted Water Dock). **R. OBTUSIFOLIUS**, (Broad-leaved Dock). **R. VERTICILLATUS**, (Long-stalked Water Dock). These species have similar medicinal properties, which are astringent and mild tonic; also alterative and depurative; useful in all chronic cases where sarsaparilla is usually recommended. The *Britannica* is the *Aquaticus*, or Water-Dock of Willdenow. The *Crispus*, and *Obtusifolius* combine laxative with tonic and astringent properties, like rhubarb. The *Crispus* is very useful in decoction or ointment in the treatment of itch, and other cutaneous diseases. The root forms a good dentifrice when the gums are spongy. Decoction best form of administration. The *R. Acetosella* or *Sheep Sorrel*, contains a large quantity of binxolate of potash, which renders it agreeably acid. Off. U. S. P.

PHYTOLACCACEÆ, *R. Br.*—(THE POKE WEED TRIBE.)

PHYTOLACCA† DECANDRA, *Linn.*, (Poke Weed). An acro-narcotic emetic, and purgative; as an emetic its operation is very slow, causing much nausea and distress; in small doses alterative; *tincture* useful in rheumatism. An ointment made of the leaves, is recommended in psora, tinea-capitis, and other cutaneous diseases. (*Am. Jour. of Pharm.* XV. 169.) Off. U. S. P.

* From the Greek *polys*, many, and *gonu*, joint; the stem having numerous joints.

† From the Greek *phyton*, a herb, and *lachanon*, pot-herb, in allusion to the use made of the young herbs.

LAURACEÆ, *Juss.*—(THE CINNAMON TRIBE.)

SASSAFRAS* OFFICINALE, *Nees.*, (Sassafras). The bark and roots aromatic, stimulant, cordial and diaphoretic, used chiefly as an adjuvant to other preparations. Virtues reside in a *volatile oil*; has been recommended in chronic rheumatism, cutaneous eruptions, scorbutic and syphiloid affections. In infusion or *bil.* Off. U. S. P.

BENZOIN ODORIFERUM, *Nees.*, (Fever-bush, Spice-bush). A very agreeable stimulant, diaphoretic and aromatic tonic, a useful vermifuge, and drink in low fevers. The bush is recommended in intermittents. The oil of the berries is used as a stimulant. The berries have been employed in place of alspice. A decoction of the young branches is often used as a medicinal drink for horned cattle, in the spring of the year.

THYMELACEÆ, *Juss.*—(THE MEZEREUM TRIBE.)

DIRCA† PALUSTRIS, *Linn.*, (Leather Wood, Moose Wood). Fresh bark vesicates the skin; the berries are emetic and poisonous. The bark forms a good stimulant masticatory in cases of toothache, &c. In decoction it proves expectorant and sudorific, similar to mezereon in its medical properties. Bigelow thinks it might be substituted for Senega.

ULMACEÆ, *Mirbel.*—(THE ELM TRIBE.)

ULMUS AMERICANA, *Linn.*, (White Elm, American Elm). **U. FULVA, *Michx.***, (Slippery Elm, Red Elm.) **U. RACEMOSA, (White Elm).** The inner bark of the Fulva forms an elegant demulcent from its abundant mucilage; also nutritious, and forms a good substitute for *Gum Arabic*. Dr. Griffith recommends it as an alterative in cutaneous diseases; good bougies are formed of its bark. Externally applied as poultices and fomentations to inflamed parts.

CELTIS OCCIDENTALIS, *Linn.*, (Sugar-berry, Nettle Tree). The berries sweetish and somewhat astringent; useful in diarrhœa and dysentery.

EUPHORBIACEÆ, *Juss.*—(THE SPURGE TRIBE.)

EUPHORBIA CORALLATA, *Linn.*, (Flowering Spurge). **E. HYPERICIFOLIA, *Linn.***, (Upright Spotted Spurge). **E. IPECACUANHA, *Linn.***

* From the Spanish *sassafras*, saxifrage, whose virtues have been attributed to this plant.

† From the Greek *dirke*, a fountain, the plant growing near water.

(Wild Ipecac). These species all furnish an acrid milky juice; all are emetic and cathartic, but too active for general use. In small doses, they are expectorant and diaphoretic. They cause much nausea and distress as emetics, and are apt to irritate and inflame the stomach. Given in infusion, decoction or powder of the root.—(See Wood & Bache.) Seven species are found in the State.

JUGLANDACEÆ, *De Cand.*—(THE WALNUT TREE.)

JUGLANS NIGRA, *Linn.*, (Black Walnut). Bark is acrid and styp-tic, used chiefly for making ink. The rind of the unripe fruit is used to cure ringworm and tetter; decoction as a vermifuge.

J. CINEREA, *Linn.*, (Butternut). The inner bark is a mild and pleasant cathartic, suited to cases of habitual constipation; recommended in dysentery. Barton thinks it anodyne. In decoction or extract the sap affords a laxative sugar. The fruit is used for pickles. The different species of *Carya*, *Hickory*, of which we have four, are worthy of notice, as their bark is astringent and possesses antispasmodic properties.

CUPULIFERÆ, *Richard.*—(THE NUT TRIBE.)

*CORYLUS** *AMERICANA*, *Walt.*, (American Hazlenut). *C. ROSTRATA*, *Ait.*, (Beaked Hazlenut). The nut of the latter is of an ovate shape, surrounded by a coriaceous involucre, which is round; short and thick bristles, very similar to those of the *Cowhage*. Dr. Heubener, of Bethlehem, Pa., states that these possess similar anthelmintic virtues with the *Cowhage*, and equal to it in all respects. Given in molasses or syrup.

QUERCUS† *TINCTORIA*, *RUBRA*, *PALUSTRIS*, (Pin Oak). *ILICIFOLIA*, (Bear Oak, Scrub Oak). *Q. COCCINEA*, (Scarlet Oak). *ALBA*, (White Oak). *BICOLOR*, (Swamp White Oak). *MONTANA*, (Rock Chesnut Oak). *PRINOIDES*, (Chinquapin Oak), &c. These species, and several others we have not named, (15 in all,) are marked by astringency due to tannin and gallic acid, and have all been employed medicinally. They are all, however, of more use in the arts than in medicine. The *Alba*, (White Oak,) is, perhaps, the most valuable as an internal astringent, and has been used advantageously in hemorrhages, diarrhœa, leucorrhœa, gonorrhœa, prolapsus ani, in relaxation of the fauces, and ulcerated throat. Externally, to flabby ulcers, and as a poultice in gan-

* From the Greek *korys*, a helmet or cap, in allusion to the shape of the involucre.

† From the Celtic *quer*, beautiful, and *cuez*, a tree.

grene and mortification. The *Tinctoria*, (black oak,) contains most tannin and gallic acid; is exported largely for tinctorial purposes, under the name of *Quercitron*. Internally it is more irritating than the former, but preferable for external use, from its greater astringency.—The other species named can be substituted for this and the preceding, or for each other.

FAGUS* FERRUGINEA, *Ait.*, (Beech). A narcotic principle, called *fagine*, is found in the husks of this species of Beech, and we have but one whose properties have not yet been fully tested.

CASTANEA† VESCA, *Michx.*, (Chesnut). Valuable for its nuts; and bark for tanning; contains gallic acid and tannin.

MYRICACEÆ, *L. C. Richard.*—(THE GALE TRIBE.)

MYRICA‡ CERIFERA, *Linn.*, (Bayberry Wax Myrtle). The fruit furnishes a wax chiefly of that peculiar ingredient of beeswax called *Myricin*, which is obtained by boiling the berries in water, when it separates and is skimmed from the surface; used for candles, and as the basis of a kind of soap; to purify, melt and strain, and cast into cakes, when it is of a pale, greyish green color; consisting of *cerin* 87, and *myricin* 12 per cent. Used in dysentery. The bark of the root is acrid and astringent, and in large doses emetic; a popular remedy in jaundice. (*Amer. Jour. Med. Science*, 4, 313.)

COMPTONIA§ ASPLENIFOLIA, *Ait.*, (Sweet Fern). A popular remedy in dysentery and diarrhœa; it is tonic and astringent, and possesses a resinous spicy odor.

BETULACEÆ, *L. C. Rich.*—(THE BIRCH TRIBE.)

BETULA|| LENTA, *Linn.*, (Cherry Birch, Black Birch). *B. EXCELSA*, *Ait.*, (Yellow Birch.) The fruit of these species is remarkable for its aromatic flavor, resembling that of the *Gaultheria Pracumbens*; a tea of it makes a very agreeable diaphoretic stimulating drink. The oil obtained from distilling the bark, is identical with that of the *Gaultheria*, (*Am. Jour. Phar.* xv. 243.) All the species afford a saccharine liquor; we have 6 species of birch.

ALNUS¶ SERRULATA, *Willd.*, (Common Alder). A very useful alter-

* From the Greek *phago*, to eat, because the nuts were used as food.

† From *Castanea*, in Thessaly, celebrated for its chesnut tree.

‡ From the Greek *myro*, to flow, because found on the banks of rivers.

§ In honor of *Henry Compton*, Bishop of London.

|| From *batu*, the Celtic name for the birch.

¶ From the Celtic words, *al*, rear, and *lau*, the bank of a river.

ative and astringent, (see *N. York Jour. Med.* vol. 7 & 8,) leaves bitter and astringent; inner bark of root, emetic; a decoction of the leaves has been much used to suppress hemorrhage; very successful in hematuria; the bark has been found useful in intermittents, and the leaves as an external application in wounds and ulcers; also in dyspepsia and bowel complaints; an excellent tonic and alterative; has cured obstinate cutaneous affections, when all other remedies have failed; also scrofula.

SALICACEÆ, *L. C. Rich.*—(THE WILLOW TRIBE.)

*SALIX** *NIGRA*, *Marshall*, (Black Willow). We have 16 known species of *Salix* in this State, all of which are more or less medicinal, tonic and astringent; most of them contain *Salicine*; the *Nigra*, perhaps, in greatest quantity. The *Salicine* is valuable as a simple bitter, resembling gentian, but as an antiperiodic, it cannot compare with gentian. Quinine is often adulterated with it. Dose 10 to 30 grains.

POPULUS† *TREMULOIDES*, *Michx.*, (American Aspen). The bark has the same medicinal properties as the *Salix*, tonic and febrifuge.

P. BALSAMIFERA, *Linn.*, (Balsam Poplar, Tackamahac). Cathartic, and useful in gout and rheumatism. The buds are balsamic and aromatic; the juice is collected and used for diuretic and antiscorbutic purposes. An ointment may be prepared from the buds, which is useful in burns, bruises and tumors.

URTICACEÆ, *De Cand.*—(THE NETTLE TRIBE.)

MORUS‡ *RUBRA*, *Linn.*, (Red Mulberry). *M. ALBA*, *Linn.*, (White Mulberry). These species of Mulberry bear edible fruits, which are cooling and laxative; bark, anthelmintic and cathartic. The *Alba* furnishes food for the silk worm, and its root is a good vermifuge. The fruit of both species furnishes a grateful drink in fevers. A syrup of mulberries forms a grateful addition to gargles. The *Rubra* is indigenous, the *Alba* from China.

URTICA§ *DIOICA*, *Linn.*, (Stinging Nettle). *U. URENS*, *Linn.*, (Small Nettle). The leaves, seeds and roots, diuretic and astringent, formerly much used in jaundice, nephritic complaints, hemorrhages, scurvy, &c., good to excite external irritation in cases of palsy where there is loss of sensation.

* From the Celtic *sal*, near, and *lis*, water, in allusion to the place of growth.

† From *populus*, the people, having been used in ancient times as a shade tree for public walks.

‡ From the Greek *moron*, the mulberry.

§ From the Latin *uro*, to burn, from its stinging properties.

CANNABIS SATIVA, *Linn.*, (Common Hemp). There is but one species of this plant, the *Sativa*, the *C. Indica* being a mere variety. It remains to be ascertained whether the American Hemp contains the same intoxicating and narcotic properties with that of India; we are inclined to think it lacks that resinous portion on which its peculiar medicinal virtues depend.

HUMULUS* **LUPULUS**, *Linn.*, (Hop). A well-known tonic and narcotic; owes its properties to a peculiar principle, which resides in the yellow granular matter of the strobiles, called *Lupulin*, diuretic and decidedly antilithic. *Lupulin* is the best form of internal administration.

CLASS II.—GYMNOSPERMOUS PLANTS.

CONIFERÆ, *Juss.*—(THE PINE TRIBE.)

PINUS† **RIGIDA**, *Mill.*, (Pitch Pine). **P. STROBUS**, *Linn.*, (White Pine). **P. MITIS**, *Michx.*, (Yellow Pine.) **P. BALSAMEA**, *Linn.*, (Balsam Fir, Balm of Gilead Fir). **P. CANADENSIS**, *Linn.*, (Hemlock Spruce). **P. NIGRA**, *Ait.*, (Black or Double Spruce). **P. ALBA**, *Ait.*, (White or Single Spruce). **P. PENDULA**, *Ait.*, (Tamarack, American Larch). Turpentine and resin are obtained from all the above species in greater or less quantity. The *Rigida* abounds in turpentine; the *Balsamea* yields the *Canada Balsam*, which is largely exported for medicinal purposes; 650,000,000 of white pine lumber, (*P. Strobis*), are supposed to be annually obtained from this State, which requires 65,000 acres to produce. The turpentines are all diuretic, stimulant, expectorant; in large doses, purgative and vermifuge. They constitute the best class of alterative remedies in the chronic diseases of old people, and especially of the pulmonary and urinary organs; excellent external applications and revulsives.

CYPRESSUS‡ **THUYOIDES**, *Linn.*, (White Cedar). An infusion of the tops, stomachic and diuretic.

THUYA OCCIDENTALIS, *Linn.*, (Common Arborvita Tree). Stimulant, diuretic, diaphoretic, and vermifuge; decoction of the strobiles is recommended as an astringent in diseases of the bowels.

JUNIPERUS§ **VIRGINIANA**, *Linn.*, (Red Cedar). **J. COMMUNIS**, *Linn.*, (Common Juniper). The first species, *Virginiana*, is probably the *J. Sabina*, (*Savine*.) of Hooker; the leaves and berries possess the same medicinal properties, which are owing to volatile oil, wax, resin,

* From *humu*, moist earth, because it prefers damp soils.

† From the Celtic *pin* or *pen*, a rock or crag; in allusion to its usual locality.

‡ From the Island of *Cyprus*, where the tree abounds.

§ From the Celtic *juneprus*, rough or rude, the character of the genus.

gum, &c. Both are stimulating diuretics, and decided alteratives in all diseases of mucous membranes; also powerfully emmenagogue and anthelmintic; used as an ointment to promote the discharge from blistered surfaces.

*TAXUS** *CANADENSIS*, *Willd.*, (American Yew). A resinous tree; the leaves of the European species, *Baccata*, which, according to *Michaux*, is identical with the present; are said to act in small doses, like *Digitalis* in reducing the force of the circulation. We hope trials will be made to test the virtues of this plant. The ancients considered the tree poisonous, especially during the season of flowering.

CLASS III.—ENDOGENOUS, OR MONOCOTYLEDONOUS PLANTS.

ARACEÆ, *Juss.*—(THE ARUM TRIBE.)

ARISEMA *TRIPHYLLUM*, (Indian Turnip). Formerly the *Arum*. The tuber very active when fresh, owing to a volatile, inflammable principle, soluble in water and alcohol. When dry it furnishes a large quantity of nutritious starch, resembling *sago*. When recent, used as a carminative stimulant in flatulent colic, etc. Has some reputation in bronchitis.

CALLA *PALUSTRIS*, *Linn.*, (Water Arum). The Rhizomes are acrid and caustic, but on drying, grinding, and washing, furnish a very pure starch, which in the north of Europe is made into palatable bread. Diaphoretic when fresh.

SYMPLOCARPUS† *FETIDUS*, *Salisb.*, (Skunk Cabbage). Root and seeds, narcotic and stimulant; very acrid when fresh, which is lost by drying. Has been used in asthma, rheumatism, dropsy, hysteria, and chronic catarrh; the leaves to keep up a discharge from a blistered surface.

ACORUS‡ *CALAMUS*, *Linn.*, (Sweet Flag). A pleasant stimulant tonic and stomachic. A good adjuvant to bark and quinine in intermittents. Used in flatulent colic and atonic states of digestive organs.

ALISMADEÆ.—(THE WATER PLANTAIN TRIBE.)

ALISMA§ *PLANTAGO*, *Linn.*, (Water Plantain). Acrid, and resembling the *Ranunculus* in its properties. In Russia it is believed to be an

* From *toxon*, bow, because the wood was used for that purpose by the Greeks.

† From the Greek *symploke*, connexion, and *karpus*, fruit, the berries being united.

‡ From the Greek *a*, without, and *kore*, the pupil of the eye, having been used for sore eyes.

§ From the Celtic *alis*, water, its place of growth.

antidote in hydrophobia. The Kalmucks use it as food when dried, as it contains much fecula. Recommended in diseases of urinary organs.

SAGITTARIA* SAGITIFOLIA, *Linn.*, (Arrow Head). Has a fleshy rhizome, which is used for food by the Indians; abounds in starch; edible even in the fresh state. Sometimes several inches in diameter.

CYRIPEDIUM† PUBESCENS, *Swartz*, (Yellow Lady's Slipper). A very energetic antispasmodic and nervine, nearly equal to Valerian. The root is employed. We have used it in hysteria and other nervous diseases with striking benefit, in the form of powder and infusion. The *Spectabile*, (Showy Lady's Slipper,) and *Acaule*, (Noah's Ark,) have the same properties.

IRIDACEÆ, *Juss.*—(THE IRIS TRIBE.)

IRIS VERSICOLOR, *Linn.*, (Blue Flag). A very certain and mild cathartic; in small doses diuretic, in larger, emetic. As a cathartic, the powdered root is equal to any of our indigenous articles. (See *N. Y. Jour. Med.*, vol. ix.) Fresh root has a sweetish sub-acrid taste, and a faint, disagreeable odor; both nearly dissipated by drying. Take the fresh-dug roots, cut into slices, dry in an oven heated to about 100°, then pulverize, and keep in close-stopped bottles. Dose of powder, as cathartic, 10 to 15 grs. It should be combined with some stimulant, as cayenne, ginger, or myrrh. These prevent nausea and griping. It operates as a mild yet effectual cathartic, producing copious discharges well tinged with bile. An alterative in smaller doses, 2 to 4 grs. Considered by some equal to jalap, and might be substituted for it in some cases.

SMILACEÆ, *R. Brown.*—(THE SMILAX TRIBE.)

TRILLIUM‡ CERNUUM, *Linn.*, (Nodding Three-leaved Night Shade, Birth Root, or Birth-wort). T. ERECTUM, *Linn.*, (False Wake Robin). T. GRANDIFLORUM, *Salisb.*, (Large-flowered Trillium). All these species are medicinal, possessing alterative, tonic and astringent virtues. The fresh roots have an aromatic taste, and the odor of turpentine, causing an acrid sensation in the mouth. They are much used in hemorrhagic cases, and with benefit by botanic doctors, and in domestic practice. I found the Indians on Lake Superior (1846) using the root of the *Cernuum* to facilitate child-birth; it is in common use among

* From the Latin *sagitta*, arrow, the shape of the leaf.

† From the Greek *Kypris*, Venus, and *podeon*, a shoe—i. e., the slipper of Venus.

‡ From the Latin *triplix*, triple, most parts of the plant being in threes.

them for this purpose, as well as for all kinds of discharges in females. This plant deserves farther investigation.

SMILACINA RACEMOSA, *Desf.*, (Wild Spikenard). A mild alterative, diuretic, and diaphoretic.

POLYGONATUM MULTIFLORUM, (Solomon's Seal). Deobstruent, and slightly astringent. Deserves investigating.

*SMILAX** *ROTUNDIFOLIA*, *Linn.*, (Green Briar). *S. HISPIDA*, *Muhl.*, (Hispid Green Briar). *S. SPINULOSA*, *Smith*, (Spinulose Green Briar). *S. HERBACEA*, *Linn.*, (Carrion Flower). All these species of Green Briar are believed to possess alterative and diaphoretic properties, and are mentioned for the purpose of directing further attention to them.

LILIACEÆ, *Juss.*—(THE LILY TRIBE.)

LILIUM† *PHILADELPHICUM*, *Linn.*, (Red Lily). *L. CANADENSE*, *Linn.*, (Wild Yellow Lily). *L. SUPERBUM*, *Linn.*, (Turk's Cap). The roots, or bulbs, contain much mucilage, are slightly acrid; the active principle is volatile; used in domestic practice in dropsy and to form emollient cataplasms, boiled in milk. An ointment is also prepared from the flowers, which has soothing properties.

ERYTHRONIUM‡ *AMERICANUM*, *Arn.*, (Dog's Tooth Violet). The recent root emetic, in doses of 20 to 30 grs. When cooked, the bulbs are edible. The leaves are more active than the roots. Dr. Bigelow supposes that this plant might supply the place of *Colchicum*. In domestic practice the leaves and roots are used as an application to scrofulous sores, for which purpose they are boiled in milk.

ALIUM§ *CANADENSE*, *Kalm*, (Meadow Garlic). *A. VINEALE*, *Linn.*, (Wild Garlic). *A. TRIOCCUM*, *Ait.*, (Wild Leek). *A. CERNUUM*, *Rath.*, (Wild Onion). All contain a volatile, acrid oil, which render the bulbs, in a fresh state, rubefacient and revulsive. Internally they prove expectorant, diuretic, and diaphoretic, like squills. The species *Canadense*, is fully as active as the cultivated garlic, and may be substituted for it. The onion, *A. Ceba*, possesses similar properties, but much milder.

ALETIS FARINOSA, *Linn.*, (Star Grass, Colic Root, Blazing Star, Ague Root, etc.). The root contains a very bitter resinous principle, soluble in alcohol, slightly in water. Tonic, and stomachic, emetic and cathartic, slightly narcotic. Dose of powder, 10 grs. A popular remedy in colic, dropsy, and rheumatism.

* From the Greek *smile*, a grater, from its being rough with prickles.

† From the Celtic *li*, white, that being the color of one of the principal species.

‡ From the Greek *erythias*, red, from the spots on the leaves.

§ From the Celtic word *all*, signifying hot, or acrid.

MELANTHACEÆ, *R. Brown.*—(THE COLCHICUM TRIBE.)

VERATRUM* *VIRIDE*, (White Hellebore, Indian Poke). The root—this contains *veratria*, in the form of a *super gallate*; *fatty-matter*, containing a volatile acid; *extractive*, and a principle called *jervin*, crystallizable, (*Griffith*). An acid irritant hydragogue cathartic and emetic. In small doses alterative and deobstruent. Useful in gout, rheumatism; and extract, as an ointment, in cutaneous diseases; decoction for destroying vermin, etc.

HELONIUS *DIOICA*, *Pursh*, (Unicorn Plant). The root, a popular tonic and anthelmintic. The tincture is a good stomachic and alterative.

FILICES, *R. Brown.*—(THE FERN TRIBE.)

POLYPODIUM† *VULGARE*, *var. AMERICANUM*, *Hook.* (Common Polypody). We have four species of Polypod. possessing slight medicinal properties. The *rhizome*, diuretic and expectorant; when dried, the root is bitter; formerly much used as a purgative in obstructions of the liver. The *P. filix-mas* is not found in the State.

ADIANTUM *PEDATUM*, *Linn.*, (Maidenhair). Demulcent and pectoral; forms a mild expectorant syrup, (*Capillaire*,) and a vehicle for administering other remedies.

These two species are allied, but easily distinguished. There is no doubt but that both possess the same medicinal properties. The *Aspidium filix-mas* has been mistaken by several other American botanists besides Pursh, but they have mistaken for it the *A. goldianum*, or *A. dilatatum*.

ASPIDIUM *GOLDIANUM*, *Hook.* (Goldie's Shield Fern). This is the *A. filix-mas* of Pursh, *Polypodium filix-mas* of *Linn.*; it is not found in North America. We have several species of *Lycopodium* possessing medicinal properties, which have not yet been investigated.

Such are some of the articles composing the *Materia Medica* of the State of New-York; but they by no means embrace all. Under this head might be ranked the various cultivated cereals, the invaluable *Zea*, (Indian corn,) the *Avena*, (oat,) *Triticum*, (wheat,) *Hordeum*, (barley,) *Secale*, (rye). The sugar of the maple has medicinal properties of no little value. The *Fuci*, (sea-weeds,) furnish soda, as well as iodine,

* From the Latin *vere atrum*, truly black, in allusion to the color of the root.

† From the Greek *polys*, many, and *pous*, foot, in allusion to the feet-like branches of the root.

in any quantity, a very important article in medicine. Some of this class, as the *Alaria esculenta* of Great Britain, will also be found edible, and mucilaginous, like *Chondrus crispus*. Our *Fungi* have been as yet very imperfectly investigated, but it is well known that we have a considerable number that are wholesome and edible; while a still larger number are poisonous; and we have no means of distinguishing them, except actual experience. Griffith states that the same species may be wholesome or poisonous, according to circumstances. The *secale cornutum* deserves mention, as an important agent in the list of our *materia medica*; as do also some of our *lichens*, possessing both alimentary and medicinal properties. It will probably be found that we have some not far inferior in these respects to the *Cetraria islandica*, (Iceland Moss,) or the *Gyrophora proboscidea*, (Tripe de Roche,) of the arctic regions. These still remain to be investigated, and furnish a wide field for the cultivators of this department of Medical science.

NATURAL ORDERS,

CONTAINING NON-MEDICINAL PLANTS.

	No. of Species.		No. of Species.
1. Menispermaceæ,	1	28. Amaranthaceæ,	4
2. Nelumbiaceæ,	1	29. Santalaceæ,	2
3. Saraceniaceæ,	1	30. Eleagnaceæ,	1
4. Capparidaceæ,	1	31. Laururaceæ,	1
5. Cistaceæ,	6	32. Cerotophyllaceæ,	1
6. Droseraceæ,	4	33. Callitrichaceæ,	1
7. Elatynaceæ,	1	34. Podostomaceæ,	1
8. Illecibraceæ,	4	35. Empetraceæ,	2
9. Portulaccaceæ,	3	36. Balsamiflueæ,	2
10. Tiliaceæ,	1	37. Platanaceæ,	1
11. Limnanthaceæ,	1	38. Linaceæ,	2
12. Aceraceæ,	5	39. Typhaceæ,	4
13. Melastomaceæ,	1	40. Naiadaceæ,	13
14. Cactaceæ,	1	41. Hydrochardaceæ,	3
15. Grossulaceæ,	5	42. Orchidaceæ,	38
16. Cucurbitaceæ,	2	43. Hypoxidaceæ,	1
17. Crassulaceæ,	4	44. Dioscoreaceæ,	1
18. Dipsaceæ,	1	45. Pontederiaceæ,	3
19. Campanulaceæ,	4	46. Juncaceæ,	18
20. Primulaceæ,	11	47. Corumelynaceæ,	2
21. Lentibulaceæ,	2	48. Xyridaceæ,	1
22. Acanthaceæ,	1	49. Eriocaulonaceæ,	1
23. Pedaliaceæ,	1	50. Cyperaceæ,	159
24. Hydrophyllaceæ,	3	51. Gramineæ,	124
25. Polemoniaceæ,	3		
26. Diapensiaceæ,	1	Total,	469
27. Convolvulaceæ,	7		

NATURAL ORDERS,

CONTAINING MEDICINAL PLANTS.

	No. of Species		No. of Species.
1. Ranunculacæ,	38	40. Ebenacæ,	1
2. Magnoliacæ,	3	41. Plantaginacæ,	6
3. Anonaciæ,	1	42. Plumbaginacæ,	1
4. Berberidacæ,	4	43. Orobanchacæ,	3
5. Nympeacæ,	3	44. Bignoniacæ,	1
6. Papavaracæ,	2	45. Scrophulariacæ,	38
7. Fumariacæ,	7	46. Verbenacæ,	5
8. Cruciferæ,	31	47. Labiatæ,	45
9. Violacæ,	16	48. Boraginacæ,	14
10. Hypericacæ,	10	49. Solanacæ,	8
11. Caryophyllacæ,	25	50. Gentianacæ,	16
12. Malvacæ,	8	51. Apocynacæ,	2
13. Linacæ,	2	52. Asclepiadacæ,	10
14. Geraniacæ,	5	53. Oleacæ,	4
15. Oxalidacæ,	3	54. Aristolochiacæ,	2
16. Balsaminacæ,	1	55. Chenopodiacæ,	17
17. Anacardiacæ,	6	56. Polygonacæ,	22
18. Xanthoxylacæ,	2	57. Phytolaccacæ,	1
19. Hippocastinacæ,	1	58. Lauracæ,	2
20. Celastracæ,	4	59. Thymelacæ,	1
21. Rhamnacæ,	4	60. Ulmaceæ,	4
22. Vitaceæ,	5	61. Euphorbiacæ,	8
23. Polygalacæ,	7	62. Juglandiacæ,	6
24. Leguminosæ,	59	63. Cupuliferæ,	22
25. Rosacæ,	51	64. Myricacæ,	3
26. Lythracæ,	5	65. Betulacæ,	9
27. Onagræcæ,	24	66. Salicacæ,	25
28. Saxifragacæ,	8	67. Urticacæ,	10
29. Hamamelidacæ,	1	68. Coniferæ,	14
30. Umbelliferæ,	30	69. Aracæ,	7
31. Araliacæ,	5	70. Alismacæ,	7
32. Cabombacæ,	1	71. Iridacæ,	3
33. Caprifoliacæ,	24	72. Smilacæ,	14
34. Compositæ,	160	73. Liliacæ,	12
35. Rubiacæ,	13	74. Melanthacæ,	10
36. Valerianacæ,	2	75. Filices,	41
37. Lobeliacæ,	7		
38. Ericacæ,	42	Total,	1020
39. Aquifoliacæ,	6		

We thus have SEVENTY-FIVE NATURAL ORDERS containing medicinal plants, including 1020 species, a part of which only are yet known to possess remedial properties. We have also FIFTY-ONE ORDERS, which include no very active medicinal plants, embracing 462 species. Many of these, however, as the Grass and Cypress tribe, embrace genera of a medicinal character.

Index of Orders and Genera.

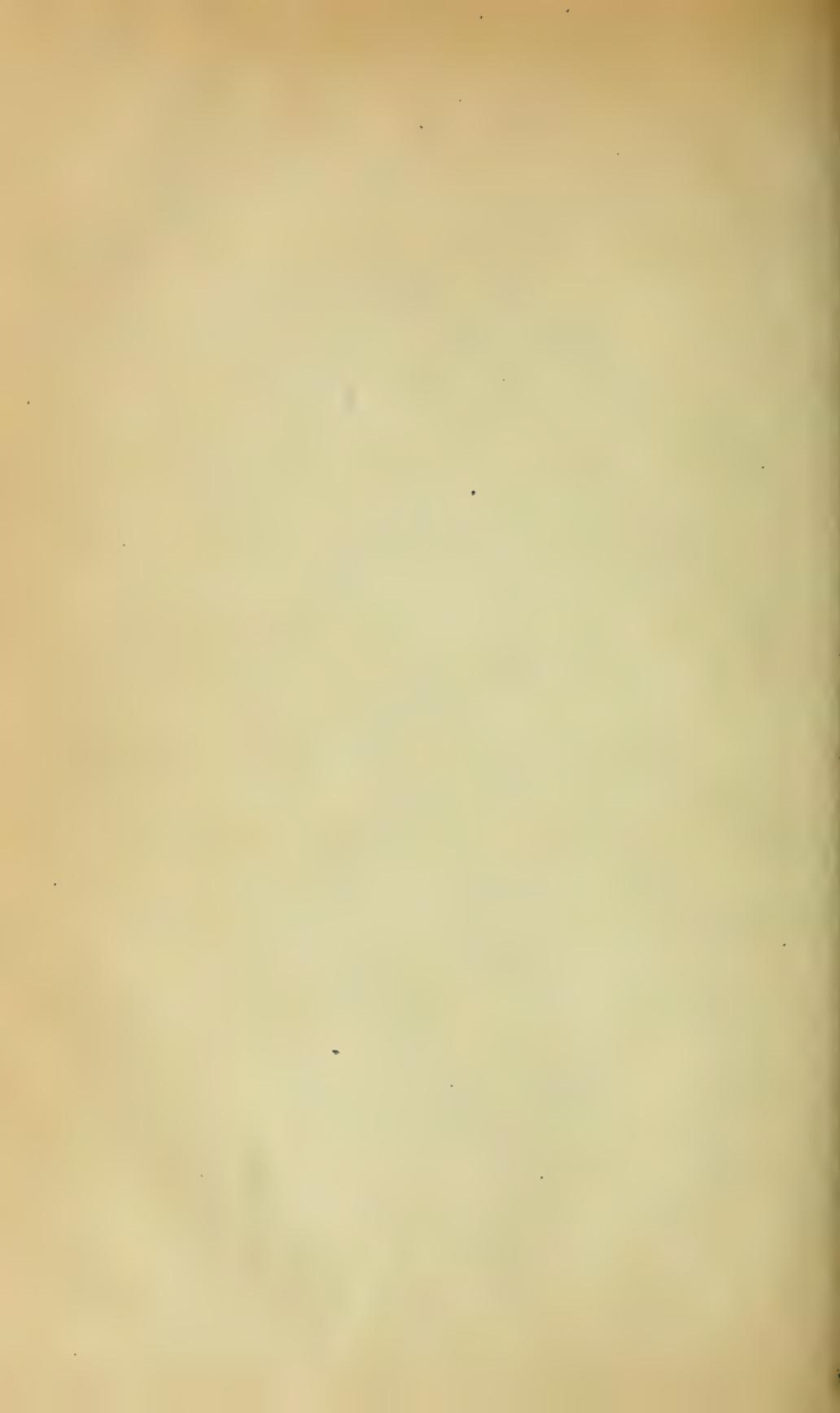
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SECOND ANNUAL REPORT

OF THE

REGENTS OF THE UNIVERSITY,

ON THE

Condition of the State Cabinet

OF

NATURAL HISTORY.

WITH

CATALOGUES OF THE SAME.

Made to the Senate January 12, 1849.

ALBANY:

WEED, PARSONS & CO., PUBLIC PRINTERS.

1849.

IN SENATE, JAN. 12, 1849.

SECOND ANNUAL REPORT

Of the Regents of the University, on the condition of
the State Cabinet of Natural History, with cata-
logues of the same.

To the Hon. GEORGE W. PATTERSON,

President of the Senate :

SIR—I have the honor to transmit the Annual Report of the Re-
gents of the University on the condition of the State Cabinet of
Natural History.

I remain, with sentiments of great respect,

Your obedient servant,

PETER WENDELL,

Chancellor.

CATALOGUE OF PLANTS

OF THE

STATE OF NEW-YORK,

OF WHICH SPECIMENS ARE PRESERVED IN THE CABINET AT ALBANY.

By John Torrey, M. D.

N. B. The nomenclature here adopted is nearly that of the State Flora, except in the few cases where changes were required from the progress of botanical science, or for the correction of errors. Some plants were discovered within the limits of the State after the Flora was printed. These are indicated by an asterisk prefixed to their names. It has been thought proper to include in the present catalogue, all those plants which, on good authority, have been recorded as indigenous to the State, which have not yet been found by the author. These are indicated by the mark (†).

PLANTS.

RANUNCULACEÆ.

- Clematis ochroleuca*, *Ait*
 — *virginiana*, *Linn.*
 — *verticillaris*, *DC.*
 (*Atragene americana*, *Sims.*)
Anemone nemorosa, *Linn.*
 — *cylindrica*, *Gray.*
 — *virginiana*, *Linn.*
 — *multifida*, *DC.*
 — *pennsylvanica*, *Linn.*
Hepatica triloba, *DC.*
 var. 1. obtusa, *Pursh.*
 var. 2. acuta, *Pursh.*
Thalictrum anemonoides, *Michx.*
 — *dioicum*, *Linn.*
 — *cornuti*, *Linn.*
Ranunculus aquatilis, *Linn.*
 — *purshii*, *Richards.*
 — *alismæfolius*, *Geyer.*
 (*flammula*, *Auct. Amer. non*
 Linn.)
 — *reptans*, *Linn.*
 — *pusillus*, *Poir.*
 — *cymbalaria*, *Pursh.*
 — *abortivus*, *Linn.*
 — *recurvatus*, *Poir.*
 — *sceleratus*, *Linn.*
 — *pennsylvanicus*, *Linn.*
 — *fascicularis*, *Muhl.*
 — *repens*, *Linn.*
 — *bulbosus*, *Linn.*
 — *acris*, *Linn.*
Caltha palustris, *Linn.*
Trollius laxus, *Salisb.*

- Coptis trifolia*, *Salisb.*
Helleborus viridis, *Linn.*
Aquilegia canadensis, *Linn.*
Aconitum uncinatum, *Linn.*
Zanthorhiza apiifolia, *l'Herit.*
Hydrastis canadensis, *Linn.*
Actæa rubra, *Willd.*
 — *alba*, *Bigel.*
Cimicifuga racemosa, *Ell.*

MAGNOLIACEÆ.

- Magnolia glauca*, *Linn.*
 — *acuminata*, *Linn.*
Liriodendron tulipifera, *Linn.*

ANONACEÆ.

- Asimina triloba*, *Dunal.*
 (*Uvaria triloba*, *Torr. & Gr.*)

MENISPERMACEÆ.

- Menispermum canadense*, *Linn.*

BERBERIDACEÆ.

- Berberis vulgaris*, *Linn.*
Leontice thalictroides, *Linn.*
Jeffersonia diphylla, *Pers.*
Podophyllum peltatum, *Linn.*

CABOMBACEÆ.

- Brasenia peltata*, *Pursh.*
Nelumbium luteum, *Willd.*

NYMPHÆACEÆ.

- Nymphæa odorata*, *Ait.*
Nuphar advena, *Ait.*

Nuphar lutea, *Smith.*
var. kalmiana, Torr. & Gr.

SARRACENIACEÆ.

Sarracenia purpurea, *Linn.*
var. heterophylla, Torr.

PAPAVERACEÆ.

Chelidonium majus, *Linn.*
 Sanguinaria canadensis, *Linn.*

FUMARIACEÆ.

Adlumia cirrhosa, *Raf.*
 Dicentra cucullaria, *Torr.*
(Dielytra cucullaria, DC.)
 — canadensis, *Torr.*
(Dielytra canadensis, DC.)
 — eximia, *Torr.*
(Dielytra eximia, DC.)

Corydalis aurea, *Willd.*
 — glauca, *Pursh.*
 Fumaria officinalis, *Linn.*

CRUCIFERÆ.

Nasturtium palustre, *DC.*
 — hispidum, *DC.*
 — natans, *DC.*
 Cardamine hirsuta, *Linn.*
 — pratensis, *Linn.*
 — rhomboidea, *DC.*
var. purpurea, Torr. & Gr.

Dentaria diphylla, *Linn.*
 — maxima, *Nutt.*
 — laciniata, *Muhl.*

Arabis lyrata, *Linn.*
 — dentata, *Torr. & Gr.*
 — hirsuta, *Scop.*
 — lævigata, *DC.*
 — canadensis, *Linn.*

"Turrilis glabra, *Linn.*
(Western part of the State).
 — stricta, *Graham.*

Barbarea vulgaris, *R. Br.*
 Erysimum cheiranthoides, *Linn.*

Sisymbrium officinale, *Scop.*
 — thalianum, *Gaud.*

Sinapis nigra, *Linn.*
 — arvensis, *Linn.*

Draba arabisans, *Michx.*
 — caroliniana, *Walt.*
 — verna, *Linn.*

Camelina sativa, *Linn.*
 Lepidium virginicum, *Linn.*
 — campestre, *R. Br.*

Capsella bursa-pastoris, *Mænch.*
 Cakile americana, *Nutt.*
(maritima, var. americana, T.
& Gr.)

Raphanus raphanistrum, *Linn.*

CAPPARIDACEÆ.

Polanisia graveolens, *Raf.*

VIOLACEÆ.

Solea concolor, *Ging.*
 Viola rotundifolia, *Michx.*
 — lanceolata, *Linn.*
 — primulæfolia, *Linn.*
 — blanda, *Willd.*
 — selkirkii, *Goldie.*
 — sagittata, *Ait.*
 — cucullata, *Ait.*
 — palmata, *Linn.*
 — pedata, *Linn.*
 — canadensis, *Linn.*
 — rostrata, *Pursh.*
 — muhlenbergii, *Torr.*
 — striata, *Ait.*
 — pubescens, *Ait.*
 — tricolor, *var. arvensis, DC.*

CISTACEÆ.

Helianthemum canadense, *Michx.*
 Hudsonia ericoides, *Linn.*
 — tomentosa, *Nutt.*
 Lechea major, *Michx.*
 — minor, *Lam.*
 — thymifolia, *Pursh.*

DROSERACEÆ.

- Drosera rotundifolia*, Linn.
 — *longifolia*, Linn.
 — *filiformis*, Raf.
Parnassia caroliniana, Michx.

HYPERICACEÆ.

- Ascyrum stans*, Michx.
Hypericum pyramidatum, Ait.
 — *kalmianum*, Linn.
 — *perforatum*, Linn.
 — *corymbosum*, Muhl.
 — *ellipticum*, Hook.
 — *mutilum*, Linn.
 (*parviflorum*, Muhl.)
 — *canadense*, Linn.
 — *sarothra*, Michx.
Elodea virginica, Nutt.

ELATINACEÆ.

- Elatine americana*, Arnott.
 (*Crypta minima*, Nutt.)

CARYOPHYLLACEÆ.

- Honckenya peploides*, Ehrh.
Sagina procumbens, Linn.
 — *apetala*, Linn.
Arenaria serpyllifolia, Linn.
 — *squarrosa*, Michx.
 — *stricta*, Michx.
 — *grœnlandica*, Spreng.
Mœhringia lateriflora, Fenzl.
 (*Arenaria lateriflora*, Linn.)
Stellaria media, Smith.
 — *longifolia*, Muhl.
 * — *longipes*, Goldie.
 — *borealis*, Bigel.
Cerastium vulgatum, Linn.
 — *viscosum*, Linn.
 — *arvense*, Linn.
 — *oblongifolium*, Torr.
 — *nutans*, Raf.
Silene stellata, Ait.
 — *antirrhina*, Linn.

- Silene noctiflora*, Linn.
 — *pennsylvanica*, Michx
Lychnis githago, Lam.
Saponaria officinalis, Linn.
 — *vaccaria*, Linn.
Mollugo verticillata, Linn.

ILLECEBRACEÆ.

- Anychia dichotoma*, Michx.
Spergula arvensis, Linn.
 — *rubra*, Torr. & Gr.
Scleranthus annuus, Linn.

PORTULACACEÆ.

- Portulaca oleracea*, Linn.
Claytonia virginica, Linn.
 — *caroliniana*, Michx.

MALVACEÆ.

- Abutilon avicennæ*, Gært.
Sida spinosa, Linn.
Malva rotundifolia, Linn.
Althæa officinalis, Linn.
Hibiscus virginicus, Linn.
 — *moscheutos*, Linn.
 — *trionum*, Linn.

TILIACEÆ.

- Tilia americana*, Linn.

LINACEÆ.

- Linum virginianum*, Linn.
 — *usitatissimum*, Linn.

GERANIACEÆ.

- Geranium maculatum*, Linn.
 — *carolinianum*, Linn.
 — *pusillum*, Linn.
 — *robertianum*, Linn.
Erodium cicutarium, l'Herit.

OXALIDACEÆ.

- Oxalis acetosella*, Linn.
 — *violacea*, Linn.
 — *stricta*, Linn.

BALSAMINACEÆ.

- Impatiens pallida*, Nutt.
— *fulva*, Nutt.

LIMNANTHACEÆ.

- Flœrkea proserpinacoides*, Willd.

ZANTHOXYLACEÆ.

- Zanthoxylum americanum*, Mill.
Ptelea trifoliata, Linn.

ANACARDIACEÆ.

- Rhus typhina*, Linn.
— *glabra*, Linn.
— *copallina*, Linn.
— *venenata*, DC.
— *toxicodendron*, Linn.
— *aromatica*, Ait.

ACERACEÆ.

- Acer pennsylvanicum*, Linn.
— *spicatum*, Lam.
— *saccharinum*, Wang.
— *dasycarpum*, Ehrh.
— *rubrum*, Linn.

HIPPOCASTANACEÆ.

- Æsculus hippocastanum*, Linn.

CELASTRACEÆ.

- Staphylea trifolia*, Linn.
Celastrus scandens, Linn.
Euonymus atropurpureus, Jacq.
— *americanus*, Linn.

RHAMNACEÆ.

- Rhamnus catharticus*, Linn.
— *alnifolius*, l'Herit.
Ceanothus americanus, Linn.
— *ovalis*, Bigel.

VITACEÆ.

- Vitis labrusca*, Linn.
— *æstivalis*, Michx.
— *cordifolia*, Michx.

Vitis riparia, Michx.

Ampelopsis quinquefolia, Michx.

POIYGALACEÆ.

- Polygala lutea*, Linn.
— *sanguinea*, Linn.
— *cruciata*, Linn.
— *verticillata*, Linn.
— *ambigua*, Nutt.
— *senega*, Linn.
— *polygama*, Walt.
— *paucifolia*, Willd.

LEGUMINOSÆ.

- Vicia sativa*, Linn.
— *tetrasperma*, Linn.
— *cracca*, Linn.
— *americana*, Muhl.
Ervum hirsutum, Linn.
Lathyrus maritimus, Bigel.
— *ochroleucus*, Hook.
— *myrtifolius*, Hook.
— *palustris*, Linn.
Phaseolus perennis, Walt.
— *diversifolius*, Pers.
— *helvolus*, Linn.

Apios tuberosa, Mœnch.

Galactia glabella, Michx.

Clitoria mariana, Linn.

Amphicarpæa monoica, Tor. & Gr.

Robinia pseudacacia, Linn.

Tephrosia virginiana, Pers.

Trifolium arvense, Linn.

— *pratense*, Linn.

— *reflexum*, Linn.

— *repens*, Linn.

— *agrarium*, Linn.

Melilotus officinalis, Willd.

— *leucantha*, Koch.

Medicago sativa, Linn.

— *lupulina*, Linn.

Astragalus canadensis, Linn.

Phaca neglecta, Torr. & Gr.

Stylosanthes elatior, Swartz.

- Desmodium nudiflorum*, DC.
 — *acuminatum*, DC.
 — *pauciflorum*, DC.
 — *rotundifolium*, DC.
 — *canadense*, DC.
 — *canescens*, DC.
 — *lævigatum*, DC.
 — *dillenii*, *Darlingt.*
 — *cuspidatum*, *Torr. & Gr.*
 — *viridiflorum*, *Beck.*
 — *marilandicum*, *Boott.*
 — *ciliare*, DC.
 — *rigidum*, DC.
 — *paniculatum*, DC.
 — *rotundifolium*, DC.
Lespedeza procumbens, *Michx.*
 — *repens*, *Torr. & Gr.*
 — *violacea*, *Pers.*
var. 1. divergens, *T. & Gr.*
var. 2. sessiliflora, *T. & Gr.*
var. 3. angustifolia, *T. & G.*
 — *hirta*, *Ell.*
 — *capitata*, *Michx.*
Genista tinctoria, *Linn.*
Crotalaria sagittalis, *Linn.*
Lupinus perennis, *Linn.*
Baptisia tinctoria, *R. Br.*
 — *australis*, *R. Br.*
Cercis canadensis, *Linn.*
Cassia marilandica, *Linn.*
 — *chamæcrista*, *Linn.*
 — *nictitans*, *Linn.*
Gymnocladus canadensis, *Lam.*
Gleditschia triacanthos, *Linn.*
- ROSACEÆ.
- Prunus americana*, *Marshall.*
 — *maritima*, *Wang.*
Cerasus pumila, *Michx.*
 — *virginiana*, DC.
 — *serotina*, DC.
Spiræa opulifolia, *Linn.*
 — *salicifolia*, *Linn.*
 — *tomentosa*, *Linn.*
- Spiræa aruncus*, *Linn.*
Gillenia trifoliata, *Mench.*
 — *stipulacea*, *Nutt.*
Geum virginianum, DC.
 — *strictum*, *Ait.*
 — *rivale*, *Linn.*
 — *triflorum*, *Pursh.*
Waldensteinia fragarioides, *Tratt.*
 (*Dalibarda fragarioides*, *Mx.*)
Sanguisorba canadensis, *Linn.*
Agrimonia eupatoria, *Linn.*
Potentilla norvegica, *Linn.*
 — *tridentata*, *Ait.*
 — *canadensis*, *Linn.*
 — *argentea*, *Linn.*
 — *arguta*, *Pursh.*
 — *fruticosa*, *Linn.*
 — *anserina*, *Linn.*
Comarum palustre, *Linn.*
Fragaria virginiana, *Ehrh.*
 — *vesca*, *Linn.*
Dalibarda repens, *Linn.*
Rubus odoratus, *Linn.*
 — *triflorus*, *Richards.*
 — *strigosus*, *Michx.*
 — *occidentalis*, *Linn.*
 — *villosus*, *Ait.*
 — *canadensis*, *Linn.*
 — *hispidus*, *Linn.*
 — *cuneifolius*, *Pursh.*
Rosa carolina, *Linn.*
 — *lucida*, *Ehrh.*
 — *blanda*, *Ait.*
 — *rubiginosa*, *Linn.*
Cratægus oxyacantha, *Linn.*
 — *crus-galli*, *Linn.*
 — *coccinea*, *Linn.*
 — *tomentosa*, *Linn.*
 — *punctata*, *Jacq.*
Pyrus coronaria, *Linn.*
 — *arbutifolia*, *Linn. f.*
var. 1. erythrocarpa, *Hook.*
var. 2. melanocarpa, *Hook.*
 — *americana*, DC.

- Amelanchier canadensis*, *T. & Gr.*
 var. 1. *botryapium*, *T. & G.*
 var. 2. *oblongifolia*, *T. & G.*
 var. 3. *rotundifolia*, *T. & G.*
 var. 4. *oligocarpa*, *T. & G.*

MELASTOMACEÆ.

- Rhexia virginica*, *Linn.*

LYTHRACEÆ.

- Lythrum hyssopifolia*, *Linn.*
 — *salicaria*, *Linn.*
Ammannia humilis, *Michx.*
Decodon verticillatum, *Ell.*
Cuphea viscosissima, *Jacq.*

ONAGRACEÆ.

- Epilobium angustifolium*, *Linn.*
 — *alpinum*, *Linn.*
 — *coloratum*, *Muhl.*
 — *molle*, *Torr.*
 — *palustre*, *Linn.*
Oenothera biennis, *Linn.*
 — *fruticosa*, *Linn.*
 — *linearis*, *Michx.*
 — *chrysantha*, *Michx.*
 — *pumila*, *Linn.*
Ludwigia alternifolia, *Linn.*
 — *sphærocarpa*, *Ell.*
 — *palustris*, *Ell.*
Circæa lutetiana, *Linn.*
 — *alpina*, *Linn.*
Proserpinaca palustris, *Ell.*
 — *pectinacea*, *Lam.*
Myriophyllum spicatum, *Linn.*
 — *verticillatum*, *Linn.*
 — *heterophyllum*, *Michx.*
 — *ambiguum*, *Nutt.*
 — *tenellum*, *Bigel.*
Hippuris vulgaris, *Linn.*

CACTACEÆ.

- Opuntia vulgaris*, *Mill.*

GROSSULACEÆ.

- Ribes cynosbati*, *Linn.*
 — *rotundifolium*, *Michx.*
 — *lacustre*, *Poir.*
 * — *hirtellum*, *Michx.*
 — *prostratum*, *l'Herit.*
 — *floridum*, *Linn.*

CUCURBITACEÆ.

- Sicyos angulatus*, *Linn.*
Echinocystis lobata, *T. & Gr.*

CRASSULACEÆ.

- Tillæa simplex*, *Nutt.*
 † *Sedum telephioides*, *Michx.*
 — *telephium*, *Linn.*
Penthorum sedoides, *Linn.*

SAXIFRAGACEÆ.

- Saxifraga aizoides*, *Linn.*
 — *virginiensis*, *Michx.*
 — *pennsylvanica*, *Linn.*
Heuchera americana, *Linn.*
Mitella diphylla, *Linn.*
 — *nuda*, *Linn.*
Tiarella cordifolia, *Linn.*
Chrysosplenium americana, *Schweiz.*

HAMAMELACEÆ.

- Hamamelis virginica*, *Linn.*

UMBELLIFERÆ.

- Hydrocotyle umbellata*, *Linn.*
Crantzia lineata, *Nutt.*
Sanicula marilandica, *Linn.*
 — *canadensis*, *Linn.*
Discopleura capillacea, *DC.*
Bupleurum rotundifolium, *Linn.*
Cicuta maculata, *Linn.*
 — *bulbifera*, *Linn.*
Sium latifolium, *Linn.*
 — *lineare*, *Michx.*
Cryptotæni canadensis, *DC.*
Zizia cordæ *Hoch.*

- Zizia aurea*, Koch.
 — *integerrima*, DC.
Thaspium atropurpureum, Nutt.
 — *aureum*, Nutt.
 — *barbinode*, Nutt.
Æthusa cynapium, Linn.
Conioselenium canadense, T. & Gr.
Archangelica atropurpurea, Hoff.
 — *hirsuta*, T. & Gr.
Archemora rigida, DC.
Pastinaca sativa, Linn.
Heracleum lanatum, Michx.
Daucus carota, Linn.
Osmorhiza longistylis, DC.
 — *brevistylis*, DC.
Conium maculatum, Linn.
Erigenia bulbosa, Nutt.

ARALIACEÆ.

- Aralia racemosa*, Linn.
 — *nudicaulis*, Linn.
 — *hispida*, Michx.
Panax quinquefolium, Linn.
 — *trifolium*, Linn.

CORNACEÆ.

- Cornus alternifolia*, Linn. f.
 — *circinata*, l'Herit.
 — *stolonifera*, Michx.
 — *paniculata*, l'Herit.
 — *sericea*, Linn.
 — *florida*, Linn.
 — *canadensis*, Linn.

CAPRIFOLIACEÆ.

- Linnæa borealis*, Gron.
Symphoricarpus racemosus, Mx.
 — *vulgaris*, Mx.
Lonicera sempervirens, Ait.
 † — *grata*, Ait.
 † — *flava*, Sims.
 — *hirsuta*, Eaton.
 — *parviflora*, Linn.
 — *ciliata*, M. & A.

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- Lonicera cærulea*, Linn.
 — *oblongifolia*, Hook.
Diervilla trifida, Mærch.
Triosteum perfoliatum, Linn.
Sambucus pubens, Michx.
 — *canadensis*, Linn.
Viburnum nudum, Linn.
 — *prunifolium*, Linn.
 — *lentago*, Linn.
 — *dentatum*, Linn.
 — *pubescens*, Pursh.
 — *acerifolium*, Linn.
 — *pauciflorum*, Pylaie.
 — *opulus*, Linn.
 — *lantanoides*, Michx.

RUBIACEÆ.

- Galium aparine*, Linn.
 — *trifidum*, Linn.
 — *asprellum*, Michx.
 — *triflorum*, Michx.
 — *pilosum*, Ait.
 — *circæzans*, Michx.
 — *boreale*, Linn.
Cephalanthus occidentalis, Linn.
Mitchella repens, Linn.
Hedyotis cærulea, Hook.
 — *ciliolata*, Torr.
 — *longifolia*, Hook.
 — *glomerata*, Ell.

VALERIANACEÆ.

- Valeriana sylvatica*, Richards.
Fedia fagopyrum, T. & Gr.

DIPSACEÆ.

- Dipsacus sylvestris*, Linn.

COMPOSITÆ.

- Vernonia noveboracensis*, Willd.
Liatris cylindrica, Michx.
 — *spicata*, Willd.
 — *scariosa*, Willd.
Eupatorium purpureum, Linn.

- Eupatorium* *hyssopifolium*, *Linn.*
 — *album*, *Linn.*
 — *leucolepis*, *T. & Gr.*
 — *resinosum*, *Torr.*
 — *teucrifolium*, *Willd.*
 — *rotundifolium*, *Linn.*
 — *sessilifolium*, *Linn.*
 — *perfoliatum*, *Linn.*
 — *ageratoides*, *Linn. f.*
 — *aromaticum*, *Linn.*
Mikania *scandens*, *Willd.*
Nardosmia *palmata*, *Hook.*
Tussilago *farfara*, *Linn.*
Sericocarpus *conyzoides*, *Nees.*
 — *solidagineus*, *Nees.*
Aster *corymbosus*, *Ait.*
 — *macrophyllus*, *Linn.*
 — *radula*, *Ait.*
 — *spectabilis*, *Ait.*
 — *patens*, *Ait.*
 — *lævis*, *Willd.*
 — *undulatus*, *Linn.*
 — *cordifolius*, *Linn.*
 — *sagittifolius*, *Willd.*
 — *ericoides*, *Linn.*
 — *multiflorus*, *Ait.*
 — *dumosus*, *Linn.*
 — *tradescenti*, *Linn.*
 — *miser*, *Linn.*
 — *simplex*, *Willd.*
 — *tenuifolius*, *Linn.*
 — *greenii*, *T. & Gr.*
 (a var. of *A. carneus*, *Nees*?)
 — *longifolius*, *Lam.*
 (*laxus*, *Willd.*; *elodes*, *T. & G.*)
 — *punicus*, *Linn.*
 — *preanthoides*, *Muhl.*
 — *novæ-angliæ*, *Linn.*
 — *concolor*, *Linn.*
 — *acuminatus*, *Michx.*
 — *ptarmicoides*, *T. & Gr.*
 — *flexuosus*, *Nutt.*
 — *linifolius*, *Linn.*
Diplopappus *linariifolius*, *Hook.*
- Diplopappus* *cornifolius*, *Darlingt.*
 — *umbellatus*, *T. & Gr.*
Erigeron *canadense*, *Linn.*
 — *bellidifolium*, *Muhl.*
 — *philadelphicum*, *Linn.*
 — *annuum*, *Pers.*
 — *strigosum*, *Muhl.*
Solidago *squarrosa*, *Muhl.*
 — *bicolor*, *Linn.*
 — *latifolia*, *Linn.*
 — *cæsia*, *Linn.*
 — *stricta*, *Ait.*
 — *virga-aurea*, *Linn.*
 * — *thyrsoidea*, *E. Meyer.*
 — *rigida*, *Linn.*
 — *ohioensis*, *Riddell.*
 — *sempervirens*, *Linn.*
 — *neglecta*, *T. & Gr.*
 — *patula*, *Muhl.*
 — *arguta*, *Ait.*
 — *muhlenbergii*, *T. & Gr.*
 — *ulmifolia*, *Muhl.*
 — *odora*, *Ait.*
 — *nemoralis*, *Ait.*
 — *canadensis*, *Linn.*
 — *serotina*, *Ait.*
 — *gigantea*, *Ait.*
 — *lanceolata*, *Linn.*
 — *tenuifolia*, *Pursh.*
Chrysopsis *falcata*, *Ell.*
 — *mariana*, *Nutt.*
Baccharis *halimifolia*, *Linn.*
Pluchea *camphorata*, *DC.*
Inula *helenium*, *Linn.*
Polymnia *canadensis*, *Linn.*
 — *hvedalia*, *Linn.*
Silphium *trifoliatum*, *Linn.*
Iva *frutescens*, *Linn.*
Ambrosia *trifida*, *Linn.*
 — *artemisiæfolia*, *Linn.*
Xanthium *strumarium*, *Linn.*
 — *echinatum*, *Murr.*
 — *spinosum*, *Linn.*
Heliopsis *lævis*, *Pers.*

- Rudbeckia hirta*, Linn.
 — *laciniata*, Linn.
Lepachys pinnata, T. & Gr.
Helianthos giganteus, Linn.
 — *strumosus*, Linn.
 — *decapetalus*, Linn.
 — *divaricatus*, Linn.
 — *tuberosus*, Linn.
Actinomeris squarrosa, Nutt.
Coreopsis trichosperma, Michx.
 — *rosea*, Nutt.
Bidens frondosa, Linn.
 — *connata*, Muhl.
 — *cernua*, Linn.
 — *chrysanthemoides*, Michx.
 — *béckii*, Torr.
 — *bipinnata*, Linn.
Helenium autumnale, Linn.
Maruta cotula, DC.
Anthemis arvensis, Linn.
Achillea millefolium, Linn.
Leucanthemum vulgare, Lam.
Tanacetum vulgare, Linn.
Artemisia canadensis, Michx.
 — *caudata*, Michx.
 — *vulgaris*, Linn.
Gnaphalium decurrens, Ives.
 — *polycepalum*, Michx.
 — *uliginosum*, Linn.
 — *purpureum*, Linn.
Antennaria margaritacea, R. Br.
 — *plantaginifolia*, R. Br.
Filago germanica, Linn.
Erechtites hieracifolia, Raf.
Cacalia suaveolens, Linn.
 — *atriplicifolia*, Linn.
Senecio vulgaris, Linn.
 — *aureus*, Linn.
Arnica mollis, Hook.
Centaurea cyanus, Linn.
Cnicus benedictus, Linn.
Cirsium lanceolatum, Scop.
 — *discolor*, Spreng.
 — *muticum*, Michx.
Cirsium pumilum, Spreng.
 — *horridulum*, Michx.
 — *arvense*, Scop.
Lappa major, Gært.
Krigia virginica, Willd.
Cynthia virginica, Don.
 (*Troximon virginicum*, Pers.)
Cichorium intybus, Linn.
Hieracium canadense, Michx.
 — *scabrum*, Michx.
 — *gronovii*, Linn.
 — *venosum*, Linn.
 — *paniculatum*, Linn.
Nabalus albus, Hook.
 — *altissimus*, Hook.
 — *fraseri*, DC.
 — *nanus*, DC.
 — *boottii*, DC.
Taraxacum dens-leonis, Desf.
Lactuca elongata, Muhl.
 var. 1. *longifolia*, T. & Gr.
 var. 2. *sanguinea*, T. & Gr.
Mulgedium acuminatum, DC.
 — *leucophæum*, DC.
Sonchus oleraceus, Linn.
 — *asper*, Vill.
 — *arvensis*, Linn.

LOBELIACEÆ.

- Lobelia kalmii*, Linn.
 — *nuttallii*, Ræm. & Schult.
 — *spicata*, Lam.
 — *dortmanna*, Linn.
 — *siphilitica*, Linn.
 — *cardinalis*, Linn.
 — *inflata*, Linn.

CAMPANULACEÆ.

- Campanula rotundifolia*, Linn.
 — *aparinoides*, Pursh.
 — *americana*, Linn.
Specularia perfoliata, A. DC.

ERICACEÆ.

I. ERICINEÆ.

- Arctostaphylos uva-ursi, *Spreng.*
 Clethra alnifolia, *Linn.*
 Epigæa repens, *Linn.*
 Gautiera procumbens, *Torr.*
 (*Gaultheria procumbens*, *Linn.*)
 Andromeda polifolia, *Linn.*
 — calyculata, *Linn.*
 — mariana, *Linn.*
 — racemosa, *Linn.*
 — ligustrina, *Muhl.*
 Rhododendron maximum, *Linn.*
 — lapponicum, *Wahl.*
 — nudiflorum, *Torr.*
 — viscosum, *Torr.*
 † — hispidum, *Torr.*
 Rhodora canadensis, *Linn.*
 (*Rhododendron rhodora*, *G. Don.*)

- Kalmia latifolia, *Linn.*
 — angustifolia, *Linn.*
 — glauca, *Ait.*
 Ledum palustre, *Linn.*
 var. latifolium, *Michx.*
 (*L. latifolium*, *Ait.*)

II. VACCINEÆ.

- Vaccinium uliginosum, *Linn.*
 — vacillans, *Kalm.*
 — pennsylvanicum, *Lam.*
 (*virgatum*, *Ait.*; *tenellum*, *Ph.*)
 — canadense, *Kalm.*
 — stamineum, *Linn.*
 — oxycoccus, *Linn.*
 — macrocarpon, *Ait.*
 Gaylussacia dumosa, *T. & Gr.*
 (*G. hirtella*, *Torr. Fl. N. Y.*)
 (*Vaccinium dumosum*, *Andr.*)
 — frondosa, *T. & Gr.*
 (*Vaccinium frondosum*, *Linn.*)
 — resinosa, *T. & Gr.*
 (*Vaccinium resinosum*, *Linn.*)
 Chiogenes hipsidula, *T. & Gr.*

- (*Vaccinium hispidulum*, *Linn.*;
Gaultheria hispidula, *Pursh.*)

III. PYROLEÆ.

- Pyrola rotundifolia, *Linn.*
 — asarifolia, *Michx.*
 var. uliginosa, *Gray.*
 (*P. uliginosa*, *Torr.*)
 — elliptica, *Nutt.*
 — chlorantha, *Swartz.*
 — secunda, *Linn.*
 — uniflora, *Linn.*
 Chimaphila umbellata, *Nutt.*
 — maculata, *Pursh.*

IV. MONOTROPEÆ.

- Monotropa uniflora, *Linn.*
 — lanuginosa, *Michx.*
 Pterospora andromedea, *Nutt.*

AQUIFOLIACEÆ.

- Ilex opaca, *Ait.*
 — montana, *T. & Gr.*
 (*I. ambigua*, *Torr. Fl. N. Y. 2.*
 p. 2.)
 Prinos verticillatus, *Linn.*
 — lævigatus, *Pursh.*
 — glaber, *Linn.*
 Nemopanthes canadensis, *DC.*

EBENACEÆ.

- Diospyros virginiana, *Linn.*

PLANTAGINACEÆ.

- Plantago major, *Linn.*
 — cordata, *Lam.*
 — lanceolata, *Linn.*
 — maritima, *Linn.*
 — pusilla, *Nutt.*
 — virginica, *Linn.*

PLUMBAGINACEÆ.

- Statice limonium, *Linn.*

PRIMULACEÆ.

- Primula mistassinica, *Michx.*
 Trientalis americana, *Pursh.*
 Lysimachia stricta, *Ait.*
 — quadrifolia, *Linn.*
 — ciliata, *Linn.*
 — lanceolata, *Walt.*
 var. hybrida.
 (*L. hybrida*, *Michx.*)
 — thyrsoflora, *Linn.*
 Anagallis arvensis, *Linn.*
 Samolus floribundus, *Kunth.*
 (*S. valerandi*, *Auct. Amer. non*
 Linn.)
 Hottonia inflata, *Ell.*

LENTIBULACEÆ.

- Utricularia inflata, *Walt.*
 — vulgaris, *Linn.*
 — minor, *Linn.*
 — cornuta, *Michx.*
 — striata, *Le Conte.*
 — intermedia, *Heyne.*
 — purpurea, *Walt.*
 — clandestina, *Nutt. mss.*
 Pinguicula vulgaris, *Linn.*

OROBANCHACEÆ.

- Epiphegus americana, *Nutt.*
 Orobanche americana, *Linn.*
 — uniflora, *Linn.*

BIGNONIACEÆ.

- Catalpa bignonioides, *Walt.*
 (*syringafolia*, *Sims.*)
 Martynia proboscidea, *Glov.*

ACANTHACEÆ.

- Dianthera americana, *Linn.*

SCROPHULARIACEÆ.

- Verbascum thapsus, *Linn.*
 — blattaria, *Linn.*
 — lychnitis, *Linn.*

- Scrophularia marilandica, *Linn.*
 Linaria elatine, *Desf.*
 — vulgaris, *Mench.*
 — canadensis, *Spreng.*
 Collinsia verna, *Nutt.*
 Chelone glabra, *Linn.*
 Pentstemon pubescens, *Willd.*
 Mimulus ringens, *Linn.*
 — alatus, *Ait.*
 Gratiola virginica, *Linn.*
 — aurea, *Muhl.*
 Ilysanthus gratioloides, *Benth.*
 (*Lindernia dilatata & attenuata.*
 Muhl.)
 Buchnera americana, *Linn.*
 Limosella aquatica, *Linn.*
 var. tenuifolia, Hoff.
 Veronica serpyllifolia, *Linn.*
 — officinalis, *Linn.*
 — beccabunga, *Linn.*
 var. americana, Torr.
 — anagallis, *Linn.*
 — scutellata, *Linn.*
 — peregrina, *Linn.*
 — arvensis, *Linn.*
 — agrestis, *Linn.*
 — hederæfolia, *Linn.*
 — virginica, *Linn.*
 (*Pæderota virginica*, *Torr. Fl.*
 N. York.)

- Gerardia tenuifolia, *Vahl.*
 — purpurea, *Linn.*
 — maritima, *Raf.*
 — pedicularia, *Linn.*
 — flava, *Pursh.*
 — quercifolia, *Pursh.*
 Castilleja coccinea, *Spreng.*
 Pedicularis canadensis, *Linn.*
 — lanceolata, *Michx.*
 Melampyrum americanum, *Michx.*

VERBENACEÆ.

- Verbena hastata, *Linn.*
 — urticifolia, *Linn.*

Verbena spuria, *Linn.*
 — angustifolia, *Linn.*
 Phryma leptostachya, *Linn.*

LABIATÆ.

Isanthus cæruleus, *Michx.*
 Mentha viridis, *Linn.*
 — piperita, *Linn.*
 — canadensis, *Linn.*
 Lycopus sinuatus, *Ell.*
 — virginicus, *Linn.*
 Monarda didyma, *Linn.*
 — fistulosa, *Linn.*
 — punctata, *Linn.*
 Blephilia hirsuta, *Benth.*
 Pycnanthemum incanum, *Michx.*
 — clinopodioides, *T. & Gr.*
 — torrei, *Benth.*
 — muticum, *Michx.*
 — lanceolatum, *Michx.*
 — linifolium, *Pursh.*
 Origanum vulgare, *Linn.*
 Collinsonia canadensis, *Linn.*
 Cunila mariana, *Linn.*
 Hedeoma pulegioides, *Pers.*
 Micromeria glabella, *Benth.*
 var. angustifolia, Torr.
 Melissa clinopodium, *Benth.*
 — officinalis, *Linn.*
 Prunella vulgaris, *Linn.*
 Scutellaria pilosa, *Michx.*
 — integrifolia, *Linn.*
 — parvula, *Michx.*
 — nervosa, *Pursh.*
 — galericulata, *Linn.*
 — lateriflora, *Linn.*
 Lophanthus nepetoides, *Benth.*
 — scrophulariæfolius, *Benth.*
 Nepeta cataria, *Linn.*
 — glechoma, *Benth.*
 Dracocephalum parviflorum, *Nutt.*
 Physostegia virginiana, *Benth.*
 Lamium amplexicaule, *Linn.*
 Leonurus cardiaca, *Linn.*

Marrubium vulgare, *Linn.*
 Galeopsis tetrahit, *Linn.*
 Stachys aspera, *Michx.*
 — palustris, *Linn.*
 — hyssopifolia, *Michx.*
 Trichostema dichotoma, *Linn.*
 Teucrium canadense, *Linn.*
 *Phlomis tuberosa, *Linn.*

BORAGINACEÆ.

Onosmodium virginianum, *DC.*
 (*hispidum, Michx.*)
 * — carolinianum, *DC.*
 Echium vulgare, *Linn.*
 Pulmonaria virginica, *Linn.*
 Lithospermum arvense, *Linn.*
 — officinale, *Linn.*
 * — latifolium, *Michx.*
 Batschia canescens, *Michx.*
 Lycopsis arvensis, *Linn.*
 Myosotis palustris, *Roth.*
 — arvensis, *Sibth.*
 Symphytum officinale, *Linn.*
 Cynoglossum officinale, *Linn.*
 — virginicum, *Linn.*
 — morisoni, *DC.*
 (*Myosotis virginiana, Linn.;*
 Echinospermum virginicum;
 Lehm.)
 Echinospermum lappula, *Lehm.*

HYDROPHYLLACEÆ.

Hydrophyllum virginicum, *Linn.*
 — canadense, *Linn.*
 — appendiculatum, *Michx.*

POLEMONIACEÆ.

Phlox divaricata, *Linn.*
 — subulata, *Linn.*
 Polemonium reptans, *Linn.*

DIAPENSIACEÆ.

Diapensia lapponica, *Linn.*

CONVOLVULACEÆ.

- Convolvulus arvensis*, Linn.
 — *panduratus*, Linn.
Calystegia sepium, R. Br.
 — *spithamæa*, Pursh.
Cuscuta epilinum, Weihe.
 — *gronovii*, Choisy.
 † — *umbrosa*, Beyrich.

SOLANACEÆ.

- Nicotiana rustica*, Linn.
Datura stramonium, Linn.
 var. *tatula*, Torr.
Hyoscyamus niger, Linn.
Nicandra physaloides, Gært.
Physalis viscosa, Linn.
Solanum dulcamara, Linn.
 — *nigrum*, Linn.
 — *carolinianum*, Linn.

GENTIANACEÆ.

- Gentiana saponaria*, Linn.
 (*linearis*, Fræl.; *puberula*, Mx.)
 — *andrewsii*, Griseb.
 † — *alba*, Muhl. cat.
 (*ochroleuca*, Fræl. in part, Tor.
 Fl. N. Y.; *flavida*, Gray.)
 — *pneumonanthe*, Linn.
 (*saponaria*, var. *linearis*, Fræl.,
 Torr.)
 — *quinqueflora*, Lam.
 — *crinita*, Fræl.
 — *detonsa*, Fries.

Frasera caroliniensis, Walt.

Halenia deflexa, Griseb.

Erythræa centaurium, Pers.

— *ramosissima*, Pers.

(*muhlenbergii*, Griseb.; *pulchella*, Darlingt.)

Bartonia tenella, Muhl.

Sabbatia stellaris, Pursh.

— *angularis*, Pursh.

— *chloroides*, Pursh.

Menyanthes trifoliata, Linn.

Limnanthemum lacunosum, Griseb

APOCYNACEÆ.

- Apocynum androsæmifolium*, Linn.
 — *cannabinum*, Linn.

ASCLEPIADACEÆ.

Asclepias cornuti, Decaisne.
 (*syriaca*, Linn.)

- *purpurascens*, Linn.
 — *phytolaccoides*, Pursh.
 — *obtusifolia*, Michx.
 — *variegata*, Linn.
 — *quadrifolia*, Jacq.
 — *incarnata*, Linn.
 — *tuberosa*, Linn.
 — *verticillata*, Linn.

Acerates viridiflora, Ell.

OLEACEÆ.

- Fraxinus americana*, Linn.
 — *sambucifolia*, Lam.
 — *pubescens*, Walt.
Ligustrum vulgare, Linn.

ARISTOLOCHIACEÆ.

- Aristolochia serpentaria*, Linn.
Asarum canadense, Linn.

CHENOPODIACEÆ.

- Chenopodium album*, Linn.
 — *hybridum*, Linn.
 * — *murale*, Linn.
 * *Roubieva multifida*, Moq.
 — *botrys*, J. Carey.
 (*Ambrina botrys*, Moq.)
 — *anthelmintica*.
 (*Ambrina anthelmintica*, Spach.)
 var. *ambrosioides*, Spach.
 (*Ambrina ambrosioides*, Spach.)
Blitum maritimum, Nutt.
 — *capitatum*, Linn.
 — *bonus-henricus*, C. A. Mey
Atriplex patula, Linn.

Obione arenaria, Moq.
Acnida cannabina, Linn.
 — *rusocarpa*, Michx.
Salicornia herbacea, Linn.
 — *mucronata*, Lag.
 — *ambigua*, Michx.
Sueda maritima, Moq.
Salsola kali, Linn.

AMARANTHACEÆ.

Amaranthus hybridus, Linn.
 — *græcizans*, Linn.
 — *pumilus*, Raf.
 — *deflexus*, Willd.?
 * — *tamariscinus*, Nutt.

POLYGONACEÆ.

Polygonum orientale, Linn.
 — *fagopyrum*, Linn.
 — *convolvulus*, Linn.
 — *cilinode*, Michx.
 — *dumetorum*, Linn.
 — *sagittatum*, Linn.
 — *arifolium*, Linn.
 — *amphibium*, Linn.
 var. 1. *aquaticum*, Linn.
 var. 2. *terrestre*, Torr.
 — *persicaria*, Linn.
 — *pennsylvanicum*, Linn.
 — *hydropiperoides*, Michx.
 (mite, Pers., not of Schrank.)
 — *hydropiper*, Linn.
 — *virginianum*, Linn.
 — *aviculare*, Linn.
 — *maritimum*, Linn.
 — *tenuë*, Michx.
 — *articulatum*, Linn.
Rumex crispus, Linn.
 — *obtusifolius*, Linn.
 — *verticillatus*, Linn.
 — *britannica*, Linn.
 — *acetosella*, Linn.

PHYTOLACCACEÆ.

Phytolacca decandra, Linn.

LAURACEÆ.

Sassafras officinale, Nees.
Benzoin odoriferum, Nees.

THYMELACEÆ.

Dirca palustris, Linn.

ELEAGNACEÆ.

Shepherdia canadensis, Nutt.

SANTALACEÆ.

Comandra umbellata, Nutt.
Nyssa multiflora, Wang.

ULMACEÆ.

Ulmus americana, Linn.
 — *fulva*, Michx.
 — *racemosa*, Thomas.
Celtis occidentalis, Linn.

SAURURACEÆ.

Saururus cernuus, Linn.

CERATOPHYLLACEÆ.

Ceratophyllum echinatum, A. Gray.

CALLITRICHACEÆ.

Callitriche verna, Linn.

PODOSTEMACEÆ.

Podostemum ceratophyllum, Michx.

EUPHORBIACEÆ.

Euphorbia helioscopia, Linn.
 — *platyphylla*, Linn.
 — *corollata*, Linn.
 — *hypericifolia*, Linn.
 — *maculata*, Linn.
 — *ipecacuanha*, Linn.
 — *polygonifolia*, Linn.
Acalypha virginica, Linn.
 * — *gracilens*, Gray.

EMPETRACEÆ.

- Empetrum nigrum*, Linn.
Corema conradi, Torr.

JUGLANDACEÆ.

- Juglans nigra*, Linn.
 — *cinerea*, Linn.
Carya alba, Nutt.
 — *tomentosa*, Nutt.
 — *glabra*, Torr.
 (*porcina*, Nutt.)
 — *amara*, Nutt.

CUPULIFERÆ.

- Ostrya virginica*, Willd.
Carpinus americana, Michx.
Corylus americana, Walt.
 — *rostrata*, Ait.
Quercus phellos, Linn.
 — *nigra*, Linn.
 — *tinctoria*, Bartr.
 — *coccinea*, Wang.
 — *rubra*, Linn.
 — *palustris*, Du Roi.
 — *ilicifolia*, Wang.
 — *macrocarpa*, Michx.
 † — *olivæformis*, Michx.
 — *alba*, Linn.
 — *bicolor*, Willd.
 — *montana*, Willd.
 — *castanea*, Willd.
 — *prinoides*, Willd.
Fagus ferruginea, Ait.
Castanea vesca, var. *americana*, Mx.
 — *pumila*, Michx.

MYRICACEÆ.

- Myrica gale*, Linn.
 — *cerifera*, Linn.
Comptonia asplenifolia, Ait.

BETULACEÆ.

- Betula populifolia*, Ait.
 — *lenta*, Linn.

Betula excelsa, Ait.

- *papyracea*, Ait.
 — *nigra*, Linn.
 — *nana*, Linn.
Alnus serrulata, Willd.
 — *incana*, Willd.
 — *viridis*, Michx.

SALICACEÆ.

- Salix candida*, Willd.
 — *tristis*, Ait.
 — *pumila*, Marshall.
 (*conifera*, Muhl.; *muhlenbergiana*, Barr.)
 — *discolor*, Muhl.
 — *viminalis*, Linn.
 — *cordata*, Muhl.
 var. 1. *rigida*, Carey.
 (S. *rigida*, Muhl.)
 var. 2. *myricoides*, Carey.
 — *angustata*, Pursh.
 — *rostrata*, Richards.
 — *vitellina*, Linn.
 — *nigra*, Marshall.
 — *longifolia*, Muhl.
 — *pedicellaris*, Pursh.
 — *uva-ursi*, Pursh.
 (*cutleri*, Tuckerm.)
Populus tremuloides, Michx.
 — *grandidentata*, Michx.
 — *heterophylla*, Linn.
 † — *nigra*, Linn.
 — *balsamifera*, Linn.
 † — *candicans*, Ait.

BALSAMIFLUÆ.

Liquidambar styraciflua, Linn.

PLATANACEÆ.

Platanus occidentalis, Linn.

URTICACEÆ.

- Morus alba*, Linn.
 — *rubra*, Linn.
Humulus lupulus, Linn.

- Cannabis sativa*, Linn.
Urtica dioica, Linn.
 — *urens*, Linn.
 — *canadensis*, Linn.
 * — *gracilis*, Ait.
 (*procera*, Willd.)
Adike pumila, Raf.
 (*Pilea pumila*, Gray.)
Bœhmeria cylindrica, Willd.
Parietaria pennsylvanica, Muhl.

CONIFERÆ.

- † *Pinus resinosa*, Soland.
 — *rigida*, Mill.
 — *strobus*, Linn.
 † — *mitis*, Michx.
 — *balsamea*, Linn.
 — *canadensis*, Linn.
 — *nigra*, Ait.
 — *pendula*, Ait.
Thuja occidentalis, Linn.
Cupressus thuyoides, Linn.
Juniperus communis, Linn.
 — *virginiana*, Linn.
Taxus canadensis, Willd.

ARACEÆ.

- Arisæma triphyllum*, Torr.
 (*Arum triphyllum*, Linn.)
 — *dracontium*, Schott.
Peltandra virginica, Raf.
Calla palustris, Linn.
Symplocarpus fœtidus, Salisb.
Orotium aquaticum, Linn.
Acarus calamus, Linn.

LEMNACEÆ.

- Lemna minor*, Linn.
 — *perpusilla*, Torr.
 — *trisulca*, Linn.
 — *gibba*, Linn.
 — *polyrhiza*, Linn.

TYPHACEÆ.

- Typha latifolia*, Linn.

- Typha angustifolia*, Linn.
Sparganium ramosum, Huds.
 — *simplex*, Huds.
 var. *angustifolium*, Torr.
 (*S. angustifolium*, Michx.)

NAIADACEÆ.

- Naias canadensis*, Michx.
Zostera marina, Linn.
Ruppia maritima, Linn.
Zannichellia palustris, Linn.
Potamogeton natans, Linn.
 var. *fluitans*, Torr.
 (*P. fluitans*, Smith?)
 — *heterophyllus*, Schreb.
 — *hybridus*, Michx.
 — *lucens*, Linn.
 — *perfoliatus*, Linn.
 — *compressus*, Linn.
 (*zosteræfolius*, Schum.)
 — *pusillus*, Linn.
 — *pauciflorus*, Pursh.
 — *pectinatus*, Linn.

ALISMACEÆ.

- Alisma plantago*, Linn.
Sagittaria sagittifolia, Linn.
 — *pusilla*, Nutt.
 (*Echinodorus subalatus*, Gray.)

JUNCAGINACEÆ.

- Triglochin palustre*, Linn.
 — *maritimum*, Linn.
 — *elatum*, Nutt.
Scheuchzeria palustris, Linn.

HYDROCHARIDACEÆ.

- Limnobium spongia*, Richard.
 (*Hydrocharis cordifolia*, Nutt.)
Udora canadensis, Nutt.
Vallisneria canadensis, Linn.

ORCHIDACEÆ.

- Microstylos monophyllos*, Lindl.
 — *ophioglossoides*, Nutt.

- Liparis liliifolia*, *Richard*.
 — *læselii*, *Richard*.
Corallorhiza innata, *R. Br.*
 — *odontorhiza*, *Nutt.*
 — *multiflora*, *Nutt.*
Aplectrum hyemale, *Nutt.*
Tipularia discolor, *Nutt.*
Calypso borealis, *Salisb.*
Orchis spectabilis, *Linn.*
Gymnadenia tridentata, *Lindl.*
Platanthera obtusata, *Lindl.*
 — *orbiculata*, *Lindl.*
 — *hookeri*, *Lindl.*
 — *bracteata*, *Torr.*
 — *flava*, *Gray.*
 — *hyperborea*, *Lindl.*
 — *dilatata*, *Lindl.*
 — *blephariglottis*, *Lindl.*
 — *ciliaris*, *Lindl.*
 — *psycodes*, *Gray.*
 — *lacera*, *Gray.*
 — *fimbriata*, *Lindl.*
Arethusa bulbosa, *Linn.*
Pogonia ophioglossoides, *Nutt.*
 — *pendula*, *Linn.*
 — *verticillata*, *Nutt.*
Calopogon pulchellus, *R. Br.*
Spiranthes gracilis, *Bigel.*
 — *cernua*, *L. C. Rich.*
 — *latifolia*, *Torr.*
Goodyera pubescens, *R. Br.*
 — *repens*, *R. Br.*
Listera cordata, *R. Br.*
Cypripedium parviflorum, *Salisb.*
 — *spectabile*, *Salisb.*
 — *acaule*, *Ait.*
 — *arietinum*, *R. Br.*

HYPOXIDACEÆ.

- Hypoxis erecta*, *Linn.*

IRIDACEÆ.

- Iris versicolor*, *Linn.*
 — *virginica*, *Linn.*

- Sisyrinchium bermudiana*.
 var. 1. *anceps*, *Gr.*
 var. 2. *mucronatum*, *Gr.*

DIOSCORACEÆ.

- Dioscorea villosa*, *Linn.*

SMILACEÆ.

- Smilax rotundifolia*, *Linn.*
 — *hispidula*, *Muhl.*
 — *spinulosa*, *Smith.*
 (*glauca*, *Walt.?*)
 — *herbacea*, *Linn.*
Trillium erythrocarpum, *Michx.*
 — *cernuum*, *Linn.*
 — *erectum*, *Linn.*
 — *grandiflorum*, *Salisb.*
Medeola virginica, *Linn.*

LILIACEÆ.

- Asparagus officinalis*, *Linn.*
Smilacina stellata, *Desf.*
 — *trifolia*, *Desf.*
 — *racemosa*, *Desf.*
 — *bifolia*, *Schult.*
Polygonatum multiflorum, *Ait.*
Clintonia borealis, *Raf.*
 — *umbellata*, *Torr.*
Ornithogalum umbellatum, *Linn.*
Allium canadense, *Kalm.*
 — *vineale*, *Linn.*
 — *cernuum*, *Roth.*
 — *triccoccum*, *Ait.*
Lilium philadelphicum, *Linn.*
 — *canadense*, *Linn.*
 — *superbum*, *Linn.*
Erythronium americanum, *Smith.*
 — *albidum*, *Nutt.*

MELANTHACEÆ.

- Zygademeus glaucus*, *Nutt.*
Melanthium virginicum, *Linn.*
 * — *hybridum*, *Walt.*
Veratrum viride, *Ait.*
Chamæirium luteum, *Gray.*

(*Helonias dioica*, Pursh.)

- Uvularia perfoliata*, Linn.
 — *grandiflora*, Smith.
 — *sessilifolia*, Linn.
Prosartes lanuginosa, Don.
Streptopus amplexifolius, DC.
 — *roseus*, Michx.

JUNCACEÆ.

- Luzula campestris*, DC.
 — *pilosa*, Willd.
 — *parviflora*, Desv.
Juncus effusus, Linn.
 — *filiformis*, Linn.
 — *balticus*, Willd.
 — *nodosus*, Linn.
 — *debilis*, Gray.
 (*nodosus*, var. *multiflorus*, Torr.)
 — *scirpoides*, Lam.
 (*polycephalus*, Michx., Torr. in part.)
 — *paradoxus*, E. Mey.
 (*polycephalus*, var. 2. Torr.)
 — *acuminatus*, Michx.
 — *pelocarpus*, E. Mey.
 — *conradi*, Tuckerm.
 — *bufonius*, Linn.
 — *stygius*, Linn.
 — *trifidus*, Linn.
 — *greenii*, Oakes & Tuckerm.
 — *gerardi*, Loisel.
 — *marginatus*, Rostk.
 — *tenuis*, Willd.

PONTEDERIACEÆ.

- Pontederia cordata*, Linn.
Heteranthera reniformis, Ruiz & Pav.
 — *graminea*, Vahl.

COMMELYNACEÆ.

- †*Commelina angustifolia*, Michx.
Tradescantia virginica, Linn.

XYRIDACEÆ.

- Xyris caroliniana*, Walt.

ERIOCAULONACEÆ.

- Eriocaulon septangulare*, With.

CYPERACEÆ.

- Cyperus flavescens*, Linn.
 — *diandrus*, Torr.
 — *nuttallii*, Torr.
 — *inflexus*, Muhl.
 — *michauxianus*, Schult.
 — *strigosus*, Linn.
 — *repens*, Ell.
 — *filiculmis*, Vahl.
 — *grayii*, Torr.
 — *dentatus*, Torr.
 — *schweinitzii*, Torr.
 — *ovularis*, Torr.
 — *retrofractus*, Torr.
Dulichium spathaceum, Pers.
Fuirena squarrosa, Michx.
 var. *pumila*, Torr.
Eleocharis palustris, R. Br.
 — *olivacea*, Torr.
 — *rostellata*, Torr.
 — *intermedia*, Schult.
 — *obtusa*, Schult.
 — *tuberculosa*, R. Br.
 — *acicularis*, R. Br.
 — *melanocarpa*, Torr.
 — *tenuis*, Schult.
 — *pygmæa*, Torr.
Hemicarpha subsquarrosa, Nees.
 (*Scirpus subsquarrosus*, Muhl.)
Scirpus planifolius, Muhl.
 — *subterminalis*, Torr.
 — *cæspitosus*, Linn.
 — *debilis*, Pursh.
 — *triqueter*, Linn.
 — *torreyi*, Olney.
 (*macronatus*, Torr., not of Linn.)
 — *lacustris*, Linn.
 — *maritimus*, Linn.

- Scirpus maritimus*, var. *fluviatilis*, Torr.
 — *atrovirens*, Muhl.
 — *brunneus*, Muhl.
 — *eriphorum*, Michx.
 — *lineatus*, Michx.
Eriophorum alpinum, Linn.
 — *vaginatatum*, Linn.
 — *polystachyon*, Linn.
 — *angustifolium*, Roth.
Fimbristylis spadicea, Vahl.
Isolepis capillaris, Ræm. & Schult.
Trichelostylis mucronulata, Torr.
Rhynchospora alba, Vahl.
 — *capillacea*, Torr.
 — *fusca*, Ræm. & Schult.
 — *gracilentata*, Gray.
 — *glomerata*, Vahl.
 — *cephalantha*, Gray.
Cladium mariscoides, Torr.
Scleria reticularis, Michx.
 — *laxa*, Torr.
 — *triglomerata*, Michx.
 — *pauciflora*, Muhl.
 — *verticillata*, Muhl.
Carex dioica, Linn.
 — *pauciflora*, Lightf.
 — *polytrichoides*, Muhl.
 — *willdenovii*, Schk.
 — *steudelii*, Kth.
 — *backii*, Boott.
 — *bromoides*, Schk.
 — *siccata*, Dew.
 — *sartwellii*, Dew.
 — *teretiuscula*, Good.
 * — *paniculata*, Linn.
 — *decomposita*, Muhl.
 — *vulpinoidea*, Michx.
 — *stipata*, Muhl.
 — *alopecoidea*, Tuckerm.
 — *sparganioides*, Muhl.
 — *cephalophora*, Muhl.
 — *muhlenbergii*, Schk.
- Carex rosea*, Schk.
 — *retroflexa*, Muhl.
 — *chordorhiza*, Ehrh.
 — *gracilis*, Ehrh.
 (*disperma*, Dew.)
 — *trisperma*, Dew.
 — *tenuiflora*, Wahl.
 — *canescens*, Linn.
 — *deweyana*, Schw.
 — *stellulata*, Good.
 * — *sychnocephala*, Carey.
 — *scoparia*, Schk.
 var. *lagopodioides*, Torr.
 — *festucacea*, Schk.
 — *straminea*, Schk.
 — *rigida*, Good.
 * — *torta*, Boott.
 — *vulgaris*, Fries.
 (*cæspitosa*, Good. & Amer. auth.
 not of Linn.)
 — *stricta*, Lam.
 (*angustata*, Boott.)
 — *aquatilis*, Wahl.
 — *crinita*, Lam.
 — *limosa*, Linn.
 — *buxbaumii*, Wahl.
 — *aurea*, Nutt.
 — *livida*, Willd.
 — *tetanica*, Schk.
 — *crawei*, Dew.
 — *granularis*, Muhl.
 — *pallescens*, Linn.
 — *conoidea*, Schk.
 — *grisea*, Wahl.
 (*laxiflora*, Schk., not of Lam.)
 — *davisii*, Torr. & Schw.
 — *formosa*, Dew.
 — *gracillima*, Schw.
 — *virescens*, Muhl.
 — *triceps*, Michx.
 — *plantaginea*, Lam.
 — *careyana*, Dew.
 * — *retrocurva*, Dew.
 — *digitalis*, Willd.

Carex anceps, Willd.

- oligocarpa, Schk.
- eburnea, Boott.
- pedunculata, Muhl.
- umbellata, Schk.
- novæ-angliæ, Schw.
- pennsylvanica, Lam.
- pubescens, Muhl.
- miliacea, Muhl.
- scabrata, Schw.
- arctata, Boott.
- debilis, Michx.
- flexilis, Rudge.
- flava, Linn.
- œderi, Ehrh.
- filiformis, Linn.
- lanuginosa, Michx.
- vestita, Willd.
- halseyana, Dew.
- (*striata*, Torr., not of Michx.)
- aristata, R. Br.
- striata, Michx.
- (*trichocarpa*, Muhl.)
- pseudo-cyperus, Linn.
- hystricina, Willd.
- tentaculata, Muhl.
- intumescens, Rudge.
- * — grayii, Carey.
- folliculata, Linn.
- subulata, Michx.
- lupulina, Muhl.
- squarrosa, Linn.
- retrorsa, Schw.
- schweinitzii, Dew.
- vesicaria, Linn.
- monila, Tuckerm.
- bullata, Schk.
- ampullacea, Good.
- var. utriculata*, Carey.
- cylindrica, Schw.
- oligosperma, Michx.
- longirostris, Torr.

GRAMINEÆ.

- Leersia oryzoides*, Swartz.
- *virginica*, Willd.
- Zizamia aquatica*, Linn.
- Alopecurus pratensis*, Linn.
- *geniculatus*, Linn.
- var. aristulatus*, Torr.
- Phleum pratense*, Linn.
- Phalaris arundinacea*, Linn.
- *canariensis*, Linn.
- Holcus lanatus*, Linn.
- Hierochloa borealis*, Ræm. & Schult.
- *alpina*, Ræm. & Schult.
- Anthoxanthum odoratum*, Linn.
- Paspalum læve*, Michx.
- *setaceum*, Michx.
- Milium effusum*, Linn.
- Panicum sanguinale*, Linn.
- *glabrum*, Gaud.
- *filiforme*, Linn.
- *crus-galli*, Linn.
- *virgatum*, Linn.
- *latifolium*, Linn.
- *clandestinum*, Linn.
- *xanthophysum*, Gray.
- *capillare*, Linn.
- *depauperatum*, Muhl.
- *dichotomum*, Linn.
- *verrucosum*, Muhl.
- *agrostoides*, Spreng.
- *prolificum*, Lam.
- Pennisetum glaucum*, R. Br.
- *viride*, R. Br.
- Cenchrus tribuloides*, Linn.
- Oryzopsis asperifolium*, Michx.
- *melanocarpa*, Muhl.
- *canadensis*, Torr.
- Stipa avenacea*, Linn.
- Aristida dichotoma*, Michx.
- *gracilis*, Ell.
- Muhlenbergia diffusa*, Schreb.
- *willdenovii*, Trin.
- *sylvatica*, Torr. & Gr.
- *sobolifera*, Trin.

- Muhlenbergia glomerata*, Trin.
 — *mexicana*, Trin.
Cinna arundinacea, Linn.
Vilfa aspera, Beauv.
 — *vaginæflora*, Torr.
 — *serotina*, Torr.
 — *heterolepis*, Gray.
 — *cryptandra*, Gray.
Agrostis vulgaris, With.
 — *alba*, Linn.
 — *scabra*, Willd.
 (*Trichodium laxiflorum*, Michx.)
 — *stricta*, Willd.
 — *canina*, Linn.
Brachyelytrum aristatum, Beauv.
Calamagrostis canadensis, Beauv.
 — *confinus*, Willd.
 (*inexpansa*, Gray.)
 — *coarctata*, Torr.
Ammophila arundinacea, Host.
Phragmites communis, Trin.
Eleusine indica, Gært.
Spartina cynosuroides, Willd.
 — *junceæ*, Willd.
 — *alterniflora*, Lois.
Bouteloua racemosa, Lag.
Aira flexuosa, Linn.
 — *atropurpurea*, Wahl.
 — *cæspitosa*, Linn.
Trisetum molle, Kth.
Avena pennsylvanica, Linn.
 — *striata*, Michx.
Arrhenatherum avenaceum, Beauv.
Danthonia spicata, Beauv.
Tricuspis seslerioides, Torr.
Uralepis purpurea, Nutt.
var. aristulata.
 (*U. aristulata*, Nutt.)
Poa annua, Linn.
 — *laxa*, Hænke.
 — *trivialis*, Linn.
 — *pratensis*, Linn.
 — *compressa*, Linn.
 — *pungens*, Nutt.
- Poa nemoralis*, Linn.
 — *serotina*, Ehrh.
 — *debilis*, Torr.
 — *eragrostis*, Linn.
 — *pilosa*, Linn.
 — *reptans*, Michx.
 — *hirsuta*, Michx.
 — *capillaris*, Linn.
 — *michauxii*, Kth.
Glyceria fluitans, R. Br.
 — *acutiflora*, Torr.
 — *aquatica*, Smith.
 — *nervata*, Trin.
 — *elongata*, Trin.
 — *canadensis*, Trin.
 — *pallida*, Trin.
 (*Poa dentata*, Torr.)
Dactylis glomerata, Linn.
Bromus secalinus, Linn.
 — *ciliatus*, Linn.
 — *kalmii*, Gray.
 (*purgans*, Torr., not of Linn.)
 — *sterilis*, Linn.
Kæleria pennsylvanica, DC.
 — *truncata*, Torr.
Festuca duriuscula, Linn.
 — *tenella*, Willd.
 — *nutans*, Willd.
 — *elatior*, Linn.
 — *pratensis*, Huds.
Diplachne fascicularis, Beauv.
Uniola gracilis, Michx.
Lolium perenne, Linn.
Triticum repens, Linn.
 — *caninum*, Linn.
Elymus virginicus, Linn.
 — *canadensis*, Linn.
 — *villosus*, Muhl.
 — *hystrix*, Linn.
Andropogon nutans, Linn.
 — *scoparius*, Muhl.
 — *furcatus*, Muhl.
 — *virginicus*, Linn.
 — *macrourus*, Michx.

EQUISETACEÆ.

- Equisetum arvense*, *Linn.*
 — *sylvaticum*, *Linn.*
 — *limosum*, *Linn.*
 — *hyemale*, *Linn.*
 — *variegatum*, *Sleich.*
 — *scirpoides*, *Michx.*

FILICES.

- Polypodium vulgare*, *Linn.*
 — *hexagonopterum*, *Michx.*
 — *pheopteris*, *Linn.*
 — *dryopteris*, *Linn.*
Struthiopteris germanica, *Willd.*
Allosorus gracilis, *Presl.*
Pteris aquilina, *Linn.*
Platyloma atropurpurea, *I. Sm.*
Adiantum pedatum, *Linn.*
Doodia virginica, *Presl.*
Woodwardia angustifolia, *Smith.*
Scolopendrium officinarum, *Smith.*
Asplenium trichomanes, *Linn.*
 — *ebeneum*, *Ait.*
 — *angustifolium*, *Michx.*
 — *ruta-muraria*, *Linn.*
 — *thelypteroides*, *Michx.*
 — *filix-fœmina*, *R. Br.*
Antigramma rhizophylla, *I. Sm.*
Aspidium marginale, *Swartz.*
 — *goldianum*, *Hook.*
 — *cristatum*, *Swartz.*
 — *dilatatum*, *Swartz.*
 — *thelypteris*, *Swartz.*
 — *noveboracense*, *Willd.*
 — *acrostichoides*, *Swartz.*

- Onoclea sensibilis*, *Linn.*
Woodsia ilvensis, *R. Br.*
 — *obtusa*, *Torr.*
 * — *glabella*, *R. Br.*
Cystopteris bulbifera, *Bernh.*
 — *fragilis*, *Bernh.*
Dicksonia pilosiuscula, *Willd.*
Osmunda claytoniana, *Linn.*
 — *cinnamomea*, *Linn.*
 — *spectabilis*, *Willd.*
Lygodium palmatum, *Sw.*
Ophioglossum vulgatum, *Linn.*
Botrychium virginicum, *Swartz.*
 — *lunarioides*, *Swartz.*
 — *simplex*, *Hitchcock.*

LYCOPODIACEÆ.

- Lycopodium selago*.
 — *lucidulum*, *Michx.*
 — *inundatum*, *Linn.*
var. alopecuroides, *Tuckerm.*
 — *annotinum*, *Linn.*
 — *obscurum*, *Linn.*
 — *clavatum*, *Linn.*
 — *complanatum*, *Linn.*
Selaginella rupestris, *Spring.*
 — *apus*, *Spring.*

SALVINACEÆ.

- †*Salvinia natans*, *Willd.*
Azolla caroliniana, *Willd.*

ISOETACEÆ.

- Isoetes lacustris*, *Linn.*



CATALOGUE

OF THE

CABINET OF NATURAL HISTORY

OF THE STATE OF NEW-YORK,

AND OF THE

Historical and Antiquarian Collection

ANNEXED THERETO.

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1853.

BOTANY OF NEW-YORK,

OR THE

New-York Flora.

BY JOHN TORREY.

DIVISION I. PHÆNOGAMOUS PLANTS.

BOTANY.

DIVISION I. PHÆNOGAMOUS PLANTS.

CLASS I. EXOGENOUS PLANTS.

Vol. 1.]	ORDER I. RANUNCULACEÆ.	
	Latin Name.	English Name. In the
1	CLEMATIS OCHROLEUCA,	<i>Silky Virgin's-bower</i> (3 specimens). Cabinet.
2	CLEMATIS VIRGINIANA,	<i>Virginian Virgin's-bower</i> (3). Cabinet.
3	CLEMATIS VERTICILLARIS,	<i>Whorl-leaved Virgin's-bower</i> (3). Cabinet.
4	ANEMONE NEMOROSA,	<i>Wood Anemone</i> (6). - - - Cabinet.
5	ANEMONE CYLINDRICA,	<i>Cylindrical-headed Windflower</i> (4). Cabinet.
6	ANEMONE VIRGINIANA,	<i>Thimbleweed</i> (3). - - - Cabinet.
7	ANEMONE MULTIFIDA,	<i>Cut-leaved Windflower.</i>
8	ANEMONE PENNSYLVANICA,	<i>Pennsylvanian Windflower</i> (2). Cabinet.
9	HEPATIC A TRILOBA,	<i>Common Liverleaf</i> (6). - - Cabinet.
10	RANUNCULUS AQUATILIS,	<i>Water Crowfoot</i> (3). - - Cabinet.
11	RANUNCULUS FLAMMULA,	<i>Spearwort</i> (2). - - - Cabinet.
12	RANUNCULUS REPTANS,	<i>Least Spearwort</i> (7). - - Cabinet.
13	RANUNCULUS PUSILLUS,	<i>Small-flowered Crowfoot</i> (3). Cabinet.
14	RANUNCULUS CYMBALARIA,	<i>Sea Crowfoot</i> (5). - - - Cabinet.
15	RANUNCULUS ABORTIVUS,	<i>Kidney-leaved Crowfoot</i> (2). Cabinet.
16	RANUNCULUS SCELERATUS,	<i>Celery-leaved Crowfoot</i> (2). Cabinet.
17	RANUNCULUS PURSHII,	<i>Pursh's Crowfoot</i> (2). - - Cabinet.
18	RANUNCULUS ACRIS,	<i>Tall Crowfoot</i> (2). - - - Cabinet.

Latin Names.	English Names.	
19 RANUNCULUS REPENS,	<i>Creeping Crowfoot</i> (5).	- Cabinet.
20 RANUNCULUS FASCICULARIS,	<i>Bunch-rooted Crowfoot</i> (3).	Cabinet.
21 RANUNCULUS PENNSYLVANICUS,	<i>Pennsylvanian Crowfoot</i> (2).	Cabinet.
22 RANUNCULUS RECURVATUS,	<i>Sanicle-leaved Crowfoot</i> (2).	Cabinet.
23 RANUNCULUS BULBOSUS,	<i>Buttercups</i> (1).	- - - - Cabinet.
24 CALTHA PALUSTRIS,	<i>Common Marsh-marigold</i> (3).	Cabinet.
25 TROLLIUS LAXUS,	<i>American Globeflower</i> (3).	- Cabinet.
26 COPTIS TRIFOLIA,	<i>Common Goldthread</i> (4).	- Cabinet.
27 HELLEBORUS VIRIDIS,	<i>Green Hellebore</i> (2).	- - Cabinet.
28 AQUILEGIA CANADENSIS,	<i>Canadian Columbine</i> (2).	- Cabinet.
29 DELPHINIUM CONSOLIDA,	<i>Common Larkspur</i> (1).	- - Cabinet.
30 ACONITUM UNCINATUM,	<i>American Monkshood</i> (1).	- Cabinet.
31 ACTÆA RUBRA,	<i>Red Cohosh</i> (4).	- - - - Cabinet.
32 ACTÆA ALBA,	<i>White Cohosh</i> (3).	- - - Cabinet.
33 CIMICIFUGA RACEMOSA,	<i>Blacksnakeroot, or Rattleweed</i> (4).	Cabinet.
34 THALICTRUM DIOICUM,	<i>Early Meadowrue</i> (3).	- - Cabinet.
35 THALICTRUM CORNUTI,	<i>Common Meadowrue</i> (5).	- Cabinet.
36 THALICTRUM ANEMONOIDES,	<i>Rue Anemone</i> (8).	- - - Cabinet.
37 ZANTHORRHIZA APIFOLIA,	<i>Pearly-leaved Yellowroot</i> (1).	Cabinet.
38 HYDRASTIS CANADENSIS,	<i>Canadian Yellowroot</i> (3).	- Cabinet.

Vol. 2.] ORDER II. MAGNOLIACEÆ.

39 MAGNOLIA GLAUCA,	<i>Common Magnolia, or Sweet Bay</i> (3).	Cabinet.
40 MAGNOLIA ACUMINATA,	<i>Cucumber-tree</i> (2).	- - - Cabinet.
41 LIRIODENDRON TULIPIFERA,	<i>Tulip Poplar</i> (2).	- - - Cabinet.

ORDER III. ANONACEÆ.

42 UVARIA TRILOBA,	<i>Papaw</i> (2).	- - - - - Cabinet.
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ORDER IV. MENISPERMACEÆ.

43 MENISPERMUM CANADENSE,	<i>Canadian Moonseed</i> (3).	- Cabinet.
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ORDER V. BERBERIDACEÆ.

44 BERBERIS VULGARIS,	<i>Barberry</i> (3).	- - - - - Cabinet.
45 LEONTICE THALICTROIDES,	<i>Blue Cohosh, or Pappoose-root</i> (4).	Cabinet.

Latin Names.	English Names.	
46 JEFFERSONIA DIPHYLLO,	<i>Rheumatism-root</i> (3).	- - Cabinet.
47 PODOPHYLLUM PELTATUM,	<i>Mayapple, or Mandrake</i> (1).	- Cabinet.

ORDER VI. CABOMBACEÆ.

48 BRASENIA PELTATA,	<i>Watershield</i> (2).	- - - - Cabinet.
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ORDER VII. NELUMBIACEÆ.

49 NELUMBIUM LUTEUM,	<i>Great Yellow Waterlily.</i>	
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ORDER VIII. NYMPHÆACEÆ.

50 NYMPHÆA ODORATA,	<i>Great White Waterlily</i> (3).	- Cabinet.
51 NUPHAR LUTEA,	<i>Small-flowered Yellow Pondlily</i> (4).	Cabinet.
52 NUPHAR ADVENA,	<i>Common Yellow Pondlily</i> (3).	Cabinet.

ORDER IX. SARRACENIACEÆ.

53 SARRACENIA PURPUREA,	<i>Common Sidesaddleflower</i> (3).	Cabinet.
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ORDER X. PAPAVERACEÆ.

54 SANGUINARIA CANADENSIS,	<i>Bloodroot</i> (5).	- - - - Cabinet.
55 CHELIDONIUM MAJUS,	<i>Common Celandine</i> (2).	- - Cabinet.

ORDER XI. FUMARIACEÆ.

56 DICENTRA CUCULLARIA,	<i>Dutchman's-breeches</i> (2).	- - Cabinet.
57 DICENTRA CANADENSIS,	<i>Squirrel-corn</i> (4).	- - - - Cabinet.
58 DICENTRA EXIMIA,	<i>Choice Dicentra</i> (2).	- - - Cabinet.
59 ADLUMIA CIRRHOSA,	<i>Climbing Fumitory</i> (1).	- - Cabinet.
60 CORYDALIS AUREA,	<i>Golden Corydalis</i> (3).	- - - Cabinet.
61 CORYDALIS GLAUCA,	<i>Glaucous Corydalis</i> (3).	- - Cabinet.
62 FUMARIA OFFICINALIS,	<i>Common Fumitory</i> (2).	- - Cabinet.

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ORDER XII. CRUCIFERÆ.

63 NASTURTIUM PALUSTRE,	<i>Marsh Cress</i> (4).	- - - - Cabinet.
64 NASTURTIUM HISPIDUM,	<i>Hispid Cress</i> (3).	- - - - Cabinet.
65 NASTURTIUM NATANS,	<i>Floating Cress</i> (2).	- - - Cabinet.
66 BARBAREA VULGARIS,	<i>Scurvygrass</i> (3).	- - - - Cabinet.
67 TURRITIS STRICTA,	<i>Straight Tower-mustard.</i>	
68 ARABIS HIRSUTA,	<i>Hairy Wallcress.</i>	
69 ARABIS DENTATA,	<i>Toothed Wallcress</i> (1).	- - Cabinet.

Latin Names.	English Names.	
70 ARABIS LYRATA,	<i>Lyre-leaved Wallcress</i> (2).	- Cabinet.
71 ARABIS LÆVIGATA,	<i>Smooth Wallcress</i> (2).	- - - Cabinet.
72 ARABIS CANADENSIS,	<i>Sicklepod</i> (5).	- - - - - Cabinet.
73 CARDAMINE RHOMBOIDEA,	<i>Spring Cress</i> (8).	- - - - - Cabinet.
74 CARDAMINE PRATENSIS,	<i>Bittercress, or Cuckooflower</i> (3).	Cabinet.
75 CARDAMINE HIRSUTA,	<i>Watercress</i> (6).	- - - - - Cabinet.
76 DENTARIA LACINIATA,	<i>Common Toothwort</i> (4).	- - Cabinet.
77 DENTARIA DIPHYLLA,	<i>Pepper-root</i> (4).	- - - - - Cabinet.
78 DENTARIA MAXIMA,	<i>Large Toothwort.</i>	
79 SISYMBRIUM OFFICINALE,	<i>Common Hedge-mustard</i> (2).	- Cabinet.
80 SISYMBRIUM THALIANUM,	<i>Mouseear Cress</i> (3).	- - - - - Cabinet.
81 ERYSIMUM CHEIRANTHOIDES,	<i>Treacle Mustard</i> (3).	- - - Cabinet.
82 SINAPIS NIGRA,	<i>Black Mustard.</i>	
83 SINAPIS ARVENSIS,	<i>Wild Mustard, or Charlock</i> (2).	Cabinet.
84 DRABA ARABISANS,	<i>Arabis-like Whitlowgrass</i> (5).	Cabinet.
85 DRABA CAROLINIANA,	<i>Carolina Whitlowgrass</i> (2).	- Cabinet.
86 DRABA VERNA,	<i>Common Whitlowgrass</i> (3).	- Cabinet.
87 CAMELINA SATIVA,	<i>Common Gold-of-pleasure.</i>	
88 THLASPI ARVENSE,	<i>Mithridate Mustard.</i>	
89 LEPIDIUM CAMPESTRE,	<i>Mithridate Pepperwort</i> (3).	- Cabinet.
90 LEPIDIUM VIRGINICUM,	<i>Wild Peppergrass</i> (3).	- - Cabinet.
91 CAPSELLA BURSA-PASTORIS,	<i>Common Shepherdspurse</i> (1).	- Cabinet.
92 CAKILE MARITIMA,	<i>Sea Rocket</i> (2).	- - - - - Cabinet.
93 RAPHANUS RAPHANISTRUM,	<i>Wild Radish</i> (2).	- - - - - Cabinet.

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ORDER XIII. CAPPARIDACEÆ.

94 POLANISIA GRAVEOLENS,	<i>Heavy-scented Polanisia</i> (2).	- Cabinet.
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ORDER XIV. VIOLACEÆ.

95 VIOLA PEDATA,	<i>Pedate Violet</i> (4).	- - - - - Cabinet.
96 VIOLA PALMATA,	<i>Palmate Violet</i> (3).	- - - Cabinet.
97 VIOLA CUCULLATA,	<i>Hood-leaved Violet</i> (2).	- - Cabinet.
98 VIOLA SELKIRKII,	<i>Selkirk's Violet.</i>	
99 VIOLA SAGITTATA,	<i>Arrow-leaved Violet</i> (7).	- - Cabinet.

Latin Names.	English Names.
100 VIOLA ROTUNDIFOLIA,	<i>Round-leaved Violet</i> (5). - - Cabinet.
101 VIOLA BLANDA,	<i>Sweetscented White Violet</i> (5). Cabinet.
102 VIOLA PRIMULÆFOLIA,	<i>Primrose-leaved Violet</i> .
103 VIOLA LANCEOLATA,	<i>Lance-leaved Violet</i> (6). - - Cabinet.
104 VIOLA STRIATA,	<i>Striated Violet</i> (1). - - - - Cabinet.
105 VIOLA MUHLENBERGII,	<i>Muhlenberg's Violet</i> (6). - - Cabinet.
106 VIOLA ROSTRATA,	<i>Long-spurred Violet</i> (4). - - Cabinet.
107 VIOLA PUBESCENS,	<i>Yellow Violet</i> (3). - - - - Cabinet.
108 VIOLA CANADENSIS,	<i>Canadian Violet</i> (2). - - - Cabinet.
109 VIOLA TRICOLOR,	<i>Pansy, or Heartsease</i> (3). - Cabinet.
110 SOLEA CONCOLOR,	<i>Green-flowered Solea</i> (1). - - Cabinet.

ORDER XV. CISTACEÆ.

111 HELIANTHEMUM CANADENSE,	<i>Frostweed</i> (9). - - - - - Cabinet.
112 LECHEA MAJOR,	<i>Larger Lechea</i> (4). - - - - Cabinet.
113 LECHEA THYMIFOLIA,	<i>Thyme-leaved Lechea</i> (2). - - Cabinet.
114 LECHEA MINOR,	<i>Pinweed</i> (7). - - - - - Cabinet.
115 HUDSONIA ERICOIDES,	<i>Heath-like Hudsonia</i> (1). - - Cabinet.
116 HUDSONIA TOMENTOSA,	<i>Woolly Hudsonia</i> (4). - - - Cabinet.

ORDER XVI. DROSERACEÆ.

117 DROSERA ROTUNDIFOLIA,	<i>Round-leaved Sundew</i> (4). - Cabinet.
118 DROSERA LONGIFOLIA,	<i>Long-leaved Sundew</i> (4). - - Cabinet.
119 DROSERA FILIFORMIS,	<i>Thread-leaved Sundew</i> (3). - Cabinet.
120 PARNASSIA CAROLINIANA,	<i>Carolina Grass-of-Parnassus</i> (3). Cabinet.

ORDER XVII. HYPERICACEÆ.

121 ASCYRUM STANS,	<i>Upright St. Peter's-wort</i> (1). Cabinet.
122 HYPERICUM PYRAMIDICUM,	<i>Giant St. John's-wort</i>
123 HYPERICUM KALMIANUM,	<i>Kalm's St. John's-wort</i> (2). - Cabinet.
124 HYPERICUM PERFORATUM,	<i>Common St. John's-wort</i> (2). - Cabinet.
125 HYPERICUM CORYMBOSUM,	<i>Corymbed St. John's-wort</i> (3). Cabinet.
126 HYPERICUM ELLIPTICUM,	<i>Elliptical-leaved St. John's-wort</i> (4). Cab.
127 HYPERICUM MUTILUM,	<i>Small-flowered St. John's-wort</i> (2). Cabinet.

Latin Names.	English Names.	
128 HYPERICUM CANADENSE,	<i>Canadian St. John's-wort</i> (4).	Cabinet.
129 HYPERICUM SAROTHTA,	<i>Groundpine, or Nitweed</i> (5).	- Cabinet.
130 ELODEA VIRGINICA,	<i>Virginian Elodea</i> (3).	- - - Cabinet.

ORDER XVIII. ELATINACEÆ.

131 ELATINE AMERICANA,	<i>American Waterwort</i> (4).	- - Cabinet.
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Vol. 5.] ORDER XIX. CARYOPHYLLACEÆ.

132 HONCKENYA PELOIDES,	<i>Common Sea Chickweed</i> (3).	- Cabinet.
133 SAGINA PROCUMBENS,	<i>Procumbent Pearlwort</i> (7).	- Cabinet.
134 SAGINA APETALA,	<i>Apetalous Pearlwort</i> (10).	- Cabinet.
135 ARENARIA SERPYLLIFOLIA,	<i>Thyme-leaved Sandwort</i> (5).	- Cabinet.
136 ARENARIA SQUARROSA,	<i>Squarrose Sandwort</i> (5).	- - Cabinet.
137 ARENARIA STRICTA,	<i>Upright Sandwort</i> (5).	- - Cabinet.
138 ARENARIA GREENLANDICA,	<i>Greenland Sandwort</i> (3).	- - Cabinet.
139 MœHRINGIA LATERIFLORA,	<i>Lateral-flowered Mœhringia</i> (5).	Cabinet.
140 STELLARIA MEDIA,	<i>Common Chickweed</i> (2).	- - Cabinet.
141 STELLARIA LONGIFOLIA,	<i>Long-leaved Stitchwort</i> (2).	- Cabinet.
142 STELLARIA BOREALIS,	<i>Northern Stitchwort</i> (5).	- - Cabinet.
143 CERASTIUM VULGATUM,	<i>Common Mouseear Chickweed</i> (1).	Cabinet.
144 CERASTIUM VISCOSUM,	<i>Viscous Mouseear Chickweed</i> (3).	Cabinet.
145 CERASTIUM ARVENSE,	<i>Field Chickweed</i> (3).	- - - Cabinet.
146 CERASTIUM OBLONGIFOLIUM,	<i>Oblong-leaved Chickweed.</i>	
147 CERASTIUM NUTANS,	<i>Nodding Chickweed</i> (3).	- - - Cabinet.
148 SILENE STELLATA,	<i>Four-leaved Campion</i> (4).	- - - Cabinet.
149 SILENE ANTIRRHINA,	<i>Snapdragon Catchfly</i> (2).	- - - Cabinet.
150 SILENE NOCTIFLORA,	<i>Night-flowering Catchfly</i> (1).	Cabinet.
151 SILENE PENNSYLVANICA,	<i>Wild Pink</i> (3).	- - - - - Cabinet.
✓ 152 SILENE VIRGINICA,	<i>Virginian Catchfly</i> (1).	- - - Cabinet.
153 LYCHNIS GITHAGO,	<i>Rose Campion, or Corncockle</i> (2).	Cabinet.
154 SAPONARIA OFFICINALIS,	<i>Common Soapwort, or Bouncing-Bet</i> (2).	Cab.
155 SAPONARIA VACCARIA,	<i>Perfoliate Soapwort.</i>	
156 MOLLUGO VERTICILLATA,	<i>Carpetweed</i> (3).	- - - - - Cabinet.

ORDER XX. ILLECEBRACEÆ.

Latin Names.	English Names.
157 ANYCHIA DICHOTOMA,	<i>Common Forked Chickweed</i> (4). Cabinet.
158 SPERGULA ARVENSIS,	<i>Corn Spurry, or Tare</i> (3). - Cabinet.
159 SPERGULA RUBRA,	<i>Red-flowered Spurry</i> (6). - - Cabinet.
160 SCLERANTHUS ANNUUS,	<i>Common Knawel</i> (2). - - - Cabinet.

Vol. 6.] ORDER XXI. PORTULACACEÆ.

161 PORTULACA OLERACEA,	<i>Common Purselane</i> (1). - - Cabinet.
162 CLAYTONIA VIRGINICA,	<i>Narrow-leaved Spring-beauty</i> (6). Cab.
163 CLAYTONIA CAROLINIANA,	<i>Broad-leaved Spring-beauty</i> (6). Cabinet.

ORDER XXII. MALVACEÆ.

164 MALVA ROTUNDIFOLIA,	<i>Dwarf or Running Mallow</i> (1). Cabinet.
165 MALVA SYLVESTRIS,	<i>High Mallow.</i>
166 ALTHÆA OFFICINALIS,	<i>Common Marshmallow.</i>
167 ABUTILON AVICENNÆ,	<i>Velvetleaf</i> (1). - - - - - Cabinet.
168 SIDA SPINOSA,	<i>Prickly Sida</i> (1). - - - - - Cabinet.
✓ 169 HIBISCUS VIRGINICUS,	<i>Sweating-weed</i> (1). - - - - - Cabinet.
170 HIBISCUS MOSCHEUTOS,	<i>Mallowrose</i> (1). - - - - - Cabinet.
171 HIBISCUS TRIONUM,	<i>Venetian Mallow</i> (1). - - - Cabinet.

ORDER XXIII. TILIACEÆ.

172 TILIA AMERICANA,	<i>Basswood</i> (2). - - - - - Cabinet.
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ORDER XXIV. LINACEÆ.

173 LINUM VIRGINIANUM,	<i>Wild Flax</i> (5). - - - - - Cabinet.
174 LINUM USITATISSIMUM,	<i>Common Flax.</i>

ORDER XXV. GERANIACEÆ.

175 GERANIUM MACULATUM,	<i>Spotted Cranesbill</i> (2). - - Cabinet.
176 GERANIUM CAROLINIANUM,	<i>Carolinian Cranesbill</i> (4). - - Cabinet.
177 GERANIUM PUSILLUM,	<i>Small-flowered Cranesbill</i> (5). Cabinet.
178 GERANIUM ROBERTIANUM,	<i>Herb-robert</i> (1). - - - - - Cabinet.
179 ERODIUM CICUTARIUM,	<i>Hemlock Heronsbill</i> (2). - - Cabinet.

ORDER XXVI. OXALIDACEÆ.

Latin Names.	English Names.	
180 OXALIS ACETOSELLA,	<i>Common Woodsorrel</i> (5).	- - Cabinet.
181 OXALIS VIOLACEA,	<i>Violet Woodsorrel</i> (6).	- - - Cabinet.
182 OXALIS STRICTA,	<i>Yellow Woodsorrel</i> (4).	- - Cabinet.

ORDER XXVII. BALSAMINACEÆ.

183 IMPATIENS PALLIDA,	<i>Touch-me-not, or Snapweed</i> (1).	Cabinet.
184 IMPATIENS FULVA,	<i>Balsam-weed, or Jewel-weed</i> (2).	Cabinet.

ORDER XXVIII. LIMNANTHACEÆ.

185 FLGERKEA PROSERPINACOIDES,	<i>False Mermaid</i> (3).	- - - Cabinet.
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ORDER XXIX. ANACARDIACEÆ.

186 RHUS TYPHINA,	<i>Staghorn Sumach</i> (2).	- - Cabinet.
187 RHUS GLABRA,	<i>Smooth Sumach</i> (1).	- - - Cabinet.
188 RHUS COPALLINA,	<i>Mountain Sumach</i> (4).	- - - Cabinet.
189 RHUS VENENATA,	<i>Poison Sumach</i> (3).	- - - - Cabinet.
190 RHUS TOXICODENDRON,	<i>Poisonvine, or Mercury</i> (4).	- Cabinet.
✓ 191 RHUS AROMATICA,	<i>Sweet-scented Sumach</i> (2).	- Cabinet.

ORDER XXX. XANTHOXYLACEÆ.

192 ZANTHOXYLUM AMERICANUM,	<i>Common Prickly-ash</i> (4).	- Cabinet.
193 PTELEA TRIFOLIATA,	<i>Swamp Dogwood</i> (2).	- - - Cabinet.

Vol. 7.] ORDER XXXI. ACERACEÆ.

194 ACER PENNSYLVANICUM,	<i>Striped Maple</i> (6).	- - - - Cabinet.
195 ACER SPICATUM,	<i>Mountain Maple</i> (1).	- - - Cabinet.
196 ACER SACCHARINUM,	<i>Sugar Maple</i> (3).	- - - - Cabinet.
197 ACER DASYCARPUM,	<i>White Maple</i> (2).	- - - - Cabinet.
198 ACER RUBRUM,	<i>Red Maple</i> (9).	- - - - - Cabinet.

ORDER XXXII. HIPPOCASTANACEÆ.

199 ÆSCULUS HIPPOCASTANUM,	<i>Common Horse-chesnut</i> (1).	- Cabinet.
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ORDER XXXIII. CELASTRACEÆ.

200 STAPHYLEA TRIFOLIA,	<i>American Bladdernut</i> (4).	- Cabinet.
201 CELASTRUS SCANDENS,	<i>Bittersweet</i> (3).	- - - - - Cabinet.
202 EUONYMUS ATROPURPUREUS,	<i>Burning-bush</i> (2).	- - - - - Cabinet.
203 EUONYMUS AMERICANUS,	<i>Strawberry-tree</i> (2).	- - - Cabinet.

ORDER XXXIV. RHAMNACEÆ.

Latin Names.	English Names.
204 RHAMNUS CATHARTICUS,	<i>Common Buckthorn.</i>
205 RHAMNUS ALNIFOLIUS,	<i>Alder-leaved Buckthorn</i> (3). - Cabinet.
206 CEANOTHUS AMERICANUS,	<i>New-Jersey Tea, or Redroot</i> (3). Cabinet.
207 CEANOTHUS OVALIS,	<i>Narrow-leaved Ceanothus.</i>

ORDER XXXV. VITACEÆ.

208 VITIS LABRUSCA,	<i>Fox Grape</i> (4). - - - - Cabinet.
209 VITIS ÆSTIVALIS,	<i>Summer Grape</i> (1). - - - Cabinet.
210 VITIS CORDIFOLIA,	<i>Frost Grape</i> (3). - - - - Cabinet.
211 VITIS RIPARIA,	<i>Winter Grape</i> (1). - - - - Cabinet.
212 AMPELOPSIS QUINQUEFOLIA,	<i>Virginian Creeper</i> (3). - - Cabinet.

ORDER XXXVI. POLYGALACEÆ.

213 POLYGALA SANGUINEA,	<i>Purple Milkwort</i> (3). - - - Cabinet.
214 POLYGALA CRUCIATA,	<i>Cross-leaved Milkwort</i> (3). - Cabinet.
215 POLYGALA VERTICILLATA,	<i>Whorl-leaved Milkwort</i> (3). - Cabinet.
216 POLYGALA AMBIGUA,	<i>Ambiguous Milkwort</i> (4). - - Cabinet.
217 POLYGALA SENEGA,	<i>Seneca Snakeroot</i> (1). - - - Cabinet.
218 POLYGALA POLYGAMA,	<i>Polygamous Milkwort</i> (3). Cabinet.
219 POLYGALA PAUCIFOLIA,	<i>Fringed Milkwort</i> (3). - - Cabinet.

Vol. 8.] ORDER XXXVII. LEGUMINOSÆ.

220 VICIA AMERICANA,	<i>American Vetch</i> (1). - - - Cabinet.
221 VICIA CRACCA,	<i>Tufted Vetch</i> (1). - - - Cabinet.
222 VICIA TETRASPERMA,	<i>Slender Vetch</i> (2). - - - - Cabinet.
223 VICIA SATIVA,	<i>Common Vetch</i> (3). - - - - Cabinet.
224 ERVUM HIRSUTUM,	<i>Hairy Tare</i> (2). - - - - Cabinet.
225 LATHYRUS MARITIMUS,	<i>Seaside Vetchling</i> (3). - - - Cabinet.
226 LATHYRUS OCHROLEUCUS,	<i>Cream-colored Vetchling</i> (1). - Cabinet.
227 LATHYRUS MYRTIFOLIUS,	<i>Myrtle-leaved Vetchling</i> (3). - Cabinet.
228 LATHYRUS PALUSTRIS,	<i>Marsh Vetchling</i> (2). - - - Cabinet.
229 PHASEOLUS PERENNIS,	<i>Perennial Kidneybean</i> (2). - Cabinet.
230 PHASEOLUS DIVERSIFOLIUS,	<i>Various-leaved Kidneybean</i> (2). Cabinet.

Latin Names.	English Names.	
231 PHASEOLUS HELVOLUS,	<i>Long-stalked Kidneybean</i> (2).	Cabinet.
232 APIOS TUBEROSA,	<i>Groundnut</i> (5). - - - -	Cabinet.
233 GALACTIA GLABELLA,	<i>Smooth Milkvine.</i>	
234 CLITORIA MARIANA,	<i>Maryland Clitoria</i> (3). - -	Cabinet.
235 AMPHICARPÆA MONOICA,	<i>Common Hognut</i> (4). - - -	Cabinet.
236 ROBINIA PSEUDACACIA,	<i>Common Locust-tree</i> (1). - -	Cabinet.
237 TEPHROSIA VIRGINIANA,	<i>Goat's-rue, or Catgut</i> (2). - -	Cabinet.
238 TRIFOLIUM ARVENSE,	<i>Stone Clover</i> (6). - - - -	Cabinet.
239 TRIFOLIUM PRATENSE,	<i>Red Clover</i> (3). - - - -	Cabinet.
240 TRIFOLIUM REFLEXUM,	<i>Buffalo Clover</i> (1). - - - -	Cabinet.
241 TRIFOLIUM REPENS,	<i>White Clover</i> (2). - - - -	Cabinet.
242 TRIFOLIUM AGRARIUM,	<i>Yellow Clover</i> (1). - - - -	Cabinet.
243 MELILOTUS OFFICINALIS,	<i>Yellow Melilot</i> (1). - - - -	Cabinet.
244 MELILOTUS LEUCANTHA,	<i>White Melilot</i> (3). - - - -	Cabinet.
245 MEDICAGO SATIVA,	<i>Spanish Trefoil, or Lucern.</i>	
246 MEDICAGO LUPULINA,	<i>Black Medick, or Nonesuch</i> (3).	Cabinet.
247 ASTRAGALUS CANADENSIS,	<i>Canadian Milkvetch</i> (3). - -	Cabinet.
248 PHACA NEGLECTA,	<i>Bastard Vetch</i> (3). - - - -	Cabinet.
249 STYLOSANTHES ELATIOR,	<i>Pencilflower</i> (4). - - - -	Cabinet.
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250 DESMODIUM NUDIFLORUM,	<i>Naked-flowered Desmodium</i> (3).	Cabinet.
251 DESMODIUM ACUMINATUM,	<i>Pointed-leaved Desmodium</i> (2).	Cabinet.
252 DESMODIUM CANADENSE,	<i>Canadian Desmodium</i> (4). -	Cabinet.
253 DESMODIUM CANESCENS,	<i>Hoary Desmodium</i> (2). - -	Cabinet.
254 DESMODIUM DILLENII,	<i>Dillenius's Desmodium</i> (3). -	Cabinet.
255 DESMODIUM CUSPIDATUM,	<i>Large-bracted Desmodium</i> (3).	Cabinet.
256 DESMODIUM VIRIDIFLORUM,	<i>Velvet-leaved Desmodium</i> (3).	Cabinet.
257 DESMODIUM MARILANDICUM,	<i>Smooth Small-leaved Desm.</i> (2).	Cabinet.
258 DESMODIUM CILIARE,	<i>Hairy Small-leaved Desm.</i> (1).	Cabinet.
259 DESMODIUM RIGIDUM,	<i>Rigid Desmodium</i> (1). - - -	Cabinet.
260 DESMODIUM PANICULATUM,	<i>Panicled Desmodium</i> (2). - -	Cabinet.
261 DESMODIUM ROTUNDIFOLIUM,	<i>Round-leaved Desmodium</i> (1).	Cabinet.

Latin Names.	English Names.		
262 LESPEDEZA PROCUMBENS,	<i>Trailing Lespedeza</i> (2).	- -	Cabinet.
263 LESPEDEZA REPENS,	<i>Slender Lespedeza</i> (2).	* - -	Cabinet.
264 LESPEDEZA VIOLACEA,	<i>Bush Clover</i> (7).	- - - -	Cabinet.
265 LESPEDEZA HIRTA,	<i>Hairy Lespedeza</i> (3).	- - -	Cabinet.
266 LESPEDEZA CAPITATA,	<i>Round-headed Lespedeza</i> (5).	-	Cabinet.
267 GENISTA TINCTORIA,	<i>Dyer's Greenweed.</i>		
268 CROTALARIA SAGITTALIS,	<i>Small Annual Rattlebox</i> (4).	-	Cabinet.
269 LUPINUS PERENNIS,	<i>Common Wild Lupine</i> (1).	-	Cabinet.
270 BAPTISIA TINCTORIA,	<i>Common Wild Indigo</i> (3).	-	Cabinet.
271 BAPTISIA AUSTRALIS,	<i>Blue-flowered False Indigo,</i>		
272 CERCIS CANADENSIS,	<i>American Judas-tree</i> (1).	- -	Cabinet.
273 CASSIA MARILANDICA,	<i>American Senna</i> (2).	- - -	Cabinet.
274 CASSIA CHAMÆCRISTA,	<i>Sensitive Pea</i> (1).	- - - -	Cabinet.
275 CASSIA NICTITANS,	<i>Sensitive-plant</i> (2).	- - - -	Cabinet.
276 GYMNOCLADUS CANADENSIS,	<i>Coffee-tree</i> (1).	- - - - -	Cabinet.
277 GLEDITSCHIA TRIACANTHOS,	<i>Honey Locust</i> (4).	- - - - -	Cabinet.

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ORDER XXXVIII. ROSACEÆ.

278 PRUNUS AMERICANA,	<i>Red or Yellow Plum</i> (2).	- -	Cabinet.
279 PRUNUS MARITIMA,	<i>Beach or Sand Plum</i> (6).	- -	Cabinet.
280 CERASUS PUMILA,	<i>Sand Cherry</i> (2).	- - * -	Cabinet.
281 CERASUS PENNSYLVANICA,	<i>Bird Cherry</i> (2).	- - - -	Cabinet.
282 CERASUS VIRGINIANA,	<i>Chokecherry</i> (3).	- - - -	Cabinet.
283 CERASUS SEROTINA,	<i>Wild Cherry</i> (2)-	- - - - -	Cabinet.
284 SPIRÆA OPULIFOLIA,	<i>Ninebark</i> (2).	- - - - -	Cabinet.
285 SPIRÆA SALICIFOLIA,	<i>Queen-of-the-meadow</i> (2).	- -	Cabinet.
286 SPIRÆA TONENTOSA,	<i>Hardhack, or Steeplebush</i> (2).		Cabinet.
287 SPIRÆA ARUNCUS,	<i>Goatsbeard.</i>		
288 GILLENIA TRIFOLIATA,	<i>Indian-physic, or Bowman's-root</i> (2).		Cabinet.
289 GILLENIA STIPULACEA,	<i>American Ipecacuanha</i> (1).	-	Cabinet.
290 GEUM VIRGINIANUM,	<i>Virginian Avens</i> (2).	- - -	Cabinet.
291 GEUM STRICTUM,	<i>Small-flowered Yellow Avens</i> (1).		Cabinet.
292 GEUM RIVALE,	<i>Water Avens</i> (2).	- - - - -	Cabinet.

Latin Names.	English Names.
293 GEUM TRIFLORUM,	<i>Three-flowered Purple Avens</i> (2). Cabinet.
294 WALDSTEINIA FRAGARIOIDES,	<i>Strawberry-like Waldsteinia</i> (2). Cab.
295 SANGUISORBA CANADENSIS,	<i>American Great Burnet</i> (3). - Cabinet.
296 AGRIMONIA EUPATORIA,	<i>Common Agrimony</i> (2). - - Cabinet.
297 POTENTILLA NORVEGICA,	<i>Norwegian Cinquefoil</i> (2). - Cabinet.
298 POTENTILLA TRIDENTATA,	<i>Three-toothed Cinquefoil</i> (4). - Cabinet.
299 POTENTILLA CANADENSIS,	<i>Common Cinquefoil, or Fivefinger</i> (2). Cab.
300 POTENTILLA ARGENTEA,	<i>Silver-leaved Cinquefoil</i> (1). - Cabinet.
301 POTENTILLA ARGUTA,	<i>Close-flowered Cinquefoil</i> (1). - Cabinet.
302 POTENTILLA FRUTICOSA,	<i>Shrubby Cinquefoil</i> (3). - - Cabinet.
303 POTENTILLA ANSERINA,	<i>Wild Tansey, or Silverweed</i> (5). Cabinet.
304 COMARUM PALUSTRE,	<i>Common or Marsh Cinquefoil</i> (1). Cabinet.
305 FRAGARIA VIRGINIANA,	<i>Wild Strawberry</i> (1). - - - Cabinet.
306 FRAGARIA VESCA,	<i>Wild Strawberry</i> (3). - - - Cabinet.
307 DALIBARDA REPENS,	<i>Creeping Dalibarda</i> (4). - - Cabinet.
308 RUBUS ODORATUS,	<i>Flowering Raspberry</i> (1). - - Cabinet.
309 RUBUS TRIFLORUS,	<i>Dwarf Raspberry</i> (4). - - - Cabinet.
310 RUBUS STRIGOSUS,	<i>Red Wild Raspberry</i> (2). - - Cabinet.
311 RUBUS OCCIDENTALIS,	<i>Black Raspberry, or Thimbleberry</i> (3). Cabinet.
312 RUBUS VILLOSUS,	<i>Common Blackberry</i> (4). - - Cabinet.
313 RUBUS CANADENSIS,	<i>Low Blackberry, or Dewberry</i> (1). Cabinet.
314 RUBUS HISPIDUS,	<i>Running Swamp Blackberry</i> (7). Cabinet.
315 RUBUS CUNEIFOLIUS,	<i>Sand Blackberry</i> (3). - - - Cabinet.
316 ROSA CAROLINA,	<i>Swamp Rose</i> (1). - - - - Cabinet.
317 ROSA LUCIDA,	<i>Dwarf Wild Rose</i> (6). - - - Cabinet.
318 ROSA BLANDA,	<i>Early Wild Rose</i> (2). - - - Cabinet.
319 ROSA RUBIGINOSA,	<i>Sweetbriar, or Eglantine</i> (2). Cabinet.
320 CRATÆGUS OXYCANTHA,	<i>Hawthorn, or English Thorn</i> (4). Cabinet.
321 CRATÆGUS CRUS-GALLI,	<i>Cockspur Thorn</i> (3). - - - Cabinet.
322 CRATÆGUS COCCINEA,	<i>White Thorn</i> (4). - - - - Cabinet.
323 CRATÆGUS TOMENTOSA,	<i>Black Thorn</i> (2). - - - - Cabinet.
324 CRATÆGUS PUNCTATA,	<i>Common Thorn</i> (2). - - - Cabinet.

Latin Names.	English Names.
325 PYRUS CORONARIA,	<i>Crabapple</i> (3). - - - - Cabinet.
326 PYRUS ARBUTIFOLIA,	<i>Chokeberry</i> (6). - - - - Cabinet.
327 PYRUS AMERICANA,	<i>Mountain Ash</i> (1). - - - - Cabinet.
328 AMELANCHIER CANADENSIS,	<i>Common Juneberry</i> (6). - - Cabinet.

Vol. 11.] ORDER XXXIX. MELASTOMACEÆ.

329 RHEXIA VIRGINICA,	<i>Meadow-beauty, or Deergrass</i> (3). Cabinet.
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ORDER XL. LYTHRACEÆ.

330 AMMANNIA HUMILIS,	<i>Dwarf Ammannia.</i>
331 LYTHRUM HYSSOPIFOLIA,	<i>Common Purple Loosestrife.</i>
332 DECODON VERTICILLATUM,	<i>Swamp Willowherb</i> (2). - - Cabinet.
333 CUPHEA VISCOSISSIMA,	<i>Viscid Cuphea.</i>

ORDER XLI. ONAGRACEÆ.

334 EPILOBIUM ANGUSTIFOLIUM,	<i>Rosebay Willowherb</i> (2). - - Cabinet.
335 EPILOBIUM ALPINUM,	<i>Alpine Willowherb</i> (2). - - Cabinet.
336 EPILOBIUM COLORATUM,	<i>Purple-leaved Willowherb</i> (2). Cabinet.
337 EPILOBIUM MOLLE,	<i>Soft Willowherb.</i>
338 EPILOBIUM PALUSTRE,	<i>Narrow-leaved Willowherb</i> (2). Cabinet.
339 ŒNOTHERA BIENNIS,	<i>Common Evening Primrose</i> (2). Cabinet.
340 ŒNOTHERA FRUTICOSA,	<i>Sundrops</i> (2). - - - - Cabinet.
341 ŒNOTHERA LINEARIS,	<i>Narrow-leaved Evening Primrose.</i>
342 ŒNOTHERA CHRYSANTHA,	<i>Golden-flowered Evening Primrose.</i>
343 ŒNOTHERA PUMILA,	<i>Dwarf Evening Primrose</i> (1). Cabinet.
344 GAURA BIENNIS,	<i>Biennial Gaura</i> (3). - - - Cabinet.
345 LUDWIGIA ALTERNIFOLIA,	<i>Seedbox</i> (3). - - - - Cabinet.
346 LUDWIGIA SPHÆROCARPA,	<i>Round-fruited Ludwigia</i> (1). Cabinet.
347 LUDWIGIA PALUSTRIS,	<i>Water Purselane</i> (2). - - - Cabinet.
348 CIRCÆA LUTETIANA,	<i>Common Enchanter's Nightshade</i> (2). Cabinet.
349 CIRCÆA ALPINA,	<i>Alpine Enchanter's Nightshade.</i>
350 PROSERPINACA PALUSTRIS,	<i>Marsh Mermaid-weed</i> (4). - Cabinet.
351 PROSERPINACA PECTINACEA,	<i>Cut-leaved Mermaid-weed</i> (3). Cabinet.
352 MYRIOPHYLLUM SPICATUM,	<i>Spiked Water-milfoil.</i>

Latin Names.	English Names.
353 MYRIOPHYLLUM VERTICILLATUM,	<i>Whorled Water-milfoil</i> (1). Cabinet.
354 MYRIOPHYLLUM HETEROPHYLLUM,	<i>Various-leaved Water-milf.</i> (2).Cab.
355 MYRIOPHYLLUM AMBIGUUM,	<i>Polymorphous Water-milfoil</i> (1). Cabinet.
356 MYRIOPHYLLUM TENELLUM,	<i>Leafless Water-milfoil</i> (5). - Cabinet.
357 HIPPURIS VULGARIS,	<i>Common Marestail</i> (2). - - Cabinet.

ORDER XLII. CACTACEÆ.

358 OPUNTIA VULGARIS,	<i>Common Indian-fig, or Prickly-pear</i> (7). Cabinet.
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ORDER XLIII. GROSSULACEÆ.

359 RIBES CYNOSBATI,	<i>Prickly Gooseberry</i> (6). - - Cabinet.
360 RIBES ROTUNDIFOLIUM,	<i>Round-leaved Gooseberry</i> (2). Cabinet.
361 RIBES LACUSTRE,	<i>Swamp Gooseberry</i> (2). - - Cabinet.
362 RIBES FLORIDUM,	<i>Wild Black Currant</i> (2). - - Cabinet.
363 RIBES PROSTRATUM,	<i>Fetid Currant</i> (2). - - - - Cabinet.

ORDER XLIV. CUCURBITACEÆ.

364 SICYOS ANGULATUS,	<i>Common Single-seeded Cucumber</i> (1). Cabinet.
365 ECHINOCYSTIS LOBATA,	<i>Wild Balsamapple</i> (2). - - Cabinet.

ORDER XLV. CRASSULACEÆ.

366 TILLÆA SIMPLEX,	<i>Pigmyweed.</i>
367 SEDUM TELEPHIOIDES,	<i>American Orpine.</i>
368 SEDUM TELEPHIUM,	<i>Liveforever</i> (2). - - - - Cabinet.
369 PENTHORUM SEDOIDES,	<i>Virginian Stonecrop</i> (1). - - Cabinet.

ORDER XLVI. SAXIFRAGACEÆ.

370 SAXIFRAGA VIRGINIENSIS,	<i>Virginian Saxifrage</i> (1). - - Cabinet.
371 SAXIFRAGA PENNSYLVANICA,	<i>Pennsylvanian Saxifrage</i> (4). Cabinet.
372 HEUCHERA AMERICANA,	<i>Common Alumroot.</i>
373 MITELLA DIPHYLLA,	<i>Common Bishopscap</i> (3). - - Cabinet.
374 MITELLA NUDA,	<i>Stoloniferous Bishopscap</i> (4). Cabinet.
375 TIARELLA CORDIFOLIA,	<i>Heart-leaved Mitrewort</i> (1). - Cabinet.
376 CHRYSOSPLENIUM AMERICANUM,	<i>Golden Saxifrage</i> (8). - - Cabinet.

ORDER XLVII. HAMAMELACEÆ.

377 HAMAMELIS VIRGINICA,	<i>Witch Hazel</i> (2). - - - - Cabinet.
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Latin Names.	English Names.
378 HYDROCOTYLE AMERICANA,	<i>American Marsh-pennywort</i> (4). Cabinet.
379 HYDROCOTYLE UMBELLATA,	<i>Many-flowered Marsh-pennywort</i> (4).Cab.
380 CRANTZIA LINEATA,	<i>Narrow-leaved Crantzia.</i>
381 SANICULA MARILANDICA,	<i>Long-styled Sanicle</i> (4). - - Cabinet.
382 SANICULA CANADENSIS,	<i>Canadian Sanicle</i> (3). - - - Cabinet.
383 DISCOPLEURA CAPILLACEA,	<i>Few-rayed Discopleura</i> (2). - Cabinet.
384 BUPLEURUM ROTUNDIFOLIUM,	<i>Thoroughwax, or Modesty</i> (1). Cabinet.
385 CICUTA MACULATA,	<i>Water-hemlock, or Spotted Cowbane</i> (3). Cabinet.
386 CICUTA BULBIFERA,	<i>Bulbiferous Water-hemlock</i> (4). Cabinet.
387 SIUM LATIFOLIUM,	<i>Broad-leaved Water-parsnep</i> (4).Cabinet.
388 SIUM LINEARE,	<i>Narrow-leaved Water-parsnep</i> (4).Cabinet.
389 CRYPTOTÆNIA CANADENSIS,	<i>Common Honewort</i> (2). - - Cabinet.
390 ZIZIA CORDATA,	<i>Heart-leaved Alexanders</i> (4). - Cabinet.
391 ZIZIA AUREA,	<i>Golden Meadow-parsnep</i> (1). - Cabinet.
392 ZIZIA INTEGERRIMA,	<i>Entire-leaved Zizia</i> (2). - - Cabinet.
393 THASPIUM ATROPURPUREUM,	<i>Purple Alexanders</i> (1). - - Cabinet.
394 THASPIUM AUREUM,	<i>Golden Thaspium</i> (3). - - - Cabinet.
395 THASPIUM BARBINODE,	<i>Hairy-jointed Thaspium</i> (3). - Cabinet.
396 ÆTHUSA CYNAPIUM,	<i>Common Fool's Parsley</i> (2). - Cabinet.
397 CONIOSELINUM CANADENSE,	<i>Canadian Conioselinum</i> (4). - Cabinet.
398 ARCHANGELICA ATROPURPUREA,	<i>Common Angelica</i> (7). - Cabinet.
399 ARCHANGELICA HIRSUTA,	<i>Downy Angelica</i> (3). - - - Cabinet.
400 ARCHEMORA RIGIDA,	<i>Rigid-leaved Archemora</i> (5). - Cabinet.
401 PASTINACA SATIVA,	<i>Common or Wild Parsnep</i> (3). Cabinet.
402 HERACLEUM LANATUM,	<i>American Cow Parsnep</i> (5). - Cabinet.
403 DAUCUS CAROTA,	<i>Common or Wild Carrot</i> (2). Cabinet.
404 OSMORHIZA LONGISTYLIS,	<i>True Sweet Cicely</i> (2). - - - Cabinet.
405 OSMORHIZA BREVISTYLIS,	<i>Spurious Sweet Cicely</i> (4). - Cabinet.
406 CONIUM MACULATUM,	<i>Common Poison Hemlock</i> (4). Cabinet.
407 ERIGENIA BULBOSA,	<i>Bulbous-rooted, Erigenia</i> (4). - Cabinet.

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ORDER XLIX. ARALIACEÆ.

Latin Names.	English Names.
408 ARALIA RACEMOSA,	<i>Spikenard</i> (1). - - - - Cabinet.
409 ARALIA NUDICAULIS,	<i>Wild Sarsaparilla</i> (1). - - Cabinet.
410 ARALIA HISPIDA,	<i>Wild Elder</i> (1). - - - - Cabinet.
411 PANAX QUINQUEFOLIUM,	<i>Common Ginseng</i> (4). - - - Cabinet.
412 PANAX TRIFOLIUM,	<i>Dwarf Ginseng</i> (4). - - - Cabinet.

ORDER L. CORNACEÆ.

413 CORNUS ALTERNIFOLIA,	<i>Alternate-leaved Dogwood</i> (2). Cabinet.
414 CORNUS CIRCINATA,	<i>Round-leaved Dogwood</i> (2). - Cabinet.
415 CORNUS STOLONIFERA,	<i>White-berried Dogwood</i> (2). - Cabinet.
416 CORNUS PANICULATA,	<i>Panicled Dogwood</i> (3). - - Cabinet.
417 CORNUS SERICEA,	<i>Swamp Dogwood</i> (3). - - - Cabinet.
418 CORNUS FLORIDA,	<i>Common Dogwood</i> (4). - - - Cabinet.
419 CORNUS CANADENSIS,	<i>Dwarf Dogwood</i> (3). - - - Cabinet.

ORDER LI. CAPRIFOLIACEÆ.

420 LINNÆA BOREALIS,	<i>Two-flowered Linnæa</i> (4). - - Cabinet.
421 SYMPHORICARPUS RACEMOSA,	<i>Common Snowberry</i> (2). - - Cabinet.
422 SYMPHORICARPUS VULGARIS,	<i>Indian Currant</i> (2). - - - Cabinet.
423 LONICERA SEMPERVIRENS,	<i>Trumpet Honeysuckle</i> (4). - Cabinet.
424 LONICERA GRATA,	<i>Wild Honeysuckle.</i>
425 LONICERA FLAVA,	<i>Yellow Honeysuckle.</i>
426 LONICERA HIRSUTA,	<i>Hairy Honeysuckle</i> (4). - - Cabinet.
427 LONICERA PARVIFLORA,	<i>Small-flowered Honeysuckle</i> (5). Cabinet.
428 LONICERA CILIATA,	<i>Fly Honeysuckle</i> (4). - - - Cabinet.
429 LONICERA CÆRULEA,	<i>Hairy Fly Honeysuckle</i> (1). - Cabinet.
430 LONICERA OBLONGIFOLIA,	<i>Long-stalked Honeysuckle</i> (1). Cabinet.
431 DIERVILLA TRIFIDA,	<i>Common Bush Honeysuckle</i> (1). Cabinet.
432 TRIOSTEUM PERFOLIATUM,	<i>Feverwort, or Horse Gentian</i> (1). Cabinet.
433 SAMBUCUS PUBENS,	<i>Red-berried Elder</i> (2). - - - Cabinet.
434 SAMBUCUS CANADENSIS,	<i>Common Elder</i> (2). - - - - Cabinet.
435 VIBURNUM NUDUM,	<i>Swamp Viburnum</i> (7). - - - Cabinet.

Latin Names.	English Names.	
436 VIBURNUM PRUNIFOLIUM,	<i>Black Haw, or Sloe</i> (1).	- - Cabinet.
437 VIBURNUM LENTAGO,	<i>Sweet Viburnum</i> (2).	- - - Cabinet.
438 VIBURNUM DENTATUM,	<i>Arrow-wood</i> (3).	- - - - - Cabinet.
439 VIBURNUM PUBESCENS,	<i>Pubescent Viburnum</i> (4).	- - Cabinet.
440 VIBURNUM ACERIFOLIUM,	<i>Maple-leaved Arrow-wood</i> (3).	Cabinet.
441 VIBURNUM PAUCIFLORUM,	<i>Mountain Bush Cranberry</i> (1).	Cabinet.
442 VIBURNUM OPULUS,	<i>High Cranberry</i> (2).	- - - Cabinet.
443 VIBURNUM LANTANOIDES,	<i>Hobblebush</i> (3).	- - - - - Cabinet.

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ORDER LII. RUBIACEÆ.

444 GALIUM APARINE,	<i>Common Cleavers, or Goosegrass</i> (1).	Cabinet.
445 GALIUM TRIFIDUM,	<i>Small Bedstraw</i> (9).	- - - Cabinet.
446 GALIUM ASPRELLUM,	<i>Rough Bedstraw</i> (2).	- - - Cabinet.
447 GALIUM TRIFLORUM,	<i>Sweetscented Bedstraw</i> (1).	- Cabinet.
448 GALIUM PILOSUM,	<i>Hairy Bedstraw</i> (3).	- - - Cabinet.
449 GALIUM CIRCÆZANS,	<i>Wild Liquorice</i> (5).	- - - Cabinet.
450 GALIUM BOREALE,	<i>Northern Bedstraw</i> (2).	- - Cabinet.
451 CEPHALANTHUS OCCIDENTALIS,	<i>Butterbush, Pond Dogwood</i> (2).	Cab.
452 MITCHELLA REPENS,	<i>Partridgeberry</i> (3).	- - - Cabinet.
453 HEDYOTIS CÆRULEA,	<i>Common Bluets, or Dwarf Risk</i> (5).	Cabinet.
454 HEDYOTIS CILIOLATA,	<i>Fringed-leaved Bluets</i> (4).	- Cabinet.
455 HEDYOTIS LONGIFOLIA,	<i>Long-leaved Bluets</i> (6).	- - Cabinet.
456 HEDYOTIS GLOMERATA,	<i>Cluster-flowered Bluets.</i>	

ORDER LIII. VALERIANACEÆ.

457 VALERIANA SYLVATICA,	<i>Tall Swamp Valerian</i> (2).	- Cabinet.
458 FEDIA FAGOPYRUM,	<i>Buckwheat Cornsalad</i> (3).	- Cabinet.

ORDER LIV. DIPSACEÆ.

459 DIPSACUS SYLVESTRIS,	<i>Wild Teasel</i> (2).	- - - - - Cabinet.
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ORDER LV. COMPOSITÆ.

460 VERNONIA NOVEBORACENSIS,	<i>Common Ironweed</i> (3).	- - - Cabinet.
461 LIATRIS CYLINDRACEA,	<i>Small Buttonsakeroot</i> (1).	- Cabinet.
462 LIATRIS SPICATA,	<i>Tall Buttonsakeroot</i> (1).	- - Cabinet,

Latin Names.	English Names.
463 LIATRIS SCARIOSA,	<i>Large-flowered Buttonsnakeroot</i> (4). Cabinet.
464 EUPATORIUM PURPUREUM,	<i>Joe-Pye-weed</i> (6). - - - Cabinet.
465 EUPATORIUM LEUCOLEFIS,	<i>White-scaled Hempweed.</i>
466 EUPATORIUM TEUCRIFOLIUM,	<i>Germander-leaved Hempweed</i> (2). Cabinet.
467 EUPATORIUM ROTUNDIFOLIUM,	<i>Round-leaved Hempweed.</i>
468 EUPATORIUM SESSILIFOLIUM,	<i>Upland Boneset</i> (1). - - - Cabinet.
469 EUPATORIUM PERFOLIATUM,	<i>Boneset, or Thoroughwort</i> (1). Cabinet.
470 EUPATORIUM AGERATOIDES,	<i>White Snakeroot</i> (1). - - - Cabinet.
471 EUPATORIUM AROMATICUM,	<i>Sweetscented Hempweed</i> (2). - Cabinet.
472 MIKANIA SCANDENS,	<i>Common Climbing Hempweed</i> (3). Cabinet.
473 NARDOSMIA PALMATA,	<i>Sweet Coltsfoot.</i>
474 TUSSILAGO FARFARA,	<i>Common Coltsfoot</i> (5). - - - Cabinet.
475 SERICOCARPUS CONYZOIDES,	<i>Broad-leaved Sericocarpus</i> (2). Cabinet.
476 SERICOCARPUS SOLIDAGINEUS,	<i>Narrow-leaved Sericocarpus</i> (2). Cabinet.
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477 ASTER CORYMBOSUS,	<i>Corymbed Aster</i> (2). - - - Cabinet.
478 ASTER MACROPHYLLUS,	<i>Large-leaved Aster</i> (1). - - Cabinet.
479 ASTER RADULA,	<i>Rasp-leaved Aster.</i>
480 ASTER SPECTABILIS,	<i>Showy Aster.</i>
481 ASTER PATENS,	<i>Spreading Aster</i> (2). - - - Cabinet.
482 ASTER LEVIS,	<i>Smooth Blue Aster</i> (1). - - Cabinet.
483 ASTER UNDULATUS,	<i>Various-leaved Aster</i> (3). - - Cabinet.
484 ASTER CORDIFOLIUS,	<i>Heart-leaved Aster</i> (1). - - Cabinet.
485 ASTER SAGITTIFOLIUS,	<i>Arrow-leaved Aster.</i>
486 ASTER ERICOIDES,	<i>Heath-like Aster.</i>
487 ASTER MULTIFLORUS,	<i>Many-flowered Aster</i> (2). - - Cabinet.
488 ASTER DUMOSUS,	<i>Bushy Aster</i> (1). - - - Cabinet.
489 ASTER TRADESCANTI,	<i>Tradescant's Aster</i> (2). - - Cabinet.
490 ASTER MISER,	<i>Starved Aster.</i>
491 ASTER SIMPLEX,	<i>Willow-leaved Aster</i> (4). - - Cabinet.
492 ASTER TENUIFOLIUS,	<i>Slender-leaved Aster.</i>
493 ASTER GREENII,	<i>Green's Aster.</i>

Latin Names.	English Names.
494 ASTER LAXUS,	<i>Loosely-branched Aster.</i>
495 ASTER ELODES,	<i>Blue Smooth Marsh Aster</i> (1). Cabinet.
496 ASTER FUNICEUS,	<i>Hispid Tall Aster</i> (5). - - Cabinet.
497 ASTER PRENANTHOIDES,	<i>Prenanthes-like Aster</i> (1). - Cabinet.
498 ASTER NOVÆ-ANGLIÆ,	<i>New-England Aster</i> (2). - - Cabinet.
499 ASTER ACUMINATUS,	<i>Acuminate Aster</i> (2). - - - Cabinet.
500 ASTER PTARMICOIDES,	<i>Ptarmicoid Aster</i> (2). - - - Cabinet.
501 ASTER FLEXUOSUS,	<i>Perennial Salt-marsh Aster</i> (1). Cabinet.
502 ASTER LINIFOLIUS,	<i>Annual Salt-marsh Aster</i> (3). Cabinet.
503 DIPLOPAPPUS LINARIIFOLIUS,	<i>Narrow-leaved Diplopappus</i> (6). Cabinet.
504 DIPLOPAPPUS CORNIFOLIUS,	<i>Cornel-leaved Diplopappus</i> (4). Cabinet.
505 DIPLOPAPPUS UMBELLATUS,	<i>Umbelled Diplopappus.</i>
506 ERIGERON CANADENSE,	<i>Horseweed, or Butterweed</i> (1). Cabinet.
507 ERIGERON BELLIDIFOLIUM,	<i>Poor Robert's Plantain</i> (2). - Cabinet.
508 ERIGERON PHILADELPHICUM,	<i>Philadelphia Fleabane</i> (2). - Cabinet.
509 ERIGERON ANNUM,	<i>Sweet Scabious, Daisy, &c.</i> (1). Cabinet.
510 ERIGERON STRIGOSUM,	<i>Fleabane</i> (1). - - - - - Cabinet.
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511 SOLIDAGO SQUARROSA,	<i>Squarrose Goldenrod</i> (1). - - Cabinet.
512 SOLIDAGO BICOLOR,	<i>White Goldenrod</i> (4). - - - Cabinet.
513 SOLIDAGO LATIFOLIA,	<i>Broad-leaved Goldenrod</i> (4). - Cabinet.
514 SOLIDAGO CÆSIA,	<i>Blue-stemmed Goldenrod</i> (3). Cabinet.
515 SOLIDAGO STRICTA,	<i>Willow-leaved Goldenrod</i> (4). Cabinet.
516 SOLIDAGO VIRGA-AUREA,	<i>European Goldenrod</i> (3). - - Cabinet.
517 SOLIDAGO RIGIDA,	<i>Rigid-leaved Goldenrod</i> (2). - Cabinet.
518 SOLIDAGO OHIOENSIS,	<i>Ohio Goldenrod</i> (2). - - - Cabinet.
519 SOLIDAGO SEMPERVIRENS,	<i>Salt-marsh Goldenrod</i> (2). - Cabinet.
520 SOLIDAGO NEGLECTA,	<i>Neglected Goldenrod</i> (1). - - Cabinet.
521 SOLIDAGO PATULA,	<i>Spreading Goldenrod</i> (3). - - Cabinet.
522 SOLIDAGO ARGUTA,	<i>Sharp-toothed Goldenrod</i> (1). Cabinet.
523 SOLIDAGO MUHLENBERGII,	<i>Muhlenberg's Goldenrod</i> (2). - Cabinet.
524 SOLIDAGO ALTISSIMA,	<i>Tall Hairy Goldenrod</i> (1). - Cabinet.

Latin Names.	English Names.
525 SOLIDAGO ULMIFOLIA,	<i>Elm-leaved Goldenrod.</i>
526 SOLIDAGO ODORA,	<i>Sweetscented Goldenrod(2).</i> - Cabinet.
527 SOLIDAGO NEMORALIS,	<i>Gray Goldenrod(3).</i> - - - Cabinet.
528 SOLIDAGO CANADENSIS,	<i>Canadian Goldenrod(1).</i> - - Cabinet.
529 SOLIDAGO SEROTINA,	<i>Late-flowering Goldenrod(2).</i> Cabinet.
530 SOLIDAGO GIGANTEA,	<i>Tall Smooth Goldenrod(1).</i> - Cabinet.
531 SOLIDAGO LANCEOLATA,	<i>Bushy Goldenrod(1).</i> - - - Cabinet.
532 SOLIDAGO TENUIFOLIA,	<i>Slender-leaved Goldenrod(2).</i> Cabinet.
533 CHRYSOPSIS FALCATA,	<i>Sickle-leaved Chrysopsis(2).</i> - Cabinet.
534 CHRYSOPSIS MARIANA,	<i>Maryland Chrysopsis(3).</i> - - Cabinet.
535 BACCHARIS HALIMIFOLIA,	<i>Groundselbush(1).</i> - - - - Cabinet.
536 PLUCHEA CAMPHORATA,	<i>Seaside Marsh-fleabane(2).</i> - Cabinet.
537 INULA HELENIUM,	<i>Common Elecampane(1).</i> - - Cabinet.
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538 POLYMNIA CANADENSIS,	<i>Small-flowered Leafcup(3).</i> - Cabinet.
539 POLYMNIA UVEDALIA,	<i>Large-flowered Leafcup(2).</i> - Cabinet.
540 SILPHIUM TRIFOLIATUM,	<i>Ternate Silphium.</i>
541 IVA FRUTESCENS,	<i>Highwater-shrub(2).</i> - - - Cabinet.
542 AMBROSIA TRIFIDA,	<i>Three-lobed Ragweed(2).</i> - - Cabinet.
543 AMBROSIA ARTEMISLEFOLIA,	<i>Hogweed, or Bitterweed(1).</i> - Cabinet.
544 XANTHIUM STRUMARIUM,	<i>Common Cocklebur(1).</i> - - Cabinet.
545 XANTHIUM ECHINATUM,	<i>Sea Cocklebur(2).</i> - - - - Cabinet.
546 XANTHIUM SPINOSUM,	<i>Thorny Cocklebur(1).</i> - - - Cabinet.
547 HELIOPSIS LEVIS,	<i>Oxeye(1).</i> - - - - - Cabinet.
548 RUDBECKIA HIRTA,	<i>Large Hairy Rudbeckia(2).</i> - Cabinet.
549 RUDBECKIA LACINIATA,	<i>Tall Smooth Rudbeckia(2).</i> - Cabinet.
550 LEPACHYS PINNATA,	<i>Tall Lepachys(2).</i> - - - - Cabinet.
551 HELIANTHUS GIGANTEUS,	<i>Tall Wild Sunflower(4).</i> - Cabinet.
552 HELIANTHUS STRUMOSUS,	<i>Wild Sunflower(2).</i> - - - Cabinet.
553 HELIANTHUS DECAPETALUS,	<i>Wild Sunflower(1).</i> - - - Cabinet.
554 HELIANTHUS DIVARICATUS,	<i>Small Rough-leaved Sunflower(3).</i> Cabinet.
555 HELIANTHUS TUBEROSUS,	<i>Jerusalem Artichoke(1).</i> - - Cabinet.

Latin Names.	English Names.	
556 ACTINOMERIS SQUARROSA,	<i>Squarrose Actinomeris</i> (1).	- Cabinet.
557 COREOPSIS TRICHOSPERMA,	<i>Tickseed Sunflower</i> (1).	- - Cabinet.
558 COREOPSIS ROSEA,	<i>Small Rose-colored Coreopsis</i> (1).	Cabinet.
559 BIDENS FRONDOSA,	<i>Common Bur-marigold, or Sticktight</i> (2).	Cabinet.
560 BIDENS CONNATA,	<i>Swamp Beggarticks</i> (2).	- - Cabinet.
561 BIDENS CERNUA,	<i>Swamp Beggarticks.</i>	
562 BIDENS CHRYSANTHEMOIDES,	<i>Large-flowered Bur-marigold</i> (1).	Cab.
563 BIDENS BECKII,	<i>Water Marigold</i> (2).	- - - Cabinet.
564 BIDENS BIPINNATA,	<i>Spanish-needles</i> (2).	- - - Cabinet.
565 HELENIUM AUTUMNALE,	<i>Sneezeweed</i> (2).	- - - - - Cabinet.

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566 MARUTA COTULA,	<i>Fetid Chamomile, or Mayweed</i> (1).	Cabinet.
567 ANTHEMIS ARVENSIS,	<i>Wild Chamomile</i> (1).	- - - Cabinet.
568 ACHILLEA MILLEFOLIUM,	<i>Common Yarrow</i> (1).	- - - Cabinet.
569 LEUCANTHEMUM VULGARE,	<i>Whiteweed, or Daisy</i> (2).	- - Cabinet.
570 TANACETUM VULGARE,	<i>Common Tansey</i> (1).	- - - Cabinet.
571 ARTEMISIA CANADENSIS,	<i>Wild Wormwood</i> (1).	- - - Cabinet.
572 ARTEMISIA CAUDATA,	<i>Tall Biennial Wormwood</i> (2).	Cabinet.
573 ARTEMISIA VULGARIS,	<i>Mugwort.</i>	
574 GNAPHALIUM DECURRENS,	<i>Decurrent Cudweed</i> (1).	- - Cabinet.
575 GNAPHALIUM POLYCEPHALUM,	<i>Life-everlasting</i> (2).	- - - Cabinet.
576 GNAPHALIUM ULIGINOSUM,	<i>Marsh Cudweed</i> (2).	- - - Cabinet.
577 GNAPHALIUM PURPUREUM,	<i>Purple Cudweed</i> (4).	- - - Cabinet.
578 ANTENNARIA MARGARITACEA,	<i>Pearly Everlasting</i> (2).	- Cabinet.
579 ANTENNARIA PLANTAGINIFOLIA,	<i>Plantain-leaved Cudweed</i> (3).	Cabinet.
580 FILAGO GERMANICA,	<i>Herba Impia</i> (2).	- - - - - Cabinet.
581 ERECHTITES HIERACIFOLIUS,	<i>Common Fireweed</i> (1).	- - - Cabinet.
582 CACALIA SUAVEOLENS,	<i>Sweetscented Indian Plantain.</i>	
583 CACALIA ATRIPLICIFOLIA,	<i>Indian Plantain</i> (1).	- - - Cabinet.
584 SENECIO VULGARIS,	<i>Common Groundsel</i> (1).	- - Cabinet.
585 SENECIO AUREUS,	<i>Life-root, or Squaw-weed</i> (7).	Cabinet.
586 ARNICA MOLLIS,	<i>Soft Arnica</i> (2).	- - - - - Cabinet.

Latin Names.	English Names.
587 CENTAUREA CYANUS,	<i>Bluebottle, or French Pink</i> (1). Cabinet.
588 CARDUUS BENEDICTUS,	<i>Common Blessed-thistle.</i>
589 CIRSIUM LANCEOLATUM,	<i>Common Thistle</i> (1). - - - Cabinet.
590 CIRSIUM DISCOLOR,	<i>Two-colored Thistle</i> (2). - - - Cabinet.
591 CIRSIUM MUTICUM,	<i>Awnless Swamp Thistle</i> (2). - Cabinet.
592 CIRSIUM PUMILUM,	<i>Pasture Thistle</i> (2). - - - Cabinet.
593 CIRSIUM HORRIDULUM,	<i>Yellow Thistle</i> (1). - - - - Cabinet.
594 CIRSIUM ARVENSE,	<i>Canada Thistle</i> (2). - - - Cabinet.
595 LAPPA MAJOR,	<i>Common Burdock</i> (1). - - - Cabinet.
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596 KRIGIA VIRGINICA,	<i>Common Dwarf Dandelion</i> (4). Cabinet.
597 CYNTHIA VIRGINICA,	<i>Virginian Cynthia</i> (3). - - Cabinet.
598 CICHORIUM INTYBUS,	<i>Wild Succory, or Chicory</i> (2). Cabinet.
599 HIERACIUM CANADENSE,	<i>Sharp-toothed Hawkweed</i> (2). Cabinet.
600 HIERACIUM SCABRUM,	<i>Rough Hawkweed</i> (1). - - - Cabinet.
601 HIERACIUM GRONOVII,	<i>Gronovius's Hawkweed</i> (2). - Cabinet.
602 HIERACIUM VENOSUM,	<i>Rattlesnakeweed</i> (1). - - - Cabinet.
603 HIERACIUM PANICULATUM,	<i>Panicled Hawkweed</i> (2). - - Cabinet.
604 NABALUS ALBUS,	<i>Lionsfoot, or White Lettuce</i> (5). Cabinet.
605 NABALUS ALTISSIMUS,	<i>Tall Nabalus</i> (1). - - - - Cabinet.
606 NABALUS FRASERI,	<i>Gall-of-the-earth.</i>
607 NABALUS NANUS,	<i>Dwarf Nabalus</i> (1). - - - Cabinet.
608 NABALUS BOOTHII,	<i>Booth's Nabalus.</i>
609 TARAXACUM DENS-LEONIS,	<i>Common Dandelion</i> (1). - - Cabinet.
610 LACTUCA ELONGATA,	<i>Wild Lettuce, or Fireweed</i> (4). Cabinet.
611 MULGEDIUM ACUMINATUM,	<i>Sharp-leaved Mulgedium</i> (2). Cabinet.
612 MULGEDIUM LEUCOPHEUM,	<i>Tall Mulgedium</i> (4). - - - Cabinet.
613 SONCHUS OLERACEUS,	<i>Common Sowthistle</i> (1). - - Cabinet.
614 SONCHUS ASPER,	<i>Spiny-leaved Sowthistle.</i>
615 SONCHUS ARVENSIS,	<i>Large-flowered Sowthistle</i> (1). Cabinet.

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ORDER LVI. LOBELIACEÆ.

Latin Names.	English Names.	
616 LOBELIA KALMII,	<i>Kalm's Lobelia</i> (8).	- - - - Cabinet.
617 LOBELIA NUTTALLII,	<i>Nuttall's Lobelia</i> (3).	- - - - Cabinet.
618 LOBELIA SPICATA,	<i>Pale-spiked Lobelia</i> (3).	- - - - Cabinet.
619 LOBELIA DORTMANNA,	<i>Water Gladiole</i> (3).	- - - - Cabinet.
620 LOBELIA SYPHILITICA,	<i>Blue Cardinalflower</i> (2).	- - - - Cabinet.
621 LOBELIA INFLATA,	<i>Indian Tobacco</i> (3).	- - - - Cabinet.
622 LOBELIA CARDINALIS,	<i>Cardinalflower</i> (3).	- - - - Cabinet.

ORDER LVII. CAMPANULACEÆ.

623 CAMPANULA ROTUNDIFOLIA,	<i>Harebell</i> (3).	- - - - - Cabinet.
624 CAMPANULA APARINOIDES,	<i>Slender Swamp Bellflower</i> (3).	- - - - Cabinet.
625 CAMPANULA AMERICANA,	<i>American Bellflower</i> (2).	- - - - Cabinet.
626 SPECULARIA PERFOLIATA,	<i>Clasping Specularia</i> (5).	- - - - Cabinet.

ORDER LVIII. ERICACEÆ.

627 ARCTOSTAPHYLOS UVA-URSI,	<i>Bearberry</i> (3).	- - - - - Cabinet.
628 CLETHRA ALNIFOLIA,	<i>Common Sweet Pepperbush</i> (3).	- - - - Cabinet.
629 EPIGÆA REPENS,	<i>Ground Laurel</i> (4).	- - - - - Cabinet.
630 GAUTIERA PROCUMBENS,	<i>Partridgeberry, or Teaberry</i> (6).	- - - - Cabinet.
631 ANDROMEDA POLYFOLIA,	<i>Wild Rosemary</i> (2).	- - - - Cabinet.
632 ANDROMEDA CALYCVLATA,	<i>Leatherleaf</i> (3).	- - - - - Cabinet.
633 ANDROMEDA MARIANA,	<i>Kill-lamb, or Staggerbush</i> (3).	- - - - Cabinet.
634 ANDROMEDA RACEMOSA,	<i>Racemed Andromeda</i> (2).	- - - - Cabinet.
635 ANDROMEDA LIGUSTRINA,	<i>Privet Andromeda</i> (2).	- - - - Cabinet.
636 RHODODENDRON MAXIMUM,	<i>Great Laurel</i> (2).	- - - - - Cabinet.
637 RHODODENDRON LAPPONICUM,	<i>Procumbent Alpine Rosebay</i> (5).	- - - - Cabinet.
638 RHODODENDRON NUDIFLORUM,	<i>Upright Wild Honeysuckle</i> (4).	- - - - Cabinet.
639 RHODODENDRON VISCOSUM,	<i>White Wild Honeysuckle</i> (3).	- - - - Cabinet.
640 RHODODENDRON HISPIDUM,	<i>Hispid Azalea.</i>	
641 RHODODENDRON RHODORA,	<i>Rhodora</i> (2).	- - - - - Cabinet.
642 KALMIA LATIFOLIA,	<i>Calicobush</i> (3).	- - - - - Cabinet.
643 KALMIA ANGUSTIFOLIA,	<i>Dwarf, or Sheep Laurel</i> (2).	- - - - Cabinet.

Latin Names.	English Names.	
644 KALMIA GLAUCA,	<i>Swamp Laurel</i> (4).	- - - - Cabinet.
645 LEDUM PALUSTRE,	<i>Labrador-tea</i> (3).	- - - - Cabinet.
646 VACCINIUM ULIGINOSUM,	<i>Alpine Bilberry</i> (1).	- - - - Cabinet.
647 VACCINIUM VACILLANS,	<i>Low Blue Huckleberry</i> (1).	- Cabinet.
648 VACCINIUM PENNSYLVANICUM,	<i>Dwarf Blue Huckleberry</i> (3).	Cabinet.
649 VACCINIUM CORYMBOSUM,	<i>Tall Swamp Huckleberry</i> (5).	Cabinet.
650 VACCINIUM CANADENSE,	<i>Black Bilberry</i> (1).	- - - - Cabinet.
651 VACCINIUM STAMINEUM,	<i>Deerberry, or Squaw Huckleberry</i> (3).	Cabinet.
652 VACCINIUM OXYCOCCUS,	<i>Small Cranberry</i> (2).	- - - - Cabinet.
653 VACCINIUM MACROCARPON,	<i>Common Cranberry</i> (5).	- - - - Cabinet.
654 GAYLUSSACIA HIRTELLA,	<i>Dwarf Swamp Huckleberry.</i>	
655 GAYLUSSACIA FRONDOSA,	<i>Bluetangle, or Dangleberry</i> (1).	Cabinet.
656 GAYLUSSACIA RESINOSA,	<i>Black Huckleberry</i> (2).	- - - - Cabinet.
657 CHIOGENES HISPIDULA,	<i>Creeping Snowberry</i> (2).	- - - - Cabinet.
658 PYROLA ROTUNDIFOLIA,	<i>Round-leaved Wintergreen</i> (3).	Cabinet.
659 PYROLA ELLIPTICA,	<i>Shinleaf</i> (3).	- - - - - - Cabinet.
660 PYROLA CHLORANTHA,	<i>Greenish-flowered Wintergreen</i> (2).	Cabinet.
661 PYROLA ULIGINOSA,	<i>Swamp Wintergreen.</i>	
662 PYROLA SECUNDA,	<i>Onesided Wintergreen</i> (4).	- - - - Cabinet.
663 PYROLA UNIFLORA,	<i>One-flowered Wintergreen</i> (6).	Cabinet.
664 CHIMAPHILA UMBELLATA,	<i>Pipsissewa, or Prince's-pine</i> (4).	Cabinet.
665 CHIMAPHILA MACULATA,	<i>Spotted Wintergreen</i> (4).	- - - - Cabinet.
666 MONOTROPA UNIFLORA,	<i>Indian-pipe</i> (6).	- - - - - - Cabinet.
667 MONOTROPA LANUGINOSA,	<i>Pinesap, or False Beechdrops</i> (7).	Cabinet.
668 PTEROSPORA ANDROMEDEA,	<i>Giant Birdsnest</i> (2).	- - - - - - Cabinet.

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ORDER LIX. AQUIFOLIACEÆ.

669 ILEX OPACA,	<i>American Holly</i> (3).	- - - - Cabinet.
670 ILEX AMBIGUUS,	<i>Ambiguous Ilex</i> (2).	- - - - Cabinet.
671 PRINOS VERTICILLATUS,	<i>Common Winterberry</i> (3).	- - - - Cabinet.
672 PRINOS LÆVIGATUS,	<i>Smooth Winterberry</i> (2).	- - - - Cabinet.
673 PRINOS GLABER,	<i>Evergreen Winterberry, or Inkberry</i> (2).	Cabinet.
674 NEMOPANTHES CANADENSIS,	<i>Mountain Holly</i> (2).	- - - - Cabinet.

ORDER LX. EBENACEÆ.

Latin Names.	English Names.
675 DIOSPYROS VIRGINIANA,	<i>Persimmon</i> (3). - - - - Cabinet.

ORDER LXI. PRIMULACEÆ.

676 PRIMULA MISTASSINICA,	<i>Dwarf Canadian Primrose</i> (6). Cabinet.
677 LYSIMACHIA STRICTA,	<i>Racemed Loosestrife</i> (2). - - Cabinet.
678 LYSIMACHIA QUADRIFOLIA,	<i>Whorled Loosestrife</i> (3). - - Cabinet.
679 LYSIMACHIA CILIATA,	<i>Fringed Loosestrife</i> (2). - - Cabinet.
680 LYSIMACHIA HYBRIDA,	<i>Hybrid Loosestrife</i> (1). - - Cabinet.
681 LYSIMACHIA LONGIFOLIA,	<i>Revolute Loosestrife</i> (1). - - Cabinet.
682 LYSIMACHIA THYRSIFLORA,	<i>Tufted Loosestrife</i> (3). - - - Cabinet.
683 TRIENTALIS AMERICANA,	<i>Chickweed Wintergreen</i> (4). - Cabinet.
684 ANAGALLIS ARVENSIS,	<i>Scarlet Pimpernel</i> (4). - - Cabinet.
685 HOTTONIA INFLATA,	<i>American Waterfeather</i> (1). - Cabinet.
686 SAMOLUS VALERANDI,	<i>Common Water Pimpernel</i> (3). Cabinet.

ORDER LXII. PLANTAGINACEÆ.

687 PLANTAGO MAJOR,	<i>Broad-leaved Plantain</i> (1). - Cabinet.
688 PLANTAGO CORDATA,	<i>Heart-leaved Plantain</i> (2). - Cabinet.
689 PLANTAGO LANCEOLATA,	<i>Ribgrass</i> (2). - - - - Cabinet.
690 PLANTAGO VIRGINICA,	<i>White Plantain</i> (4). - - - Cabinet.
691 PLANTAGO MARITIMA,	<i>Sea Plantain</i> (4). - - - - Cabinet.
692 PLANTAGO PUSILLA,	<i>Dwarf Plantain</i> (10). - - - Cabinet.

ORDER LXIII. PLUMBAGINACEÆ.

693 STATICE LIMONIUM,	<i>Common Marsh Rosemary</i> (1). Cabinet.
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ORDER LXIV. LENTIBULACEÆ.

694 PINGUICULA VULGARIS,	<i>Common Butterwort</i> (3). - - Cabinet.
695 UTRICULARIA INFLATA,	<i>Spongy-leaved Bladderwort</i> (2). Cabinet.
696 UTRICULARIA PURPUREA,	<i>Purple Bladderwort.</i>
697 UTRICULARIA VULGARIS,	<i>Common Bladderwort</i> (3). - Cabinet.
698 UTRICULARIA CORNUTA,	<i>Sharp-horned Bladderwort</i> (5). Cabinet.
699 UTRICULARIA STRIATA,	<i>Striated Bladderwort.</i>
700 UTRICULARIA INTERMEDIA,	<i>Intermediate Bladderwort.</i>
701 UTRICULARIA MINOR,	<i>Lesser Bladderwort.</i>

ORDER LXV. OROBANCHACEÆ.

Latin Names.	English Names.	
702 OROBANCHE AMERICANA,	<i>Squawroot</i> (2).	- - - - Cabinet.
703 OROBANCHE UNIFLORA,	<i>Long-stalked Broomrape</i> (4).	Cabinet.
704 EPIPEGUS AMERICANA,	<i>Beechdrops, or Cancer-root</i> (3).	Cabinet.

Vol. 23.] ORDER LXVI. BIGNONIACEÆ.

705 CATALPA SYRINGÆFOLIA,	<i>Indian Bean.</i>
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ORDER LXVII. PEDALIACEÆ.

706 MARTYNIA PROBOSCIDEA,	<i>Unicorn-plant</i> (2).	- - - - Cabinet.
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ORDER LXVIII. ACANTHACEÆ.

707 DIANTHERA AMERICANA,	<i>Water Willow</i> (2).	- - - - Cabinet.
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ORDER LXIX. SCROPHULARIACEÆ.

708 VERBASCUM THAPSUS,	<i>Common Mullein</i> (2).	- - - Cabinet.
709 VERBASCUM BLATTARIA,	<i>Moth Mullein</i> (2).	- - - Cabinet.
710 VERBASCUM LYCHNITIS,	<i>White Mullein</i> (4).	- - - Cabinet.
711 SCROPHULARIA MARILANDICA,	<i>Figwort</i> (2).	- - - - Cabinet.
712 LINARIA ELATINE,	<i>Hairy Toadflax.</i>	
713 LINARIA VULGARIS,	<i>Common Toadflax</i> (3).	- - - Cabinet.
714 LINARIA CANADENSIS,	<i>Canadian Toadflax</i> (4).	- - Cabinet.
715 COLLINSIA VERNA,	<i>May-beauty</i> (5).	- - - - Cabinet.
716 CHELONE GLABRA,	<i>Shellflower, or Snakehead</i> (2).	Cabinet.
717 PENTSTEMON PUBESCENS,	<i>Pubescent Pentstemon</i> (1).	- Cabinet.
718 MIMULUS RINGENS,	<i>Common Monkeyflower</i> (2).	- Cabinet.
719 MIMULUS ALATUS,	<i>Wing-stemmed Monkeyflower</i> (2).	Cabinet.
720 GRATIOLA VIRGINICA,	<i>Common Hedgehyssop</i> (3).	- Cabinet.
721 GRATIOLA AUREA,	<i>Golden Hedgehyssop</i> (4).	- - Cabinet.
722 LINDERNIA DILATATA,	<i>Long-stalked Lindernia</i> (3).	- Cabinet.
723 LINDERNIA ATTENUATA,	<i>Short-stalked Lindernia</i> (3).	- Cabinet.
724 BUCHNERA AMERICANA,	<i>Bluehearts</i> (4).	- - - - Cabinet.
725 LIMOSELLA AQUATICA,	<i>Common Mudwort</i> (5).	- - - Cabinet.
726 VERONICA SERPYLLIFOLIA,	<i>Paul's Betony</i> (7).	- - - - Cabinet.
727 VERONICA OFFICINALIS,	<i>Common Speedwell.</i>	

Latin Names.	English Names.
728 VERONICA BECCABUNGA,	<i>American Brooklime</i> (2). - - Cabinet.
729 VERONICA ANAGALLIS,	<i>Water Speedwell</i> (1). - - - Cabinet.
730 VERONICA SCUTELLATA,	<i>Marsh Speedwell</i> (3). - - - Cabinet.
731 VERONICA PEREGRINA,	<i>Neckweed.</i>
732 VERONICA ARVENSIS,	<i>Corn Speedwell</i> (5). - - - Cabinet.
733 VERONICA AGRESTIS,	<i>Field Speedwell</i> (1). - - - Cabinet.
734 VERONICA HEDERIFOLIA,	<i>Ivy-leaved Speedwell</i> (8). - - Cabinet.
735 PÆDEROTA VIRGINICA,	<i>Culver's-physic</i> (5). - - - Cabinet.
736 GERARDIA TENUIFOLIA,	<i>Slender-stalked Gerardia</i> (4). Cabinet.
737 GERARDIA PURPUREA,	<i>Rough-leaved Gerardia</i> (2). - Cabinet.
738 GERARDIA MARITIMA,	<i>Salimarsch Gerardia</i> (2). - - Cabinet.
739 GERARDIA PEDICULARIA,	<i>Bushy Gerardia</i> (3). - - - Cabinet.
740 GERARDIA FLAVA,	<i>Pubescent False-foxglove</i> (3). Cabinet.
741 GERARDIA QUERCIFOLIA,	<i>Glaucous False-foxglove</i> (3). - Cabinet.
742 CASTILLEJA COCCINEA,	<i>Scarlet Paintedcup, or Redrobin</i> (3).Cabinet.
743 PEDICULARIS CANADENSIS,	<i>Common Lousewort</i> (4). - - Cabinet.
744 PEDICULARIS LANCEOLATA,	<i>Tall Lousewort</i> (2). - - - Cabinet.
745 MELAMPYRUM AMERICANUM,	<i>American Cow-wheat</i> (3). - - Cabinet.

Vol. 24.] ORDER LXX. VERBENACEÆ.

746 VERBENA HASTATA,	<i>Tall Blue Vervain</i> (3). - - Cabinet.
747 VERBENA URTICIFOLIA,	<i>Common Vervain</i> (3). - - - Cabinet.
748 VERBENA SPURIA,	<i>Procumbent Vervain.</i>
749 VERBENA ANGUSTIFOLIA,	<i>Narrow-leaved Vervain</i> (2). - Cabinet.
750 PHRYMA LEPTOSTACHYA,	<i>Lopseed</i> (2). - - - - - Cabinet.

ORDER LXXI. LABIATÆ.

751 ISANTHUS CÆRULEUS,	<i>False Pennyroyal</i> (1). - - - Cabinet.
752 MENTHA VIRIDIS,	<i>Spearmint</i> (1). - - - - - Cabinet.
753 MENTHA PIPERITA,	<i>Peppermint</i> (2). - - - - - Cabinet.
754 MENTHA CANADENSIS,	<i>Canadian Mint</i> (2). - - - Cabinet.
755 LYCOPUS SINUATUS,	<i>Common Water Horehound</i> (2). Cabinet.
756 LYCOPUS VIRGINICUS,	<i>Bugleweed</i> (1). - - - - - Cabinet.
757 MONARDA DIDYMA,	<i>Oswego-tea</i> (2). - - - - - Cabinet.

Latin Names.	English Names.
758 MONARDA FISTULOSA,	<i>Wild Bergamot</i> (1). - - - Cabinet.
759 MONARDA PUNCTATA,	<i>Horsemint</i> .
760 BLEPHILIA HIRSUTA,	<i>Hairy Blephilia</i> (2). - - - Cabinet.
761 PYCNANTHEMUM INCANUM,	<i>Common Mountain-mint</i> (2). - Cabinet.
762 PYCNANTHEMUM CLINOPODIODES,	<i>Basil-leaved Mountain-mint</i> (1).Cab.
763 PYCNANTHEMUM TORREI,	<i>Torrey's Mountain-mint</i> (2). - Cabinet.
764 PYCNANTHEMUM MUTICUM,	<i>Broad-leaved Mountain-mint</i> (2).Cabinet.
765 PYCNANTHEMUM LANCEOLATUM,	<i>Virginian Thyme</i> (2). - Cabinet.
766 PYCNANTHEMUM LINIFOLIUM,	<i>Narrow-leaved Thyme</i> (1). - Cabinet.
767 ORIGANUM VULGARE,	<i>Wild Marjoram</i> (2). - - - Cabinet.
768 COLLINSONIA CANADENSIS,	<i>Common Horsebalm</i> (2). - - Cabinet.
769 CUNILA MARIANA,	<i>Common Dittany</i> (3). - - - Cabinet.
770 HEDEOMA PULEGIOIDES,	<i>Pennyroyal</i> (3). - - - - - Cabinet.
771 MICROMERIA GLABELLA,	<i>Niagara Thyme</i> (5). - - - Cabinet.
772 MELISSA CLINPODIUM,	<i>Wild Basil</i> (3). - - - - - Cabinet.
773 MELISSA OFFICINALIS,	<i>Common Balm</i> (1). - - - - Cabinet.
774 PRUNELLA VULGARIS,	<i>Common Selfheal, or Healall</i> (3). Cabinet.
775 SCUTELLARIA PILOSA,	<i>Hairy Scullcap</i> (2). - - - Cabinet.
776 SCUTELLARIA INTEGRIFOLIA,	<i>Entire-leaved Scullcap</i> (2). - Cabinet.
777 SCUTELLARIA PARVULA,	<i>Small Scullcap</i> (4). - - - Cabinet.
778 SCUTELLARIA NERVOSA,	<i>Nerved Scullcap</i> .
779 SCUTELLARIA GALERICULATA,	<i>Common Scullcap</i> (2). - - Cabinet.
780 SCUTELLARIA LATERIFLORA,	<i>Mad-dog Scullcap</i> (1). - - - Cabinet.
781 LOPHANTHUS NEPETOIDES,	<i>Yellow Giant-hyssop</i> (1). - - Cabinet.
782 LOPHANTHUS SCROPHULARIEFOLIUS,	<i>Purple Giant-hyssop</i> (2). Cabinet.
783 NEPETA CATARIA,	<i>Common Catnep</i> (2). - - - Cabinet.
784 NEPETA GLECHOMA,	<i>Groundivy, or Gill</i> (2). - - Cabinet.
785 DRACOCEPHALUM PARVIFLORUM,	<i>Small-flowered Dragonshead</i> (2).Cab.
786 PHYSOSTEGIA VIRGINIANA,	<i>Virginian Dragonshead</i> (3). - Cabinet.
787 LAMIUM AMPLEXICAULE,	<i>Common Deadnettle, or Henbit</i> (2). Cabinet.
788 LEONURA CARDIACA,	<i>Common Motherwort</i> (2). - - Cabinet.
789 MARRUBIUM VULGARE,	<i>Common Horehound</i> (2). - - Cabinet.

Latin Names.

English Names.

790	GALEOPSIS TETRAHIT,	<i>Common Hempnettle</i> (2).	- -	Cabinet.
791	STACHYS ASPERA,	<i>Rough Hedgenettle</i> (1).	- -	Cabinet.
792	STACHYS PALUSTRIS,	<i>Marsh Hedgenettle</i> (1).	- -	Cabinet.
793	STACHYS HYSSOPIFOLIA,	<i>Narrow-leaved Hedgenettle</i> (2).		Cabinet.
794	TRICHOSTEMA DICHOTOMA,	<i>Bluecurls, or False Pennyroyal</i> (2).		Cabinet.
795	TEUCRIUM CANADENSE,	<i>Woodsage, or Germander</i> (2).		Cabinet.

Vol. 25.] ORDER LXXII. BORAGINACEÆ.

796	ONOSMODIUM HISPIDUM,	<i>False Gromwell</i> (2).	- - -	Cabinet.
797	ECHIUM VULGARE,	<i>Viper's Bugloss</i> (2).	- - -	Cabinet.
798	PULMONARIA VIRGINICA,	<i>Virginian Lungwort</i> (2).	- -	Cabinet.
799	LITHOSPERMUM ARVENSE,	<i>Corn Gromwell, or Stoneweed</i> (2).		Cabinet.
800	LITHOSPERMUM OFFICINALE,	<i>Common Gromwell.</i>		
801	BATSCHIA CANESCENS,	<i>Common Puccoon</i> (2).	- - -	Cabinet.
802	LYCOPSIS ARVENSIS,	<i>Small Bugloss</i> (1).	- - - -	Cabinet.
803	MYOSOTIS PALUSTRIS,	<i>American Forget-me-not</i> (5).	-	Cabinet.
804	MYOSOTIS ARVENSIS,	<i>Field Scorpion-grass</i> (5).	- -	Cabinet.
805	SYMPHITUM OFFICINALE,	<i>Common Comfrey</i> (1).	- - -	Cabinet.
806	CYNOGLOSSUM OFFICINALE,	<i>Common Houndstongue</i> (2).	-	Cabinet.
807	CYNOGLOSSUM VIRGINICUM,	<i>Wild Comfrey</i> (2).	- - - -	Cabinet.
808	ECHINOSPERMUM LAPPULA,	<i>Narrow-leaved Stickseed</i> (2).	-	Cabinet.
809	ECHINOSPERMUM VIRGINICUM,	<i>Broad-leaved Stickseed</i> (2).	-	Cabinet.

ORDER LXXIII. HYDROPHYLLACEÆ.

810	HYDROPHYLLUM VIRGINICUM,	<i>Virginian Waterleaf</i> (3).	-	Cabinet.
811	HYDROPHYLLUM CANADENSE,	<i>Canadian Waterleaf</i> (2).	-	Cabinet.
812	HYDROPHYLLUM APPENDICULATUM,	<i>Hairy Waterleaf</i> (1).	-	Cabinet.

ORDER LXXIV. POLEMONIACEÆ.

813	PHLOX DIVARICATA,	<i>Divaricate Phlox</i> (1).	- - -	Cabinet.
814	PHLOX SUBULATA,	<i>Mountain Pink</i> (1).	- - -	Cabinet.
815	POLEMONIUM REPTANS,	<i>Jacob's-ladder</i> (1).	- - - -	Cabinet.

ORDER LXXV. DIAPENSIACEÆ.

816	DIAPENSIA LAPPONICA,	<i>Lapland Diapensia</i> (7).	- -	Cabinet.
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Vol. 26.] ORDER LXXVI. CONVULVULACEÆ.

Latin Names.	English Names.			
817 CONVULVULUS ARVENSIS,	<i>Common Bindweed</i> (2).	-	-	Cabinet.
818 CONVULVULUS PANDURATUS,	<i>Man-of-the-earth</i> (4).	-	-	Cabinet.
819 CALYSTEGIA SEPIUM,	<i>Great Bindweed</i> (6).	-	-	Cabinet.
820 CALYSTEGIA SPITHAMÆA,	<i>Upright Bindweed</i> (3).	-	-	Cabinet.
821 CUSCUTA GRONOVII,	<i>Common Dodder</i> (4).	-	-	Cabinet.
822 CUSCUTA UMEROSA,	<i>Smooth-flowered Dodder.</i>			
823 CUSCUTA EPILINUM,	<i>Flax Dodder</i> (1).	-	-	Cabinet.

ORDER LXXVII. SOLANACEÆ.

824 NICOTIANA RUSTICA,	<i>Wild Tobacco</i> (2).	-	-	Cabinet.
825 DATURA STRAMONIUM,	<i>Jamestown-weed, or Stinkweed</i> (1).			Cabinet.
826 HYOSCYAMUS NIGER,	<i>Common Henbane</i> (2).	-	-	Cabinet.
827 NICANDRA PHYSALOIDES,	<i>Apple-of-Peru</i> (2).	-	-	Cabinet.
828 PHYSALIS VISCOSA,	<i>Groundcherry</i> (3).	-	-	Cabinet.
829 SOLANUM DULCAMARA,	<i>Bittersweet</i> (2).	-	-	Cabinet.
830 SOLANUM NIGRUM,	<i>Common Nightshade</i> (2).	-	-	Cabinet.
831 SOLANUM CAROLINIANUM,	<i>Horsenettle.</i>			

ORDER LXXVIII. GENTIANACEÆ.

832 GENTIANA SAPONARIA,	<i>Soap Gentian</i> (2).	-	-	Cabinet.
833 GENTIANA ANDREWSII,	<i>Andrews's Gentian</i> (7).	-	-	Cabinet.
834 GENTIANA OCHROLEUCA,	<i>Ochroleucous Gentian.</i>			
835 GENTIANA QUINQUEFLORA,	<i>Five-flowered Gentian</i> (1).	-		Cabinet.
836 GENTIANA DETONSA,	<i>Smaller-fringed Gentian</i> (2).			Cabinet.
837 GENTIANA CRINITA,	<i>Large-fringed Gentian</i> (3).	-		Cabinet.
838 FRASERA CAROLINENSIS,	<i>American Columbo</i> (3).	-	-	Cabinet.
839 HALENIA DEFLEXA,	<i>Deflexed Halenia</i> (1).	-	-	Cabinet.
840 ERYTHRÆA CENTAURIUM,	<i>Common Centaury</i> (1).	-	-	Cabinet.
841 ERYTHRÆA MUHLENBERGII,	<i>Muhlenberg's Centaury</i> (1).	-		Cabinet.
842 BARTONIA TENELLA,	<i>Late-flowered Bartonia</i> (5).	-		Cabinet.
843 SABBATIA STELLARIS,	<i>Saltmarsh Centaury</i> (7).	-	-	Cabinet.
844 SABBATIA ANGULARIS,	<i>American Centaury</i> (3).	-	-	Cabinet.

Latin Names.	English Names.	
845 <i>SABBATIA CHLOROIDES</i> ,	<i>Large-flowered Sabbatia</i> (5).	- Cabinet.
846 <i>MENYANTHES TRIFOLIATA</i> ,	<i>Buckbean</i> (2).	- - - - Cabinet.
847 <i>LIMNANTHEMUM LACUNOSUM</i> ,	<i>Floatingheart</i> (2).	- - - Cabinet.

Vol. 27.] ORDER LXXIX. APOCYNACEÆ.

848 <i>APOCYNUM ANDROSÆMIFOLIUM</i> ,	<i>Dogsbane</i> (5).	- - - - Cabinet.
849 <i>APOCYNUM CANNABINUM</i> ,	<i>Indian Hemp</i> (2).	- - - - Cabinet.

ORDER LXXX. ASCLEPIADACEÆ

850 <i>ASCLEPIAS CORNUTI</i> ,	<i>Silkweed</i> , or <i>Milkweed</i> (2).	- Cabinet.
851 <i>ASCLEPIAS PURPURASCENS</i> ,	<i>Purple Silkweed</i> (5).	- - - Cabinet.
852 <i>ASCLEPIAS PHYTOLACCOIDES</i> ,	<i>Poke-leaved Milkweed</i> (3).	- Cabinet.
853 <i>ASCLEPIAS OBTUSIFOLIA</i> ,	<i>Wared-leaved Milkweed</i> (2).	- Cabinet.
854 <i>ASCLEPIAS VARIEGATA</i> ,	<i>Variegated Silkweed</i> (2).	- - Cabinet.
855 <i>ASCLEPIAS QUADRIFOLIA</i> ,	<i>Four-leaved Silkweed</i> (2).	- Cabinet.
856 <i>ASCLEPIAS INCARNATA</i> ,	<i>Swamp Silkweed</i> (2).	- - - Cabinet.
857 <i>ASCLEPIAS TUBEROSA</i> ,	<i>Pleurisy-root</i> , or <i>Butterfly-weed</i> (2).	Cabinet.
858 <i>ASCLEPIAS VERTICILLATA</i> ,	<i>Whorled Silkweed</i> (3).	- - - Cabinet.
859 <i>ACERATES VIRIDIFLORA</i> ,	<i>Green-flowered Silkweed</i> (3).	- Cabinet.

ORDER LXXXI. OLEACEÆ.

860 <i>FRAXINUS AMERICANA</i> ,	<i>White Ash</i> (5).	- - - - Cabinet.
861 <i>FRAXINUS SAMBUCIFOLIA</i> ,	<i>Black Ash</i> , or <i>Water Ash</i> (1).	Cabinet.
862 <i>FRAXINUS PUBESCENS</i> ,	<i>Gray Ash</i> (1).	- - - - Cabinet.
863 <i>LIGUSTRUM VULGARE</i> ,	<i>Common Privet</i> (2).	- - - Cabinet.

Vol. 28.] ORDER LXXXII. ARISTOLOCHIACEÆ.

864 <i>ARISTOLOCHIA SERPENTARIA</i> ,	<i>Virginia Snakeroot</i> (2).	- - Cabinet.
865 <i>ASARUM CANADENSE</i> ,	<i>Wild Ginger</i> , or <i>Coltsfoot</i> (2).	Cabinet.

ORDER LXXXIII. CHENOPODIACEÆ.

866 <i>CHENOPODIUM ALBUM</i> ,	<i>Goosefoot</i> , or <i>Lamb's-quarters</i> (2).	Cabinet.
867 <i>CHENOPODIUM HYBRIDUM</i> ,	<i>Maple-leaved Goosefoot</i> (3).	- Cabinet.
868 <i>AMBRINA BOTRYS</i> ,	<i>Jerusalem-oak</i> (2).	- - - - Cabinet.
869 <i>AMBRINA ANTHELMINTICA</i> ,	<i>Wormseed</i> (1).	- - - - Cabinet.

Latin Names.	English Names.
870 AMBRINA AMBROSIOIDES,	<i>Mexican Tea</i> (1). - - - - Cabinet.
871 BLITUM MARITIMUM,	<i>Saltmarsh Blite</i> .
872 BLITUM CAPITATUM,	<i>Strawberry Blite</i> (1). - - - Cabinet.
873 BLITUM BONUS-HENRICUS,	<i>Good-King-Henry</i> (2). - - - Cabinet.
874 ATRIPLEX PATULA,	<i>Halbert-leaved Orach</i> (3). - - Cabinet.
875 OBIONE ARENARIA,	<i>Seabeach Orach</i> (1). - - - Cabinet.
876 ACNIDA CANNABINA,	<i>Common Waterhemp</i> (1). - - Cabinet.
877 ACNIDA RUSOCARPA,	<i>Rough-fruited Waterhemp</i> (1). Cabinet.
878 SALICORNIA HERRACEA,	<i>Common Saltwort, or Samphire</i> (2). Cabinet.
879 SALICORNIA MUCRONATA,	<i>Dwarf Saltwort</i> (6). - - - Cabinet.
880 SALICORNIA AMBIGUA,	<i>Perennial Saltwort</i> (1). - - Cabinet.
881 SUEDA MARITIMA,	<i>Smooth Glasswort</i> (1). - - - Cabinet.
882 SALSOLA KALI,	<i>Common Glasswort</i> (1). - - Cabinet.

ORDER LXXXIV. AMARANTHACEÆ.

883 AMARANTHUS HYBRIDUS,	<i>Hybrid Amaranth</i> (1). - - Cabinet.
884 AMARANTHUS GRÆCIZANS,	<i>Bushy Amaranth</i> (1). - - - Cabinet.
885 AMARANTHUS PUMILUS,	<i>Dwarf Amaranth</i> (1). - - - Cabinet.
886 AMARANTHUS DEFLEXUS,	<i>Prostrate Amaranth</i> (1). - - Cabinet.

Vol. 29.] ORDER LXXXV. POLYGONACEÆ.

887 POLYGONUM ORIENTALE,	<i>Princesfeather</i> (1). - - - - Cabinet.
888 POLYGONUM FAGOPYRUM,	<i>Buckwheat</i> (2). - - - - - Cabinet.
889 POLYGONUM CONVULVULUS,	<i>Black Bindweed</i> (1). - - - Cabinet.
890 POLYGONUM CILINODE,	<i>Fringe-jointed Polygonum</i> (1). Cabinet.
891 POLYGONUM DUMETORUM,	<i>Climbing Buckwheat</i> (1). - - Cabinet.
892 POLYGONUM SAGITTATUM,	<i>Arrow-leaved Tearthumb</i> (2). Cabinet.
893 POLYGONUM ARIFOLIUM,	<i>Halbert-leaved Tearthumb</i> (2). Cabinet.
894 POLYGONUM AMPHIBIUM,	<i>Water Persicaria</i> (2). - - - Cabinet.
895 POLYGONUM PERSICARIA,	<i>Ladysthumb</i> (3). - - - - Cabinet.
896 POLYGONUM PENNSYLVANICUM,	<i>Hairy-stalked Persicaria</i> (2). Cabinet.
897 POLYGONUM MITE,	<i>Bearded Persicaria</i> (3). - - Cabinet.
898 POLYGONUM HYDROPIPER,	<i>Water Pepper, or Smartweed</i> (3). Cabinet.
899 POLYGONUM VIRGINIANUM,	<i>Virgate Persicaria</i> (1). - - Cabinet.

Latin Names.	English Names.	
900 POLYGONUM AVICULARE,	<i>Knotgrass, or Doorweed</i> (3).	- Cabinet.
901 POLYGONUM MARITIMUM,	<i>Seaside Knotgrass</i> (2).	- - - Cabinet.
902 POLYGONUM TENUE,	<i>Slender Knotgrass</i> (4).	- - Cabinet.
903 POLYGONUM ARTICULATUM,	<i>Jointweed</i> (5).	- - - - - Cabinet.
904 RUMEX CRISPUS,	<i>Curled Dock</i> (1).	- - - - - Cabinet.
905 RUMEX OBTUSIFOLIUS,	<i>Broad-leaved Dock</i> (2).	- - Cabinet.
906 RUMEX VERTICILLATUS,	<i>Long-stalked Waterdock</i> (1).	- Cabinet.
907 RUMEX BRITANNICA,	<i>Yellow-rooted Waterdock</i> (2).	Cabinet.
908 RUMEX ACETOSELLA,	<i>Sheepsorrel</i> (3).	- - - - - Cabinet.

ORDER LXXXVI. PHYTOLACCACEÆ.

909 PHYTOLACCA DECANDRA,	<i>Common Pokeweed</i> (3).	- - Cabinet.
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ORDER LXXXVII. LAURACEÆ.

910 SASSAFRAS OFFICINALE,	<i>Sassafras</i> (4).	- - - - - Cabinet.
911 BENZOIN ODORIFERUM,	<i>Wild Alspice, or Spicebush</i> (4).	Cabinet.

ORDER LXXXVIII. SANTALACEÆ.

912 COMANDRA UMBELLATA,	<i>Bastard Toadflax</i> (3).	- - - Cabinet.
913 NYSSA MULTIFLORA,	<i>Blackgum</i> (6).	- - - - - Cabinet.

ORDER LXXXIX. THYMELACEÆ.

914 DIRCA PALUSTRIS,	<i>Leatherwood</i> (4).	- - - - - Cabinet.
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ORDER XC. ELEAGNACEÆ.

915 SHEPHERDIA CANADENSIS,	<i>Canadian Shepherdia</i> (2).	- Cabinet.
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ORDER XCI. ULMACEÆ.

916 ULMUS AMERICANA,	<i>American or White Elm</i> (4).	- Cabinet.
917 ULMUS FULVA,	<i>Slippery or Red Elm</i> (4).	- - Cabinet.
918 ULMUS RACEMOSA,	<i>Thomas's Elm</i> (3).	- - - - - Cabinet.
919 CELTIS OCCIDENTALIS,	<i>Nettletree, or Sugarberry</i> (3).	Cabinet.

Vol. 30.] ORDER XCII. SAURURACEÆ.

920 SAURURUS CERNUUS,	<i>Lizardstail</i> (1).	- - - - - Cabinet.
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ORDER XCIII. CERATOPHYLLACEÆ.

921 CERATOPHYLLUM ECHINATUM,	<i>Rough-fruited Hornwort</i> (3).	Cabinet.
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ORDER XCIV. CALLITRICHACEÆ.

Latin Names.	English Names.
922 CALLITRICHÆ VERNA,	<i>Common Water Chickweed</i> (7). Cabinet.

ORDER XCV. PODOSTEMACEÆ.

923 PODOSTEMUM CERATOPHYLLUM,	<i>Riverweed</i> (6). - - - Cabinet.
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ORDER XCVI. EUPHORBIACEÆ.

924 ACALYPHA VIRGINICA,	<i>Common Three-seeded Mercury</i> (5). Cabinet.
925 EUPHORBIA HELIOSCOPIA,	<i>Waterwort Spurge</i> (3). - - Cabinet.
926 EUPHORBIA PLATYPHYLLA,	<i>Broad-leaved Spurge.</i>
927 EUPHORBIA COROLLATA,	<i>Flowering Spurge</i> (2). - - Cabinet.
928 EUPHORBIA HYPERICIFOLIA,	<i>Upright Spotted Spurge</i> (3). Cabinet.
929 EUPHORBIA MACULATA,	<i>Small Spurge</i> (2). - - - Cabinet.
930 EUPHORBIA IPECACUANHA,	<i>Wild Ipecac</i> (2). - - - Cabinet.
931 EUPHORBIA POLYGONIFOLIA,	<i>Seaside Spurge</i> (2). - - - Cabinet.

ORDER XCVII. EMPETRACEÆ.

932 EMPETRUM NIGRUM,	<i>Common Crowberry</i> (2). - - Cabinet.
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ORDER XCVIII. JUGLANDACEÆ.

933 JUGLANS NIGRA,	<i>Black Walnut</i> (1). - - - Cabinet.
934 JUGLANS CINEREA,	<i>Butternut</i> (1). - - - Cabinet.
935 CARYA ALBA,	<i>Shellbark Hickory.</i>
936 CARYA TOMENTOSA,	<i>White-heart Hickory</i> (2). - - Cabinet.
937 CARYA GLABRA,	<i>Broom Hickory, or Pignut</i> (2). Cabinet.
938 CARYA AMARA,	<i>Swamp Hickory, or Bitternut</i> (1). Cabinet.

Vol. 31.] ORDER XCIX. CUPULIFERÆ.

939 OSTRYA VIRGINICA,	<i>Hop Hornbeam, or Ironwood</i> (5). Cabinet.
940 CARPINUS AMERICANA,	<i>Water Beech, or Hornbeam</i> (3). Cabinet.
941 CORYLUS AMERICANA,	<i>American Hazlenut</i> (2). - - Cabinet.
942 CORYLUS ROSTRATA,	<i>Beaked Hazlenut</i> (1). - - - Cabinet.
943 QUERCUS PHELLOS,	<i>Peach-leaved or Willow Oak</i> (2). Cabinet.
944 QUERCUS NIGRA,	<i>Black-jack Oak</i> (5). - - - Cabinet.
945 QUERCUS TINCTORIA,	<i>Black Oak, or Quercitron</i> (1). Cabinet.

Latin Names.	English Names.
946 QUERCUS COCCINEA,	Scarlet Oak(4). - - - - Cabinet.
947 QUERCUS RUBRA,	Red Oak(2). - - - - - Cabinet.
948 QUERCUS PALUSTRIS,	Pin Oak, or Water Spanish Oak(2). Cabinet.
949 QUERCUS ILICIFOLIA,	Barren Scrub Oak(3). - - Cabinet.
950 QUERCUS OBTUSILOBA,	Post Oak, or Box White Oak(3). Cabinet.
951 QUERCUS MACROCARPA,	Overcup White Oak(3). - - Cabinet.
952 QUERCUS OLIVÆFORMIS,	Mossycup Oak.
953 QUERCUS ALBA,	White Oak(2). - - - - - Cabinet.
954 QUERCUS BICOLOR,	Swamp White Oak(1). - - Cabinet.
955 QUERCUS MONTANA,	Rock Chesnut Oak(1). - - Cabinet.
956 QUERCUS CASTANEA,	Yellow or Chesnut Oak(1). - Cabinet.
957 QUERCUS PRINOIDES,	Chinquapin Oak(2). - - - Cabinet.
958 FAGUS FERRUGINEA,	Beech(5). - - - - - Cabinet.
959 CASTANEA VESCA,	American Chestnut(1). - - Cabinet.
960 CASTANEA PUMILA,	Chinquapin.

ORDER C. MYRICACEÆ.

961 MYRICA GALE,	Dutch Myrtle, or Sweet Gale(3) Cabinet.
962 MYRICA CERIFERA,	Wax Myrtle, or Bayberry(6). Cabinet.
963 COMPTONIA ASPLENIFOLIA,	Sweet Fern(4). - - - - - Cabinet.

ORDER CI. BETULACEÆ.

964 BETULA POPULIFOLIA,	White Birch(2). - - - - Cabinet.
965 BETULA PAPYRACEA,	Paper or Canoe Birch.
966 BETULA LENTA,	Black or Sweet Birch(3). - Cabinet.
967 BETULA EXCELSA,	Yellow Birch(2). - - - - Cabinet.
968 BETULA NIGRA,	Red Birch(1). - - - - - Cabinet.
969 BETULA NANA,	Dwarf Birch(1). - - - - Cabinet.
970 ALNUS SERRULATA,	Common Alder(2). - - - - Cabinet.
971 ALNUS INCANA,	Black Alder(1). - - - - Cabinet.
972 ALNUS VIRIDIS,	Mountain Alder(2). - - - Cabinet.

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ORDER CII. SALICACEÆ.

973 SALIX CANDIDA,	White-leaved Willow(8). - - Cabinet.
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Latin Names.	English Names.	
974 SALIX MUHLENBERGIANA,	<i>Muhlenberg's Willow</i> (5).	- Cabinet.
975 SALIX TRISTIS,	<i>Dwarf Downy Willow</i> (4).	- Cabinet.
976 SALIX DISCOLOR,	<i>Glaucous Willow</i> (13).	- - Cabinet.
977 SALIX PETIOLARIS,	<i>Dark Long-leaved Willow</i> (7).	Cabinet.
978 SALIX MYRICOIDES,	<i>Gale-leaved Willow.</i>	
979 SALIX VIMINALIS,	<i>Basket Osier</i> (2).	- - - - Cabinet.
980 SALIX LUCIDA,	<i>Glossy Broad-leaved Willow</i> (9).	Cabinet.
981 SALIX NIGRA,	<i>Black Willow</i> (9).	- - - - Cabinet.

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982 SALIX LONGIFOLIA,	<i>Long-leaved Sand Willow</i> (1).	Cabinet.
983 SALIX VITELLINA,	<i>Yellow Willow</i> (1).	- - - - Cabinet.
984 SALIX ROSTRATA,	<i>Ochre-flowered Willow</i> (17).	Cabinet.
985 SALIX CORDATA,	<i>Heart-leaved Willow</i> (9).	- - Cabinet.
986 SALIX RIGIDA,	<i>Rigid Heart-leaved Willow</i> (4).	Cabinet.
987 SALIX PEDICELLARIS,	<i>Long-stalked Willow</i> (2).	- - Cabinet.
988 SALIX CUTLERI,	<i>Cutler's Willow, or Bearberry</i> (3).	Cabinet.
989 POPULUS TREMULOIDES,	<i>American Aspen</i> (2).	- - - Cabinet.
990 POPULUS GRANDIDENTATA,	<i>Large Aspen</i> (4).	- - - - Cabinet.
991 POPULUS MONILIFERA,	<i>Virginian Poplar</i> (8).	- - - Cabinet.
992 POPULUS HETEROPHYLLA,	<i>Cotton-tree</i> (2).	- - - - Cabinet.
993 POPULUS NIGRA,	<i>Birch-leaved Poplar.</i>	
994 POPULUS BALSAMIFERA,	<i>Balsam Poplar, or Tacamahac</i> (1).	Cabinet.
995 POPULUS CANDICANS,	<i>Balm-of-Gilead Poplar</i> (2).	- Cabinet.

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ORDER CIII. BALSAMIFLUÆ.

996 LIQUIDAMBAR STYRACIFLUA,	<i>Common Sweetgum</i> (3).	- - Cabinet.
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ORDER CIV. PLATANACEÆ.

997 PLATANUS OCCIDENTALIS,	<i>Buttonwood, or Sycamore</i> (2).	Cabinet.
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ORDER CV. URTICACEÆ.

998 MORUS RUBRA,	<i>Red Mulberry</i> (1).	- - - - Cabinet.
999 MORUS ALBA,	<i>White Mulberry</i> (2).	- - - Cabinet.
1000 URTICA DIOICA,	<i>Common Stinging Nettle.</i>	

Latin Names.	English Names.	
1001 URTICA URENS,	<i>Small Stinging Nettle</i> (2).	- Cabinet.
1002 URTICA CANADENSIS,	<i>Canadian Nettle</i> (2).	- - - Cabinet.
1003 ADIKE PUMILA,	<i>Richweed, or Clearweed</i> (8).	- Cabinet.
1004 BERNERIA CYLINDRICA,	<i>False Nettle</i> (2).	- - - - Cabinet.
1005 PARIETARIA PENNSYLVANICUM,	<i>Pennsylvanian Pellitory</i> (4).	Cabinet.
1006 CANNABIS SATIVA,	<i>Common Hemp</i> (2).	- - - - Cabinet.
1007 HUMULUS LUPULUS,	<i>Hop</i> (1).	- - - - - Cabinet.

CLASS II. GYMNOSPERMOUS PLANTS.

Vol. 35.]	ORDER CV. CONIFERÆ.	
1008 PINUS RESINOSA,	<i>Red Pine.</i>	
1009 PINUS RIGIDA,	<i>Pitch Pine</i> (2).	- - - - - Cabinet.
1010 PINUS STROBUS,	<i>White Pine</i> (1).	- - - - - Cabinet.
1011 PINUS MITIS,	<i>Yellow Pine.</i>	
1012 PINUS BALSAMEA,	<i>Balsam Fir, or Balm-of-Gilead Fir.</i>	
1013 PINUS CANADENSIS,	<i>Hemlock Spruce</i> (2).	- - - Cabinet.
1014 PINUS NIGRA,	<i>Black or Double Spruce.</i>	
1015 PINUS ALBA,	<i>White or Single Spruce.</i>	
1016 PINUS PENDULA,	<i>American Larch, or Tamarack</i> (2).	Cabinet.
1017 CUPRESSUS THUYOIDES,	<i>White Cedar</i> (3).	- - - - - Cabinet.
1018 THUYA OCCIDENTALIS,	<i>Common Arbor-vita</i> (3).	- - Cabinet.
1019 JUNIPERUS COMMUNIS,	<i>Common Juniper</i> (3).	- - - Cabinet.
1020 JUNIPERUS VIRGINIANA,	<i>Red Cedar</i> (4).	- - - - - Cabinet.
1021 TAXUS CANADENSIS,	<i>American Yew</i> (1).	- - - - - Cabinet.

CLASS III. ENDOGENOUS PLANTS.

Vol. 36.]	ORDER CVI. ARACEÆ.	
1022 ARISEMA TRIPHYLLA,	<i>Indian Turnip</i> (2).	- - - - - Cabinet.
1023 ARISEMA DRACONTIUM,	<i>Greendragon</i> (1).	- - - - - Cabinet.
1024 PELTANDRA VIRGINICA,	<i>Arrow-leaved Arum</i> (2).	- - Cabinet.
1025 CALLA PALUSTRIS,	<i>Water Arum</i> (1).	- - - - - Cabinet.

Latin Names.	English Names.
1026 SYMPLOCARPUS FÆTIDUS,	<i>Common Skunk-cabbage</i> (4). - Cabinet.
1027 ORONTIUM AQUATICUM,	<i>Goldenclub</i> (4). - - - - Cabinet.
1028 ACORUS CALAMUS,	<i>Common Calamus, or Sweetflag</i> (2). Cabinet.

ORDER CVII. LEMNACEÆ.

1029 LEMNA MINOR,	<i>Lesser Duckweed</i> (3). - - - Cabinet.
1030 LEMNA PERPUSILLA,	<i>Smallest Duckweed</i> (1). - - Cabinet.
1031 LEMNA TRISULCA,	<i>Star Duckweed</i> (2). - - - Cabinet.
1032 LEMNA GIBBA,	<i>Gibbous Duckweed.</i>
1033 LEMNA POLYRRHIZA,	<i>Greater Duckweed</i> (2). - - Cabinet.

ORDER CVIII. TYPHACEÆ.

1034 TYPHA LATIFOLIA,	<i>Broad-leaved Cattail</i> (2). - - Cabinet.
1035 TYPHA ANGUSTIFOLIA,	<i>Narrow-leaved Cattail</i> (1). - Cabinet.
1036 SPARGANIUM RAMOSUM,	<i>Branching Bur-reed</i> (2). - - Cabinet.
1037 SPARGANIUM SIMPLEX,	<i>Smaller Bur-reed</i> (4). - - - Cabinet.

ORDER CIX. NAJADACEÆ.

1038 NAJAS CANADENSIS,	<i>Canadian Waternymph</i> (3). - Cabinet.
1039 ZOSTERA MARINA,	<i>Common Grasswreck</i> (2). - - Cabinet.
1040 RUPPIA MARITIMA,	<i>Ditchgrass</i> (1). - - - - Cabinet.
1041 ZANNICHELLIA PALUSTRIS,	<i>Horned Pondweed</i> (2). - - - Cabinet.
1042 POTAMOGETON NATANS,	<i>Broad-leaved Floating Pondweed</i> (5). Cab.
1043 POTAMOGETON HETEROPHYLLUS,	<i>Various-leaved Pondweed</i> (1). Cab.
1044 POTAMOGETON HYBRIDUS,	<i>Small Floating Pondweed</i> (3). Cabinet.
1045 POTAMOGETON LUCENS,	<i>Shining Pondweed</i> (3). - - Cabinet.
1046 POTAMOGETON PERFOLIATUS,	<i>Perfoliate Pondweed</i> (1). - Cabinet.
1047 POTAMOGETON ZOSTERIFOLIUS,	<i>Grass-leaved Pondweed</i> (6). Cabinet.
1048 POTAMOGETON PUSILLUS,	<i>Small Pondweed</i> (3). - - - Cabinet.
1049 POTAMOGETON PAUCIFLORUS,	<i>Few-flowered Pondweed</i> (4). Cabinet.
1050 POTAMOGETON PECTINATUS,	<i>Fennel-leaved Pondweed</i> (1). - Cabinet.

ORDER CX. ALISMACEÆ.

1051 ALISMA PLANTAGO,	<i>Common Water Plantain</i> (2). Cabinet.
1052 SAGITTARIA SAGITTIFOLIA,	<i>Common Arrowhead</i> (14). - - Cabinet.

Latin Names.	English Names			
1053 SAGITTARIA PUSILLA,	<i>Least Arrowhead.</i>			
1054 TRIGLOCHIN PALUSTRE,	<i>Marsh Arrowgrass</i> (3).	-	-	Cabinet.
1055 TRIGLOCHIN MARITIMUM,	<i>Seaside Arrowgrass</i> (4).	-	-	Cabinet.
1056 TRIGLOCHIN ELATUM,	<i>Tall Arrowgrass</i> (1).	-	-	Cabinet.
1057 SCHEUCHZERIA PALUSTRIS,	<i>Marsh Scheuchzeria</i> (3).	-	-	Cabinet.

ORDER CXI. HYDROCHARIDACEÆ.

1058 HYDROCHARIS CORDIFOLIA,	<i>Heart-leaved Frogsbit.</i>			
1059 UDORA CANADENSIS,	<i>Little Watersnakeweed</i> (4).	-	-	Cabinet.
1060 VALISNERIA SPIRALIS,	<i>Tapegrass, or Eelgrass.</i>			

Vol. 37.] ORDER CXII. ORCHIDACEÆ.

✓ 1061 MICROSTYLIS MONOPHYLLOS,	<i>Short-stalked Addersmouth</i> (2).			Cabinet.
✓ 1062 MICROSTYLIS OPHIOGLOSSOIDES,	<i>Long-stalked Addersmouth</i> (2).			Cab.
✓ 1063 CORALLORRHIZA INNATA,	<i>Vernal Coralroot</i> (3).	-	-	Cabinet.
✓ 1064 CORALLORRHIZA ODONTORRHIZA,	<i>Small Late Coralroot</i> (4).			Cabinet.
✓ 1065 CORALLORRHIZA MULTIFLORA,	<i>Large Coralroot</i> (5).	-	-	Cabinet.
✓ 1066 APLECTRUM HYEMALE,	<i>Puttyroot, or Adam-and-Eve</i> (2).			Cabinet.
✓ 1067 LIPARIS LILIFOLIA,	<i>Common Twayblade</i> (2).	-	-	Cabinet.
✓ 1068 LIPARIS LÆSELII,	<i>Smaller Twayblade</i> (2).	-	-	Cabinet.
✓ 1069 TIPULARIA DISCOLOR,	<i>Crane-fly Orchis</i> (2).	-	-	Cabinet.
✓ 1070 ORCHIS SPECTABILIS,	<i>Showy Orchis</i> (2).	-	-	Cabinet.
✓ 1071 GYMNADENIA TRIDENTATA,	<i>Three-toothed Gymnadenia</i> (2).			Cabinet.
✓ 1072 PLATANTERA OBTUSATA,	<i>Obtuse-leaved Platanthera</i> (1).			Cabinet.
✓ 1073 PLATANTERA ORBICULATA,	<i>Large-leaved Orchis</i> (1).	-	-	Cabinet.
✓ 1074 PLATANTERA HOOKERI,	<i>Hooker's Orchis</i> (1).	-	-	Cabinet.
✓ 1075 PLATANTERA FLAVA,	<i>Small Pale-yellow Orchis</i> (4).			Cabinet.
✓ 1076 PLATANTERA HYPERBOREA,	<i>Northern Orchis</i> (1).	-	-	Cabinet.
✓ 1077 PLATANTERA DILATATA,	<i>Small White-flowered Orchis</i> (4).			Cabinet.
✓ 1078 PLATANTERA BLEPHARIGLOTTIS,	<i>Fringed White Orchis</i> (3).			Cabinet.
✓ 1079 PLATANTERA CILIARIS,	<i>Fringed Yellow Orchis</i> (2).	-		Cabinet.
✓ 1080 PLATANTERA PSYCODES,	<i>Purple Swamp Orchis</i> (4).	-		Cabinet.
✓ 1081 PLATANTERA LACERA,	<i>Ragged Orchis</i> (2).	-	-	Cabinet.

Latin Names.	English Names.	
1082 PLATANThERA BRACTEATA,	<i>Green-flowered Orchis.</i>	
1083 ARETHUSA BULBOSA,	<i>Arethusa</i> (3).	Cabinet.
1084 POGONIA OPHIOGLOSSOIDES,	<i>Single leaved Pogonia</i> (4).	Cabinet.
1085 POGONIA VERTICILLATA,	<i>Verticillate Pogonia</i> (2).	Cabinet.
1086 POGONIA PENDULA,	<i>Nodding Pogonia</i> (3).	Cabinet.
1087 CALOPOGON PULCHELLUS,	<i>Calapogon</i> (4).	Cabinet.
1088 SPIRANTHES GRACILIS,	<i>Slender Lady's-tresses</i> (7).	Cabinet.
1089 SPIRANTHES CERNUA,	<i>Nodding Lady's-tresses</i> (4).	Cabinet.
1090 SPIRANTHES PLANTAGINEA,	<i>Common Lady's-tresses</i> (4).	Cabinet.
1091 GOODYERA PUBESCENS,	<i>Larger Rattlesnake Plantain</i> (3).	Cabinet.
1092 GOODYERA REPENS,	<i>Smaller Rattlesnake Plantain</i> (3).	Cabinet.
1093 LISTERA CORDATA,	<i>Heart-leaved Twayblade</i> (4).	Cabinet.
1094 CYPRIPEDIUM PUBESCENS,	<i>Large Yellow Ladyslipper</i> (1).	Cabinet.
1095 CYPRIPEDIUM PARVIFLORUM,	<i>Smaller Yellow Ladyslipper</i> (1).	Cabinet.
1096 CYPRIPEDIUM SPECTABILE,	<i>Showy Ladyslipper</i> (2).	Cabinet.
1097 CYPRIPEDIUM ACAULE,	<i>Purple Ladyslipper, or Noah's-ark</i> (2).	Cab.
1098 CYPRIPEDIUM ARIETINUM,	<i>Ramshead</i> (1).	Cabinet.

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ORDER CXIII. HYPOXIDACEÆ.

1099 HYPOXIS ERECTA,	<i>Common Stargrass</i> (3).	Cabinet.
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ORDER CXIV. IRIDACEÆ.

1100 IRIS VERSICOLOR,	<i>Blue Flag</i> (2).	Cabinet.
1101 IRIS VIRGINICA,	<i>Slender Blue-flag</i> (3).	Cabinet.
1102 SISYRINCHIUM BERNUDIANA,	<i>Common Blueyed-grass</i> (3).	Cabinet.

ORDER CXV. DIOSCOREACEÆ.

1103 DIOSCOREA VILLOSA,	<i>Wild Yamroot</i> (4).	Cabinet.
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ORDER CXVI. SMILACEÆ.

1104 MEDEOLA VIRGINICA,	<i>Cucumber-root</i> (3).	Cabinet.
1105 TRILLIUM ERYTHROCARPUM,	<i>Red-berried 3-leaved Nightshade</i> (2).	Cab.
1106 TRILLIUM CERNUUM,	<i>Nodding 3-leaved Nightshade</i> (1).	Cabinet.
1107 TRILLIUM ERECTUM,	<i>False Wakerobin</i> (5).	Cabinet.
1108 TRILLIUM GRANDIFLORUM,	<i>Large-flowered Trillium</i> (2).	Cabinet.

Latin Names.	English Names.
1109 SMILACINA STELLATA,	<i>Star-flowered Solomon's-seal</i> (2). Cabinet.
1110 SMILACINA TRIFOLIA,	<i>Three-leaved Smilacina</i> (4). - Cabinet.
1111 SMILACINA RACEMOSA,	<i>Wild Spikenard</i> (1). - - - Cabinet.
1112 SMILACINA BIFOLIA,	<i>Two-leaved Solomon's-seal</i> (7). Cabinet.
1113 POLYGONATUM MULTIFLORUM,	<i>Common Solomon's-seal</i> (4). Cabinet.
1114 CLINTONIA BOREALIS,	<i>Large-flowered Clintonia</i> (3). Cabinet.
1115 CLINTONIA UMBELLATA,	<i>Small-flowered Clintonia.</i>
1116 SMILAX ROTUNDIFOLIA,	<i>Common Greenbrier</i> (5). - - Cabinet.
1117 SMILAX HISPIDA,	<i>Hispid Greenbrier.</i>
1118 SMILAX SPINULOSA,	<i>Spinulose Greenbrier</i> (2). - - Cabinet.
1119 SMILAX HERBACEA,	<i>Carrionflower</i> (1). - - - - Cabinet.

ORDER CXVII. LILIACEÆ.

1120 LILIUM PHILADELPHICUM,	<i>Red Lily</i> (4). - - - - Cabinet.
1121 LILIUM CANADENSE,	<i>Wild Yellow Lily</i> (2). - - - Cabinet.
1122 LILIUM SUPERBUM,	<i>Superb Lily, or Turk's-cap</i> (2). Cabinet.
1123 ERYTHRONIUM AMERICANUM,	<i>American Dogtooth Violet</i> (3). Cabinet.
1124 ERYTHRONIUM ALBIDUM,	<i>White Dogtooth Violet</i> (2). - Cabinet.
1125 ORNITHOGALUM UMBELLATUM,	<i>Common Star-of-Bethlehem</i> (3). Cab.
1126 ALLIUM CANADENSE,	<i>Meadow Garlic.</i>
1127 ALLIUM VINEALE,	<i>Wild Garlic</i> (1). - - - - Cabinet.
1128 ALLIUM TRICOCCUM,	<i>Wild Leek</i> (1). - - - - Cabinet.
1129 ALLIUM CERNUUM,	<i>Wild Onion</i> (2). - - - - Cabinet.
1130 ASPARAGUS OFFICINALIS,	<i>Common Asparagus</i> (2). - - Cabinet.
1131 ALETIS FARINOSA,	<i>Colicroot</i> (1). - - - - Cabinet.

Vol. 39.] ORDER CXVIII. PONTEDERIACEÆ.

1132 PONTEDERIA CORDATA,	<i>Common Pickerelweed</i> (2). - Cabinet.
1133 HETERANTHERA RENIFORMIS,	<i>Mud Plantain</i> (2). - - - Cabinet.
1134 HETERANTHERA GRAMINEA,	<i>Water Stargrass</i> (2). - - Cabinet.

ORDER CXIX. MELANTHACEÆ.

1135 ZYGADENUS GLAUCUS,	<i>Glaucous-leaved Zygadenus</i> (2). Cabinet.
1136 MELANTHIUM VIRGINICUM,	<i>Virginian Melanthium</i> (2). - Cabinet.

Latin Names.	English Names.
1137 VERATRUM VIRIDE,	<i>White Hellebore, or Indian Poke</i> (2). Cabinet,
1138 HELONIAS DIOICA,	<i>Devilsbit, or Unicorn-plant</i> (2). Cabinet.
1139 UVULARIA PERFOLIATA,	<i>Perfoliate Bellwort</i> (4). - - Cabinet.
1140 UVULARIA GRANDIFLORA,	<i>Large-flowered Bellwort</i> (1). - Cabinet.
1141 UVULARIA SESSILIFOLIA,	<i>Sessile-leaved Bellwort</i> (2). - Cabinet.
1142 PROSARTES LANUGINOSA,	<i>Pale-flowered Prosartes</i> (2). - Cabinet.
1143 STREPTOPUS AMPLEXIFOLIUS,	<i>Smooth Twistedstalk</i> (1). - Cabinet,
1144 STREPTOPUS ROSEUS,	<i>Rose Twistedstalk</i> (1). - - - Cabinet.

ORDER CXX. JUNCACEÆ.

1145 LUZULA CAMPESTRIS,	<i>Common Woodrush</i> (4). - - Cabinet.
1146 LUZULA PILOSA,	<i>Broad-leaved Hairy Woodrush</i> (4). Cabinet,
1147 LUZULA PARVIFLORA,	<i>Small-flowered Woodrush</i> (2). Cabinet.
1148 JUNCUS EFFUSUS,	<i>Soft Rush</i> (2). - - - - - Cabinet.
1149 JUNCUS FILIFORMIS,	<i>Slender Rush</i> (4). - - - - - Cabinet.
1150 JUNCUS BALTICUS,	<i>Baltic Rush</i> (4). - - - - - Cabinet.
1151 JUNCUS NODOSUS,	<i>Smaller Roundheaded Rush</i> (9). Cabinet.
1152 JUNCUS POLYCEPHALUS,	<i>Many-headed Rush</i> (6). - - Cabinet.
1153 JUNCUS ACUMINATUS,	<i>Sharp-fruited Rush</i> (3). - - Cabinet,
1154 JUNCUS PELOCARPUS,	<i>Brownish-fruited Rush.</i>
1155 JUNCUS CONRADI,	<i>Conrad's Rush</i> (6). - - - - - Cabinet.
1156 JUNCUS BUFONIUS,	<i>Toad Rush</i> (2). - - - - - Cabinet.
1157 JUNCUS TENUIS,	<i>Slender Rush</i> (6). - - - - - Cabinet.
1158 JUNCUS GREENEI,	<i>Greene's Rush.</i>
1159 JUNCUS GERARDI,	<i>Blackgrass</i> (3). - - - - - Cabinet.
1160 JUNCUS MARGINATUS,	<i>Grass-leaved Rush</i> (4). - - Cabinet,
1161 JUNCUS STYGIUS,	<i>Large-fruited Rush</i> (6). - - Cabinet.
1162 JUNCUS TRIFIDUS,	<i>Slender-fringed Rush</i> (6). - Cabinet.

ORDER CXXI. COMMELYNACEÆ.

1163 COMMELYNA ANGUSTIFOLIA,	<i>Narrow-leaved Dayflower.</i>
1164 TRADESCANTIA VIRGINICA,	<i>Virginian Spiderwort</i> (1). - Cabinet,

ORDER CXXII. XYRIDACEÆ.

1165 XYRIS CAROLINIANA,	<i>Common Yelloweyed-grass</i> (3). Cabinet.
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ORDER CXXIII. ERIOCAULONACEÆ.

Latin Names.

English Names.

1166 ERIOCAULON SEPTANGULARE, *Pellucid Pipewort*(4). - - Cabinet.

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ORDER CXXIV. CYPERACEÆ.

1167 DULICHIMUM SPATHACEUM, *Dulichium*(3). - - - - Cabinet.1168 CYPERUS FLAVESCENS, *Yellowish Dwarf Galingale*(4). Cabinet.1169 CYPERUS DIANDRUS, *Diandrous Galingale*(15). - Cabinet.1170 CYPERUS NUTTALLII, *Nuttall's Galingale*(3). - - Cabinet.1171 CYPERUS MICHAUXIANUS, *Michaux's Galingale*(1). - - Cabinet.1172 CYPERUS STRIGOSUS, *Tall Galingale*(6). - - - Cabinet.1173 CYPERUS REPENS, *Creeping Galingale*(1). - - Cabinet.1174 CYPERUS FILICULMIS, *Slender-stalked Galingale*(4). Cabinet.1175 CYPERUS GRAYI, *Gray's Galingale*(2). - - - Cabinet.1176 CYPERUS DENTATUS, *Toothed Galingale*(3). - - Cabinet.1177 CYPERUS INFLEXUS, *Dwarf Odorous Galingale*(7). Cabinet.1178 CYPERUS SCHWEINITZII, *Schweinitz's Galingale*(2). - Cabinet.1179 CYPERUS OVULARIS, *Oval-headed Galingale*(2). - Cabinet.1180 CYPERUS RETROFRACTUS, *Bent-flowered Galingale*.1181 FUIRENA SQUARROSA, *Squarrose Fuirena*(7). - - Cabinet.1182 ELEOCHARIS PALUSTRIS, *Common Spikerush*(7). - - Cabinet.1183 ELEOCHARIS OLIVACEA, *Olive-fruited Spikerush*(2). - Cabinet.1184 ELEOCHARIS ROSTELLATA, *Beaked Spikerush*(2). - - - Cabinet.1185 ELEOCHARIS INTERMEDIA, *Intermediate Spikerush*(3). - Cabinet.1186 ELEOCHARIS OBTUSA, *Obtuse-headed Spikerush*(4). Cabinet.1187 ELEOCHARIS TUBERCULOSA, *Large-tuberclcd Spikerush*(2). Cabinet.1188 ELEOCHARIS ACICULARIS, *Capillary Spikerush*(6). - - Cabinet.1189 ELEOCHARIS TENUIS, *Slender Spikerush*(1). - - Cabinet.1190 ELEOCHARIS PYGMÆA, *Dwarf Spikerush*(8). - - - Cabinet.1191 SCIRPUS PLANIFOLIUS, *Small Flat-leaved Clubrush*(2). Cabinet.1192 SCIRPUS SUBTERMINALIS, *Floating Clubrush*(2). - - Cabinet.1193 SCIRPUS CÆSPITOSUS, *Scaly-stalked Clubrush*(3). - Cabinet.1194 SCIRPUS DEBILIS, *Weak-stalked Clubrush*(4). - Cabinet.1195 SCIRPUS TRIQUETER, *Chairmaker's Rush*(7). - - Cabinet.

Latin Names.	English Names.
1196 SCIRPUS MUCRONATUS,	<i>Longheaded Triangular Rush</i> (1). Cabinet.
1197 SCIRPUS LACUSTRIS,	<i>Bulrush</i> (3). - - - Cabinet.
1198 SCIRPUS MARITIMUS,	<i>Sea Clubrush</i> (3). - - - Cabinet.
1199 SCIRPUS ATROVIRENS,	<i>Dark-green Clubrush</i> (2). - - Cabinet.
1200 SCIRPUS BRUNNEUS,	<i>Brown-headed Clubrush</i> (1). - Cabinet.
1201 SCIRPUS ERIOPHORUS,	<i>Brown Woolgrass</i> (3). - - - Cabinet.
1202 SCIRPUS LINEATUS,	<i>Loose-flowered Woolgrass</i> (2). Cabinet.
1203 ERIOPHORUM ALPINUM,	<i>Alpine Cottongrass</i> (3). - - Cabinet.
1204 ERIOPHORUM VAGINATUM,	<i>Harestail</i> (3). - - - - - Cabinet.
1205 ERIOPHORUM VIRGINICUM,	<i>Rusty Cottongrass</i> (3). - - Cabinet.
1206 ERIOPHORUM POLYSTACHYUM,	<i>Broad-leaved Cottongrass</i> (3). Cabinet.
1207 ERIOPHORUM ANGUSTIFOLIUM,	<i>Narrow-leaved Cottongrass</i> (5). Cab.
1208 FIMBRISTYLIS SPADICEA,	<i>Tall Brown-spiked Fimbristylis</i> (2). Cab.
1209 ISOLEPIS CAPILLARIS,	<i>Hair-like Isolepis</i> (2). - - - Cabinet.
1210 TRICHELOSTYLIS MUCRONULATA,	<i>Common Trichelostylis</i> (6). Cabinet.
1211 HEMICARPHA SUBSQUARROSA,	<i>Dwarf Hemicarpha</i> (6). - Cabinet.
1212 RHYNCHOSPORA ALBA,	<i>White Beakrush</i> (2). - - - Cabinet.
1213 RHYNCHOSPORA CAPILLACEA,	<i>Small Capillary Beakrush</i> (3). Cabinet.
1214 RHYNCHOSPORA FUSCA,	<i>Brown Beakrush</i> (5). - - - Cabinet.
1215 RHYNCHOSPORA GRACILENTA,	<i>Tall Slender Beakrush</i> (1). Cabinet.
1216 RHYNCHOSPORA GLOMERATA,	<i>Common Beakrush</i> (3). - - Cabinet.
1217 RHYNCHOSPORA CEPHALANTHA,	<i>Roundheaded Beakrush</i> (2). Cabinet.
1218 CLADIUM MARISCOIDES,	<i>Smooth Twigrush</i> (4). - - - Cabinet.
1219 SCLERIA RETICULARIS,	<i>Sessile-spiked Nutrush</i> (2)- - - Cabinet.
1220 SCLERIA LAXA,	<i>Loose-flowered Nutrush</i> (4). - Cabinet.
1221 SCLERIA TRIGLOMERATA,	<i>Three-clustered Nutrush</i> (4). - Cabinet.
1222 SCLERIA PAUCIFLORA,	<i>Few-flowered Nutrush</i> (2). - Cabinet.
1223 SCLERIA VERTICILLATA,	<i>Dwarf Verticillate Nutrush</i> (2). Cabinet.
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1224 CAREX DIOICA,	<i>Diocious Sedge</i> (1). - - - Cabinet.
1225 CAREX EXILIS,	<i>Slender Sedge</i> (5). - - - - - Cabinet.
1226 CAREX PAUCIFLORA,	<i>Few-flowered Sedge</i> (6). - - - Cabinet.

Latin Names.	English Names.
1227 CAREX POLYTRICHOIDES,	<i>Bristle-stalked Sedge</i> (3). - - Cabinet.
1228 CAREX WILLDENOVII,	<i>Willdenow's Sedge</i> (5). - - Cabinet.
1229 CAREX BACKII,	<i>Back's Sedge</i> (2). - - - - Cabinet.
1230 CAREX DISPERSA,	<i>Two-seeded Sedge</i> (2). - - - Cabinet.
1231 CAREX CHORDORRHIZA,	<i>Long-rooted Sedge</i> (6). - - Cabinet.
1232 CAREX CEPHALOPHORA,	<i>Oval-headed Sedge</i> (5). - - Cabinet.
1233 CAREX MUHLENBERGII,	<i>Muhlenberg's Sedge</i> (3). - - Cabinet.
1234 CAREX SICCATA,	<i>Dry-spiked Sedge</i> (3). - - - Cabinet.
1235 CAREX ROSEA,	<i>Rose Sedge</i> (4). - - - - - Cabinet.
1236 CAREX RETROFLEXA,	<i>Retroflexed Sedge</i> (2). - - - Cabinet.
1237 CAREX SPARGANIOIDES,	<i>Bur-reed Sedge</i> (6). - - - Cabinet.
1238 CAREX STIPATA,	<i>Awl-fruited Sedge</i> (3). - - Cabinet.
1239 CAREX VULPINOIDEA,	<i>Fox Sedge</i> (8). - - - - - Cabinet.
1240 CAREX SETACEA,	<i>Bristly-spiked Sedge.</i>
1241 CAREX BROMOIDES,	<i>Bromus-like Sedge</i> (9). - - Cabinet.
1242 CAREX ALOPECOIDEA,	<i>Foxtail Sedge.</i>
1243 CAREX SARTWELLII,	<i>Sartwell's Sedge</i> (3). - - - Cabinet.
1244 CAREX TERETIUSCULA,	<i>Lesser-panicled Sedge</i> (5). - Cabinet.
1245 CAREX DECOMPOSITA,	<i>Large-panicled Sedge</i> (3). - Cabinet.
1246 CAREX TRISPERMA,	<i>Three-seeded Sedge</i> (2). - - Cabinet.
1247 CAREX DEWEYANA,	<i>Dewey's Sedge</i> (3). - - - - Cabinet.
1248 CAREX CANESCENS,	<i>White Sedge</i> (6). - - - - - Cabinet.
1249 CAREX STELLULATA,	<i>Little Prickly Sedge</i> (2). - - Cabinet.
1250 CAREX TENUIFLORA,	<i>Slender Cluster-spiked Sedge</i> (2). Cabinet.
1251 CAREX SCOPARIA,	<i>Broom-like Sedge</i> (10). - - Cabinet.
1252 CAREX STRAMINEA,	<i>Straw-colored Sedge</i> (19). - Cabinet.
1253 CAREX PEDUNCULATA,	<i>Long-stalked Sedge</i> (4). - - Cabinet.
1254 CAREX SQUARROSA,	<i>Squarrose-headed Sedge</i> (4). - Cabinet.
1255 CAREX BUXBAUMII,	<i>Buxbaum's Sedge</i> (4). - - - Cabinet.
1256 CAREX TRICEPS,	<i>Three-headed Pubescent Sedge</i> (5). Cabinet.
1257 CAREX VIRESCENS,	<i>Green-spiked Pubescent Sedge</i> (4). Cabinet.
1258 CAREX GRACILLIMA,	<i>Slender Nodding Sedge</i> (3). - Cabinet.

Latin Names.	English Names.
1259 CAREX FORMOSA,	<i>Showy Sedge</i> (3). - - - Cabinet.
1260 CAREX DAVISII,	<i>Davis's Sedge</i> (3). - - - Cabinet.
1261 CAREX RIGIDA,	<i>Rigid Sedge</i> (4). - - - Cabinet.
1262 CAREX ANGUSTATA,	<i>Large Bog Sedge</i> (3). - - - Cabinet.
1263 CAREX CÆSPITOSA,	<i>Smaller Bog Sedge.</i>
1264 CAREX AQUATILIS,	<i>Water Sedge</i> (2). - - - Cabinet.
1265 CAREX AUREA,	<i>Golden-fruited Sedge</i> (6). - Cabinet.
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1266 CAREX CRINITA,	<i>Fringed Sedge</i> (4). - - - Cabinet.
1267 CAREX OLIGOSPERMA,	<i>Few-fruited Sedge</i> (3). - - Cabinet.
2, 1268 CAREX INFLATA,	<i>Inflated Sedge.</i>
1269 CAREX CYLINDRICA,	<i>Cylindrical-spiked Sedge.</i>
1270 CAREX UTRICULATA,	<i>Bladder-fruited Sedge</i> (9). - Cabinet.
1271 CAREX SUBULATA,	<i>Awl-fruited Sedge</i> (4). - - Cabinet.
1272 CAREX FOLLICULATA,	<i>Tall Yellow Sedge</i> (7). - - Cabinet.
1273 CAREX INTUMESCENS,	<i>Swollen-fruited Sedge</i> (4). - Cabinet.
1274 CAREX LUPULINA,	<i>Hop Sedge</i> (4). - - - - Cabinet.
1275 CAREX SCABRATA,	<i>Rough-fruited Sedge</i> (3). - - Cabinet.
1276 CAREX SCHWEINITZII,	<i>Schweinitz's Sedge</i> (2). - - Cabinet.
1277 CAREX RETRORSA,	<i>Backward-fruited Sedge</i> (2). - Cabinet.
1278 CAREX TENTACULATA,	<i>Long-pointed Sedge</i> (3). - - Cabinet.
1279 CAREX HYSTRICINA,	<i>Porcupine Sedge</i> (5). - - - Cabinet.
1280 CAREX PSEUDO-CYPERUS,	<i>Cypress-like Sedge.</i>
1281 CAREX LONGIROSTRIS,	<i>Long-beaked Sedge</i> (3). - - Cabinet.
1282 CAREX TRICHOCARPA,	<i>Hairy-fruited Sedge.</i>
1283 CAREX ARISTATA,	<i>Awned Sedge</i> (3). - - - - Cabinet.
1284 CAREX UMBELLATA,	<i>Umbel-spiked Sedge</i> (8). - - Cabinet.
1285 CAREX PENNSYLVANICA,	<i>Pennsylvanian Sedge</i> (7). - - Cabinet.
1286 CAREX NOVÆ-ANGLÆ,	<i>New-England Sedge</i> (3). - - Cabinet.
1287 CAREX FILIFORMIS,	<i>Slender-leaved Sedge</i> (3). - - Cabinet.
1288 CAREX LANUGINOSA,	<i>Woolly-fruited Sedge</i> (9). - Cabinet.
1289 CAREX VESTITA,	<i>Short Woolly-spiked Sedge</i> (4). Cabinet.
1290 CAREX PUBESCENS,	<i>Pubescent Sedge</i> (3). - - - Cabinet.

Latin Names.	English Names.
1291. CAREX LIMOSA,	<i>Mud Sedge</i> (12). - - - - Cabinet.
1292 CAREX LIVIDA,	<i>Livid Sedge</i> (8). - - - - Cabinet.
1293 CAREX FLAVA,	<i>Large Yellow Sedge</i> (6). - - Cabinet.
1294 CAREX OEDERI,	<i>Æder's Sedge</i> (2). - - - - Cabinet.
1295 CAREX PALLESCENS,	<i>Pale Pubescent Sedge</i> (5). - Cabinet.
1296 CAREX TORREYI,	<i>Torrey's Sedge.</i>
1297 CAREX STRIATA,	<i>Striated Sedge</i> (2). - - - - Cabinet.
1298 CAREX GRANULARIS,	<i>Granular-spiked Sedge</i> (4). - Cabinet.
1299 CAREX LAXIFLORA,	<i>Loose-flowered Sedge.</i>
1300 CAREX CONOIDEA,	<i>Conical-fruited Sedge</i> (2). - Cabinet.
1301 CAREX DIGITALIS,	<i>Slender Sedge</i> (7). - - - - Cabinet.
1302 CAREX OLIGOCARPA,	<i>Small Few-fruited Sedge</i> (9). Cabinet.
1303 CAREX TETANICA,	<i>Crooked-necked Sedge</i> (3). - Cabinet.
1304 CAREX ANCEPS,	<i>Two-edged Sedge</i> (14). - - Cabinet.
1305 CAREX BLANDA,	<i>Pale Smooth Sedge.</i>
1306 CAREX CRAWEI,	<i>Crawe's Sedge</i> (2). - - - - Cabinet.
1307 CAREX PLANTAGINEA,	<i>Plantain-leaved Sedge</i> (4). - Cabinet.
1308 CAREX CAREYANA,	<i>Carey's Sedge</i> (2). - - - - Cabinet.
1309 CAREX EBURNEA,	<i>Bristle-leaved White Sedge</i> (5). Cabinet.
1310 CAREX FLEXILIS,	<i>Fringed Sedge</i> (4). - - - - Cabinet.
1311 CAREX ARCTATA,	<i>Short-beaked Wood Sedge</i> (3). Cabinet.
1312 CAREX DEBILIS,	<i>Weak Sedge</i> (3). - - - - Cabinet.
1313 CAREX MILIACEA,	<i>Millet-like Sedge</i> (5). - - - - Cabinet.
1314 CAREX LACUSTRIS,	<i>Lake Sedge</i> (3). - - - - Cabinet.

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ORDER CXXV. GRAMINEÆ.

1315 LEERSIA ORYZOIDES,	<i>Cutgrass, or Whitegrass</i> (2). Cabinet.
1316 LEERSIA VIRGINICA,	<i>Small-flowered Whitegrass</i> (2). Cabinet.
1317 ZIZANIA AQUATICA,	<i>Wild Rice</i> (2). - - - - - Cabinet.
1318 ALOPECURUS PRATENSIS,	<i>Common Foxtail-grass.</i>
1319 ALOPECURUS GENICULATUS,	<i>Water Foxtail-grass</i> (3). - - Cabinet.
1320 PHELEUM PRATENSE,	<i>Timothy, or Herdsgrass</i> (2). - Cabinet.
1321 PHALARIS ARUNDINACEA,	<i>Reed Canary-grass</i> (2). - - Cabinet.

Latin Names.	English Names	
1322 PHALARIS CANARIENSIS,	<i>Common Canary-grass</i> (1).	- Cabinet.
1323 HOLCUS LANATUS,	<i>Meadow Softgrass</i> (3).	- - Cabinet.
1324 HIEROCHLOA BOREALIS,	<i>Seneca or Vanilla Grass</i> (2).	- Cabinet.
1325 HIEROCHLOA ALPINA,	<i>Alpine Holygrass</i> (4).	- - - Cabinet.
1326 ANTHOXANTHUM ODORATUM,	<i>Sweetscented Vernal-grass</i> (5).	Cabinet.
1327 PASPALUM LEVE,	<i>Smooth Erect Paspalum</i> (2).	- Cabinet.
1328 PASPALUM SETACEUM,	<i>Hairy Slender Paspalum</i> (2).	Cabinet.
1329 MILIUM EFFUSUM,	<i>Millet-grass</i> (2).	- - - - Cabinet.
1330 PANICUM SANGUINALE,	<i>Common Crabgrass</i> (1).	- - Cabinet.
1331 PANICUM GLABRUM,	<i>Smooth Crabgrass</i> (2).	- - Cabinet.
1332 PANICUM FILIFORME,	<i>Slender Crabgrass</i> (2).	- - Cabinet.
1333 PANICUM CRUS-GALLI,	<i>Barnyard-grass</i> (4).	- - - Cabinet.
1334 PANICUM VIRGATUM,	<i>Tall Smooth Panicgrass</i> (2).	Cabinet.
1335 PANICUM LATIFOLIUM,	<i>Broad-leaved Panicgrass</i> (3).	Cabinet.
1336 PANICUM CLANDESTINUM,	<i>Hidden-flowered Panicgrass</i> (6).	Cabinet.
1337 PANICUM XANTHOPHYSUM,	<i>Yellow Panicgrass</i> (2).	- - Cabinet.
1338 PANICUM CAPILLARE,	<i>Hair-stalked Panicgrass</i> (5).	Cabinet.
1339 PANICUM DEPAUPERATUM,	<i>Few-flowered Panicgrass</i> (4).	Cabinet.
1340 PANICUM DICHOTOMUM,	<i>Polymorphous Panicgrass</i> (22).	Cabinet.
1341 PANICUM VERRUCOSUM,	<i>Warty-flowered Panicgrass</i> (3).	Cabinet.
1342 PANICUM AGROSTOIDES,	<i>Agrostis-like Panicgrass</i> (3).	Cabinet.
1343 PANICUM PROLIFERUM,	<i>Proliferous Panicgrass</i> (2).	- Cabinet.
1344 PENNISETUM GLAUCUM,	<i>Foxtail, or Bottlegrass</i> (2).	- Cabinet.
1345 PENNISETUM VIRIDE,	<i>Green Bottlegrass</i> (1).	- - - Cabinet.
1346 CENCHRUS TRIBULOIDES,	<i>Burgrass</i> (4).	- - - - - Cabinet.

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1347 ORYZOPSIS ASPERIFOLIA,	<i>White-grained Mountain-rice</i> (4).	Cabinet.
1348 ORYZOPSIS MELANOCARPA,	<i>Black-fruited Mountain-rice</i> (2).	Cabinet.
1349 ORYZOPSIS CANADENSIS,	<i>Smallest Mountain-rice</i> (2).	- Cabinet.
1350 STIPA AVENACEA,	<i>Black Oatgrass</i> (1).	- - - Cabinet.
1351 ARISTIDA DICHOTOMA,	<i>Dichotomous Threeawned-grass</i> (2).	Cabinet.
1352 ARISTIDA GRACILIS,	<i>Slender Threeawned-grass</i> (3).	Cabinet.

Latin Names.	English Names.
1353 MUHLENBERGIA DIFFUSA,	<i>Dropseed-grass</i> (3). - - - Cabinet.
1354 MUHLENBERGIA CINNA,	<i>Tall Muhlenbergia</i> .
1355 MUHLENBERGIA WILLDENOVII,	<i>Willdenow's Muhlenbergia</i> (3). Cabinet.
1356 MUHLENBERGIA SYLVATICA,	<i>Wood Muhlenbergia</i> (3). - - Cabinet.
1357 MUHLENBERGIA SOBOLIFERA,	<i>Awnless Muhlenbergia</i> .
1358 MUHLENBERGIA GLOMERATA,	<i>Cluster-spiked Muhlenbergia</i> (3). Cab.
1359 MUHLENBERGIA MEXICANA,	<i>Mexican Muhlenbergia</i> (2). - Cabinet.
1360 VILFA VAGINÆFLORA,	<i>Hidden-flowered Vilfa</i> (4). - Cabinet.
1361 VILFA ASPERA,	<i>Rough-leaved Vilfa</i> (2). - - Cabinet.
1362 VILFA SEROTINA,	<i>Late-flowering Vilfa</i> (3). - - Cabinet.
1363 VILFA HETEROLEPIS,	<i>Strong-scented Vilfa</i> .
1364 VILFA CRYPTANDRA,	<i>Large-paniced Vilfa</i> (1). - - Cabinet.
1365 AGROSTIS VULGARIS,	<i>Herdsgrass</i> .
1366 AGROSTIS ALBA,	<i>Fiorin-grass</i> .
1367 AGROSTIS LAXIFLORA,	<i>Hairgrass</i> (6). - - - - Cabinet.
1368 AGROSTIS STRICTA,	<i>Upright-flowered Bentgrass</i> (2). Cabinet.
1369 AGROSTIS CANINA,	<i>Bentgrass</i> (3). - - - - Cabinet.
1370 BRACHYELYTRUM ARISTATUM,	<i>Awned Brachyelytrum</i> (2). Cabinet.
1371 CALAMAGROSTIS CANADENSIS,	<i>Canadian Smallreed</i> (5). - Cabinet.
1372 CALAMAGROSTIS COARCTATA,	<i>Glaucous Smallreed</i> (2). - Cabinet.
1373 CALAMAGROSTIS INEXPANSA,	<i>Close-flowered Smallreed</i> (2). Cabinet.
1374 AMMOPHILA ARUNDINACEA,	<i>Common Seareed</i> (2). - - - Cabinet.
1375 PHRAGMITES COMMUNIS,	<i>Common Reed</i> (1). - - - - Cabinet.
1376 ELEUSINE INDICA,	<i>Dogstail-grass, or Yard-grass</i> (3). Cabinet.
1377 SPARTINA CYNOSUROIDES,	<i>Tall Marshgrass</i> (2). - - - Cabinet.
1378 SPARTINA JUNCEA,	<i>Rush-like Marshgrass</i> (3). - Cabinet.
1379 SPARTINA ALTERNIFOLIA,	<i>Smooth Marshgrass</i> (2). - - Cabinet.
1380 BOUTELOUA RACEMOSA,	<i>Racemed Bouteloua</i> (2). - - Cabinet.
1381 AIRA FLEXUOSA,	<i>Common Hairgrass</i> (3). - - Cabinet.
1382 AIRA ATROPURPUREA,	<i>Purple Alpine Hairgrass</i> (3). Cabinet.
1383 AIRA CÆSPITOSA,	<i>Tufted Hairgrass</i> (5). - - - Cabinet.
1384 TRISETUM MOLLE,	<i>Soft Trisetum</i> (3). - - - - Cabinet.

Latin Names.	English Names.
1385 AVENA PENNSYLVANICUM,	<i>Pennsylvanian Wildoat</i> (3). - Cabinet.
1386 AVENA STRIATA,	<i>Purple Wildoat</i> (2). - - - Cabinet.
1387 ARRHENATHERUM AVENACEUM,	<i>Grass-of-the-Andes</i> (2). - Cabinet
1388 DANTHONIA SPICATA,	<i>Wild Oatgrass</i> (3). - - - Cabinet.
1389 URALEPIS ARISTULATA,	<i>Short-awned Uralepis</i> (3). - Cabinet.
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1390 POA ANNUA,	<i>Annual Meadowgrass</i> (5). - Cabinet.
1391 POA LAXA,	<i>Few-flowered Alpine Meadowgrass</i> (3).Cabinet.
1392 POA TRIVIALIS,	<i>Rough Meadowgrass</i> (1). - - Cabinet.
1393 POA PRATENSIS,	<i>Smooth-stalked Meadowgrass</i> (3).Cabinet.
1394 POA COMPRESSA,	<i>Bluegrass, or Wiregrass</i> (7). Cabinet.
1395 POA PUNGENS,	<i>Sharp-leaved Meadowgrass</i> (2). Cabinet.
1396 POA NEMORALIS,	<i>Wood Meadowgrass</i> (1). - - Cabinet.
1397 POA SEROTINA,	<i>Redtop</i> (2). - - - - - Cabinet.
1398 POA DEBILIS,	<i>Weak Meadowgrass</i> (3). - - Cabinet.
1399 POA ERAGROSTIS,	<i>Strongscented Meadowgrass</i> (1). Cabinet.
1400 POA PILOSA,	<i>Slender Meadowgrass</i> (2). - Cabinet.
1401 POA REPTANS,	<i>Creeping Meadowgrass</i> (4). - Cabinet.
1402 POA HIRSUTA,	<i>Hairy Meadowgrass</i> (1). - - Cabinet.
1403 POA CAPILLARIS,	<i>Hair-panicled Meadowgrass</i> (2). Cabinet.
1404 POA DENTATA,	<i>Toothed Meadowgrass</i> (2). - Cabinet.
1405 POA MICHAUXII,	<i>Spiked Saltmarsh Poa</i> (3). - Cabinet.
1406 TRICUSPIS SESLERIODES,	<i>Tall Redtop</i> (2). - - - - Cabinet.
1407 GLYCERIA FLUITANS,	<i>Common Mannagrass</i> (1). - Cabinet.
1408 GLYCERIA ACUTIFLORA,	<i>Sharp-flowered Mannagrass</i> (2). Cabinet.
1409 GLYCERIA AQUATICA,	<i>Reed Mannagrass</i> (1). - - - Cabinet.
1410 GLYCERIA NERVATA,	<i>Nerved Mannagrass</i> (6). - - Cabinet.
1411 GLYCERIA ELONGATA,	<i>Long-panicled Mannagrass</i> (2). Cabinet.
1412 GLYCERIA CANADENSIS,	<i>Rattlesnake-grass</i> (2). - - - Cabinet.
1413 DACTYLIS GLOMERATA,	<i>Cocksfoot-grass</i> (2). - - - - Cabinet.
1414 BROMUS SECALINUS,	<i>Cheat, or Chess</i> (2). - - - - Cabinet.
1415 BROMUS CILIATUS,	<i>Fringed Bromegrass</i> (4). - - Cabinet.
1416 BROMUS PURGANS,	<i>Hairy-flowered Bromegrass</i> (2). Cabinet.

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dichialis*

Latin Names.	English Names.	
1417 BROMUS STERILIS,	<i>Barren Bromegrass</i> (1).	- - Cabinet.
1418 KÆLERIA PENNSYLVANICA,	<i>Pennsylvanian Kæleria</i> (2).	- Cabinet.
1419 KÆLERIA TRUNCATA,	<i>Truncated Kæleria</i> (2).	- - Cabinet.
1420 FESTUCA DURIUSCULA,	<i>Hard Fescuegrass</i> (3).	- - - Cabinet.
1421 FESTUCA TENELLA,	<i>Slender Fescuegrass</i> (2).	- - Cabinet.
1422 FESTUCA NUTANS,	<i>Nodding Fescuegrass</i> (2).	- - Cabinet.
1423 FESTUCA ELATIOR,	<i>Tall Fescuegrass</i> (1).	- - - Cabinet.
1424 FESTUCA PRATENSIS,	<i>Meadow Fescuegrass</i> (2).	- - Cabinet.
1425 DIPLACHNE FASCICULARIS,	<i>Cluster-flowered Diplachne</i> (2).	Cabinet.
1426 UNIOLA GRACILIS,	<i>Slender Spikegrass</i> (2).	- - Cabinet.
1427 LOLIUM PERENNE,	<i>Common Darnel</i> (1).	- - - Cabinet.
1428 TRITICUM REPENS,	<i>Couchgrass, or Quitchgrass</i> (2).	Cabinet.
1429 TRITICUM CANINUM,	<i>Fibrous-rooted Wheatgrass</i> (2).	Cabinet.
1430 ELYMUS VIRGINICUS,	<i>Virginian Lyme-grass</i> (2).	- Cabinet.
1431 ELYMUS CANADENSIS,	<i>Canadian Lyme-grass</i> (2).	- - Cabinet.
1432 ELYMUS VILLOSUS,	<i>Slender-hairy Lyme-grass</i> (2).	Cabinet.
1433 ELYMUS HYSTRIX,	<i>Bottlebrush-grass</i> (4).	- - - Cabinet.
1434 ANDROPOGON NUTANS,	<i>Indian Beardgrass.</i>	
1435 ANDROPOGON SCOPARIUS,	<i>Purple Woodgrass</i> (2).	- - Cabinet.
1436 ANDROPOGON FURCATUS,	<i>Finger-spiked Woodgrass</i> (2).	Cabinet.
1437 ANDROPOGON VIRGINICUS,	<i>Virginian Beardgrass</i> (3).	- Cabinet.
1438 ANDROPOGON MACROURUS,	<i>Cluster-flowered Beardgrass</i> (2).	Cabinet.

A D D I T I O N S.

PLANTS DISCOVERED DURING THE PRINTING OF THE FLORA.

And described in Vol. ii, pp. 515 et seq.

Latin Names.	English Names.	
1439 POLYGALA LUTEA,	<i>Yellow Milkwort,</i>	
1440 DESMODIUM LÆVIGATUM,	<i>Rigid Upright Desmodium,</i>	
1441 LYTHRUM SALICARIA,	<i>Common Purple Loosestrife.</i>	
1442 SAXIFRAGA AIZOIDES,	<i>Yellow Mountain Saxifrage.</i>	
1443 EUPATORIUM HYSSOPIFOLIUM,	<i>Hyssop-leaved Hempweed.</i>	
1444 EUPATORIUM ALBUM,	<i>Whiteheaded Hempweed.</i>	
1445 EUPATORIUM RESINOSUM,	<i>Resinous Hempweed.</i>	
1446 ASTER CONCOLOR,	<i>Racemed Violet Aster.</i>	
1447 OAKESIA CONRADI,	<i>Conrad's Oakesia</i> (3).	- - - Cabinet.
1448 CALYPSO BOREALIS,	<i>Northern Calypso.</i>	
1449 ELEOCHARIS MELANOCARPA,	<i>Black-fruited Eleocharis</i> (2).	Cabinet.

PLANTS DISCOVERED AND COLLECTED SINCE THE PUBLICATION OF THE FLORA.

1450 ROBINIA VISCOSA,	<i>Clammy Locust</i> (1).	- - -	Cabinet.
1451 VICIA CAROLINIANA,	<i>Carolinian Vetch</i> (1).	- - -	Cabinet.
1452 STELLARIA LONGIPES,	<i>Long-stalked Stitchwort</i> (1).	- - -	Cabinet.
1453 TRIFOLIUM INCARNATUM,	<i>Incarnate Clover</i> (2).	- - -	Cabinet.
1454 PYRUS MALUS,	<i>Common Apple</i> (4).	- - - -	Cabinet.
1455 ŒNOTHERA RIPARIA,	<i>Bank Evening-primrose</i> (1).	- - -	Cabinet.
1456 GALIUM CONCINNUM,	<i>Concinnate Bluets</i> (1).	- - -	Cabinet.

Latin Names.	English Names.	
1457 PHLOMIS TUBEROSA,	<i>Tuberous Phlomis</i> (2).	- - - Cabinet.
1458 LITHOSPERMUM LATIFOLIUM,	<i>Broad-leaved Gromwell</i> (1).	Cabinet.
1459 ONOSMODIUM CAROLINIANUM,	<i>Carelina False-gromwell</i> (2).	Cabinet.
1460 AMARANTHUS TAMARISCINUS,	<i>Salt Amaranth</i> (1).	- - - Cabinet.
1461 CHENOPODIUM MURALE,	<i>Wall Goosefoot</i> (3).	- - - Cabinet.
1462 SALIX FRAGILIS,	<i>Brittle Willow</i> (8).	- - - Cabinet.
1463 SALIX BABYLONICA,	<i>Weeping Willow</i> (2).	- - - Cabinet.
1464 SALIX ERIOCEPHALA,	<i>Woolly-head Willow</i> (3).	- - - Cabinet.
1465 SALIX ANGUSTATA,	<i>Narrow-leaved Willow</i> (3).	- Cabinet.
1466 MELANTHIUM HYBRIDUM,	<i>Hybrid Melanthium</i> (1).	- - - Cabinet.
1467 CAREX STEUDELII,	<i>Steudel's Sedge</i> (1).	- - - Cabinet.
1468 CAREX PANICULATA,	<i>Panicled Sedge</i> (1).	- - - Cabinet.
1469 CAREX VULGARIS,	<i>Small Black-scaled Sedge</i> (1).	Cabinet.
1470 CAREX TORTA,	<i>Twisted Sedge</i> (6).	- - - - Cabinet.
1471 CAREX GRISEA,	<i>Greyish Sedge</i> (4).	- - - - Cabinet.
1472 CAREX PLATYPHYLLA,	<i>Flat-leaved Sedge</i> (2).	- - - - Cabinet.
1473 CAREX COMOSA,	<i>Cyprus-like Sedge</i> (3).	- - - Cabinet.
1474 PANICUM FAUCIFLORUM,	<i>Few-flowered Panicgrass</i> (2).	Cabinet.
1475 AVENA SATIVA,	<i>Common Oat</i> (2).	- - - - Cabinet.
1476 SPARTINA POLYSTACHYA,	<i>Tall Saltmarsh-grass</i> (2).	- Cabinet.
1477 CINNA PENDULA,	<i>Pendulous Cinna</i> (2).	- - - Cabinet.
1478 CINNA ARUNDINACEA,	<i>Reed-like Cinna</i> (2).	- - - Cabinet.



BOTANY OF NEW-YORK,

OR THE

New-York Flora.

BY JOHN TORREY.

DIVISION II. CRYPTOGRAMOUS PLANTS.



BOTANY,

DIVISION II. CRYPTOGRAMOUS PLANTS,

Vol. 46.]

ORDER CXXVI. EQUISETACEÆ.

Latin Name.

English Name.

In the

- | | | | |
|---|-----------------------|---|----------------|
| 1 | EQUISETUM ARVENSE, | <i>Field Horsetail.</i> | |
| 2 | EQUISETUM SYLVATICUM, | <i>Wood Horsetail</i> (7), | - - - Cabinet. |
| 3 | EQUISETUM LIMOSUM, | <i>Smooth Swamp Horsetail,</i> or <i>Pipes</i> (3). | Cabinet. |
| 4 | EQUISETUM HYEMALE, | <i>Scouring Rush</i> (4). | - - - Cabinet. |
| 5 | EQUISETUM VARIEGATUM, | <i>Variegated Rough Horsetail</i> (5). | Cabinet |
| 6 | EQUISETUM SCIRPOIDES, | <i>Smallest Rough Horsetail</i> (3). | Cabinet. |

ORDER CXXVII. FILICES.

- | | | | |
|----|----------------------------|---|----------------|
| 7 | POLYPODIUM VULGARE, | <i>Common Polypody</i> (2). | - - Cabinet. |
| 8 | POLYPODIUM PHEGopteris, | <i>Beech Polypody</i> (2). | - - - Cabinet. |
| 9 | POLYPODIUM HEXAGONOPTERUM, | <i>Winged Polypody</i> (1). | - - Cabinet. |
| 10 | POLYPODIUM DRYOPTERIS, | <i>Three-branched Polypody</i> (2). | Cabinet. |
| 11 | STRUTHIOPTERIS GERMANICA, | <i>Common Ostrichfern</i> (4). | - - Cabinet. |
| 12 | ALLOSORUS GRACILIS, | <i>Slender Allosorus</i> (4). | - - - Cabinet. |
| 13 | ADIANTUM PEDATUM, | <i>Maidenhair,</i> or <i>Mohair</i> (1). | - Cabinet. |
| 14 | PTERIS AQUILINA, | <i>Common Brake,</i> or <i>Bracken</i> (2). | Cabinet. |
| 15 | PLATYLOMA ATROPURPUREA, | <i>Purple-stalked Rockbrake</i> (2). | Cabinet. |
| 16 | DOODIA VIRGINICA, | <i>Virginian Doodia</i> (1). | - - - Cabinet. |
| 17 | WOODWARDIA ANGUSTIFOLIA, | <i>Narrow-leaved Woodwardia</i> (2). | Cabinet. |
| 18 | SCOLOPENDRUM OFFICINARUM, | <i>Common Houndstongue</i> (2). | - Cabinet. |
| 19 | ASPENIUM TRICHOMANES, | <i>Small Rock Spleenwort</i> (3). | - Cabinet. |

Latin Names.	English Names.	
20 ASPLENIUM EBENEUM,	<i>Screwfern</i> (3).	- - - - Cabinet.
21 ASPLENIUM ANGUSTIFOLIUM,	<i>Narrow-leaved Spleenwort</i> (2).	Cabinet.
22 ASPLENIUM RUTA-MURARIA,	<i>Wall-rue Spleenwort</i> (3).	- - Cabinet.
23 ASPLENIUM THELYPTERIOIDES,	<i>Silvery Spleenwort</i> (1).	- - Cabinet.
24 ASPLENIUM FILIX-FÆMINA,	<i>Female-fern</i> (1).	- - - - Cabinet.
25 ANTIGRAMMA RHIZOPHYLLA,	<i>Walking-fern</i> (5).	- - - - Cabinet.
26 ASPIDIUM MARGINALE,	<i>Marginal Shieldfern</i> (1).	- - Cabinet.
27 ASPIDIUM GOLDIANUM,	<i>Goldie's Shieldfern</i> (2).	- - Cabinet.
28 ASPIDIUM CRISTATUM,	<i>Crested Shieldfern</i> (1).	- - Cabinet.
29 ASPIDIUM DILATATUM,	<i>Dilated Shieldfern</i> (1).	- - Cabinet.
30 ASPIDIUM THELYPTERIS,	<i>Meadow Shieldfern</i> (1).	- - Cabinet.
31 ASPIDIUM NOVEBORACENSE,	<i>New-York Shieldfern</i> (1).	- Cabinet.
32 ASPIDIUM ACROSTICHOIDES,	<i>Terminal Shieldfern</i> (2).	- - Cabinet.
33 ASPIDIUM ACULEATUM,	<i>Prickly Shieldfern.</i>	
34 ONOCLEA SENSIBILIS,	<i>Sensitive-fern</i> (4).	- - - - Cabinet.
35 WOODSIA ILVENSIS,	<i>Rusty Rock Polypody.</i>	
36 WOODSIA OBTUSA,	<i>Obtuse Woodsia</i> (3).	- - - Cabinet.
37 CYSTOPTERIS FRAGILIS,	<i>Brittle Bladderfern</i> (4).	- - Cabinet.
38 CYSTOPTERIS BULBIFERA,	<i>Bulb-bearing Bladderfern</i> (2).	Cabinet.
39 DICKSONIA PILOSIUSCULA,	<i>Hairy Dicksonia</i> (2).	- - - Cabinet.
40 OSMUNDA CLAYTONIANA,	<i>Interrupted Flowering-fern</i> (1).	Cabinet.
41 OSMUNDA CINNAMOMEA,	<i>Woolly Flowering-fern</i> (2).	- Cabinet.
42 OSMUNDA SPECTABILIS,	<i>Showy Flowering-fern</i> (2).	- Cabinet.
43 LYGODIUM PALMATUM,	<i>Climbing-fern</i> (1).	- - - - Cabinet.
44 OPHIOGLOSSUM VULGATUM,	<i>Common Adderstongue</i> (2).	- Cabinet.
45 BOTRYCHIUM VIRGINICUM,	<i>Rattlesnake-fern</i> (1).	- - - Cabinet.
46 BOTRYCHIUM LUNARIOIDES,	<i>Tall Smooth Moonwort</i> (2).	- Cabinet.
47 BOTRYCHIUM SIMPLEX,	<i>Dwarf Moonwort</i> (1).	- - - Cabinet.

ORDER CXXVIII. LYCOPODIACEÆ.

48 LYCOPODIUM SELAGO,	<i>Fir Clubmoss</i> (3).	- - - - Cabinet.
49 LYCOPODIUM LUCIDULUM,	<i>Shining Clubmoss</i> (3).	- - - Cabinet.
50 LYCOPODIUM INUNDATUM,	<i>Low Marsh Clubmoss</i> (7).	- - Cabinet.

Latin Names.

English Names.

51 LYCOPODIUM ANNOTINUM,	<i>Interrupted Clubmoss</i> (2). - -	Cabinet.
52 LYCOPODIUM OBSCURUM,	<i>Groundpine</i> (2). - - - -	Cabinet.
53 LYCOPODIUM CLAVATUM,	<i>Common Clubmoss</i> (2). - - -	Cabinet.
54 LYCOPODIUM COMPLANATUM,	<i>Festoon Groundpine</i> (2). - -	Cabinet.
55 SELAGINELLA RUPESTRIS,	<i>Small Rock Clubmoss</i> (4). -	Cabinet.
56 SELAGINELLA APUS,	<i>Moss-like Selaginella</i> (4). - -	Cabinet.

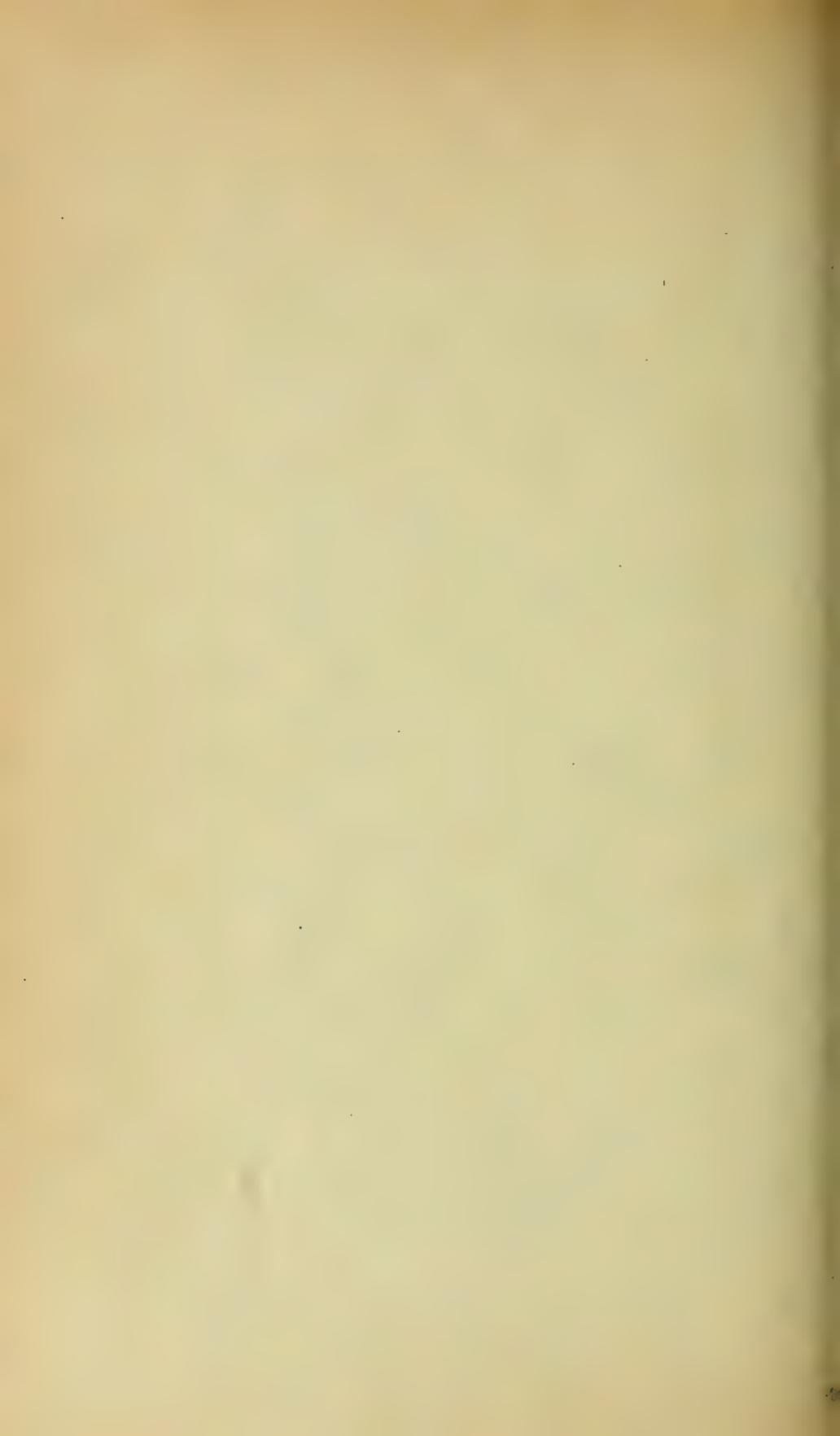
ORDER CXXIX. SALVINIACEÆ.

57 SALVINIA NATANS,	<i>Floating Salvinia.</i>	u,
58 AZOLLA CAROLINIANA,	<i>Carolinian Azolla</i> (3). - - -	Cabinet.

ORDER CXXX. ISOETACEÆ.

59 ISOETES LACUSTRIS,	<i>Common Quillwort</i> (1). - -	Cabinet.
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(D.)



CATALOGUE OF MOSSES

PRESENTED TO THE STATE OF NEW-YORK

BY CHARLES H. PECK.

ORDER MUSCI.

SUBORDER SPHAGNACEÆ.

- | | | |
|---|-----------------------|--------------|
| 1 | SPHAGNUM CYMBIFOLIUM, | <i>Dill.</i> |
| 2 | “ SQUARROSUM, | <i>Pers.</i> |
| 3 | “ ACUTIFOLIUM, | <i>Ehrh.</i> |
| 4 | “ CUSPIDATUM, | “ |

SUBORDER ANDRÆACEÆ.

- | | | |
|---|--------------------|----------------|
| 5 | ANDRÆA PETROPHILA, | <i>Ehrh.</i> |
| 6 | “ RUPESTRIS, | <i>Turner.</i> |

SUBORDER BRYACEÆ.

- | | | |
|----|------------------------------------|-----------------------|
| 7 | GYMNOSTOMUM CURVIROSTRUM, | <i>Hedw.</i> |
| 8 | WEISIA VIRIDULA, | <i>Brid.</i> |
| 9 | RHABDOWEISIA DENTICULATA, | <i>Br. & Sch.</i> |
| 10 | TREMATODON LONGICOLLIS, | <i>Rich.</i> |
| 11 | DICRANUM VIRENS, | <i>Hedw.</i> |
| 12 | “ VARIUM, | “ |
| 13 | “ HETEROMALLUM, | “ |
| 14 | “ FLAGELLARE, | “ |
| 15 | “ LONGIFOLIUM, | “ |
| 16 | “ INTERRUPTUM, | <i>Br. & Sch.</i> |
| 17 | “ SCOPARIUM, }
var. PALLIDUM, } | <i>L.</i> |
| 18 | “ UNDULATUM, | <i>Turner.</i> |
| 19 | CERATODON PURPUREUS, | <i>Brid.</i> |
| 20 | LEUCOBRYUM GLAUCUM | <i>Hampe.</i> |
| 21 | FISSIDENS MINUTULUS, | <i>Sulliv.</i> |
| 22 | “ SUBBASILARIS, | <i>Hedw.</i> |
| 23 | “ ADIANTOIDES, | “ |
| 24 | TRICHOSTOMUM TORTILE, | <i>Schrad.</i> |
| 25 | “ PALLIDUM, | <i>Hedw.</i> |
| 26 | “ GLAUDESCENS, | “ |

27	BARBULA UNGUICULATA,	<i>Hedw.</i>
28	“ CÆSPITOSA,	<i>Schwægr.</i>
29	“ MUCRONIFOLIA,	<i>Br. & Sch.</i>
30	DIDYMODON RUBELLUS,	“
31	POTTIA TRUNCATA,	“
32	TETRAPHIS PELLUCIDA,	<i>Hedw.</i>
33	ECALYPTA CILIATA,	“
34	ZYGODON LAPPONICUS,	<i>Br. & Sch.</i>
35	DRUMMONDIA CLAVELLATA,	<i>Hook.</i>
36	ORTHOTRICHUM STRANGULATUM,	<i>Beauv.</i>
37	“ LEIOCARPUM,	<i>Br. & Sch.</i>
38	“ LUDWIGII,	<i>Schwægr.</i>
39	“ HUTCHINSIÆ,	<i>Smith.</i>
40	“ CRISPUM,	<i>Hedw.</i>
41	SCHISTIDIUM APOCARPUM,	<i>Br. & Sch.</i>
42	GRIMMIA PENNSYLVANICA,	<i>Schwægr.</i>
43	RACOMITRIUM ACICULARE,	<i>Brid.</i>
44	“ MICROCARPUM,	“
45	HEDWIGIA CILIATA,	<i>Ehrh.</i>
46	BUXBAUMIA APHYLLA,	<i>Haller.</i>
47	DIPHYSCIUM FOLIOSUM,	<i>Web. & Mohr.</i>
48	ALTRICHUM UNDULATUM,	<i>Beauv.</i>
49	“ ANGUSTATUM,	“
50	POGONATUM BREVICAULE,	<i>Brid.</i>
51	POLYTRICHUM COMMUNE,	<i>L.</i>
52	“ FORMOSUM,	<i>Hedw.</i>
53	“ JUNIPERINUM,	“
54	“ PILIFERUM,	<i>Schreb.</i>
55	TIMMIA MEGAPOLITANA,	<i>Hedw.</i>
56	AULACOMNION HETEROSTICHUM,	<i>Br. & Sch.</i>
57	“ PALUSTRE,	<i>Schwægr.</i>
58	BRYUM PYRIFORME,	<i>Hedw.</i>
59	“ ANNOTINUM,	“
60	“ NUTANS,	<i>Schreb.</i>
61	“ ROSEUM,	“
62	“ WAHLENBERGII,	<i>Schwægr.</i>
63	“ ARGENTEUM,	<i>L.</i>
64	“ PSEUDO-TRIQUETRUM,	<i>Schwægr.</i>
65	“ CÆSPITICUM,	<i>L.</i>
66	MNIUM AFFINE,	<i>Bland.</i>
67	“ PUNCTATUM,	<i>Hedw.</i>
68	“ SUBGLOBOSUM,	<i>Br. En.</i>
69	“ SERRATUM,	<i>Brid.</i>
70	“ SPINULOSUM,	<i>Br. En.</i>
71	“ CUSPIDATUM,	<i>Hedw.</i>
72	“ LYCOPODIOIDES,	<i>Br. En.</i>
73	MEESIA ULIGINOSA,	<i>Hedw.</i>
74	BARTRAMIA CÆDERI,	<i>Swartz.</i>
75	“ POMIFORMIS,	<i>Hedw.</i>
76	“ FONTANA,	<i>Brid.</i>
77	“ MUHLENBERGII,	“
78	FUNARIA HYGROMETRICA,	<i>Hedw.</i>
79	PHYSCOMITRIUM PYRIFORME,	<i>Br. & Sch.</i>
80	APIANORHEGMA SERRATA,	<i>Sulliv.</i>

81	FONTINALIS GIGANTEA, .	<i>Sulliv. & Lesgt.</i>
82	“ NOVÆ-ANGLIÆ,	“
83	“ DALECARLICA,	<i>Br. En.</i>
84	DICHELYMA FALCATUM,	<i>Myrin.</i>
85	“ CAPILLACEUM,	<i>Br. En.</i>
86	LEUCODON BRACHYPUS,	<i>Brid.</i>
87	LEPTODON TRICHOMITRIUM,	<i>Mohr.</i>
88	ANOMODON OBTUSIFOLIUS,	<i>Br. & Sch.</i>
89	“ ATTENUATUS,	<i>Hub.</i>
90	LESKEA POLYCARPA,	<i>Hedw.</i>
91	“ OBSCURA,	“
92	“ ROSTRATA,	“
93	THELIA ASPRELLA,	<i>Sulliv.</i>
94	MYURELLA CAREYANA,	“
95	PYLAIÆA INTRICATA,	<i>Br. En.</i>
96	PTERIGYNANDRUM FILIFORME,	<i>Hedw.</i>
97	HOMALOTHECIUM SUBCAPILLATUM,	<i>Br. En.</i>
98	PLATYGYRIUM REPENS,	“
99	CYLINDROTHECIUM CLADORHIZANS,	“
100	“ SEDUCTRIX,	“
101	NECKERA PENNATA,	<i>Hedw.</i>
102	CLIMACIUM AMERICANUM,	<i>Brid.</i>
103	“ DENDROIDES,	<i>Web. & Mohr.</i>
104	HYPNUM TAMARISCINUM,	<i>Hedw.</i>
105	“ DELICATULUM,	<i>L.</i>
106	“ SCITUM,	<i>Beauv.</i>
107	“ ABIETINUM,	<i>L.</i>
108	“ PALUDOSUM,	<i>Sulliv.</i>
109	“ TRIQUETRUM,	<i>L.</i>
110	“ BREVIROSTRE,	<i>Ehrh.</i>
111	“ SPLENDENS,	<i>Hedw.</i>
112	“ ALLEGHANIENSE,	<i>C. Mull.</i>
113	“ HIANIS,	<i>Hedw.</i>
114	“ PILIFERUM,	<i>Schreb.</i>
115	“ STRIGOSUM,	<i>Hoffm.</i>
116	“ SERRULATUM,	<i>Hedw.</i>
117	“ RECURVANS,	<i>Schwægr.</i>
118	“ MOLLE,	<i>Dickson.</i>
119	“ SCHREBERI,	<i>Willd.</i>
120	“ CORDIFOLIUM,	<i>Hedw.</i>
121	“ UNCINATUM,	“
122	“ FILICINUM,	<i>L.</i>
123	“ CRISTA-CASTRENSIS,	“
124	“ IMPONENS,	<i>Hedw.</i>
125	“ REPTILE,	<i>Michx.</i>
126	“ CURVIFOLIUM,	<i>Hedw.</i>
127	“ MOLLUSCUM,	“
128	“ HALDANIANUM,	<i>Grev.</i>
129	“ RUGOSUM,	<i>Ehrh.</i>
130	“ SALEBROSUM,	<i>Hoffm.</i>
131	“ LÆTUM,	<i>Brid.</i>
132	“ RUTABULUM,	<i>L.</i>
133	“ VELUTINUM,	“
134	“ RIVULARE,	<i>Br. En.</i>

135	HYPNUM	NOVÆ-ANGLIÆ,	<i>Sulliv. & Lsgr.</i>
136	"	POLYMORPHUM,	<i>Br. En.</i>
137	"	HISPIDULUM,	<i>Brid.</i>
138	"	SUBTILE,	<i>Hoffm.</i>
139	"	ADNATUM,	<i>Hedw.</i>
140	"	RADICALE,	<i>Brid.</i>
141	"	ORTHECLADON,	<i>Beauv.</i>
142	"	RIPARIUM,	<i>Hedw.</i>
143	"	DENTICULATUM,	<i>L.</i>
144	"	MUHLENBERGII,	<i>Br. En.</i>

Of the 144 species named above, 104 were found in the town of Sandlake, Rensselaer county, N.Y. The remaining 40 species are partly from the vicinity of Albany, and partly from the Helderberg and the Catskill mountains.

FACTS AND OBSERVATIONS

TOUCHING THE FLORA OF THE STATE OF NEW-YORK.

BY ONE OF THE REGENTS.

THE Regents, relying upon the sympathy and assistance of the botanists of the State, have commenced putting the State Herbarium in order, and propose to augment and perfect it, and to collect full and accurate materials for a new and complete catalogue of the plants of the State.

The contents of this paper will, it is hoped, sufficiently indicate the nature of the information which the Regents wish to acquire as materials for the proposed catalogue. Any addition to, or correction of, any one of the original lists contained in this paper, will be thankfully received. All plants intended for the herbarium, and all communications, should be addressed, as heretofore, to "S. B. WOOLWORTH, LL.D., Secretary of the Regents, Albany." Where a plant not indicated in TORREY'S Catalogue nor in the additional list herein given, or a new station of a rare plant, is discovered, the fact should be communicated, and the most perfect and best prepared specimens of the plant should be sent with the communication.

In 1853, the State published "A Catalogue of the Cabinet of Natural History of the State of New-York," &c. To this Dr. TORREY contributed Lists of the Plants described in the State Flora, and also a List of "Plants discovered and collected since the publication of the Flora." These lists compose what is herein meant by TORREY'S Catalogue, or the Catalogue of 1853, and includes 1537 species.

The last mentioned list—the list of plants discovered since the publication of the Flora, is not now easily accessible, and, therefore, is republished here.

ROBINIA VISCOSA.	SALIX ERIOCEPHALA.
VICIA CAROLINIANA.	SALIX ANGUSTATA.
STELLARIA LONGIPES.	MELANTHIUM HYBRIDUM.
TRIFOLIUM INCARNATUM.	CAREX STEUDELII.
PYRUS MALUS.	CAREX PANICULATA.
ŒNOTHERA RIPARIA.	CAREX VULGARIS.
GALIAM CONCINNUM.	CAREX TORTA.
PHLOMIS TUBEROSA.	CAREX GRISEA.
LITHOSPERMUM LATIFOLIUM.	CAREX PLATYPHYLLA.
ONOSMODIUM CAROLINIANUM.	CAREX COMOSA.
AMARANTHUS TAMARASCINUS.	PANICUM PAUCIFLORUM.
CHENOPODIUM MURALE.	AVENA SATIVA.
SALIX FRAGILIS.	SPARTINA POLYSTACBYA.
SALIX BABYLONICA.	CINNA PENDULA.

CINNA ARUNDINACEA.

The following species, inserted in the Flora on the authority of PURSH, have not been found in the State by any other botanist, and, probably, never existed therein.

1. SPIRÆA ARUNCUS, L.
2. SALVINIA NATANS, L.

The following species, once spontaneous in the State, and included in the catalogue, there is reason to fear have become extinct. Some of them have been diligently sought for, in vain, in the stations where they were originally found. The PINGUICULA has been extirpated at Rochester, but may exist at or near the upper waters of the Genesee river, and the writer is very confident that it will be found in the Adirondacks.

1. ACONITUM UNCINATUM, L.
2. ZANTHORHIZA APIIFOLIA, L'Hér.
3. TRIFOLIUM INCARNATUM, L.
4. PHLOMIS TUBEROSA, L.
5. PINGUICULA VULGARIS, L.

The following is a list of the plants, so far as is known to me, which have been found growing spontaneously in the State, and which are not included in the Catalogue. The name of the discoverer, or the authority for its insertion, the date of the discovery, and the station, are added to each species, whenever the same are known to me. Some of these plants are mere scapes, and, perhaps, are not entitled to a place in a catalogue of the plants permanently spontaneous in the State. It is believed that the valuable Catalogue of the Plants of Oneida county and vicinity, by the Rev. JOHN A. PAINE Jun., which will be published herewith, will add somewhat to this list, and also to the list of stations hereinafter given.

1. *Reseda luteola*, L. "Roadsides in Western New-York." GRAY'S Manual.
2. *Reseda odorata*, L. Buffalo, 1862 : Garden scape. G. W. C.
3. *Reseda alba*, L. Buffalo, 1862 : Garden scape. G. W. C.
4. *Nasturtium officinale*, L. Common on Long Island : T. F. ALLEN, M.D. Near Rochester : Rev. L. HOLZER. Caledonia, &c. G. W. C.
5. *Nasturtium sylvestre*, R. BR. Spontaneous about Flushing, Queens county : W. H. LEGGETT.
6. *Nasturtium armoracia*, FRIES. Rather common about Buffalo, and abundant on the banks of the Mohawk below Utica. It would seem that it must be diffused by its seed. G. W. C.
7. *Lepidium draba*, L. See Addenda to GRAY'S Manual : D. C. EATON.
8. *Lepidium sativum*. Buffalo, 1864 : Garden scape, and spontaneous in gardens. G. W. C.
9. *Lepidium rudérale*, L. Near Brooklyn : W. H. LEGGETT.
10. *Turritis glabra*, L. New-York city, on 86th-street, 1860 : W. H. LEGGETT. Buffalo, 1863 : DAVID F. DAY, Esq.
11. *Barbarea præcox*, R. BR. Lake Avenue, Rochester, 1864 : Garden scape. Rev. L. HOLZER.
12. *Brassica campestris*, L. Buffalo, on the marshy edge of the river ; only a few plants, 1863. G. W. C.
13. *Raphanus sativus*, L. Buffalo ; a common weed in grain-fields. G. W. C.
14. *Ascyrum cruz-andreae*, L. New-Dorp, Staten Island, September 1864 : T. F. ALLEN, M.D.
15. *Silene inflata*, SMITH. Near Fort Richmond, Staten Island, 1860 : T. F. ALLEN, M.D. Abundant near Buffalo, on the Buffalo creek below the Sulphur spring, 1862. G. W. C.
16. *Silene armeria*, L. Buffalo ; spontaneous in gardens, but seldom escaping : D. F. DAY.
17. *Lychnis respertina*, SIBTH. "Elmira, N.Y. : E. TATNALL." GRAY'S Manual, in the Addenda.
18. *Althæa rosea*, L. Buffalo ; garden scape, rare. G. W. C.
19. *Althæa ficifolia*, L. Buffalo ; garden scape, rare. G. W. C.
20. *Malva moschata*. Buffalo, Portage, Chautauqua county, Cattaraugus county, naturalized. G. W. C.
21. *Rosa setigera*, Mx. Several places near Rochester : C. M. BOOTH, M.D. Near Buffalo. G. W. C. Naturalized, if not native.
22. *Pyrus communis*, L. Grand Island, near Buffalo, in a grove of oak, a single tree ; in the same grove, is an apple tree ; and, as they were, until recently, remote from any dwelling, they are believed to be spontaneous.
23. *Ribes rubrum*, L. In a swamp on the Scajaquada creek, near Forest Lawn, Buffalo, 1863 : D. F. DAY, Esq. Not uncommon, as a garden scape, about Buffalo ; apparently native, in a wooded ravine, below Westfield, Chautauqua county, 1864. G. W. C.
24. *Sedum acre*, L. Buffalo, Williamsville, Niagara Falls, 1863 ; naturalized. G. W. C.
25. *Carum carui*, L. Naturalized, by roadsides and fences, in Erie and Chautauqua counties.
26. *Anethum fæniculum*, L. Buffalo ; garden scape : D. F. DAY.

27. *Coriandrum sativum*, L. Buffalo; garden scape, rare. G. W. C.
28. *Solidago bicolor*, L., var. *concolor*, GRAY. Washington county, Dr. E. HOWE.
29. *Helianthus annuus*, L. A frequent scape from gardens, but seems to become depauperate at once, and soon disappears.
30. *Galinsoga parviflora*, CAV. "Waste places, New-York," &c.: GRAY'S Manual. Brooklyn: A. WOOD. New-York and Flushing, 1864: T. F. ALLEN.
31. *Matricaria parthenium*, L. Garden scape; Buffalo.
32. *Matricaria balsamita*, WILLD. Buffalo; seems inclined to perpetuate itself in cemeteries, etc.
33. *Matricaria chamomilla*, L. Near Buffalo, 1864; spontaneous in a garden, and escaping: D. F. DAY & G. W. C.
34. *Tragopogon porrifolius*, L. On a gravelly bank of the Erie railroad, about a mile west of Salamanca, Cattaraugus county, remote from any garden or dwelling, abundant, 1864. G. W. C.
35. *Tragopogon pratense*. Rochester; a single plant: Rev. L. HOLZER.
36. *Artemisia abrotanum*, L. Buffalo, 1863; garden scape, firmly established in the sand of the opposite Canadian shore, by the ruins of a deserted house. G. W. C.
37. *Silybum marianum*. Buffalo; garden scape, 1862, D. F. DAY; 1863, G. W. C.
38. *Onopordon acanthium*, L. Albany, 1827; Queenstown, 1862: G. W. C. Rochester, 1864: C. M. BOOTH, M.D.
39. *Cirsium altissimum*, SPRENG. Buffalo, 1862. G. W. C.
40. *Lactuca sativa*, L. An occasional, but not enduring, garden scape. G. W. C.
41. *Cassiope hypnoides*, DON. "Alpine summits of the Adirondack mountains, Dr. PARRY:" GRAY'S Manual.
42. *Martynia proboscidea*, GLOX. Greenbush, Rensselaer county, 1827; Lewiston, Niagara county, 1863; an occasional garden scape. G. W. C.
43. *Linaria genistifolia*, MILL. "Roadsides, New-York, near the city: H. G. CLARK, LESQUEREUX." GRAY'S Manual.
44. *Lithospermum hirtum*, LEHM. Buffalo, 1862: G. W. C. Rochester, 1864: Rev. L. HOLZER.
45. *Polemonium cæruleum*, L. "Borders of a marsh three miles east of Charlottesville, Schoharie county, New-York: Dr. E. C. HOWE." GRAY'S Manual.
46. *Phlox paniculata*, L. Richfield Springs, Otsego county, in a bushy field; perhaps garden scapes, 1862. G. W. C.
47. *Ipomæa purpurea*, LAM. Buffalo, 1862-4; the outcast of gardens, on rubbish heaps, and, rarely, a scape. G. W. C.
48. *Cuscuta inflexa*, ENGELM. Youngstown, Niagara county, 1864: D. F. DAY & G. W. C. Salamanca, Cattaraugus county, 1864: G. W. C. This is the *C. umbrosa*, BEYR., of Dr. ENGELMANN in GRAY'S Manual; but whether it be the *C. umbrosa* of the State Flora, quære?
49. *Lycopersicum esculentum*, MILL. Buffalo; a frequent scape, almost naturalized. G. W. C.

50. *Physalis philadelphica*, LAM. Buffalo, 1863; brought by railroad trains? G. W. C.
51. *Physalis pubescens*, L. Buffalo, 1863. G. W. C.
52. *Lycium barbarum*, L. Suspension Bridge, Niagara county, 1864; more lushy, and more decidedly armed than when in cultivation. G. W. C.
53. *Gentiana andrewsii*, var. *albiflora*, GRAY ined. Salamanca, Cattaraugus county, 1862: G.W.C. Buffalo, 1864: D.F.DAY. Auburn, Rev. L. HOLZER.
54. *Periploca græca*, L. "Near Rochester, New-York." GRAY's Manual.
55. *Corispermum hyssopifolium*, L. Buffalo, 1862. G. W. C.
56. *Chenopodium urticum*, L. Westchester, Westchester county: A. A. ADEE.
57. *Chenopodium urticum*, L., v. *rhombofolium*, MOQUIN. Buffalo, 1862; Salina, 1864: G.W.C. Rochester, 1834: D.F.DAY. Probably both the species and variety are common in the State.
58. *Chenopodium glaucum*, L. Salina, 1862; Albany, 1863; Buffalo, 1864: G. W. C. The Island of New-York, 1864: T.F.ALLEN.
59. *Rouliera multifida*, MOQUIN. "Waste places, New-York, in and around the city: G. CAREY." GRAY's Manual.
60. *Amarantus polygonoides*, L. Albany, 1864: G. W. C. This is the *Amaranthus deflexus*, WILLD.? of the State Flora, as appears by the specimen in the State Herbarium. But *Euxolus deflexus*, RAF. (*Amarantus deflexus*, L.) is credited, by GRAY's Manual, to waste places about the city of New-York.
61. *Montelia tamarascina*, GRAY. "I have another species of this section, collected by my friend Mr. G. CAREY in a swamp near Whitehall; but, owing to the confusion that exists in the genus, I am unable to determine without better materials than I can command at present" (State Flora, vol. 2, p. 145). The plant referred to, as appears by a specimen in the State Herbarium, is *Montelia tamarascina*, GRAY; the *Amaranthus tamarascinus* of the additional list of 1853.
62. *Polygonum incarnatum*, ELL. Buffalo, 1863: G. W. C. Rochester, 1864: Rev. L. HOLZER.
63. *Polygonum pennsylvanicum*, L., a var.? with greenish white flowers; Buffalo, 1863: G. W. C.
64. *Polygonum acre*, H. B. K. Buffalo, 1862; Cayuga marshes, 1864: G. W. C. Believed to be common throughout the State.
65. *Rumex altissimus*, WOOD. "Peekskill, MEAD:" GRAY's Manual. Buffalo, 1864: G. W. C.
66. *Rumex hydrolapathum*, HUDSON, var.? *americanum*, GRAY. Buffalo, 1862; Cayuga marshes, 1864: G. W. C. Probably common in the western and northern parts of the State. It is not clear whether this, or the last species, is the *Rumex britannicus* of the State Flora.
67. *Callitriche autumnalis*, L. Alexandria bay, Jefferson county, 1863: G. W. C.
68. *Euphorbia lathyris*, L. Silver creek, Chautauqua county, 1863, nat.: G. W. C.

69. *Euphorbia pepus*, L. Received from W. M. BEAUCHAMP, Esq., of Skaneateles, 1864; a common garden weed there.
70. *Urtica gracilis*, AIT. Common in the State, at least in the western portion of it.
71. *Naias major*, ALLIONI. In the Onondaga lake, and in the mouth of a stream and pools on the beach of the lake at Liverpool, Onondaga county, September 1864. G. W. C.
72. *Potamogeton robbinsii*, OAKES. "White-Plains, New-York: H. G. CLARK." GRAY'S Manual.
73. *Potamogeton praelongus*, WULF. Niagara river, New-York: WOOD'S Class Book.
74. *Potamogeton niagarensis*, TUCK. Goat Island, just above Luna Island, Niagara Falls: Prof. TUCKERMAN.
75. *Sagittaria heterophylla*, PURSH. Common, in the western part of the State at least.
76. *Smilax glauca*, WALT. Staten Island, common, 1864: T. F. A.
77. *Smilax tamnoides*, L. Staten Island, 1864; one plant only: T. F. A.
78. *Trillium sessile*, L. Rochester, 1863; only one specimen collected: Rev. L. HOLZER.
79. *Hemerocallis fulva*, L. Buffalo; garden scape: G. W. C.
80. *Scirpus pauciflorus*, LIGHTFOOT. "Watertown, near Lake Ontario: Dr. CRAWE." GRAY'S Manual.
81. *Scirpus clintonii*, GRAY in Sill., vol. 38, p. 290. Buffalo, June 1864: G. W. C.
82. *Carex sychnocephala*, CAREY. "Jefferson county, VASEY & KNIESKERN; and Little-falls, New-York, VASEY." GRAY'S Manual.
83. *Carex rostrata*, MICHX. "Cold bogs; Mountains of New-York, New-Hampshire, northward." GRAY'S Manual.
84. *Carex grayii*, CAREY. "Low meadows on the banks of the Mohawk, and of Wood creek, New-York." GRAY'S Manual.
85. *Carex extensa*, GOOD. Coney Island, 1860, and again in 1864: T. F. ALLEN.
86. *Carex mirata*, DEW. "In Greece, eleven miles west of Rochester and six south of Lake Ontario, in 1829, by Dr. S. B. BRADLEY." DEWEY in Sill., vol. 38, p. 290.
87. *Aristida purpurascens*, POIR. Common in Suffolk county, and at High Bridge on the Island of New-York, 1864: T. F. ALLEN.
88. *Aristida tuberculosa*, NUTT. Coney Island, August 1864: T. F. ALLEN.
89. *Poa sylvestris*, GRAY. Buffalo, 1864: G. W. C.
90. *Bromus racemosus*, L. Buffalo, G. W. C.; and, probably, common in the State.
91. *Bromus mollis*, L. "Wheat-fields, New-York and Pennsylvania; scarce." GRAY'S Manual.
92. *Cynosurus cristatus*, L. Rochester and Buffalo, in lawns and court-yards, creeping into the streets, 1864. G. W. C.
93. *Lolium temulentum*, L. Buffalo, 1862: G. W. C.
94. *Triticum vulgare*, L. Common along railroads, and about flouring mills, etc.; very rarely in woods. Not naturalized.
95. *Hordeum distichum*, L. Same remarks.

96. *Secale cereale*, L. Commonish as a culture weed.
97. *Setaria italica*, KUNTH. Buffalo, 1862 : G. W. C.
98. *Equisetum palustre*, L. Squaw and Strawberry Islands, near Buffalo, 1862 : G. W. C.
99. *Woodsia glabella*, R. BROWN. Little-falls, Herkimer county : Dr. GEORGE VASEY.
100. *Aspidium cristatum*, var. *major*, EATON ined. Akron, Erie county, and Caledonia, Livingston county, 1864. G. W. C.
101. *Botrychium virginicum*, var. *simplex*, GRAY. Buffalo, 1864 ; a large form. G. W. C.
102. *Azolla caroliniana*, WILLD. Charlotte, Monroe county : Rev. L. HOLZER. Irondequoit Bay : E. G. PICKETT. Burnt-ship Bay at the foot of Grand Island, 1864 : G. W. C.
103. *Duvalia rupestris*, SULL. One of the HEPATICACEÆ, new to this country, until discovered in Schuyler county by Professor E. G. PICKETT of the People's College, in 1864.

Of the plants named in the foregoing list, it is feared that the following have disappeared from the State.

1. PERIPLUCA GRÆCA, L.
2. CAREX SYCHNOCEPHALA, *Carey*.
3. CAREX MIRATA, *Dewey*.

The following plants have been found growing so near the State, and under such circumstances, as to warrant the belief that they now are growing, or will soon extend themselves to and become natives of the State.

1. *Alyssum calycinum*, . Broek's Monument, Canada, 1863 : D. F. DAY & G. W. C.
2. *Glycyrrhiza lepidota*, NUTT. Canadian shore opposite Buffalo, 1862 : G. W. C.
3. *Dysodia chrysanthemoides*, LAG. On the Lake Huron railway in Canada, opposite Buffalo, 1863 : G. W. C.

The following plants, which are either maritime or principally affect the seacoast, have been found on or near the coast of Lake Erie, within or near the State.

1. *Cakile americana*, NUTT.
2. *Lathyrus maritimus*, BIGELOW.
3. *Euphorbia polygonifolia*, L.
4. *Myrica cerifera*, L. Erie, Pennsylvania, 1864 : G. W. C.
5. *Zannichellia palustris*, L.
6. *Scirpus maritimus*, L.
7. *Calamagrostis arenaria*, ROTH. Erie, Pennsylvania, 1864 : G. W. C.
8. *Tricuspis purpurea*, GRAY. Buffalo, 1862 : G. W. C.

The following plants, which are either maritime or affect the seacoast, have been found in, or in the marshes adjoining the head of, the Onondaga lake.

1. *Ranunculus cymbalaria*, PURSH.
2. *Blitum maritimum*, NUTT. 1864 : G. W. C.
3. *Atriplex hastata*, L.
4. *Salicornia herbacea*, L.
5. *Naias major*, ALLIONI. 1864 : G. W. C.
6. *Zannichellsa palustris*, L. 1864 : G. W. C.
7. *Ruppia maritima*, L. 1864 : Rev. JOHN A. PAINE jr.
8. *Triglochin maritimum*, L.
9. *Juncus bulbosus*, L. 1864 : G. W. C.
10. *Scirpus maritimus*, L.
11. *Leptochloa fascicularis*, GRAY. 1864 : G. W. C.
12. *Panicum proliferum*, LAM. 1864 : G. W. C.

The following are new stations of rare plants, or remarkable stations of common plants, and have not been hereinbefore given.

1. *Clematis ochroleuca*, AIT. New-Dorp, Staten Island. Flowers middle of May ; in fruit in June, 1864 : T. F. ALLEN.
2. *Ranunculus pusillus*, POIR. New-Dorp, Staten Island, June 1864 : T. F. ALLEN, M.D.
3. *Nasturtium lacustre*, GRAY. Buffalo, 1863 : G. W. C.
4. *Turritis stricta*, GRAHAM. Lewiston, Niagara county, 1863 : G. W. C.
5. *Draba arabisans*, MICHX. "The counterfeiter's ledge," Akron, Erie county, 1864 : D. F. DAY & G. W. C.
6. *Polanisia graveolens*, RAF. Gravesend, Kings county : J. F. S. SMITH, M.D. ; W. H. LEGGETT, Esq.
7. *Euonymus americanus*, L. High Bridge, Island of New-York, 1860 : T. F. ALLEN.
8. *Desmodium laxigatum*, DC. Patchogue, Suffolk county, September 1864 : T. F. ALLEN.
9. *Viola sellirkii*, GOLDIE. Hanover, Chautauqua county, 1833 : D. F. DAY, Esq.
10. *Viola tricolor*, var. *arvensis*, DC. Buffalo, 1863 : G. W. C.
11. *Potentilla fruticosa*, L. Caledonia, Livingston county, 1864 : G. W. C.
12. *Conioselinum canadense*, T. & G. Portage, Wyoming county, 1863 ; Caledonia, Livingston county, 1864 : G. W. C.
13. *Lythrum salicaria*, L. Flushing, Queens county, August 1864 : T. F. ALLEN, M.D.
14. *Cuphea viscosissima*, JACQ. Fort Washington, Island of New-York, September 1864 : W. H. LEGGETT & T. F. ALLEN.
15. *Lonicera oblongifolia*, HOOK. Akron, Erie county, 1864 : D. F. DAY & G. W. C. Caledonia, Livingston county, 1864 : G. W. C.
16. *Eupatorium hyssopifolium*, L. Abundant in Suffolk county, 1864 : T. F. ALLEN.

17. *Aster spectabilis*, AIT. Suffolk county, 1864 : T. F. ALLEN.
18. *Aster concolor*, L. Suffolk county, 1864 : T. F. ALLEN.
19. *Aster plarminooides*, T. & G. Niagara county, near the Whirlpool, 1862 : G. W. C.
20. *Solidago tenuifolia*, PURSH. Common on New-York and Staten Islands : T. F. ALLEN.
21. *Rudbeckia hirta*, L. Common on Long Island : T. F. ALLEN. Diffused through the central portions of the State, from Chautauqua county to Albany, in meadows and pastures. G. W. C.
22. *Anthemis arvensis*, L. Fort Hamilton, Queens county, September 1864 : T. F. ALLEN. Bath, Long Island, September 1864 : W. LEGGETT. Rochester, a weed in nurseries : Rev. L. HOLZER.
23. *Cacalia suaveolens*, L. Rochester, 1864 : Rev. L. HOLZER.
24. *Sonchus arvensis*, L. Shore of the Cayuga lake, Tompkins county : H. B. LORD, Esq. Rochester, 1864 : G. W. C. Staten Island, 1864 : T. F. ALLEN.
25. *Pyrola aliginosa*, T. & G. Sphagnous swamp in the Tonawanda reservation, about five miles east of Akron, Erie county, 1864 : D. F. DAY & G. W. C.
26. *Pterospora andromedea*, NUTT. Portage, Wyoming county, 1863 : G. W. C. I have seen it at Niagara Falls, and in two or three places near Albany. So far as I have observed, it always grows under or very near *Pinus strobus*, L.
27. *Ilex monticola*, GRAY. Rock City, Cattaraugus county, 1864 . G. W. C.
28. *Hottonia inflata*, ELL. Common on Long Island : T. F. ALLEN.
29. *Pycnanthemum muticum*, PERS. Rochester, 1864 : Rev. L. HOLZER.
30. *Convolvulus arvensis*, L. Buffalo, 1862 : D. F. DAY & G. W. C.
31. *Euphorbia ipecacuanha*, L. Common in Suffolk county, and about Flushing and Jamaica in Queens county : T. F. ALLEN.
32. *Alnus serrulata*, WILLD., was found by D. F. DAY, Esq., in 1863, on Squaw Island, near Buffalo, occupying a very limited station, and, so far as we know, is confined in this region to that station. *A. incana*, WILLD., is the common Alder of the vicinity of Buffalo.
33. *Zinnichellia palustris*, L. Flushing, Queens county, 1864 : T. F. ALLEN. Buffalo, 1864 : Rev. L. HOLZER.
34. *Erythronium albidum*, NUTT. Banks of the Buffalo creek near Buffalo, 1863 : G. W. C.
35. *Festuca duriuscula*, L. Buffalo, 1864 : G. W. C.
36. *Eleocharis rostellata*, TORR. "Gathered by me about Flushing, and also about Springfield, Long Island. The form occurring here (as in New-Durham, N.J., where I first found it) is very remarkable for its long proliferous culms, which give it the appearance of grass beaten down by wind or rain ; and it entangles the feet." T. F. ALLEN, M.D.
37. *Carex subulata*, MICHX. Magnolia swamps, Long Island, August 1864 : T. F. ALLEN.

MINERALS.	LOCALITIES.	PROVINCES.
LIGNITE,	Barcellos,	Bahia.
MICACEOUS OLIGISTE,	Itabira,	Minas.
MALACHITE, &C.,	Melancias,	do
AMIANTHUS,	Different places in	do
	Minas,	do
GALENA AND SULPHURET OF IRON,	Infeccionado,	do
CINNABAR IN SCHIST,	Villarica,	do
CINNABAR, GRANULAR,	Corrego Trepuy,	do
KAOLIN,	Thesourciro,	do
STALACTITIC IRON,	Itabira,	do
LAMELLOSE OLIGISTE,	Mine of Tente Casi- meiro,	do
CRICHTONITE (TITANIFEROUS OXIDE OF IRON),	Serra de Nassouras,	do
NEOCTESE,	Antonio Pereira,	do
AURIFEROUS PYRITES IN QUARTZ,	Torquim,	do
MICACEOUS OLIGISTE,	Itabira,	do
ARDOSIA,	Ouro Preto,	do
CRYSTALS OF MAGNETIC IRON,	Cocoes,	do
TOPAZES,		do
ACERDESE,	Macaulas,	do
do	Antonio Percira,	do
OXIDE OF BISMUTH,	Catla Branca,	do
CARBONATE OF LEAD AND OF COPPER, GALENA,	Sette Lagoas,	do
AMETHISTS,	From different places,	do
AMPHIBOLITE AND AURIFEROUS ITABIRITE,	Itabira do Campo,	do
CASSITERITE IN GRANITE,	Rio Paraupeba,	do
FLUOR SPAR, WITH GALENA, &C.,	Itacolumy,	do
GROUP OF HYALINE QUARTZ,	Itambé,	do
do do	Brumado,	do
ERYTHRINE (ARSENICAL COBALT),	Antonio Pereira,	do
NATIVE ARSENIC,	Ouro Preto,	do
BLENDE, WITH AR. SUL., IN QUARTZ,	Alaenhé,	do
ACICULAR STIBNITE, IN TALCO SCHIST,	Cattas-Altas,	do
PYRITES (MARCASSITE) &C. IN QUARTZ,	Timbopeba,	do
GRAPHITE,	Barreiras,	do
LIMESTONE (MARBLE),	Itabira do Campo,	do
CHRYSOBERYL,	Serra das Esmeraldas,	do
ITACOLUMITE (GRES FLESCIVEL),	Serra d' Itacolumy,	do
GALENA,	Taubaté,	St. Paulo.
MAGNETIC IRON ORE,	S. Jo. d' Ypanema,	do
LIMESTONE,	do do	do
BITUMINOUS SCHIST,	Sorocaba,	do
LIMONITE (SLATY),	Ceritiba,	Parana.
ARGENTIFEROUS GALENA,	Iporanga,	do

Nodules, calcareous, ferruginous and slaty ferruginous, which are found in extreme abundance and from the size of a grown pea to that of a bomb shell of a gigantic mortar, in the interior of the Provinces of Pernambuco, Parahyla, Rio Grande do Norte, Ceara, Pianhy, Maranhão, Goyas, and Matto-Grosso.

Agates, Seixos rollados (Rolles stones), common in the Rio de S. Francisco do Norte.

II. ADDITIONS BY PURCHASE.

(None).

(B.)

LIST OF MOSSES

OF THE

STATE OF NEW-YORK.

BY CHARLES H. PECK.

The following list is intended to contain the names of all the Mosses hitherto detected in the State of New York. The habitat, and time of maturing the fruit are given, and, of the rarer species, the station also. It has been thought advisable to reproduce brief descriptions of those species not described in SULLIVANT'S Mosses of the United States, and to add occasional remarks concerning the peculiarities of certain species and the distinguishing characters of such as are closely related.

Grateful acknowledgments are rendered to that distinguished and experienced bryologist, LEO LESQUEREUX, Esq., of Columbus, Ohio, for much kind assistance in the preparation of this List. He has freely communicated the names, habitat, etc., of numerous species collected by him on the Adirondack Mountains, and in other parts of the State; and has authenticated a large number of the other species herein recorded.

Much aid has also been received from our own indefatigable botanist, the Hon. GEORGE W. CLINTON, of Buffalo, at whose suggestion this work was undertaken, and from whom contributions of many species from Western New-York and the vicinity of Niagara Falls have been received.

COE F. AUSTIN, Esq., of Closter, New-Jersey, has kindly contributed species both of Mosses and of Liverworts, from Orange county and the Shawangunk Mountains. To them and to others due credit is herein given; their names signifying the authority for the statements made in the particular sentences to which they are respectively annexed.

ORDER MUSCI.—*Mosses.*

SPHAGNUM, *Dill.*

S. CYMBIFOLIUM, *Ehrh.*

Peat bogs and marshes. Frequent and variable. July.

S. PYLAESII, *Brid.*

Humected surface of granite rocks, top of Mt. Marcy, Adirondack mountains; sterile, L. LESQUEREUX.

- S. CYCLOPHYLLUM*, *Sulliv. and Lesq.*
Springs in granite rocks, Mt. Marcy, sterile, LESQX.
- S. SQUARROSUM*, *Pers.*
Peat bogs, especially on mountains. Common. July, August.
- S. CUSPIDATUM*, *Ehrh.*
Deep bogs and cranberry marshes. Frequent and very variable. July.
- S. ACUTIFOLIUM*, *Ehrh.*
Same habitat as the preceding. Also common and variable. July.
- S. RIGIDUM*, *Schp.* *S. COMPACTUM*, *Brid.*
Bogs and wet places. Catskill mountains, Adirondack mountains, LESQX.
- S. SUBSECUNDUM*, *Nees.* *S. CONTORTUM*, *Schultz.*
Deep bogs, Adirondack mountains, July, LESQX.

ANDRAEA, *Ehrh.*

- A. PETROPHILA*, *Ehrh.*
Damp faces of rocks on mountains. Not rare. July.
- A. RUPESTRIS*, *Turn.*
Same habitat as the preceding. Catskill mountains. Abundant about fifty rods north of the Mountain House. Not frequent. July.
- A. CRASSINERVIA*, *Brch.*
Humected rocks, top of Whiteface mountain, August, LESQX.

EPHEMERUM, *Hampe.*

- E. CRASSINERVIUM*, *Schwaegr.*
Moist grounds in fields, sides of ditches, etc. Not rare. Dec.—April.

ACAULON, *Mull.*

- A. MUTICUM*, *Schreb.*
On the ground. Brooklyn, C. F. AUSTIN. Buffalo, G. W. CLINTON.
December—April.

PHASCUM, *L.*

- P. CUSPIDATUM*, *Schreb.*
Waste fields near Saratoga; March, LESQX.

PLEURIDIUM, *Brid.*

- P. ALTERNIFOLIUM*, *Brid.*
Old fields. Very common. May, June.

GYMNOSTIMUM, *Hedw.*

- G. RUPESTRE*, *Schwaegr.*
Crevices of steep rocks and overhanging cliffs. Not rare. Sept., Oct.
- G. CURVIROSTRUM*, *Hedw.*
Wet rocks. Not uncommon. September, October.
Small forms of this species closely resemble the preceding. Both are variable.

WEISIA, *Hedw.*

W. VIRIDULA, *Brid.*

Old fields, waste grounds, thin soil covering rocks. Frequent.
March - June.

RHABDOWEISIA, *Schp.*

R. DENTICULATA, *Bryol. Europ.*

Crevices of rocks on mountains. Sand Lake.

SELIGERIA, *Brch. & Schp.*

S. RECURVATA, *Bryol. Europ.*

Rocks in ravines. Devil's hole, Niagara county; Caledonia, G. W. CLINTON.

S. CALCAREA, *Bryol. Europ.*

With the preceding, from which it differs chiefly in its shorter stem, broader leaves, and somewhat turbinate capsule.

The discovery of this rare and minute species in our State (as well as of the preceding) is due to the earnest and faithful researches of G. W. CLINTON.

DICRANUM, *Hedw.*

D. GRACILESCENS, *Web. & Mohr.*

On rocks; high peaks of the Adirondaek mountains; Aug., LESQX.

D. SCHREBERI, *Hedw.*

Clay banks in mountains; Adirondaek mountains, above Keene; very rare; September, LESQX.

D. VIRENS, *Hedw.*

Old logs and rotten wood in shady damp places, especially in woods on mountains. Variable. Not abundant. May, June.

D. VARIUM, *Hedw.*

Moist ground and banks, most common on clay soil. Frequent.
November - April.

D. HETEROMALLUM, *Hedw.*

On the ground in open woods, banks, about the roots of trees, mountain and plain. Very common and variable. -September, October.

D. SUBULATUM, *Hedw.*

Shaded rocks, Adirondaek mountains; August, LESQX.

D. BLYTTII, *Bryol. Europ.*

Fissures of humected rocks, top of Mt. Marcy; August, LESQX.

D. STARKII, *Web. & Mohr.*

Same place as the preceding, LESQX.

D. MONTANUM, *Hedw.*

Decayed logs and stumps in pine and hemlock woods, especially on mountains. Catskill mountains. Goat Island, Niagara Falls, LESQX.
July, August.

D. FLAGELLARE, *Hedw.*

Old logs and rotten wood. Very common. August.

D. INTERRUPTUM, *Bryol. Europ.*

Rocks, rarely on decaying wood, in hill and mountain woods. Com.
August.

D. LONGIFOLIUM, *Hedw.*

Trees in mountain woods. Sand Lake. Rocks; Adirondack mountains, LESQX. August, September.

D. SCOPARIUM, *L.*

Ground, rotten logs, rocks; base of Adirondack mountains, LESQX.
var. *pallidum*, *Mull.*

On the ground, rotten logs, rocks. Very common and variable.

July-September.

D. ELONGATUM, *Schwaegr.*

Fissures of humected rock, top of Mt. Marcy; August, LESQX.

D. CONGESTUM, *Brid.*

Decayed wood, sometimes on rocks, in mountain woods. Abundant on the Catskill and the Adirondack mountains.

D. SCHRADERI, *Schwaegr.*

Bogs and boggy places in mountains; Catskill and Adirondack mountains; August, LESQX.

Shawangunk mountains, C. F. AUSTIN.

D. SPURIUM, *Hedw.*

Sandy ground; Saratoga; July, LESQX.

Catskill mountains, T. P. JAMES, in *Proceed. Am. Phil. Soc.*, 1864.

D. UNDULATUM, *Turn.*

On ground wet or dry in woods, sometimes on rocks; mountain and plain.
Frequent. July.

D. DRUMMONDI, *C. Mull.*

On the ground on mountains. Abundant under small pine trees on the Catskill mountains, between the Mountain House and the lake.

Rare.

July.

ARCTOA, *Brch. & Schp.*A. FULVELLA, *Bryol. Europ.*

Fissures of humected rock, Mt. Marcy; July, LESQX.

CAMPYLOPUS, *Brid.*C. VIRIDIS, *Sulliv. & Lesqx.*

Roots of trees, decayed logs, etc., in woods. Not rare. Sterile.

TREMATODON, *Rich.*T. AMBIGUUS, *Hedw.*

On the ground by roadsides. Sand Lake. Rare. July.

This is now regarded as a northern species, and *T. LONGICOLLIS* as a southern one. The latter probably does not occur within our limits.

LEUCOBRYUM, *Hampe.*L. GLAUCUM, *L.*

On the ground in woods, most often on knolls near swamps or water holes. Common. December.

FISSIDENS, *Hedw.*F. EXIGUUS, *Sulliv.*

Wet rocks along streams; Schoharie, Miss R. WATERBURY. July.

F. MINUTULUS, *Sulliv.*

Rocks and ground in ravines. Albany. Helderberg mountains, C. F. AUSTIN. Buffalo, G. W. CLINTON. Scarce. Nov. - April.

F. BRYOIDES, *Hedw.*

Shaded ground in woods. Shaded ravines near Albany. Frequent in conservatories, in and around flower pots. Nov. - April.

F. TAXIFOLIUS, *Hedw.*

Humected rocks and clay banks. Niagara Falls; December, LESQX. Rockland county, C. F. AUSTIN.

F. SUBBASILARIS, *Hedw.*

Roots of trees. Poestenkill, woods west of the village. Fort-Edward, E. C. HOWE. Not common. October - December.

F. ADIANTOIDES, *L.*

Moist ground and rocks, generally in woods. Frequent. Nov. - April.

F. OSMUNDIOIDES, *Hedw.*

Base of trees in swamps and mountains; Catskill mountains, LESQX.

F. GRANDIFRONS, *Brid.*

Humected perpendicular rocks; Niagara Falls; Caledonia creek, where it grows submerged, G. W. CLINTON. Not uncommon in Western New-York. Our plant bears pistillidia, but neither antheridia nor fruit.

CONOMITRIUM, *Mont.*C. JULIANUM, *Savi.*

On stones in mountain streams. Smoke's creek, G. W. CLINTON. Shawangunk mountains, C. F. AUSTIN. Sterile.

BLINDIA, *Brch. & Schp.*B. ACUTA, *Dicks.*

Humected perpendicular rocks; Catskill mountains, near the Cauterskill; July, LESQX. Very rare.

This interesting and rare moss has been found in no other locality in the State.

Diocicous: pale green, loosely caespitose, varying in length from half an inch to half a foot; stems filiform, naked near the base; leaves erect-open, shining, lanceolate-subulate, pointed by the excurrent costa; capsule pyriform, firm, with a rather long straight pedicel; peristome of 16 equidistant teeth; lid large, with a straight or slightly inclined beak; calyptra split to the point, covering the lid only; annulus, none.

POTTIA, *Ehrh.*P. TRUNCATA, *L.*

On the ground in moist fields, and by roadsides. Common. November - April.

DESMATODON, *Brid.*D. ARENACEUS, *Sulliv. & Lesqx.*

Stones; Devil's Hole and Caledonia, G. W. CLINTON. Rare. July.

BARBULA, *Hedw.*B. UNGUICULATA, *Hedw.*

Ground, claybanks. Variable and common. Nov. - April.

B. CAESPITOSA, *Schwaegr.*

On the ground in woods and about the roots of trees. Common.
June.

B. TORTUOSA, *L.*

Rocks. Goat Island, LESQX. Common about Niagara Falls, G. W. CLINTON. Helderberg mountains. Not frequent. June.

B. CONVOLUTA, *Hedw.*

Ground on mountains. Helderberg mountains, growing with *Bryum pyriforme*, on ground on which charcoal had been burned. Rare.

B. MUCRONIFOLIA, *Schwaegr.*

Roots of an elm subject to inundation, Schoharic, Miss R. WATERBURY. Stones; Devil's Hole and Portage, G. W. CLINTON. June.

B. FRAGILIS, *Wils.* TRICHOSTOMUM FRAGILE, *Hook.*

Humectated rocks by waterfalls. Ausable river, near Lake Champlain; sterile, LESQX.

Closely caespitose; stems erect, simple or forked, tomentose at the base; leaves closely imbricated, erect, plane on the margin, rigid, very fragile, twisted when dry, lanceolate-subulate with an excurrent costa; areolation hyaline near the base, minute, chlorophyllose and papillose above; capsule erect, ovate-oblong, scarcely curved; lid obliquely long-beaked; teeth of the peristome convolute, very thin, fugacious; inflorescence dioecious.

TRICHOSTOMUM, *Hedw.*T. TORTILE, *Schrad.*

Sandy ground, banks by roadsides, etc. Common. Nov. - March.

T. VAGINANS, *Sulliv.*

On the ground; Shawangunk mountains, C. F. AUSTIN.
November - March.

T. PALLIDUM, *Hedw.*

Clayey ground, fields and open woods. Common. June.

T. GLAUDESCENS, *Hedw.*

Cliffs and crevices of precipitous rocks. Adirondack mountains.
Ravine south of Albany. Rare. June.

DIDYMODON, *Hedw.*D. RUBELLUS, *Roth.*

Rocks, especially in ravines. Catskill mountains. Greenbush, near Harlem R. R. bridge. Rare. June, July.

D. LURIDUS, *Hornsch.*

Niagara Falls, on a dry rock near the shore, one-eighth to one-quarter of a mile below the American staircase, G. W. CLINTON. October.

This fine species was found by DRUMMOND at Niagara Falls in 1818, but had not been detected since that time until 1865, when it was rediscovered as shown above.

D. CYLINDRICUS, *Brch.*

Catskill mountains. JAMES in Pr. Am. Phil. Soc.

CERATODON, *Brid.*C. PURPUREUS, *L.*

Ground, rocks, rotten wood, old roofs. Common everywhere. May.

DISTICHIUM, *Brch. & Schp.*D. CAPILLACEUM, *Bryol. Europ.*

Crevices of rocks, high summits of the Adirondack and the Catskill mountains, LESQX.

TETRAPHIS, *Hedw.*T. PELLUCIDA, *Hedw.*

Decayed wood in woods. Frequent. June.

ENCALYPTA, *Schreb.*E. CILIATA, *Hedw.*

Rocks and crevices of rocks on mountains. Sand Lake. Adirondack mountains. July.

E. STREPTOCARPA, *Hedw.*

Rocks. The Ledge; Akron, G. W. CLINTON. Niagara Falls. JAMES in Pr. Am. Phil. Soc. Helderberg mountains. Sterile.

ZYGODON, *Hook. & Tayl.*Z. MOUGEOTI, *Bryol. Europ.*

Catskill mountains. JAMES in Pr. Am. Phil. Soc.

Z. LAPPONICUS, *Hedw.*

Crevices of rocks. Catskill mountains, below Cauterskill Falls. Adirondack mountains, LESQX.

ORTHOTRICHUM, *Hedw.*O. ROGERI, *Brid.*

Bark of *Populus tremuloides*, near Lake Placid, Adirondack mountains; very rare; August, LESQX.

O. CUPULATUM, *Hoffm.*

Rocks and trees. Beech trees, Rosis Point, G. W. CLINTON. Rare. May, June.

O. ANOMALUM, *Hedw.*

Rocks, sometimes on trees. Limestone rocks, Niagara Falls, LESQX. On trees in the same locality, G. W. CLINTON. Not common. June.

O. STRANGULATUM, *Beauv.*

Trees, rocks and stone walls. Frequent. April, May.

- O. CANADENSE*, *Schp.*
Trees, with the preceding. Less common. April, May.
- O. LEOCARPUM*, *Bryol. Europ.*
Trees. Adirondack mountains, LESQX. Sand Lake. Rare. June.
- O. HUTCHINSLÆ*, *Hook. & Tayl.*
Granite rocks, mostly on mountains. Frequent. June.
- O. LUDWIGII*, *Brid.*
Trees on hills and mountains. Common. June.
- O. CRISPUM*, *Hedw.*
Trees, dead branches on the ground and shaded granite rocks, LESQX.
Catskill mountains. JAMES in Pr. Am. Phil. Soc. Sand Lake.
Hall's station, G. W. CLINTON. June.
- O. CRISPULUM*, *Brch.*
Trees. Common. June.
- PTYCHOMITRIUM*, *Brch. & Schp.*
- P. INCURVUM*, *Schwaegr.*
Rocks. Rockland county, C. F. AUSTIN.
- DRUMMONDIA*, *Hook.*
- D. CLAVELLATA*, *Hook.*
Trees, on hills and mountains. Common. May, June.
- SCHISTIDIUM*, *Schp.*
- S. APOCARPUM*, *Hedw.*
Rocks, especially in ravines and along streams. Frequent and variable. November - April.
- S. CONFERTUM*, *Funk.*
Same habitat as the preceding. Common. April.
- GRIMMIA*, *Ehrh.*
- G. PENNSYLVANICA*, *Schwaegr.*
Wet rocks on hills and mountains. Common. December - April.
- G. LEUCOPHÆA*, *Grev.*
Sandstone rocks. Catskill mountains. JAMES in Pr. Am. Phil. Soc. June.
- G. OVATA*, *Web. & Mohr.*
Naked, flat rocks, top of Mount Marcy; September, LESQX.
Pulvinate or caespitose; leaves lanceolate, pointed, the upper ones tapering into a hair point; capsule on a straight pedicel, exerted, ovate, solid; lid obliquely beaked; teeth of the peristome long, split to the middle, dark red; calyptra nitiform, lobate; inflorescence monoecious.
- G. OLNEYI*, *Sulliv.*
Rocks. Catskill mountains. (Torrey legit) C. F. AUSTIN.
- G. DONNIANA*, *Smith.*
Rocks. Adirondack mountains; rare, LESQX.
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RACOMITRIUM, *Brid.*R. ACICULARE, *Brid.*

Rocks along mountain streams. Catskill mountains. Sand Lake.
June.

R. SUDETICUM, *Funk.*

Moist rocks along streams. Adirondack mountains; Aug., LESQX.
Catskill mountains. JAMES in Pr. Am. Phil. Soc.

R. MICROCARPUM, *Brid.*

Rocks, either moist or dry. On mountains. Common. May—June.

R. FASCICULARE, *Brid.*

Rocks near waterfalls. Adirondack mountains; Ausable river, etc.,
LESQX. Catskill mountains. JAMES in Pr. Am. Phil. Soc.

HEDWIGIA, *Ehrh.*H. CILIATA, *Dicks.*

Granite rocks and stone walls. Very rarely on decayed logs. Every-
where common. May.

SCHISTOSTEGA, *Mohr.*S. OSMUNDACEA, *Web. & Mohr.*

On dirt adhering to roots of overblown trees in deep woods, a short
distance south of Cranberry marsh, Sand Lake. This is at present
its only known locality in this country. August.

Very delicate, slender, simple or rarely bifurcate, 3"—6" long,
growing from a shining, yellowish-green and persistent prothallium,
rooting only at the base, two-shaped; sterile plants frondlike, with
the leaves two-ranked, rhomboidal, ecostate, vertically inserted,
confluent at the base; fertile plants frondiform below or with the
stem nearly naked, bearing flowers and minute horizontal leaves of
various forms at the top; flowers gemmiform; vaginula ovate-glo-
bose; capsule on a long slender pedicel, minute, nearly globose,
without a peristome; operculum convex; calyptra minute, mitriform
or dimidiate-conical, covering the operculum only; spores minute.
A very rare little moss of peculiar habit and loose cellular structure,
with a beautiful glaucous green color when fresh. First found in
this country in 1865.

TETRAPLODON, *Bryol. Europ.*T. ANGUSTATUS, *Bryol. Europ.*

On the excrement of cows in a swamp near Lake Placid, Adiron-
dack mountains; August, LESQX.

T. MNIOIDES, *L. fl.*

Excrement of some animal near the top of Mount Marcy; August,
LESQX.

APHANORHEGMA, *Sulliv.*A. SERRATA, *Sulliv.*

Moist ground in fields. Common. November.

PHYSCOMITRIUM, *Brid.*P. PYRIFORME, *L.*

Moist ground, especially on clayey soil. Common everywhere. May.

FUNARIA, *Schreb.*F. FLAVICANS, *Michx.*

Damp clayey soil in woods. Staten Island, A. A. ADEE. Buffalo, G. W. CLINTON. Rare. April - May.

This species is more common in the Southern States, and grows especially on ground where charcoal has been burned.

F. HYGROMETRICA, *Hedw.*

Ground wet or dry. Crevices of rocks, and in places burnt over in charring coal. Common everywhere. June.

Var. CALVESCENS, *Bryol. Europ.*

Wet springy places. Buffalo, G. W. CLINTON.

MEESIA, *Hedw.*M. ULIGINOSA, *Hedw.*

Moist sandy ground and marshy places. Along the railroad between West Albany and Center. Fort Edward, E. C. HOWE. Rare. June.

M. TRISTICHA, *Funk.*

Swamps and wet places. Fort Edward, E. C. HOWE. Rare. June.

BARTRAMIA, *Hedw.*B. FONTANA, *Brid.*

Wet rocks and springy places on mountains. Common. June.

B. MUHLENBERGII, *Schwaegr.*

Moist sandy or gravelly places. Along the railroad between West Albany and Center. Niagara Falls, G. W. CLINTON. Fort Edward, E. C. HOWE. June.

B. ITHYPHYLLA, *Brid.*

Fissures of rocks. Black mountain near Lake George; August, LESQX.

B. POMIFORMIS, *Hedw.*

On the ground in ravines and in the crevices of rocks. Frequent. May.

B. OEDERI, *Swartz.*

Rocks on hills and mountains. Helderberg and Adirondack mountains. Akron and Devil's Hole, G. W. CLINTON. Schoharie, Miss R. WATERBURY. Shawangunk mountains, C. F. AUSTIN. June.

CONOSTOMUM, *Swartz.*C. BOREALE, *Swartz.*

Crevices of rocks. Top of Mount Marcy; very rare; August, LESQX.

BRYUM, *Dill.*B. CERNUUM *Brch. & Schp.*

Crevices of rocks. Lake George; July, LESQX.

B. ACUMINATUM, Hoppe & Hornsch.

Fissures of rocks. Adirondack mountains, LESQX. Rock City, G. W. CLINTON. Very rare. September.

Very similar to the following species in appearance, leaves and capsules; but differs in having the flowers gemmaceous and terminal, and, the inner peristome without cilia.

B. ELONGATUM, Dicks.

Humected black soil in crevices of rocks. High summits of the Adirondack mountains; Whiteface mountain, etc., LESQX. High Peak, Catskill mountains. Rare. July.

B. NUTANS, Schreb.

Low grounds. Crevices of rocks in mountains. Common. June.

Var. **BICOLOR, Bryol. Europ.**

Marshy places on mountains. Adirondack mountains, LESQX.

B. CRUDUM, Schreb.

Deep shaded crevices of rocks on mountains. Black mountain; Catskill and Adirondack mountains, LESQX. Fort Edward, E. C.

HOWE.

June.

B. ANNOTINUM, Hedw.

Moist banks by roadsides. Sand Lake. August.

B. WAHLENBERGII, Schwaegr.

Springy places and wet gravelly banks. Base of Helderberg mountains, fertile specimens. Rare in fruit. June.

B. PYRIFORME, Hedw.

Sandy soil, burnt ground, etc. Common. June.

B. INTERMEDIUM, Brid.

Thin soil covering rocks. Not rare. June.

B. BIMUM, Schreb.

Swamps and wet ground about roots of trees. Common. June.

B. PSEUDO-TRIQUETRUM, Schwaegr.

Wet rocks, especially on hills and mountains. Catskill mountains. Poestenkill. Not common. June, July.

B. ROSEUM, Schreb.

On the ground and about the roots of trees in woods. Rare in fruit. October.

B. CAPILLARE, Hedw.

Adirondack mountains, August, LESQX. Buffalo, G. W. CLINTON. Fort Edward, E. C. HOWE.

B. CYCLOPHYLLUM, Bryol. Europ.

Wet places. Caledonia creek at Green's, where it was found in 1865 by G. W. CLINTON, the first to discover it in this country.

Diocious: loosely caespitose; stem branching by innovations from the top or emitting slender branches from the base; leaves bright green above, brown below, distant, half clasping the stem, spreading, ovate-suborbicular, obtuse, entire, concave, costate to near the apex; capsule ovate-pyriform, pendulous; operculum mammillate; annulus compound.

- B. TURBINATUM**, *Hedw.*
Humected rocks. Niagara Falls; very rare; July, LESQX.
- B. CÆSPITICIUM**, *L.*
Dry ground in fields and open places. - Common. May.
- B. ARGENTEUM**, *L.*
Dry hard soil and thin earth covering rocks. Mountain and plain.
Everywhere. June - November.
- B. ATROPURPUREUM**, *Web. & Mohr.*
Sandy soil. Buffalo (Forest Lawn), G. W. CLINTON. Very rare,
and hitherto considered a Southern species. June.
- MNIUM**, *Brch. & Schp.*
- M. PUNCTATUM**, *Hedw.*
Swamps and wet places in woods. Common and variable.
November - April.
A very small form occurs in woods and ravines, especially on mountains, growing on wet ground and rocks, sometimes on rotten logs.
- M. HORNUM**, *Hedw.*
Humected granite rocks. Adirondack mountains; July, LESQX.
Stones and banks along rivulets. Shawangunk mountains, C. F. AUSTIN.
- M. SERRATUM**, *Brid.*
Along rivulets. Greenbush. Smoke's creek, G. W. CLINTON. Not common. May.
- M. LYCOPODIODES**, *Hook.*
Moist rocks in woods on mountain slopes. Adirondack mountains;
Black mountain near Lake George, LESQX.
Much like *M. SERRATUM*, but distinguished by its larger size, dioecious inflorescence, distant long ligulate acuminate leaves, with more numerous and acute double teeth on the margin and a more compact areolation, longer, elliptical or subcylindrical, slightly incurved capsule, and longer teeth of the peristome.
- M. CUSPIDATUM**, *Hedw.*
Ground, stones and old logs in woods. Frequent. May.
- M. AFFINE**, *Bland.*
Damp ground and rotten logs in woods and ravines. Common. May.
Var. ELATUM, *Bryol. Europ.*
Along deep shaded creeks in mountains. Black mountain, LESQX.
Var. RUGICUM, *Bryol. Europ.*
Same places as the former, LESQX.
- M. SPINULOSUM**, *Bryol. Europ.*
Ground in hemlock woods on mountains. Common on the Helderberg and Catskill mountains. June.
- M. STELLARE**, *Hedw.*
Deep shaded rocks above Keene; Adirondack mountains; rare; August, LESQX.

AULACOMNION, *Schwaegr.*A. TURGIDUM, *Schwaegr.*

Bogs near the top of Mount Marcy; sterile, LESQX.

A. PALUSTRE, *Schwaegr.*

Bogs. Marshy ground. Decayed vegetable matter in wet places.
Common. June.

A. HETEROSTICHUM, *Bryol. Europ.*

Moist shaded banks in ravines. Frequent. May.

TIMMIA, *Hedw.*T. MEGAPOLITANA, *Hedw.*

Ground in shaded ravines. Greenbush. Schoharie, Miss R. WATERBURY. May.

ATRICHUM, *Beauv.*A. UNDULATUM, *Beauv.*

Clayey soil, banks and ravines. Common. November - May.

A. ANGUSTATUM, *Beauv.*

Ground, roadsides and banks. Frequent. November - May.

POGONATUM, *Beauv.*P. BREVICAULE, *Brid.*

Clayey ground, roadsides, etc. Frequent. Sept. - November.

P. CAPILLARE, *Brid.*

Borders of gravelly torrents; slopes of Mount Marcy; Adirondack mountains, LESQX.

P. ALPINUM, *Brid.*

About ledges of rocks on mountains. Common on the Catskill mountains. July.

POLYTRICHUM, *Brid.*P. FORMOSUM, *Hedw.*

Ground and rotten logs in woods, especially on mountains. Common. July.

P. PILIFERUM, *Schreb.*

Dry hard soil overlying rocks, especially in mountainous regions.
Not rare. June.

P. JUNIPERINUM, *Hedw.*

Shaded ground in open woods and swamps. Common. June.

P. COMMUNE, *L.*

Ground in old fields. Borders of woods and bogs. Everywhere. June.

In mountain regions where the soil is poor, this moss quickly occupies the little knolls in pastures and meadows, thereby diminishing the grass crop and rendering renewed cultivation necessary.

BUXBAUMIA, *Haller.*B. APHYLLA, *Haller.*

Ground in open woods. Sand Lake. Helderberg mountains. Rare. November - April.

DIPHYSCIUM, *Web. & Mohr.*D. FOLIOSUM, *Web. & Mohr.*

Shaded banks and knolls in open woods. Not rare.

August, September.

FONTINALIS, *Dill.*F. ANTIPYRETICA, *L.* Var. GIGANTEA, *Sulliv.*

Attached to sticks and stones in mountain streams and lakes. Common but usually sterile.

Var. EATONI, *Sulliv.*

A slender form with narrow leaves. Catskill mountains, fruiting abundantly; July, LESQX.

The true F. ANTIPYRETICA has not yet been found in the State.

F. NOVÆ-ANGLIÆ, *Sulliv.*

Mountain lakes and sluggish streams. Bowman's Pond and Cranberry Creek, Sand Lake. Catskill mountains, LESQX.

F. LESCUBII, *Sulliv.*

Streams and waterholes. Outlet of the lake between the Mountain House and the Laurel House, Catskill mountains; also the Adirondack mountains, LESQX.

F. DALECARLICA, *Bryol. Europ.*

Stones in mountain streams. Common.

August.

DICHELYMA, *Myrin.*D. CAPILLACEUM, *Dill.*

Streams, waterholes and lakes, attached to sticks and stones. Bowman's Pond and Cranberry Creek, Sand Lake. Sterile.

D. FALCATUM, *Hedw.*

Stones in mountain rivulets. In woods both sides of the road between the Mountain House and the Laurel House, Catskill mountains. Rare.

July.

Fruiting specimens of this really beautiful moss were found in nearly dry rivulets in the locality given, which at present is its only known station in the State.

PTERIGYNANDRUM, *Hedw.*P. FILIFORME, *Timm.*

Rocks on mountains, especially along streams. Shaded granite rocks, Adirondack mountains, above Keene, LESQX. Common on the Catskill mountains.

July, August.

LEUCODON, *Schwaegr.*L. JULACEUS, *Hedw.*

Trees. Common.

November, December.

L. BRACHYPUS, *Brid.*

Trees. Sometimes on rocks. Mostly on mountains. Common.

November, December.

LEPTODON, *Mohr.*L. TRICHOMITRION, *Mohr.*

Trees in woods. Sometimes on rocks. Common. Nov., Dec.

ANOMODON, *Hook. & Tayl.*A. VITICULOSUS, *L.*

Rocks. Goat Island, LESQX. Various localities about Niagara Falls, G. W. CLINTON. Schoharie, Miss R. WATERBURY. Abundant on the Helderberg mountains. Always sterile within our limits, the plant bearing pistillidia but no antheridia.

A. APICULATUS, *Bryol. Europ.*

Rocks and trees, mostly on mountains. Rocks, Akron, G. W. CLINTON. Trees, Poestenkill. November, December.

Resembles the following species, from which it may be distinguished by the slight apiculation at the apex of the leaves and the ciliate-papillate lobes at their base.

A. OBTUSIFOLIUS, *Bryol. Europ.*

Trees in woods. Especially on the maple, (*Acer saccharinum.*) Common. November, December.

A. ATTENUATUS, *Schreb.*

Base of trees, rocks and ground. Frequent. Nov., Dec.

A.? TRISTIS, *Cesati.*

Trees in woods. Poestenkill. Fruit unknown.

LESKEA, *Hedw.*L. POLYCARPA, *Ehrh.*

Trees in low grounds subject to inundations. Swamp south of Greenbush. July.

L. OBSCURA, *Hedw.*

Trunks and roots of trees on low banks of streams. Hudson below Albany. July.

L. NERVOSA, *Schwaegr.*

Rocks. Niagara Falls, G. W. CLINTON. Trenton Falls, JAMES.

The specimens are sterile, but believed to belong to this species.

L. ROSTRATA, *Hedw.*

Base of trees and on rocks. Very common. November.

THELIA, *Sulliv.*T. HIRTELLA, *Hedw.*

Base of trees. Common in Western New-York, G. W. CLINTON. November.

T. ASPRELLA, *Schp.*

Base of trees. Common. November.

This species is quite common in the vicinity of Albany, but T. HIRTELLA, which in most places is as plentiful as T. ASPRELLA, has not yet been observed here.

MYURELLA, *Schp.*M. CAREYANA, *Sulliv.*

Rocks and crevices mostly on mountains. Helderberg mountains. Greenbush. Chittenango, G. W. CLINTON. Shawangunk mountains, C. F. AUSTIN. Rare. Sterile.

It assumes two modes of growth; one, prostrate, forming thin mats; the other, upright and compact.

PYLAISAEA, *Schp.*P. SUBDENTICULATA, *Schp.*

Base of trees, usually white oak, in dryish woods. Helderberg mountains; Albany, C. F. AUSTIN. Rare. November.

P. INTRICATA, *Hedw.*

Trees in open woods, sometimes in old orchards. Frequent.

November - March.

P. VELUTINA, *Schp.*

Trees, mostly in mountain woods. Sand Lake. Catskill mountains. Rockland county, C. F. AUSTIN. October, November.

HOMALOTHECIUM, *Schp.*H. SUBCAPILLATUM, *Schp.*

Trees. Common but not abundant. November, December.

PLATYGYRIUM, *Schp.*P. REPENS, *Brid.*

Decaying wood, old logs, rails, stumps. Common. Nov., Dec.

CYLINDROTHECIUM, *Schp.*C. CLADORRHIZANS, *Hedw.*

Old logs in woods, rarely on stones. Common. Nov., Dec.

C. SEDUCTRIX, *Hedw.*

Roots of trees, stones and ground. Frequent. Nov., Dec.

C. BREVISETUM, *Schp.*

On leaning trunks, Shawangunk mountains, C. F. AUSTIN. Not common. November, December.

NECKERA, *Hedw.*N. PENNATA, *Hedw.*

Trees in woods. Frequent. November - April.

N. COMPLANATA, *L.*

Rocks, Catskill mountains, T. P. JAMES. Very rare. Sterile.

HOMALIA, *Brid.*H. JAMESII, *Schp.*

Catskill mountains, growing with N. COMPLANATA; T. P. JAMES.

CLIMACIUM, *Web. & Mohr.*C. AMERICANUM, *Brid.*

Moist ground and rotten wood in fields and in woods. Common but seldom found in fruit. November.

C. DENDROIDES, *L.*

Habitat as in the preceding. Cemetery woods, Sand Lake. Wet bank, Rensselaerville, Miss R. WATERBURY. Rare. Sept., Oct.

Distinguished from the preceding by the shorter capsule, shorter rostrum to the operculum, and less distinctly auricled base of the leaves.

HYPNUM, *Dill.*H. TAMARISCINUM, *Hedw.*

Ground and decayed logs in swamps and wet woods. Common. October - March.

H. DELICATULUM, *C. Mull.*

Ground and rocks in dry hilly woods. Not rare. Aug., Sept.

H. MINUTULUM, *Hedw.*

Base of trees and rotten wood in woods. Common. July - Oct.

H. PYGMÆUM, *Bryol. Europ.*

Rocks. Foster's Flat, G. W. CLINTON. Rare. August.

H. GRACILE, *Bryol. Europ.*

Ground and rotten logs in woods. Catskill mountains. Fort Edward, E. C. HOWE. July.

H. ABIETINUM, *L.*

Rocks. Goat Island, LESQX. Whirlpool wood, Niagara Falls, G. W. CLINTON. Helderberg mountains. Sterile.

H. BLANDOWII, *Web. & Mohr.*

Swamps and bogs. Caledonia, G. W. CLINTON. Warren, Herkimer county, J. A. PAINE, Jr. Rare. June.

Stems erect or ascending, 3'—4' long, simple or sparingly divided, pinnately branched, densely villous; branchlets attenuated, distichous, flexuous or recurved; leaves ovate and broad-ovate, short acuminate, more or less plicate, usually with a strong fold in the middle obscuring the costa which extends half way, reflexed on the margin and papillose on the back, with slender, branching filaments at the basal angles; areolation elongated; capsule oblong-cylindrical, sub-arcuated; operculum conic, acute; annulus broad. A dull yellowish-green moss resembling in appearance, both H. ABIETINUM and H. PALUDOSUM.

H. PALUDOSUM, *Sulliv.*

Swamps and bogs. Not uncommon. June.

H. SQUARROSUM, *L.*

Wet places, ground and stones. Catskill mountains, half way between the Mountain House and the Laurel House. Very rare. Sterile.

H. TRIQUETRUM, *L.*

Ground in woods and swamps. Common and variable. Dec. - Mar.

H. BREVIROSTRE, *Ehrh.*

Rocks and base of trees in mountains. Catskill mountains, below Cauterskill Falls. Middletown, Miss R. WATERBURY. Rare in fruit. November - April.

Fruiting specimens were found in the localities mentioned.

- H. SPLENDENS**, *Hedw.*
Ground, rotten logs and rocks in woods. Frequent. May, June.
- H. UMBRATUM**, *Ehrh.*
Ground in pine and hemlock woods on high mountains. Base of Mount Marcy, September, October, LESQX. Slopes of High Peak, Catskill mountains. Not common.
- H. ALLEGHANIENSE**, *C. Mull.*
Moist rocks along streams and clefts of rocks on mountains. Helderberg mountains. Devil's Hole, G. W. CLINTON. Sterile.
- H. HIANS**, *Hedw.*
Ground in open places, banks and ravines, especially on clayey soil. Not rare. November, December.
- H. PILIFERUM**, *Schreb.*
Ground and wet banks along streams in woods. Helderberg mountains, in a deep ravine southwest of Knowerville station. Fort Edward, woods back of the Institute, E. C. HOWE. Rare. November, December.
- H. SULLIVANTII**, *Spruce.*
Moist banks in woods. Base of Catskill mountains, LESQX. Ravine near Knowerville station.
- H. TENELLUM**, *Dicks.*
Found in small quantity growing with *H. PULCHELLUM* about the roots of an old stump, Helderberg mountains.
Monoecious: stems slender, irregularly branched, greenish-yellow, shining; leaves erect-spreading, narrowly lanceolate, nearly subulate, serrulate, costate to the apex; perichaetial leaves oblong acuminate, ecostate; capsule oval-oblong, horizontally inclined, annulate; operculum rostrate. A very small species first detected in this country in 1865.
- H. STRIGOSUM**, *Hoffm.*
Open woods, ravines and hill sides, on the ground. Variable and frequent. September, October.
- H. DIVERSIFOLIUM**, *Bryol. Europ.*
Ground. Buffalo, December, G. W. CLINTON. Rare.
- H. BOSCHII**, *Schwaegr.*
Shaded rocks, base of Catskill mountains, not common, sterile, LESQX.
- H. SERRULATUM**, *Hedw.*
Ground in open woods, sometimes about the roots of trees in wet or dry places. Frequent. June - November.
- H. DEPLANATUM**, *Schp.*
Wet stones, Shawangunk mountains, C. F. AUSTIN.
- H. DEPRESSUM**, *Brch.*
Shawangunk mountains, C. F. AUSTIN.
- H. RUSCIFORME**, *Weis.*
On stones in mountain streams, Catskill mountains, LESQX. Shawangunk mountains, C. F. AUSTIN. August - November.

H. DEMISSUM, *Wils.*

Moist surfaces of rocks on mountains. Catskill mountains. Rare.
July, August.

H. MICROCARPUM, *C. Mull.*

Rotten tree-roots in woods, Staten Island, A. A. ADEE.

The form here noticed is the variety with inclined capsules. It probably does not extend to the central and northern parts of the State.

H. CYLINDRICARPUM, *C. Mull.*

Old logs in woods. Base of the Helderberg mountains, near Knowlerville station. Rare. November, December.

A variety with capsules a little shorter than usual.

H. RECURVANS, *Schwaegr.*

Ground, old logs and rocks, especially on mountains. Very variable and frequent. November, December.

H. ALBULUM, *C. Mull.*

Moist ground and base of shrubs about waterholes, Shawangunk mountains, C. F. AUSTIN.

A southern moss which probably does not extend far within our southern boundary.

H. EUGYRIUM, *Bryol. Europ.*

Rocks in shallow streams, base of Mount Marcy, LESQX. Cranberry creek, Sand Lake. Dripping rocks, Catskill mountains. June.

H. MOLLE, *Dicks.*

Rocks in mountain streams. Catskill mountains. June.

H. OCHRACEUM, *Turn.*

Same habitat as the preceding. Adirondack mountains, August, LESQX. Shawangunk mountains, C. F. AUSTIN. Sand Lake.

Sterile in the two localities last named.

H. MONTANUM, *Wils.*

Humected rocks, near the top of Mount Marcy, August, LESQX.

H. CUSPIDATUM, *L.*

Cranberry swamp near Port Kent, Lake Champlain, LESQX. Fort Edward, E. C. HOWE. Sterile.

H. SCHREBERI, *Willd.*

Ground in open places and borders of woods. Frequent. Nov. - Dec.

H. CORDIFOLIUM, *Hedw.*

Swamps and waterholes. Not rare. June.

H. GIGANTEUM, *Schp.*

Cranberry swamp near Port Kent, LESQX. Caledonia, the creek swamp, G. W. CLINTON.

Dioecious: stems robust, erect, 6'—10' long, thickly branched; branchlets open, somewhat attenuated or cuspidate, becoming shorter above; leaves usually imbricating, concave, broadly cordate-ovate, entire, obtuse, costate nearly to the apex, with two or three rows of large pellucid cellules at the excavated basal angles; capsule on a long pedicel, oblong-cylindrical, horizontal, without an annulus; operculum mammillate.

- H. STRAMINEUM**, *Dicks.*
Bogs near the top of Mount Marcy, August, LESQX.
- H. UNCINATUM**, *Hedw.*
Rocks, ground and rotten wood in woods, especially on mountains.
Common. July.
- H. REVOLVENS**, *Swartz.*
Bergen swamp, G. W. CLINTON. Sterile.
- H. FLUITANS**, *Hedw.*
Swamps and low ponds about Lake Champlain, common, July,
LESQX.
- H. ADUNCUM**, *Hedw.*
Trout lake near Lake George, LESQX. Fort Edward, E. C. HOWE.
Var. **GIGANTEUM**, *Bryol. Europ.*
Big Bay, Strawberry Island, growing in water, G. W. CLINTON.
Waterholes, Jamesville, J. A. PAINE, Jr. Sterile.
Var. **GRACILESCENS**, *Bryol. Europ.*
Wet marshy ground; Buffalo, G. W. CLINTON. Sterile.
- H. FILICINUM**, *L.*
Wet springy places on the ground and on dripping rocks. Common
and variable. Rare in fruit. May, June.
- H. CRISTA-CASTRENSIS**, *L.*
Ground and rotten logs, especially in mountainous districts. Not
uncommon. September.
- H. MOLLUSCUM**, *Hedw.*
Ground in woods. Sand Lake. Helderberg mountains. Not com-
mon. November - April.
- H. CUPRESSIFORME**, *L.*
Bark of trees, Adirondack mountains, July, LESQX.
- H. IMPONENS**, *Hedw.*
Old logs and ground in woods. Frequent. November - April.
- H. REPTILE**, *Michx.*
Old logs in mountain woods. Common. August.
- H. FERTILE**, *Sendt.*
Decayed wood, sometimes on rocks, on mountains. Woods south
shore of Bowman's Pond, Sand Lake. Catskill mountains. Rare.
July.
Monoecious: stems creeping, 2'—3' long, pinnately branched;
leaves oblong-lanceolate, long attenuate, strongly incurved-hooked,
distantly serrulate toward the point, faintly bi-costate at the base;
capsule on a long pedicel, cylindrical, cernuous-incurved, wide
mouthed when dry; operculum convex-apiculate; annulus broad.
A soft moss with yellowish-green foliage, distinguished from *H.*
REPTILE by its long pedicels, operculum not rostellate, and leaves
longer pointed and more strongly curved, giving to the plant its
peculiar soft and almost crisped appearance.

H. CURVIFOLIUM, *Hedw.*

Wet ground in fields and by roadsides, old logs in woods, sometimes on rocks. Frequent and variable. June.

H. HALDANIANUM, *Grev.*

Ground and old logs in woods. Common and variable. Nov. - April.

H. PRATENSE, *Koch.*

Bogs around Lake George and Lake Champlain, sterile, LESQX.

H. RUGOSUM, *Ehrh.*

Exposed places on rocks. Goat Island, LESQX. Whirlpool wood, G. W. CLINTON. "Sun-set Rock," Catskill mountains. Rare. Sterile.

H. NITENS, *Schreb.*

Peat bogs near Port Kent, LESQX. Bergen swamp, G. W. CLINTON. Fort Edward, E. C. HOWE. May, June.

H. SALEBROSUM, *Hoffm.*

Decaying wood and sticks in pine and hemlock woods on mountains. Helderberg mountains. Catskill mountains. Scarce. November - April.

H. LÆTUM, *Brid.*

Ground, banks, rocks, old logs in woods, roots of trees. Abundant everywhere. November, April.

H. ACUMINATUM, *Beauv.*

Roots of trees and thin soil on rocks. Saratoga and Catskill mountains, LESQX. Portage and Chittenango, G. W. CLINTON. November - April.

H. RUTABULUM, *L.*

Moist ground in woods and ravines. Common and variable. November - April.

H. PLUMOSUM, *L.*

Rocks along mountain streams. Common. November - April.

H. POPULEUM, *Hedw.*

Ground in pine woods, Catskill mountains; also near Lake George, May, LESQX.

H. VELUTINUM, *L.*

Ground in pine and hemlock woods. Sand Lake and Helderberg mountains. Not common. March.

Stems creeping, closely entangled, irregularly pinnately branched, branches more or less contorted and curved at the apex; leaves loosely imbricating, spreading, subfalcate, lanceolate long acuminate, or gradually tapering from the base to the apex, the whole margin serrulate, distinctly costate beyond the middle; capsule oval-oblong, horizontal-incurved; operculum broad, short-conic; pedicel short, 5"—8" long, papillose. Forms thin mats on the ground in thick woods. Foliage deep green, sometimes with a yellowish tinge.

H. REFLEXUM, *Web. & Mohr.*

Stones in deep woods; slopes of Mount Marcy; August, LESQX.

- H. STARKII*, *Brid.*
Wet stones in woods; Lake Placid, Adirondack mountains, August,
LESQX.
- H. RIVULARE*, *Brch.*
Wet rocks in mountain streams, swamps and ravines. Devil's Hole,
G. W. CLINTON. Cemetery woods, Sand Lake. Rare in fruit.
November - April.
- H. NOVÆ-ANGLIÆ*, *Sulliv. & Lesqx.*
Wet rocks and damp ground, mostly on mountains. Common, but
seldom fruits. November - April.
- H. STELLATUM*, *Schreb.*
Bogs, Port Kent, LESQX. Bergen swamp, G. W. CLINTON. Sterile.
- H. POLYMORPHUM*, *Brch.*
Ground and rocks. Common and variable. June, July.
Var. *MINUS*, *Sulliv. & Lesqx.*
Old logs of *Thuja occidentalis*, base of Mount Marcy, LESQX.
- H. HISPIDULUM*, *Brid.*
Ground, roots of trees and decayed wood. Common. June, July.
- H. SUBTILE*, *Hoffm.*
Base of trees, especially *Acer saccharinum*. Helderberg mountains.
Whirlpool woods, G. W. CLINTON. September.
- H. MINUTISSIMUM*, *Sulliv. & Lesqx.*
Rocks; Counterfeiter's Ledge, Akron, G. W. CLINTON. Very rare.
August, September.
- H. CONFERVOIDES*, *Schwaegr.*
Near Lebanon Springs, JAMES in Pr. Am. Phil. Soc.
- A. SPRUCEI*, *Brch.*
Goat Island. JAMES in Pr. Am. Phil. Soc.
- H. ADNATUM*, *Hedw.*
Stones in open woods, roots and bark of trees. Frequent and va-
riable. July - September.
- H. SERPENS*, *L.*
Decayed wood near the ground. Not rare. June.
- H. RADICALE*, *Brid.*
Roots of trees, rotten wood, etc. Common and variable. June, July.
- H. ORTHOCLADON*, *Beauv.*
Wet places on the ground, decayed wood, and stones in rivulets.
Frequent and variable. June, July.
- H. NOTEROPHILUM*, *Sulliv. & Lesqx.*
Springs and streams in limestone regions. Caledonia, G. W. CLIN-
TON. Sterile. Rare.
- H. RIPARIUM*, *L.*
Swamps, borders of lakes, waterholes. Frequent and very variable.
June - September.

H. PULCHELLUM, *Dicks.*

Adirondack mountains, LESQX. Helderberg mountains, about the roots of an old stump Rare.

Stems short; irregularly branched, radiculose at base; leaves subsecund, slightly curved, rather loosely imbricating, concave, lanceolate and oblong-lanceolate, narrowly acuminate, entire, ecostate, with a narrow linear areolation; capsule oblong, slightly inclined; operculum convex-conic; annulus composed of two rows of narrow cells. A small species with delicate, shining, yellowish-green foliage.

H. DENTICULATUM, *L.*

Ground in woods, base of small trees in low grounds, rocks on mountains. Common. June, August.

H. MUHLENBECKII, *Hartm.*

Ground and rotten wood in woods. Common. June, July.

H. SULLIVANTIAE, *Schp.*

Humected rocks, Catskill mountains, also near Lake George, July, LESQX. Shawangunk mountains, C. F. AUSTIN.

ORDER HEPATICÆ—*Liverworts.*

RICCIA, *Mich.*

R. NATANS, *L.*

Stagnant pools. Brooklyn, (Torrey legit) C. F. AUSTIN. Albany. Not common. June.

Var. TERRESTRIS, *Nees.*

Wet ground, borders of pools. With the preceding. Frond usually somewhat stellately lobed; lobes linear, diverging; passes into the typical form, C. F. AUSTIN.

R. LUTESCENS, *Schwein.*

Margins of pools, low muddy grounds. Common. Fruit unknown. Sometimes found floating, late in autumn, in pools exsiccated during summer.

R. FLUITANS, *L.*

Stagnant water, rocky rivulets. Not rare. Sterile.

ANTHOCEROS, *Mich.*

A. PUNCTATUS, *L.*

Wet banks, moist ground in fields. Common. September.

A. LÆVIS, *L.*

Wet ground and rocks in rivulets; common, Sept., C. F. AUSTIN.

NOTOTHYLAS, *Sulliv.*

N. VALVATA, *Sulliv.*

Damp ground in fields. Common. October.

N. MELANOSPORA, *Sulliv.*

With ANTHOCEROS PUNCTATUS and equally common, September, C. F. AUSTIN.

LUNULARIA, *Mich.*L. VULGARIS, *Mich.*

Common and spontaneous in conservatories; distinguished from MARCHANTIA POLYMORPHA, by the crescent-shaped, gemmæ-bearing receptacles; sterile; C. F. AUSTIN.

MARCHANTIA, *L.*M. POLYMORPHA, *L.*

Burnt ground, wet places, ditches, borders of swamps. Frequent.
June - August.

PREISSIA, *Nees.*P. COMMUTATA, *Nees.*

Shaded wet places, ravines. Albany and Helderberg mountains.
Niagara Falls, G. W. CLINTON. June.

FEGATELLA, *Raddi.*F. CONICA, *Corda.*

Wet banks, along streams; in swamps and ravines. Common. May.

REBOULIA, *Raddi.*R. HEMISPHERICA, *Raddi.*

Rocks along streams, May, C. F. AUSTIN.

R. MICROCEPHALA, *Tayl.*

Moist shaded banks and rocks; common; May, C. F. AUSTIN.

GRIMALDIA, *Raddi.*G. BARBIFRONS, *Raddi.*

Exposed rocky soil, Schoharie, Miss R. WATERBURY. April, May.

DUVALIA, *Nees.*D. RUPESTRIS, *Nees.*

Wet places in rocky ravines. Havana, Schuyler co., E. G. PICKETT.

METZGERIA, *Raddi.*M. FURGATA, *Nees.*

Rocks damp or dry, trees. Common, but seldom fruits.

M. PUBESCENS, *Raddi.*

Rocks among moss, High Peak, Catskill mountains. Rare. Sterile.

ANEURA, *Dumort.*A. SESSILIS, *Spreng.*

Decaying wood in swamps. Common.

A. PALMATA, *Nees.*

Old logs. Common.

A. MULTIFIDA, *Dumort.*

Old logs in swamps, wet ground in woods; frequently submerged; common, C. F. AUSTIN.

STEETZIA, *Lehm.*S. LYELLII, *Lehm.*

Wet ground, in springy, boggy places. Sand Lake. Shawangunk mountains, C. F. AUSTIN. Sterile.

PELLIA, *Raddi*.P. EPIPHYLLA, *Nees*.

Wet ground, borders of ditches. Frequent. April, May.

BLASIA, *Mich*.B. PUSILLA, *L*.

Wet gravelly or sandy banks. Albany. Not common. Sterile.

GEOCALYX, *Nees*.G. GRAVEOLENS, *Nees*.

Ground and old logs; common, C. F. AUSTIN.

CHILOSCYPHUS, *Corda*.C. POLYANTHUS, *Corda*.

Sticks and stones in streams and swamps; often submerged. Common but sterile.

LOPHOCOLEA, *Nees*.L. HETEROPHYLLA, *Nees*.

Ground and old logs. Common and variable. June.

SPHAGNÆCETIS, *Nees*.S. COMMUNIS, *Nees*.

Rotten wood and old logs. Common but rarely fruits.

JUNGERMANNIA, *L*.J. TRICOPHYLLA, *L*.

Wet ground, damp rocks, among moss, etc. Common.

J. SETACEA, *Web*.

With the last and as common, C. F. AUSTIN.

J. CONNIVENS, *Dicks*.

Decayed wood and damp places on the ground. Frequent.

J. CURVIFOLIA, *Dicks*.

Old logs. Frequent and variable in color.

J. BICUSPIDATA, *L*.

Rotten wood and among moss. Sand Lake. Catskill mountains.

J. CATENULATA, *Hub*.

Ground and old logs in swamps; very common, C. F. AUSTIN.

Stems prostrate, rarely suberect, slightly compressed or subjulaceous. Leaves suborbicular, concave, obliquely clasping, nearly twice as wide as the stem, bifid, with an obtuse sinus and acute straight or connivent and more or less incurved lobes; amphigastria none; involucreal leaves subovate, 2-3-cleft, the lobes spinulose-dentate; perianth on a very short lateral branch, elongated, subcylindrical, the apex trigonal, sub-acute, whitish, the mouth ciliate-lobed, the lobes spinulose-dentate. Forms extensive olive-green patches.

J. SULLIVANTIANA. (n. s.)

Cold shaded ground, Orange county, C. F. AUSTIN.

"Amphigastria minute, ovate or sub-quadrate, sometimes emar-

ginate. Color light green. Stems 2-4 lines long, filiform, creeping, densely radiculose. Leaves scarcely wider than the stem, somewhat distant, subdistichous, erecto-patent, broadly and obtusely complicate-concave, under pressure broadly cuneate-triradiate, distinctly serrate-denticulate, $\frac{1}{2}$ -bifid; sinus broad and obtusish or sometimes acutish, lobes triangular-ovate, acute; areolation minute, for the most part quadrate, with the interstices narrow and hyaline. Involucral leaves 3, $\frac{1}{2}$ -connate, 2-3(?) lobed, spinulose-dentate. Perianth terminal on a longish, club-shaped branch, plicate to the base; apex obtusely triangular, white, deeply lacinate, the lobes sub-linear, truncate, their apex minutely denticulate."

AUSTIN MSS.

J. LESCURIANA. (n. s.)

On the ground in open woods, Orange county, C. F. AUSTIN.

"This is a larger species than the last with longer and more entangled sterile stems and subulate, sub-squarrose amphigastria. Fertile stems more clavate, erect, and crowded. Leaves more imbricated and the lobes more ovate, the lower not serrate. Involucral leaves numerous and crowded into roseate or capitulate heads which are at first terminal, but at length dorsal, the inner ones highly connate, scarious and eroded-denticulate on the margin above. Perianth broadly oval, nearly white, strongly and acutely plicate, and *even in the young state deeply lacinate-lobed*; the mouth denticulate. The leaves towards the apex of the fertile stems are less deeply bifid than the lower ones and often 2-5 papillate-dentate at the subtruncate apex of the lobes." AUSTIN MSS.

J. BICRENATA, *Lindbg.*

Ground in bleak open woods; Helderberg mountains, Shawangunk mountains, C. F. AUSTIN.

Color varying from pale green to reddish-brown. Stems short, thick, densely radiculose; leaves orbicular or subquadrate, very concave, closely imbricating, rather thick and firm, emarginate-2-toothed, with a lunate sinus and acute teeth; involucral leaves 2-3-toothed, serrate; perianth terminal, ovate, plicate, the mouth ciliate-denticulate, connivent.

J. INCISA, *Schrad.*

Old logs. Sand Lake. Not common.

J. BARBATA, *Schreb.*

Rocks and thin soil covering rocks in mountainous localities. Frequent and variable. Rarely fruits.

Var. **ATTENUATA,** *Mart.*

Rocks and ground; High Peak, Catskill mountains. Fertile.

Stems more slender than in the typical form, erect; lower leaves eroded-denticulate at the apex; upper leaves uniformly 3-toothed; amphigastria wanting.

J. MICHAUXII, Web.

Perpendicular faces of rocks on mountains. Sand Lake. Catskill mountains.

J. MINUTA, Crantz.

Rocks, Catskill mountains.

Amphigastria none; leaves complicate-concave, pectinate-spreading, $\frac{1}{4}$ - $\frac{1}{2}$ -bifid, the lobes subequal, ovate, acute or obtuse; inner involucreal leaves trifid; perianth oval-oblong, subcylindrical, the mouth plicate. Resembles the last, but is more slender, leaves not contorted, areolation more quadrate, C. F. AUSTIN.

J. SCUTATA, Web.

Old logs. Common.

J. SCUTATA is described as having the perianth terminal, and at length dorsal; in our plant (which may be a distinct species) the perianth is ventral as in SPHAGNOCETIS COMMUNIS; the amphigastria is smaller, C. F. AUSTIN.

J. PECKII. (n. s.)

Decayed wood, Sand Lake.

"A minute densely caespitose species of a light brownish-red color. Stems rigid—with the leaves—lanceolate in outline, the base densely radiculose and creeping, the apex ascending, microphyllose; rootlets very long and of a light pink color. Leaves imbricated, erecto-vertical, upwardly connivent, concave, rotund-quadrate, somewhat margined; the base obliquely clasping; the ventral margin almost connate with the amphigastria, the dorsal decurrent; the apex somewhat incurved, emarginate-bilobed; sinus acute or obtuse; lobes straightish or somewhat connivent and incurved; areolation large, subrotund; the cellules contiguous and poriform; interstices somewhat obscure; involucreal leaves small, unequal and unequally 2-3(?)-toothed. Perianth on a very short branch arising from the under side of the stem near the base, minute, ovate, somewhat oblique; the mouth oblique, subtruncate, minutely denticulate, at length fissured. Amphigastria minute, oblong-ovate, margined, entire; the apex incurved." AUSTIN MSS.

Differs from J. SCUTATA as follows: Plant smaller, color light red, stems lanceolate, leaves frequently obtusely bilobed, amphigastria smaller and entire, involucreal leaves small and unequal, perianth never terminal and areolation of the leaves larger, C. F. AUSTIN.

J. SCHRADERI, Mart.

Old logs and decayed wood. Frequent. August - October.

J. CRENULATA, Smith.

Ground, Shawangunk mountains, C. F. AUSTIN.

J. EXSECTA, Smith.

Rotten wood. Sand Lake and Catskill mountains.

SCAPANIA, *Lindbg.*S. NEMOROSA, *Nees.*

Ground, rotten wood, rocks, in wet or dry places, mountain and plain. Frequent. Rocks, Catskill mountains, fertile. June.

PLAGIOCHILA, *Nees & Mont.*P. SPINULOSA, *Nees & Mont.*

Rocks, High Peak, Catskill mountains. Rare.

P. ASPLENOIDES, *Nees & Mont.*

Rocks and banks along rivulets. Frequent and variable.

P. PORELLOIDES, *Lindbg.*

Roots of trees in swamps; common, C. F. AUSTIN.

SARCOSCYPHUS, *Corda.*S. EHRHARTI, *Corda.*

Rocks in rivulets, Catskill mountains. Shawangunk mountains, near Greenville, C. F. AUSTIN.

FRULLANIA, *Raddi.*F. GRAYANA, *Mont.*

Rocks and trees. Frequent. Abundant in swamps on balsam and tamarack trees where it is fertile.

F. HUTCHINSIÆ, *Nees.*

Rocks in rivulets, near Greenville, Orange county, C. F. AUSTIN.

F. VIRGINICA, *Gottsche.*

Trees and rocks. Common.

F. EBORACENSIS, *Gottsche.*

Trees and rocks. Frequent.

LEJUNIA, *Libert.*L. SERPYLLIFOLIA, *Libert.*

Rocks and trees in mountainous districts. Catskill mountains.

L. CALCAREA, *Libert.*

Stones and roots of trees, Orange county, C. F. AUSTIN.

MADOTHECA, *Dumort.*M. PLATYPHYLLA, *Dumort.*

Rocks and trees. Frequent and variable.

M. PORELLA, *Nees.*

Sticks and stones in streams. Sand Lake. Sterile.

RADULA, *Nees.*R. COMPLANATA, *Dumort.*

Rocks and roots of trees. Very frequent and commonly fertile.

PTILIDIUM, *Nees.*P. CILIARE, *Nees.*

Old logs and ground in woods; mountain and plain. Very common and variable.

A large, erect, sterile form is found on the ground on high mountains.

SENDTNERA, *Endl.*S. JUNIPERINA, *Nees.*

Crevices of perpendicular rocks on mountains, Catskill mountains, High Peak and below Cauterskill Falls.

TRICHOCOEA, *Nees.*T. TOMENTELLA, *Nees.*

Swamps and bogs. Common but seldom fruits.

MASTIGOBRYUM, *Nees.*M. TRILOBATUM, *Nees.*

Ground, rocks and much decayed wood in woods. Frequent. Rarely fruits.

M. DEFLEXUM, *Nees.*

Rocks and base of trees. Catskill mountains.

LEPIDOZIA, *Nees.*L. REPTANS, *Nees.*

Rotten logs and base of trees in woods, hills and mountains. Not rare.

CALYPOGEIA, *Raddi.*C. TRICHOMANIS, *Corda.*

Ground and old logs, often in wet places; common, C. F. AUSTIN.

In the foregoing List, 274 species of Musci and 66 species of Hepaticæ are recorded. It is believed that not a few species yet remain to be added to our Flora. It is the purpose of the writer to continue his efforts to perfect the List, and he would solicit contributions of specimens and facts from the bryologists of the State. It is well to note the habitat and time of fructification.

The following species of Moss doubtless occur within our limits, but have been omitted because they are not positively known to have been detected therein: *Ephemerum serratum*, *Astomum sullivanii*, *A. nitidulum*, *Bruchia flexuosa*, *Archidium ohioense*, *Dicranum refescens*, *Bryum lescurianum*, *Thelia lescurii*, *Hypnum scitum*, and *H. scorpioides*. Three species of moss new to this country, were detected the past season, and three new species of Liverwort are herein described. If we consider that the regions especially rich in species—the Catskill and the Adirondack mountains—have been but little visited by collectors, we must infer that many interesting species yet remain to reward future explorers.

ALBANY, December, 1865.

(C.)

LIST OF PLANTS FOR STATE HERBARIUM,

COLLECTED BY

HENRY B. LORD,

IN THE VICINITY OF LUDLOWVILLE, TOMPKINS COUNTY, 1865.

DENTARIA DIPHYLLA,	With root.
SINAPIS NIGRA,	Flower and fruit.
STELLARIA LONGIFOLIA,	do do
RHUS GLABRA,	do do
ACER SPICATUM,	Flower.
GEUM ALBUM,	Flower and fruit.
AGRIMONIA EUPATORIA,	do do
CIRCÆA ALPINA,	Flower.
THASPIUM TRIFOLIATUM(?)	do
CORNUS FLORIDA,	Fruit.
CORNUS PANICULATA,	do
SAMBUCUS PUBENS,	do
MITCHELLA REPENS,	Flower and fruit.
EUPATORIUM SESSILIFOLIUM,	Flower.
ASTER UNDULATUS (2 forms),	do
SOLIDAGO ARGUTA,	do
SOLIDAGO MUHLENBERGII,	do
HIERACIUM SCABRUM,	Flower and fruit.
SONCHUS OLERACEUS,	do do
SONCHUS ASPER,	do do
PYROLA ROTUNDIFOLIA,	Fruit.
PYROLA CHLORANTHA,	do
VERONICA OFFICINALIS,	Flower and fruit.
GERARDIA PEDICULARIA,	do do
LYCOPUS EUROPÆUS,	do do
LITHOSPERMUM OFFICINALE,	do do
ASARUM CANADENSE,	Fruit.
JUGLANS CINEREA,	do
CARYA ALBA,	Flower.
CARYA GLABRA,	do
CARPINUS AMERICANUS,	do
SMILACINA RACEMOSA,	Fruit.
UVULARIA GRADIFLORA,	Flower and fruit.
JUNCUS NODOSUS,	do do
CAREX TORTA.	
CAREX RETROCURVA.	
CAREX TRICHOCARPA.	
CAREX PLATYPHYLLA.	
CAREX ALOPECOIDEA.	
CAREX CÆDERI.	
ADNOPOGRON FURCATUS.	
BOTRYCHIUM VIRGINICUM.	
ABALIA QUINQUEFOLIA,	Root.

(D.)

FACTS AND OBSERVATIONS

TOUCHING THE FLORA OF THE STATE OF NEW YORK.

COLLECTED, MAINLY, IN 1865.

BY ONE OF THE REGENTS.

It is desirable that some one should contribute, annually, to this Report, a paper showing the progress of Botanical discovery in the State, and preparing the way for a perfect Catalogue or Flora of the State. Hoping that some one of more leisure and ability will, next year, undertake that duty, I resume its performance now.

The inevitable delay which occurs in the printing of the Regents' Reports to the Legislature, would enable me to include observations and facts made and ascertained in the season of 1866; but this is a record of those of 1865, and I prefer, in general, to keep it so.

Mr. PAINE's admirable Catalogue of the Plants of Oneida County and vicinity, which gives its chief grace and value to the last Report, contains the results of that gentleman's explorations in 1865, as well as in 1864 and previous years. It is to be regretted that he did not place authentic specimens of his discoveries in the State Herbarium; which, so far at least as its Flora is concerned, ought to be its great continent and illustrator. In drawing upon that Catalogue for materials for my Lists, I was, at first, in special cases, in doubt whether I could safely do so. I have concluded, however, to adopt the conclusions of that good botanist, for the purposes of this paper, with the occasional expression of dissent or doubt.

The following is a list of the plants, so far as known to me, which have been found growing spontaneously in the State, and which are not included in TORREY's Catalogue, nor in the additions thereto furnished in my paper appended to the last or Eighteenth Annual Report on the State Cabinet:

1. *Ranunculus flammula*, L. PAINE's Cat. p. 55, *vide* GRAY. If I correctly understand the distinction between it and var. *reprens*, it is pretty common on the St. Lawrence.
2. *Ranunculus clintonii*, BECK. Mr. PAINE considers this a distinct species, though Dr. TORREY and Dr. GRAY, and botanists generally, regard it as a form of *R. repens*.

3. *Nymphaea tuberosa*, PAINE. Paine's Cat. p. 184. This species can hardly be considered as established. Dr. GRAY has undertaken its investigation, but it may not be premature for me to express my impression that, while the specific character given by Mr. PAINE will probably fail, the species is a good one.
4. *Nuphar kalmiana*, PURSH. *N. lutea* of the Flora.
5. *Nuphar variegatum*, ENGELM. In reference to this species, the venerable E. DURAND, under the date of March 10, 1866, writes me: "*Nuphar variegatum*. I found in Philadelphia, in Dr. SHORT's herb., now in Academy of Nat. Sciences, a specimen marked New-York, from H. H. EATON's Herb." It "is easily distinguished from *N. advena*, by its leaves always floating, with closed sinuses and winged petioles." I have just been informed, authentically, that Dr. ENGELMANN now doubts the distinctness of this species.
6. *Argemone mexicana*, L. PAINE'S Cat. p. 185.
7. *Dentaria heterophylla*, NUTT. PAINE'S Cat. p. 60.
8. *Cakile maritima*, SCOP.; var. *æqualis*, CHAPM. Coney Island, one plant, 1865: STEPHEN CALVERLEY. (*C. maritima* of the Flora = *C. americana*, NUTT.)
9. *Malva alcea*, L. Buffalo, 1862, Alden, 1865; roadsides. G. W. C. For the identification of this species, I am indebted to my friend DAVID F. DAY, Esq.
10. *Trifolium procumbens*, L. PAINE'S Cat. p. 72. Sent to me, from the vicinity of New-York, in 1864, by A. A. ADEE, Esq. Regarded by botanists in the southern and eastern portions of the State as common; but *Medicago lupulina* is often taken for it.
11. *Medicago maculata*, WILLD. PAINE'S Cat. p. 72.
12. *Lespedeza stuvei*, NUTT. PAINE'S Cat. p. 73.
13. *Geum album*, GMELIN. Common in the western part of the State, and, probably throughout it. The *G. virginianum* of the Flora is, probably, *G. album*; but our Flora includes both species.
14. *Prunus spinosa*, L. PAINE'S Cat. p. 75.
15. *Potentilla paradoxa*, L. NUTT. PAINE'S Cat. p. 186.
16. *Hydrangea arborescens*, L. In 1865, the Rev. L. HOLZER collected, on the hills near Corning, on the road to Blossburg, what I believe to be this plant, though it had no radiant flowers.
17. *Pimpinella anisum*, L. Buffalo, 1865: D. F. DAY and G. W. C. Spontaneous about gardens; hardly a scape.
18. *Lonicera parviflora*, var. *douglasii*, GRAY. On the verge of the chasm between Niagara Falls and Suspension Bridge, 1865. G. W. C.
19. *Galium mollugo*, var. γ . HOOK. & ARN. New-York Island, 1865. M. W. DENSLOW, Esq.
20. *Fedia olitoria*, VAHL. Abundant in a court-yard near Buffalo, and spreading, 1865. G. W. C.

21. *Aster azureus*, LINDL. Near the whirlpool of the Niagara river, on the top and edge of the bank, 1865. G. W. C.
22. *Solidago puberula*, NUTT. PAINE'S Cat. p. 93. New-York botanists write me that it has long been regarded as common on Long Island, etc.
23. *Solidago speciosa*, NUTT. Harlem, 1861, C. F. AUSTIN. Re-discovered there, in 1865, by Dr. BURNSTEAD and Dr. ALLEN.
24. *Solidago speciosa*, var. *angustata*, TORR. & GR. PAINE'S Cat. p. 93.
25. *Solidago houghtonii*, TORR. & GR. The open swamp in Bergen, 1865: Dr. C. M. BORTH and Mr. PAINE.
26. *Solidago linoides*, SOLANDER. PAINE'S Cat. p. 94.
27. *Lapsana communis*, L. Buffalo, 1865, and in a court-yard and the adjacent street. G. W. C.
28. *Pyrola secunda*, L. var. *pumila*. PAINE'S Cat. p. 187.
29. *Dodecatheon meadia*, L. PAINE'S Cat. p. 105. This seems very doubtful.
30. *Utricularia clandestina*, NUTT. PAINE'S Cat. p. 106.
31. *Utricularia gibba*, L. PAINE'S Cat. p. 106.
32. *Gerardia integrifolia*, GRAY. Salamanca, side of the hill opposite the railroad station, 1865. G. W. C.
33. *Schwalbea americana*, L. PAINE'S Cat. p. 109.
34. *Hyssopus officinalis*, L. PAINE'S Cat. p. 110.
35. *Thymus serpyllifolia*, L. PAINE'S Cat. p. 111.
36. *Atropa belladonna*, L. PAINE'S Cat. p. 116.
37. *Atriplex hastata*, L. var. *oblongifolia*. PAINE'S Cat. p. 120. This seems to be different from a narrow leaved form which I have found at Syracuse, and also about court-yards and gardens in Buffalo and Richfield Springs, and I have never seen it. If it be different, then Salina and Syracuse present four remarkably variant forms of *Atriplex hastata*.
38. *Amarantus retroflexus*, L. PAINE'S Cat. p. 120.
39. *Amarantus hypochondriacus*, L. Niagara Falls, 1865. G. W. C.
40. *Amarantus spinosus*, L. Along the Buffalo and State Line railroad, near Elk-street, Buffalo, 1865. G. W. C.
41. *Polygonum careyi*, OLNEY. PAINE'S Cat. p. 121.
42. *Rumex sanguineus*, L. PAINE'S Cat. p. 122. I fear that a redveined form of *R. obtusifolius* is taken for this species.
43. *Rumex acetosa*, L. PAINE'S Cat. p. 122.
44. *Calitriche austinii*, ENGELM. "Staten Island, in shady by-ways on dry, hilly ground," June 1865. C. F. AUSTIN.
45. *Populus angulata*, AIT. PAINE'S Cat. p. 189.

46. *Juniperus sabina*, L. var. *prostrata*. PAINE'S Cat. p. 130. Long known to our botanists, but first identified as a var. of *sabina*, by Dr. ROBBINS.
47. *Sparganium eurycarpum*, ENGELM. PAINE'S Cat. p. 131.
48. *Sparganium natans*, L. PAINE'S Cat. p. 132.
49. *Sagittaria graminea*, MICHX. PAINE'S Cat. p. 134. Dr. ENGELMANN, about two years ago, wrote me that this species exists in the Niagara river, near Buffalo; but I have not been able to identify it to my satisfaction.
50. *Platanthera rotundifolia*, LINDL. var. *oblongifolia*. PAINE'S Cat. p. 135.
51. *Cypripedium candidum*, MUHL. PAINE'S Cat. p. 139.
52. *Tofieldia glutinosa*, WILLD. PAINE'S Cat. p. 143.
53. *Juncus debilis*, GRAY. PAINE'S Cat. p. 145.
54. *Xyris bulbosa*, KUNTH. PAINE'S Cat. p. 146.
55. *Eleocharis compressa*, SULLIVANT. PAINE'S Cat. p. 147.
56. *Scirpus fluviatilis*, GRAY. PAINE'S Cat. p. 149. Well known to botanists, since GRAY pointed out the distinction between it and *S. maritimus*, and included in several local catalogues, including my own.
57. *Carex prairea*, DEW. PAINE'S Cat. p. 151. (I may as well remark here, that I dare not interfere in the disputes touching the species of this extremely large genus; and, so far as I refer to it, I adopt the conclusion of Mr. PAINE'S Catalogue, without examination.) I suppose this to be *C. teretiuscula*, var. *major*, KOCH. Bergen swamp, 1865: G. W. C. PAINE'S Cat. p. 151.
58. *Carex cephaloidea*, DEW. PAINE'S Cat. p. 151.
59. *Carex scabrior*, SARTWELL. PAINE'S Cat. p. 152.
60. *Carex tenella*, EHRH. PAINE'S Cat. p. 152.
61. *Carex argyrantha*, TUCKERMAN. PAINE'S Cat. p. 152.
62. *Carex lenticularis*, MICHX. PAINE'S Cat. p. 153.
63. *Carex strictior*, DEWEY. PAINE'S Cat. p. 154.
64. *Carex gynandra*, SCHWEIN. PAINE'S Cat. p. 154.
65. *Carex emmonsii*, DEW. PAINE'S Cat. p. 155.
66. *Carex lupuliformis*, SARTW. PAINE'S Cat. p. 157.
67. *Carex retrocurva*, DEW. PAINE'S Cat. p. 158.
68. *Carex vaginata*, TAUSCH. PAINE'S Cat. p. 158.
69. *Carex woodii*, DEW. PAINE'S Cat. p. 159.
70. *Carex glabra*, BOOTT. PAINE'S Cat. p. 160.
71. *Carex knieskernii*, DEW. PAINE'S Cat. p. 161.

72. *Carex richardsonii*, R. BROWN. PAINE'S Cat. p. 161.
73. *Carex vaseyi*, DEW. PAINE'S Cat. p. 163.
74. *Carex hartii*, DEW. PAINE'S Cat. p. 163.
75. *Carex hartii*, var. *bradleyi*, DEW. PAINE'S Cat. p. 163.
76. *Carex ampullacea*, GOOD. PAINE'S Cat. p. 164.
77. *Carex monile*, TUCKERM. PAINE'S Cat. p. 164.
78. *Carex vesicaria*, L. PAINE'S Cat. p. 164.
79. *Carex physema*, DEW. PAINE'S Cat. p. 165. To these Carices must be added:
80. *Carex utriculata*, var. *minor*, the credit of the discovery of which is, I believe, due to the Hon. HENRY B. LORD.
81. *Carex oederi*, var. *prolifera*, LORD. This form is found by Mr. LORD near Ludlowville, Tompkins county, and he deems it worthy to be noted as a variety, under the above name. At least one of the spikes of each plant is proliferous; that is, from one of the perigynia issues a stalk bearing a spike.
82. *Carex lupulina*, var. *gigantoidea*, DEWEY in SILLIMAN'S Journal. Discovered by Mr. LORD, near Ludlowville, in 1865.
83. *Tripsacum dactyloides*, L. Hunter's Point, Long Island, 1865. Dr. T. F. ALLEN.
84. *Cystopteris fragilis*, var. *dentata*, HOOK. PAINE'S Cat. p. 178.
85. *Aspidium dilatatum*, WILLD. PAINE'S Cat. p. 178.
86. *Aspidium boottii*, TUCKERM. PAINE'S Cat. p. 178. These two forms of *A. spinulosum*, as they are commonly conceded to be, are not extremely uncommon in the State, and have long been known to its botanists.
87. *Botrychium lanceolatum*, ANGSTR. PAINE'S Cat. p. 179.
88. *Isætes braunii*, DURIEU. The Niagara river, near Buffalo, at the mouth of the Little Bay of Strawberry Island, and along the head of Grand Island, 1865: G. W. C. This was determined by DURIEU, to whom specimens were sent, "with the same remark that Prof. BRAUN makes to Dr. ENGELMANN, that *I. braunii* and *echinospora* may probably prove to be forms of the same species." E. DURAND, in lit., Dec. 5, 1865.
89. *Isætes macrospora*, DURIEU. This species "was established on an unique specimen in the herbarium of the Phil. Academy of Natural Sciences, which I sent to Prof. DURIEU three years ago. It was marked, 'found in a pond of the Catskill.' It is distinguished by its very large spores and androspores, larger than in any other known species." E. DURAND, in lit., Dec. 11, 1865. The station of this plant is believed to be one of the small ponds or lakes back of the Mountain House.

The following plants, which are either maritime or principally affect the sea coast, have, since the last Report, been found in the interior of the State:

1. *Orontium aquaticum*, L. "Borders of a pond in Gilbertsville, Otsego county, H. LATHROP *in herb.*" PAINE'S Catalogue.
2. *Eleocharis olivacea*, TORR. PAINE'S Catalogue.
3. *Calamagrostis arenaria*, ROTH. PAINE'S Catalogue.
4. *Spartina stricta*, var. *alterniflora*, GRAY. PAINE'S Catalogue.

The following list contains new stations of rare plants, or remarkable stations of common ones, and some corrections of reputed stations, and notable observations touching some of our plants:

1. *Ranunculus reptans*, L. On western edge of Strawberry Island, in the Niagara river, and off the Little Bay of that Island, in water from one to two feet deep.
2. *Adlumia cirrhosa*, RAF. Akron, Erie county, 1864: D. F. DAY and G. W. C.
3. *Nuphar kalmiana*, PURSH. Williams's Bridge, on the Harlem river, 1865. T. F. ALLEN.
4. *Dicentra eximia*, D.C. On recurring to my correspondence with DAVID THOMAS, in 1829, I find that he had not, as I supposed, then found this plant native in Cayuga county. Prof. PICKETT kindly communicated to me a letter of my dear friend, Dr. SARTWELL, dated June 23, 1865, in which he writes: "As to *Dicentra eximia*, I know not where it can be found. About twenty years ago, I found it in Wayne county, not far from Lyons; and DAVID THOMAS found it in Scipio, Cayuga county, about the same time, or before. I doubt whether it can be had, at this time, unless some one has it in his garden. I have no duplicate specimen."
5. *Lychnis vespertina*, SIBTH. New-York Island, 1865. W. W. DENSLOW.
6. *Vicia cracca*, L. Hanover, Chautauqua county, 1865: D. F. DAY. Mr. DAY informs me that it had taken possession of a farm in that town, and, being regarded as a weed, the farm had depreciated in value.
7. *Gymnocladus canadensis*, LAM. The Hon. HENRY B. LORD, of Ludlowville, Tompkins county, wrote to me, on the 15th of July 1865: "Too late for flowering specimens. I know of but one tree in this town, and two smaller growing near it, which I should take to be seedlings, only the flowers on the oldest tree are staminate. These trees are, apparently, spontaneous, growing outside of any enclosure, near the (Cayuga) Lake. They have been regarded with great curiosity by the people, no one knowing what to call them. The prevalent impression was that they were *mahogany* trees, and I have frequently had them pointed out to me as such; and, sometimes, the very interesting

incident was stated, that the largest tree (about 18 inches in diameter) was planted by a sailor, or rather the seed was planted which he brought with him from a voyage to the mahogany countries."

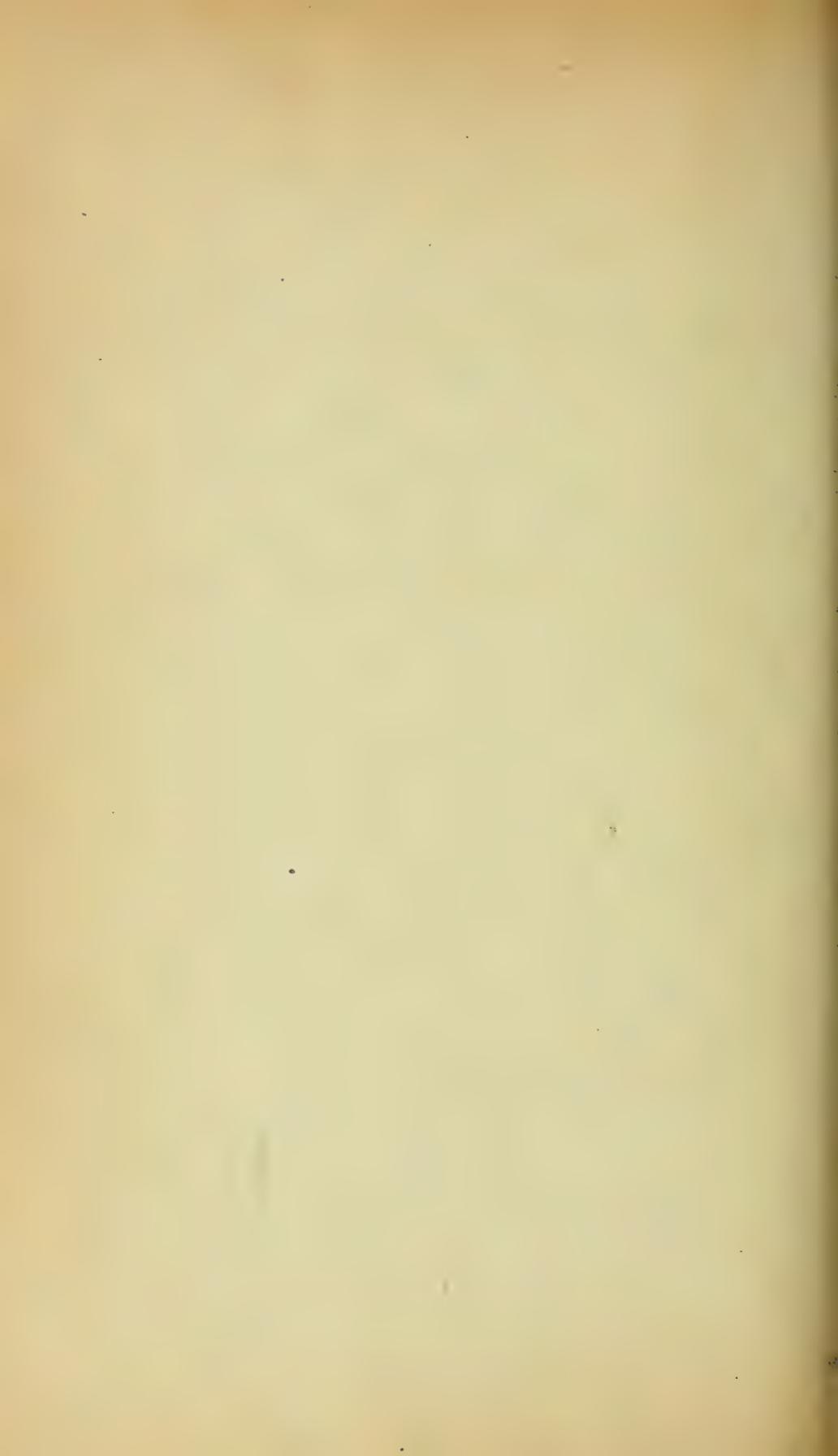
8. *Rosa setigera*, MICHX. In company with Dr. BOOTH, I found some bushes of this near Rochester, in 1864, on our way to Irondequoit Bay, and the Doctor informed me that there were other stations of it near Rochester. In the same year I found a single bush of it on the edge of a wooded swamp, remote from any garden, near Buffalo. In 1865, I found it abundant, on the banks of the Oak Orchard creek, at Albion. I am inclined, however, to the belief that, in all these stations, it was bird-sown, and that it is not indigenous to the State.
9. *Lythrum hyssopifolia*, L. Staten Island, 1865. W. H. LEGGETT.
10. *Epilobium molle*, TORREY. Buffalo, 1865. G. W. C.
11. *Opuntia vulgaris*, MILL. My venerable friend, Dr. JAMES HADLEY, now of Buffalo, wrote me, on the 23d of May 1866, as follows: "In answer to your inquiries I would state that I never found, and do not know that any one else ever found, *Opuntia vulgaris* at Fairfield. The statement of Dr. TORREY, in his Flora of the State, 'The most northern locality in this State is Fairfield, where it was found by Prof. HADLEY', is an error. I collected this plant at New-Haven, Connecticut; and it may be that a specimen, collected there, slipped in among some plants from Fairfield which I furnished to Doctor TORREY. I can imagine no other way in which the error could have occurred." My good friend, JAMES L. BENNETT, of Providence, R. I. in March 1866, wrote me that, in 1856 or 1857, he found the *Opuntia vulgaris* "in the neighborhood of Syracuse, in a southwestern direction from the city," and that "it appeared a native, and not an accidental interloper."
12. *Valeriana sylvatica*, RICHARDS. Bergen swamp, Genesee county, 1865. Dr. BOOTH, FISH, PAINE.
13. *Solidago ohioensis*, RIDDELL. Bergen swamp, 1865. BOOTH, FISH.
14. *Veronica anagallis*, L. Caledonia, Livingston county; and in the Tonawanda swamp, on the Oak Orchard creek, near Alabama, 1865. G. W. C. Near Bergen, 1865: L. HOLZER, FISH, BOOTH.
15. *Melissa officinalis*, L. Roadsides in Hamburg, Erie county, 1865. Naturalized, D. F. DAY.
16. *Blephilia hirsuta*, BENTH. "It grows along the Chemung river, west of the railroad bridge, outside of Corning, near the Painted Post station." Rev. L. HOLZER, 1865.
17. *Geniopa saponaria*, var. *linearis*, GRAY. Irondequoit Bay, 1863. GEO. W. FISH.
18. *Frasera carolinensis*, WALT. Under the date of "Greatfield, 2 mo. 2, 1828." DAVID THOMAS wrote me: "*Frasera carolinensis* is called a biennial, but I am satisfied that it is often triennial." It is abundant in rocky groves east of and near Buffalo. My friend, D. F. DAY, and myself have observed it closely in and

since 1861. In that year we found only radical leaves and a few old fruit stalks. In 1862 it flowered. In 1863 and 1864 it did not; but in 1865 it did flower.

19. *Acerates viridiflora*, ELL. Staten Island, 1865. W. H. LEGGETT.
20. *Myrica cerifera*, L. Caledonia, and the Bergen swamp, common. 1865.
21. *Naias major*, ALLIONI. Irondequoit Bay, 1865. Prof. E. G. PICKETT.
22. *Zygadenus glaucus*, NUTT. Caledonia, 1865: G. W. C. Bergen swamp, 1865: FISH, BOOTH, PAINE, HOLZER.
23. *Tofieldia glutinosa*, WILLD. Bergen swamp, 1865: BOOTH, PAINE, FISH, HOLZER.
24. *Eleocharis rostellata*, TORREY. Bergen swamp, 1865: BOOTH, FISH, PAINE, HOLZER.
25. *Scirpus cespitosus*, L. Bergen swamp, 1865: FISH, BOOTH, HOLZER, G. W. C.
26. *Scleria verticillata*, MUHL. Bergen swamp, 1865: CLINTON, BOOTH, FISH, PICKETT.
27. *Carex gynocrates*, WORMSKIOLD; *C. dioica* of the Flora. Bergen swamp, 1865: BOOTH, PAINE.
28. *Carex siccata*, DEWEY. Bergen swamp, 1865. G. W. C.
29. *Carex grayii*, CAREY. Rochester, BOOTH, ALDEN, 1865; HOLZER and G. W. C.
30. *Phalaris canariensis*, L. Buffalo, on rubbish heaps, 1865. D. F. DAY
31. *Scolopendrium officinarum*, SWARTZ. On the third day of March, 1865, LEWIS FOOTE, Esq., of Detroit, Michigan, discovered a new station of this fern, which, in a letter to me, he describes as being "about 200 feet from the track of the Syracuse & Binghamton R. R., about five miles from Syracuse and half a mile from Janesville, in a deep rocky ravine, through which a small stream empties into the Butternut creek." In noticing this interesting discovery, in the American Journal, Professor GRAY supposes that this may be PURSH's original station: But there is reason to believe that PURSH's was neither this nor the Chittenango Falls station. PURSH states that he found it "in shady woods, among loose rocks, in the western parts of New-York, near Onondaga, on the plantations of J. GEDDIS, Esq." The Hon. GEORGE GEDDES, the son of PURSH's "J. GEDDIS, Esq.," under the date of "Fairmount, March 31, 1866," very obligingly wrote me as follows, in answer to my inquiries: "I regret to have to say that my knowledge of botany is too limited to enable me to identify the fern commonly called the *Harts-tongue*. But it so happens that I remember many years since, when I was small boy, that my father set me looking for it in a gorge in the limestone precipice just south of my house, which is $4\frac{1}{2}$ miles west of the center of Syracuse. The gorge is within one mile of my house, and is quite like the locality on the Butternut creek and the locality on the Chittenango. I am very

familiar with all these three places. I very well remember that my father was anxious to secure a specimen of this fern, as the fact of its having been found here was *disputed*. Your letter, read in connection with my recollection of his having said that some noted botanist had found it in the gorge near here, and the dispute that had grown out of the report, leaves no doubt in my mind that the fern was found within one mile of here, and by the man you name, though not strictly on my father's land, but just off his property. This being so, it is safe for you to say that on the Chittenango, on the Butternut, and in the town of Onondaga, just at the base of the limestone cliff of one hundred feet high, this fern has been found. The first of these discoveries was the one in 1806, by PURSH. It would have gratified my father much, could he have shown that this fern grew in various places along the base of the limestone range, though he was unable to find a specimen here as late as the time when he set me looking for it, when I was carrying a gun over our hills about the year 1825."

On account of delay in the publication of this Report, the remaining Papers named in the Table of Contents, on pages 37, 38, will appear in the next Annual Report.



TWENTIETH ANNUAL REPORT

OF THE

Regents of the University of the State of New-York,

ON THE CONDITION OF THE

STATE CABINET OF NATURAL HISTORY,

AND THE

HISTORICAL AND ANTIQUARIAN COLLECTION ANNEXED THERETO.



TRANSMITTED TO THE LEGISLATURE APRIL 15, 1867.

ALBANY:

VAN BENTHUYSEN & SONS' PRINTING HOUSE.

1867.



* FACTS AND OBSERVATIONS TOUCHING THE FLORA OF THE
STATE OF NEW-YORK.

BY CHARLES H. PECK.

In undertaking a work hitherto performed by another, it is my purpose to follow mainly the plan adopted by him.

It is with pleasure that I acknowledge my indebtedness to him for a considerable portion of the material for this Report; also to Profs. A. GRAY and L. LESQUEREUX for aid in authentically determining difficult species, and to Messrs. C. F. AUSTIN and E. C. HOWE for liberal contributions of facts and specimens.

It is very desirable that those who may discover within our limits, species, or even well marked varieties, new to the State, should forward good specimens of their discoveries, that a sample of the plant and the name of its detector may go into the State Herbarium together. All such contributions will be duly acknowledged.

In the following list, when no name is annexed to the station or stations, the plant has been found therein by the writer.

SPECIES GROWING SPONTANEOUSLY IN THE STATE, AND NOT BEFORE
REPORTED.

Thalictrum purpurascens, L. Throughout Rockland Co.; the variety *ceriferum*, AUSTIN, growing with it: C. F. AUSTIN.

Sisymbrium canescens, NUTT. Ogdensburgh, July 3d, 1866. G. W. C. A stray from the West.

Alyssum calycinum, L. Buffalo, 1867. G. W. C.

Lechea novæ-cæsareæ, AUSTIN. Rockland Co.: C. F. AUSTIN.

Dianthus armeria, L. Greenport, Long Island. Aug. 1866: Mrs. ELIZABETH E. ATWATER. New-York Island, D. F. DAY.

Linum sulcatum, RIDDELL. Rockland Co.: C. F. AUSTIN.

Agrimonia parviflora, AIT. Rockland Co.: C. F. AUSTIN.

- Sedum ternatum*, MICHX. Albany Rural Cemetery; running wild, 1867
G. W. C.
- Epilobium hirsutum*, L. Tivoli pond near Albany, 1866. Well established.
- Solidago thyrsoides*, E. MEYER. Mounts Marcy and Whiteface, Essex Co.
Long known to belong to the State.
- Nabalus racemosus*, HOOK. Near Tappan, Rockland Co.: C. F. AUSTIN.
- Campanula rapunculoides*, L. Roadsides, Herkimer Co., and near Rich-
field Springs, 1866. G. W. C.
- Pyrola oxypetala*, AUSTIN. Woods near Deposit, Delaware Co.; the only
known habitat: C. F. AUSTIN.
- Satureia hortensis*, L. Along the Hudson-river Railroad between Pough-
keepsie and Garrison Station. Aug. 1867. G. W. C.
- Vinca minor*, L. Buffalo, 1866 and 1867. Perpetuates and somewhat
extends itself by the root. G. W. C.
- Atriplex rosea*, L. Streets of Albany, 1867. G. W. C., C. H. P. Intro-
duced.
- Polygonum lapathifolium*, AIT. "Borders of Cayuga Lake. CHICKERING
& BREWER." Gray's Manual.
- Callitriche heterophylla*, PURSH. "New-York to Illinois and southward."
Gray's Manual.
- Carya microcarpa*, NUTT. Rocky woods near Sneeders Landing: C. F.
AUSTIN.
- Lemna torreyi*, AUSTIN. Long Island: C. F. AUSTIN, W. W. DENSLOW.
- Wolffia columbiana*, KARSTEN. Orange Co.: C. F. AUSTIN. Dr. ENGEL-
MANN informs me that the plant found by Mr. PAINE in Lake Ontario
is *Wolffia braziliensis*, WEDDELL. I have not seen Mr. PAINE's
specimens.
- Najas indica*, var. *gravillima*, BRAUN Mss. Plains west of Albany, 1867.
Growing in water one to two feet deep, associated with a small con-
densed form of *Najas flexilis*. No specimens of the European plant
are accessible for comparison, but our plant is believed to be the
variety mentioned.
- Goodyera menziesii*, LINDL. "Woods, Western New-York," Gray's
Manual.
- Spiranthes romanzoviana*, CHAMISSO. "Herkimer and Otsego counties:"
Gray's Manual.
- Spiranthes graminea*, var. *walteri*, GRAY. Meadows and pastures, Rockland
Co.: C. F. AUSTIN.
- Eleocharis quadrangulata*, R. BR. "Outlet of Oneida Lake, A. H.
CURTISS:" Gray's Manual.
- Scirpus sylvaticus*, L. Crown Point, G. T. STEVENS: Plains west of
Albany, 1867.
- Carex scirpoidea*, MICHX. Mount Whiteface and Lake Avalanche, 1867.
- Carex sterilis*, WILLD. Bergen Swamp, Genessee Co., 1865. G. W. C.
- Carex aperta*, BOOTT. North Elba, Essex Co., 1867.
- Carex houghtonii*, TORREY. Lake Placid, Essex Co., 1867.
- Cheilanthes vestita*, SWARTZ. New-York Island: W. W. DENSLOW.

MUSCI.

- Sphagnum sedoides*, BRID. Wet rocks at Lake Avalanche and on Mt. Marey; sterile. This differs from *S. pylaezi*, BRID., in being destitute of branches, or having only short ones. It will probably prove to be only a form of that species.
- Sphagnum lindenbergi*, SCHP. Slopes of Mt. Whiteface; sterile. Stems rather robust, 4'-6' long, with three layers of cortical cells; branches usually five in a fascicle; stem leaves amplexicaul and more or less fulvous at the base, deflexed, oblong-spatulate, obtuse, eroded at the apex, areolation not fibrillose, narrow at the base, much broader at the apex of the leaf; branch leaves lanceolate, truncate and toothed at the apex, wavy on the margins when dry, bordered with two or three rows of narrow linear cells, utricles thick walled, destitute of pores.
- Astomum sullivanii*, BRYOL. EUROP. Fields and wet lands, Orange Co.: C. F. AUSTIN. Near Troy: E. C. HOWE. Fruits in April.
- Weisia serrulata*, FUNK. Sam's Point, Ulster Co.: C. F. AUSTIN; sterile. Closely cespitose, 4"-10" high; leaves lanceolate and linear-lanceolate, strongly papillose, the margins plane papillose-serrulate, often more strongly toothed near the apex; capsule oval, erect; operculum short-rostrate.
- Rhabdoweisia fugax*, BRYOL. EUROP. Rocks, Catskill Mts.
- Dicranum polycarpum*, EHRH. Mt. Marey, July.
- Dicranum rufescens*, TURN. Clay soil and banks by roadsides, Orange Co.: C. F. AUSTIN, Nov.
- Barbula fallax*, BRYOL. EUROP. Damp shaded rocks, Fort Edward: C. E. HOWE. Rockland Co.: C. F. AUSTIN; Helderberg Mts. Differs from *B. unguiculata* in its leaves which are not apiculate and which are gradually narrowed from the rather broad ovate base to the point.
- Orthotrichum obtusifolium*, SCHRAD. Trees. Saratoga Springs: G. W. C. Sterile.
- Orthotrichum obtusifolium*, var. *papillosum*, LESQX. North Elba. Papillæ of the leaves longer and bifid or trifid at the apex.
- Schistidium agassizii*, SULLIV. & LESQX. Rocks, Luzerne, Warren Co.: G. W. C.; sterile.
- Splachnum ampullaceum*, L. "In a wooded swamp on an old log. Moreau, Saratoga Co.:" E. C. HOWE, June.
- Meesia longiseta*, HEDW. Wet places. Moreau, Saratoga Co.: E. C. HOWE, June.
- Bryum lescurianum*, SULLIV. Rockland Co.: C. F. AUSTIN.
- Bryum uliginosum*, BRID. Crevices of wet rocks, Moreau: E. C. HOWE. Haverstraw, Rockland Co.: C. F. AUSTIN, June.
- Bryum pallescens*, SCHWAEGR. Rockland Co.: C. F. AUSTIN.
- Bryum pallens*, SWARTZ. "The Narrows," at the base of Mt. Whiteface; July. Stems 3"-6" high; leaves ovate-lanceolate, slightly recurved on the margin, the costa excurrent; inflorescence dioecious; capsule, seed bearing part short, the neck very long, slightly curved and gradually tapering into the pedicel; annulus broad.

- Mnium cindlidoides*, HUBEN. Swamps, Ulster Co. : C. F. AUSTIN; sterile. Resembles *M. punctatum*, but the stems are more slender, the leaves slightly toothed toward the point and destitute of a conspicuous thickened margin.
- Mnium medium*, SCHP. Moist shaded banks and ground in woods; Fort Edward, E. C. HOWE. Sand Lake, Rens. Co., and Helderberg Mts., May. Distinguished from *M. affine* by its hermaphrodite inflorescence; from *M. drummondii* by its larger size, deeper colored pedicels and by its leaves being toothed to the base and more contorted when dry.
- Mnium drummondii*, BRCH. & SCHP. Woods; Fort Edward: E. C. HOWE. Sand Lake and Adirondack Mts. May.
- Mnium rostratum*, SCHWAEGR. Wet rocks along rivulets and in ravines; Saratoga Co. : E. C. HOWE. June.
- Atrichum crispum*, JAMES. Brooklyn (Capt. PIKE legit.) : C. F. AUSTIN.
- Pogonatum urnigerum*, BRID. Gravelly banks by roadsides; North Elba.
- Leskea denticulata*, SULLIV. Tappan, Rockland Co. : C. F. AUSTIN. Sterile.
- Anacamptodon splachnoides*, BRID. Trees; Rockland Co. : C. F. AUSTIN.
- Myurella julacea*, BRYOL. Europ. Rocks summit of Mt. Marcy. Not yet found elsewhere in the United States. Sterile. Stems sparingly divided, erect, compact, $\frac{1}{2}$ -1' high; leaves very closely imbricating, broadly ovate, obtuse, not papillose, the margins nearly entire.
- Hypnum scitum*, BEAUV. Base of trees and prostrate trunks in woods; Luzerne, G. W. C. North Greenbush and Adirondack Mts. July.
- Hypnum sarmentosum*, WAHL. Springy places; Mt. Marcy. Sterile. Stems rigid, branched, 2-5' high; leaves oblong-lanceolate, obtuse, cuspidate, costate beyond the middle, cells at the base enlarged, pellucid. It may be distinguished from *H. stramineum* by its more robust stems, cuspidate leaves and red color. In American specimens the stems are often simple.
- Hypnum hamulosum*, BRYOL. EUROP. Old logs in mountain woods; Shawangunk Mts. : C. F. AUSTIN. Adirondack Mts. Stems elongated, filiform, creeping, loosely pinnately branched, the branches gracefully curved; leaves subsecund, lanceolate, long acuminate, serrate above, ecostate; perichaetial leaves strongly serrate; capsule oblong-oval, suberect, straight or very slightly curved; inflorescence monœcious.
- Hypnum dimorphum*, BRID. Base of trees (*Thuja occidentalis*) in deep woods; Adirondack Mts.
- Hypnum polygamum*, BRYOL. EUROP. Swamps and wet places. Warren, Herkimer Co. : J. A. PAINE. Catskill Mts. July.
- Hypnum lescurii*, SULLIV. Rockland Co. : C. F. AUSTIN.
- Hypnum sylvaticum*, L. Rocks in woods; Sand Lake and Adirondack Mts.

HEPATICÆ.

- Riccia sorocarpa*, BISCHOFF. Buffalo : G. W. C. "Frond solid, orbicular, radiately divided ($\frac{1}{2}$ - $\frac{3}{4}$ ' in diameter) pale green or glaucous both sides; laciniae bifid or subdichotomous, carinate-sulcate, much thickened and furnished with a few inconspicuous white scales underneath; lobes oblong, acutish or obtusish, not infrequently retuse, the margins plane and naked, erectish or somewhat inflexed; sporangia aggregated near the base of the laciniae, the spores escaping through a chink in the upper surface." C. F. AUSTIN.

- Riccia bischoffii*, HUBEN. Rockland Co. : C. F. AUSTIN. "Frond solid, orbicular (or by abortion semicircular) $\frac{1}{2}$ -1' in diameter, cinerous green, naked and sometimes purple underneath; laciniae obovate or obovate-oblong, depressed-canaliculate, the margins thickish and somewhat ascending, ciliate; the upper surface minutely cavernous or pitted; sporangia aggregated near the middle of the laciniae. A rather variable species, probably including both *R. palmata* and *R. tumida*, LINDLEY." C. F. AUSTIN.
- Jungermannia inflata*, HUDS. Wet rocks. Common, Stems slender, erect or ascending, $\frac{1}{2}$ -1' long; leaves deeply concave, suborbicular, bifid, the lobes obtuse; perianth terminal. It sometimes forms dark olive green or blackish patches several feet in extent.
- Jungermannia taylori*, HOOK. Mt. Marcy.
- Jungermannia sphacellata*, GIES. Rocks on mountains. Mount Whiteface. Sterile. Stems simple or fastigiately branched, 1'-2' long; leaves concave, orbicular, clasping at the base, with a shallow but acute sinus at the apex, lobes obtuse. It forms dense, dark green or blackish patches on dry rocks in alpine regions.
- Jungermannia obtusifolia*, HOOK. Adirondaek Mts. A small form, differing from the ordinary one only in size.
- Frullania aeolotis*, NEES. Damp shaded rocks; Sand Lake.
- Lejunia clypeata*, SCHWEIN. Rockland Co. : C. F. AUSTIN.
- Radula obconica*, SULLIV. Base of trees; Helderberg Mts.

NEW STATIONS OF RARE PLANTS—REMARKABLE STATIONS OF COMMON ONES—NOTABLE VARIETIES AND OBSERVATIONS.

- Aquilegia canadensis*, L. A variety with yellow flowers, near Poughkeepsie: S. TENNEY. A white flowered variety near Crown Point: G. T. STEVENS. Also near Schenectady.
- Hydrastis canadensis*, L. Orange Co. : C. F. AUSTIN.
- Nymphaea tuberosa*, PAINE. This is the *Nymphaea* of Niagara river. *Nymphaea odorata*, the species of Schuyler and other lakes of Herkimer and Otsego counties is very variable in the size of the leaf and flower; and a clear form of the var. *minor* is in Summit lake. This, like the *N. tuberosa*, has "tuberiferous" rhizomes: G. W. C.
- Sisymbrium thaliana*, GAUD. Newark, Wayne Co., 1867: E. L. HANKENSON.
- Hypericum ellipticum*, HOOK. Luzerne, Warren Co., 1867. An unusual form with sepals and petals, sometimes four: G. W. C.
- Vaccaria vulgaris*, HOST. Albany, 1867: G. W. C. Newark, 1867: E. L. HANKENSON.
- Lychnis vespertina*, SIBTH. New-York Island, 1866: W. W. DENSLOW, T. F. ALLEN.
- Sagina procumbens*, L. Utica; abundant in the pavements of Whitesboro and Liberty streets, 1866: G. W. C.
- Medicago sativa*, L. Albany; grounds about the Reservoir. Eradicated with difficulty: H. MARTIN.
- Lespedeza stuevei*, NUTT. Poestenkill, Rens. Co., 1867: E. C. HOWE.
- Pyrus coronaria*, L. Near Port Jervis: C. F. AUSTIN.
- Rosa setigera*, MICHX. Newark, 1867: E. L. HANKENSON.

- Parnassia caroliniana*, MICHX. Tivoli pond, near Albany.
- Saxifraga aizoides*, L. Portage; left bank of the Genessee river, between the second and third fall. June 16th, 1867 : D. F. DAY.
- Sedum acre*, L. Lockport, 1867. Naturalized : G. W. C.
- Solidago bicolor*, var *concolor*, GRAY. Plains between Albany and Schenectady, 1867.
- Solidago puberula*, NUTT. Luzerne, 1867 : G. W. C.
- Xanthium spinosum*, L. West Troy, about the Roy factories, 1867 : H. MARTIN.
- Galinsoga parviflora*, CAV. Albany, 1867 : G. W. C.
- Leucanthemum vulgare*, var. *tubuliflorum*, TENNEY. Near Poughkeepsic : S. TENNEY.
- Artemisia biennis*, WILLD. Cohoes, about factories, 1867 : G. W. C.
- Sonchus arvensis*, L. Angola, Erie Co., 1865; Richfield Springs, abundant, 1866 : G. W. C.
- Rhodora canadensis*, L. Sam's Point, Ulster Co. : C. F. AUSTIN.
- Pyrola secunda*, var. *pumila*, PAINE. Head of Little Lake and of Mud Lake, near Richfield Springs, 1866 : G. W. C.
- Euphorbia platyphylla*, L. Cohoes, 1867.
- Thymus serpyllum*, L. Orange Co. : C. F. AUSTIN.
- Polemonium cœruleum*, L. Head of Little (Weaver's) Lake, near Richfield Springs. 1866 : G. W. C.
- Blitum bonus-henricus*, REICHENBACH. Roadsides; Mohawk and near Richfield springs, 1866 : G. W. C.
- Atriplex patula*, var. *littoralis*, GRAY. Salina, Richfield Springs and Buffalo : G. W. C. Newark, 1867 : E. L. HANKENSON. Possibly a distinct species.
- Salsoli kali*, L. Sandy embankments near Newburg. W. R. GERARD.
- Alnus serrulata*, AIT. Common on dry sandy soil between Albany and Schenectady.
- Salix longifolia*, MUHL. Cohoes and banks of the Hudson above Albany. This species is subject to the attacks of a small, gall-making, hymenopterous insect, the *Euurus nodosus*, WALSH. In the last named locality its work has been so extensive that but few of the young shoots and branches are free from the galls in which the insect passes the early stages of its existence. The sparse fruit and short leaves indicate the injury which the plant sustains.
- Pinus resinosa*, AIT. Sand Lake and Catskill Mts.
- Larix americana*, MICHX. East Greenbush; a tree bearing proliferous cones, the branch being prolonged from the apex of the cone.
- Potamogeton praelongus*, WULFEN. Lake Placid. Luxuriant specimens were found growing in water not less than eight to ten feet deep; the leaves often ten inches long. 1867.
- Calopogon pulchellus*, R. BR. Center Station, between Albany and Schenectady, growing in dry hard soil, but in the vicinity of bogs.
- Juncus scirpoides*, var. *macrostemon*, GRAY. Wet sand, Staten Island : C. F. AUSTIN.
- Cyperus nuttallii*, TORR. Luzerne, 1867 : G. W. C.
- Scirpus pauciflorus*, LIGHTFOOT. Portage : G. W. C.

- Scirpus debilis*, PURSH. Luzerne, 1866 : G. W. C.
- Rhynchospora fusca*, ROEM. & SCHULTES. Calamity pond, Essex Co., growing with *Carex oligosperma*, *C. rostrata* and *C. lenticularis*.
- Carex cephalophora*, MUHL. Ithaca. A variety with the upper half of the spikes staminate, and in one instance the upper spike entirely staminate : H. B. LORD.
- Carex tentaculata*, var. *gracilis*, BOOTT. Wet places by roadsides ; Catskill and Adirondack Mts.
- Phalaris canariensis*, L. Utica ; bank of the Mohawk, 1866. G. W. C.
- Bouteloua curtipendula*, var. *aristosa*, GRAY. Junction of the Central and Saratoga Railroads, 1867.
- Triticum caninum*, L. Sand Lake. The slender indigenous form found growing on a rocky wooded hill, remote from cultivation.
- Isotes echinospora*, var. *braunii*, ENGELM. Small pond back of the Mountain House, Catskill Mts., Sept., 1866 : G. W. C. Outlet of Luzerne Lake, Warren Co. A very small form ; Aug. 1867 : G. W. C.

MUSCI.

- Sphagnum subsecundum*, NEES. Fort Edward : E. C. HOWE. Rockland Co. : C. F. AUSTIN.
- Andræa rupestris*, TURN. Shawangunk Mts. : C. F. AUSTIN.
- Dicranum drummondii*, C. MULL. Shore of Lake Placid.
- Fissidens taxifolius*, HEDW. Fort Edward : E. C. HOWE. Albany.
- Fissidens osmundioides*, HEDW. Poestenkill, E. C. HOWE. Adirondack Mts. Sterile.
- Conomitrium julianum*, SAVI. Grafton, Rens. Co. : E. C. HOWE. Sterile.
- Blindia acuta*, DICKS. Abundant on perpendicular faces of rocks at Edmund pond, North Elba.
- Barbula fragilis*, WILS. Ulster Co. : C. F. AUSTIN. Sterile.
- Grimmia olneyi*, SULLIV. Haverstraw : C. F. AUSTIN.
- Schistostega osmundacea*, WEB. & MOHR. Adirondack Pass ; also in the Pass between Mt. McIntyre and Mt. Colden ; in both stations growing on loose soil adhering to the roots of trees prostrated by the wind. This rare moss has been found on the White Mts. of New Hampshire by T. P. JAMES, Esq., and at Lake Superior by H. GILLMAN, Esq.
- Tetraplodon mnioides*, L. fil. Mt. Whiteface.
- Bryum annotinum*, HEDW. Luzerne. G. W. C.
- Bryum wahlenbergii*, SCHWAEGR. Fort Edward : E. C. HOWE. Fertile specimens.
- Polytrichum juniperinum*, var. *alpestre*, BRYOL. EUROP. High tops of the Adirondack Mts.
- Leskea nervosa*, SCHWAEGR. On prostrate trunks of trees ; Adirondack Mts. This plant produces pistillidia, but no antheridia and consequently no fruit.
- Hypnum blandowii*, WEB. & MOHR. Bank of the Ausable river near the base of Mt. Whiteface.
- Hypnum squarrosum*, L. Swamps, Sand Lake.
- Hypnum diversifolium*, BRYOL. EUROP. Near Troy : E. C. HOWE. New-York Island : W. W. DENSLOW.

Hypnum boschii, SCHWAEGR. Fort Edward : E. C. HOWE, Sterile. New-York Island : W. W. DENSLOW. Fertile.

Hypnum stramineum, DICKS. Mt. Whiteface.

Hypnum revolvens, SWARTZ. Caledonia : G. W. C. Sterile.

Hypnum fluitans, L. Poestenkill : E. C. HOWE. Fine fruiting specimens, found entirely submerged and closely resembling European floating forms.

Hypnum stellatum, SCHREB. Richfield Springs : G. W. C. A variety of a bright green color, with scarcely any tinge of yellow.

ALBANY, November, 1867.

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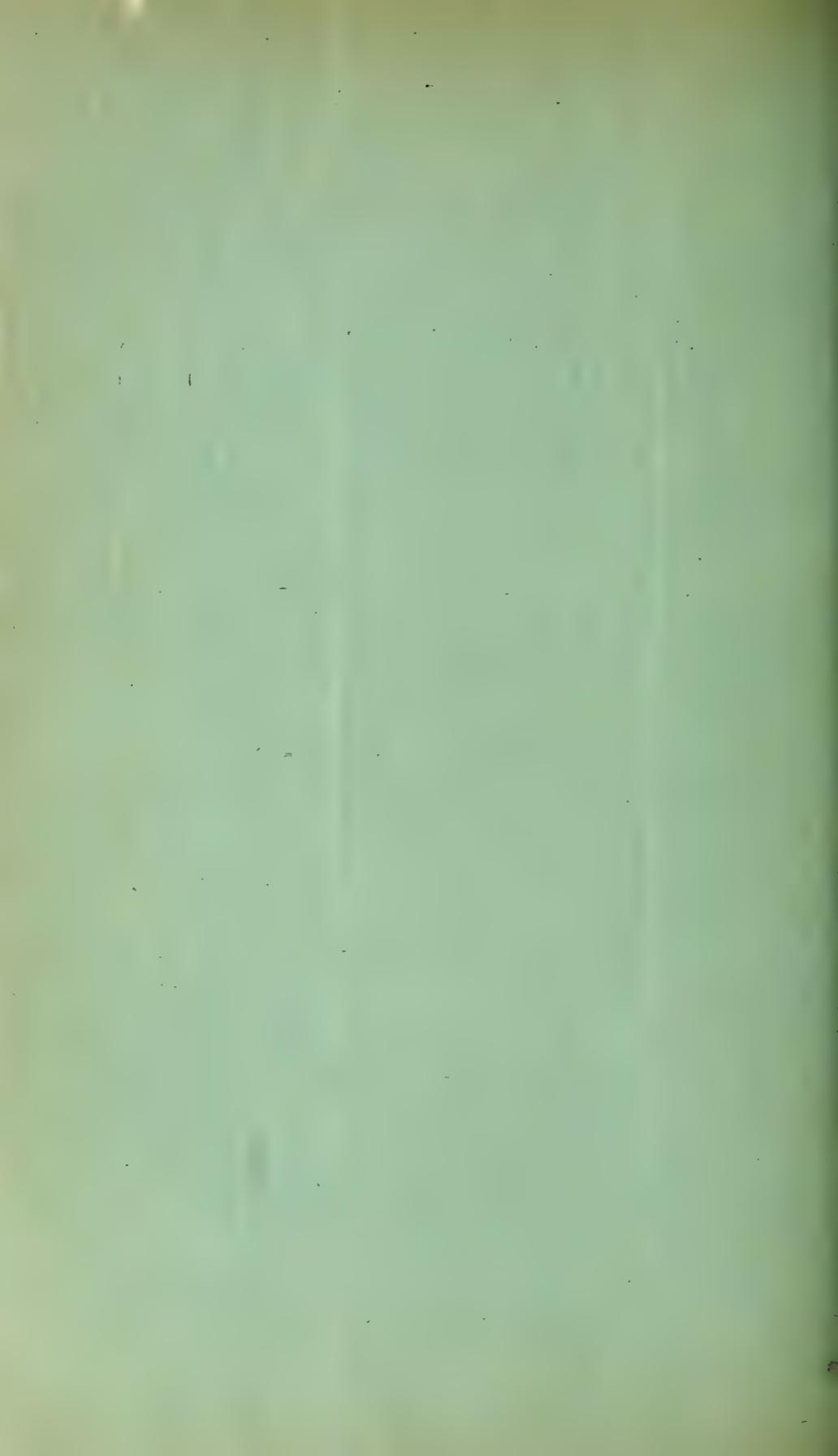
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* The titles of the first four articles were enumerated in the Thirty-seventh Report on the State Museum, but the articles were not printed. A revision of them is here given.



NEW SPECIES OF NEW YORK FUNGI.

Tricholoma infantilis.

Pileus thin, convex or nearly plane, even, minutely silky, moist in wet weather, reddish-gray, the margin when young incurved and whitish; lamellæ subdistant, plane or slightly ventricose, often eroded on the edge, whitish; stem short, equal or tapering upward, hollow, slightly silky, colored like the pileus or a little paler; spores broadly elliptical, .0003 to .00035 in. long, .0002 to .00025 broad, often containing a shining nucleus.

Plant gregarious, pileus 4 to 12 lines broad, stem 1 to 1.5 in. high, 1 to 2 lines thick.

Gravelly soil in fields. Sandlake. June.

This is a very small species belonging to the section SERICELLA and related to *Tricholoma cœlata*, from which it is distinguished by its different color and the absence of an umbilicus from the pileus. This is sometimes papillate, and both it and the stem imbibe moisture. The latter is fleshy-fibrous, and its cavity is very small. In the larger specimens the margin of the pileus is often wavy, and the edge of the lamellæ eroded. *Tricholoma Hebeloma*, a closely allied species, may be distinguished by its more conical pileus, slender habit and smaller spores.

Clitocybe basidiosa.

Pileus rather thin, convex, then expanded and umbilicate or centrally depressed, glabrous, hygrophanous, grayish-brown and striatulate on the margin when moist, dingy-white or grayish-white when dry, flesh whitish; lamellæ arcuate or nearly plane, thick, distant, adnate or slightly decurrent, whitish with a violaceous tint; stem equal or slightly thickened above, glabrous, firm, whitish or pallid; spores subglobose, .00016 to .0002 in. long, basidia elongated, .0024 in. long, bearing spicules .0003 in. long.

Plant single or cæspitose, 1 to 2 in. high, pileus 16 to 18 lines broad, stem 1 to 2 lines thick.

Woods and swamps. Sandlake and East Berne. August.

The numerous narrow and elongated basidia of this species are suggestive of the specific name. The plant is also easily recognized by the peculiar, pale, livid gray hue of the pileus, and the slight violaceous tint of the lamellæ. The pileus is rarely slightly umbonate. When dry both it and the stem have a slight silky appearance. The stem is usually solid, and slightly enlarged as it enters the pileus. The species should be placed among the ORBIFORMES, though in some respects it approaches *C. obbatus* and *C. Calathus*. It also has the aspect of some species of *Hygrophorus*.

Collybia alcalinolens.

Pileus thin, subconical or convex, then expanded, slightly silky-fibrillose, shining, hygrophanous, dark watery-brown when moist, grayish-brown or cinereous when dry, flesh white; lamellæ rather broad, subdistant, adnate or emarginate with a decurrent tooth, whitish; stem equal, glabrous, slightly pruinose above, hollow, shining, whitish; spores broadly elliptical. .0003 to .00035 in. long, .0002 to .00025 in. broad.

Plant gregarious, 1 to 2 in. high, pileus 8 to 18 lines broad, stem 1 to 3 lines thick.

Thin woods and bushy places. Sandlake. June and July.

This species has a peculiar odor resembling that of chloride of lime. In this respect it is similar to some species of *Mycena*. The plant is quite variable. The disk of the pileus is now elevated, now depressed, sometimes darker than the rest, sometimes canescent with short, grayish fibrils. The margin is quite thin and sometimes striatulate when moist. Occasionally it surpasses the lamellæ, which in the expanded plant are often ventricose. The stem is sometimes irregular or compressed. The species belongs to the section TEPHROPHANÆ, and is apparently allied to *A. laceratus*.

Leptonia albinella.

Pileus submembranous, subconical or convex, subumbilicate, furfureous or minutely squamulose, hygrophanous, whitish and striatulate on the margin when moist, white and shining when dry; lamellæ narrow, close, adnexed, white, becoming incarnate; stem equal, hollow, glabrous or slightly pruinose, whitish; spores angular, .00045 to .0005 in. long, .0003 to .00035 in. broad.

Plant 1.5 to 2 in. high, pileus 6 to 12 lines broad, stem 1 line thick.

Bushy places. Sandlake. July.

Readily distinguished from its allies by its white color. *Leptonia assularum* B. & C. differs in having an umbonate virgate pileus with a dark center. *Nolanea delicatulus* is a more slender, delicate plant with a smoother pileus and not at all umbilicate.

Psilocybe castanella.

Pileus thin, at first convex or subconical, then expanded or slightly depressed, glabrous, hygrophanous, chestnut-colored or umber-brown and striatulate on the margin when moist, pale-alutaceous when dry, flesh a little paler than the surface of the pileus; lamellæ close, adnate or slightly rounded behind, at first pale-brown, then purplish-brown; stem equal, flexuous, hollow or stuffed with a whitish pith, slightly silky-fibrillose, brownish or subrufescent with a white mycelium at the base; spores purplish-brown, .0003 to .00032 in. long, .00016 to .0002 in. broad.

Plant gregarious or subcaespitose, 1 to 2 in. high, pileus 4 to 8 lines broad, stem .5 to 1 line thick.

Rich grassy ground by roadsides. Sandlake. June.

The species appears to be closely allied to *Agaricus squalens*, which may be distinguished by its lurid color, decurrent lamellæ and ferruginous-brown spores. Moreover its habitat is unlike that of our plant. In very wet weather both the pileus and lamellæ sometimes have a watery-brown appearance, and then the striations of the former sometimes extend to the disk, which is rarely slightly umbonate. In drying, the moisture first disappears from the center of the pileus. The young pileus is usually chestnut-colored, and its margin and the stem are adorned with a few whitish fibrils.

Psilocybe fuscifulva.

Pileus thin, convex or subcampanulate, subumbonate, glabrous, hygrophanous, dark watery-brown and striatulate on the margin when moist, subochraceous when dry; lamellæ rather broad, moderately close, adnate, subventricose, purplish-brown; stem slender, flexuous, stuffed, slightly silky, reddish-brown; spores purplish-brown, .0004 to .0005 in. long, .00025 to .0003 in. broad.

Plant 1.5 to 2.5 in. high, pileus 6 to 12 lines broad, stem 1 to 2 lines thick.

Among sphagnum. Karner. October.

The species is related to *Agaricus atrobrunneus*, but its smaller size and differently colored lamellæ will serve to distinguish it.

Dermocybe simulans.

Pileus fleshy, thin, convex, then expanded, at first grayish-violaceous and silky-fibrillose, then pale-cinereous, often tinged with yellow or brownish-yellow on the disk, flesh pale-violaceous or pale-cinereous; lamellæ rather broad, subventricose, rounded behind, moderately close, violaceous, becoming cinnamon-colored; stem short, equal or slightly thickened at the base, silky-fibrillose, shining, stuffed or hollow, violaceous, becoming whitish or pallid; spores subglobose or broadly elliptical, .0003 to .00035 in. long, .00025 to .0003 in. broad.

Plant 1 to 2 in. high, pileus 6 to 18 lines broad, stem about 2 lines thick.

Woods. Sandlake. July.

The colors of this species are so similar to those of *Inoloma albo-violacea* that the plant might at first sight be mistaken for a small form of that species, but its small size, thin pileus and short, hollow stem afford distinguishing characters.

Telamonia gracilis.

Pileus thin, convex or campanulate, then expanded, umbonate, floccose-fibrillose, hygrophanous, watery-brown or sordid-chestnut when moist, whitened on the margin with grayish fibrils, subochraceous or tawny-cinnamon when dry; lamellæ thin, subdistant, becoming subventricose, ferruginous-brown, becoming cinnamon-colored; stem long, slender, flexuous, fibrillose and slightly floccose-scaly, with a slight whitish evanescent annulus, colored like the pileus; spores elliptical, uninucleate, .0004 to .00045 in. long, .00025 to .0003 in. broad.

Plant 2 to 4 in. high, pileus 6 to 12 lines broad, stem 1 to 2 lines thick.

Among moss and sphagnum in marshes. Sandlake. August.

The umbo is small and sometimes acute, rarely obsolete. The dry pileus varies much in color, it being tawny, cinnamon, subochraceous or grayish-cervine. The young lamellæ also vary from ferruginous-brown to reddish-umber and sometimes have a slight violaceous tint. The species is apparently related to *Telamonia flexipes* and *T. rigida*, but the first is described as having the stem violaceous at the apex, and the second as having the pileus glabrous, both of which characters are wanting in our plant.

Variety *brevipes* has the stem but 1 or 2 inches long. It occurs on decaying wood.

Hydrocybe præpallens.

Pileus fleshy, thin, subconical, then convex or expanded, glabrous, hygrophanous, watery-brown or chestnut-colored when moist, pale-ochraceous when dry, flesh yellowish-white; lamellæ close, lanceolate, rounded behind or slightly emarginate, reddish-umber, becoming tawny-cinnamon; stem short, equal, subflexuous, fleshy-fibrous, slightly silky, pallid or brownish; spores subelliptical, .0003 to .0004 in. long, .00025 in. broad.

Plant 1 to 3 in. high, pileus 6 to 18 lines broad, stem 2 to 4 lines thick.

Naked soil in woods. Sandlake. June.

The difference in the color of the moist pileus and the dry one is quite decided. The change from the dark-chestnut color of the one to the dingy-yellow or isabelline hue of the other is very noticeable and suggestive of the specific name. The fibrils of the veil are grayish-white, and the margin, which is at first incurved, is apt to become wavy, irregular or reflexed in large specimens. In the thinner specimens it is striatulate when moist. The lamellæ are narrowed toward the outer extremity and when young are of a peculiar reddish-brown or dark-ferruginous hue. The stem is usually hollow, but apparently from the erosion of insects. The species belongs to the section **FIRMIORES**.

Hygrophorus minutulus.

Pileus thin, submembranous, convex or expanded, subumbilicate, bright-red, viscid and distantly striatulate when moist, pale-red or yellowish when dry; lamellæ rather broad, subdistant, sometimes ventricose, adnate or subsinuate and slightly decurrent, whitish, tinged with red or yellow; stem short, slender, fragile, solid, viscid when moist, yellowish; spores narrowly elliptical, .0004 in. long, .0002 in. broad, borne on slender spicules which are .0002 to .0003 in. long.

Plant 6 to 10 lines high, pileus 3 to 5 lines broad, stem scarcely half a line thick.

Grassy ground in pastures. Sandlake. July.

This is one of our smallest species of *Hygrophorus*. Its nearest relative is *H. aurantiacoluteus* B. & C., from which the viscid pileus and stem and less decurrent lamellæ separate it. As the moisture escapes from the fresh plant the pileus becomes paler and assumes a slight silky appearance, but often the thoroughly dried specimens

resume the bright-red hue of the fresh plant. Often several basidia grow from the same filament.

Russula albida.

Pileus thin, broadly convex, then expanded or depressed, glabrous, viscid when moist, white, sometimes slightly tinged with yellow, the spreading or erect margin at length slightly and narrowly tuberculose-striate, flesh white; lamellæ adnate or subdecurrent, moderately close, some of them forked near the stem, white, the interspaces venose; stem nearly equal, glabrous, stuffed or hollow, white; spores white, minutely rough, subglobose or broadly elliptical, .00035 in. long, .0003 in. broad; taste mild or bitterish.

Plant 1 to 3 in. high, pileus 1 to 2.5 in. broad, stem 3 to 6 lines thick.

Woods. Sandlake. July and August.

This *Russula* belongs to the section FRAGILES. It may be distinguished from white forms of *Russula emetica* by its adnate or slightly decurrent lamellæ and by its milder taste.

Russula uncialis.

Pileus thin, convex, then expanded or centrally depressed, viscid when moist, glabrous or very minutely rivulose-granulose, red or pinkish-red, the margin obscurely tuberculose-striate, flesh white; lamellæ moderately close, narrowed toward the stem, at which a few of them are sometimes forked, adnate or slightly emarginate, white, the interspaces venose; stem equal, glabrous, stuffed or spongy within, white or reddish; spores white, globose, rough, .0003 to .00035 in. in diameter; taste mild.

Plant 1 to 1.5 in. high, pileus 1 to 1.5 in. broad, stem 2 to 4 lines thick.

Thin woods. Sandlake. June and July.

A small species, generally about 1 in. high, with the pileus about the same in breadth. Like the preceding species, to which it is closely related, it belongs to the white-spored group of the section FRAGILES, a group to which Europe contributes but a single mild species. The color of the pileus is nearly uniform and generally a pale-red or pinkish-red. The lamellæ in the fresh plant are white, but in the dried specimens they are pallid.

Hydnum albidum.

Pileus fleshy, thin, convex or nearly plane, subpruinose, white,

flesh white; aculei white; stem short, solid, central or eccentric, white; spores subglobose, .00016 to .0002 in. in diameter.

Plant 1 to 2 in. high, pileus 1 to 1.5 in. broad, stem 3 to 5 lines thick.

Ground in thin woods. Sandlake. June and July.

The species is closely allied to *Hydnum repandum*, with which it appears to have been united by some authors, but its small size, white color and smaller spores appear to me to make it worthy of specific distinction. It is quite unlike *Hydnum candidum*. The pileus is often irregular and lobed on the margin.

Clavaria divaricata.

Stem short, small, whitish, much branched; branches widely spreading, terete, even or slightly longitudinally wrinkled, more or less curved, pale-ochraceous, the ultimate ones tapering outward and terminating in one or more acute points; spores .0004 to .0005 in. long, .0002 to .00025 broad.

Tufts 2 to 4 in. high, and nearly as broad.

Woods. Sandlake. August.

This is a rare species, and is remarkable for and easily distinguished by its divaricate branches which give to the plant a very spreading, straggling aspect.

The following species were described in the Thirty-second Report of the State Museum, but owing to the limited edition and the incomplete manner (without plates) of the publication of that Report it has been thought best to repeat these descriptions here.

Clitocybe subhirta.

Pileus at first convex, then expanded or slightly depressed, tomentose-hairy and pale-yellow or buff, becoming subglabrous and whitish with age, the margin incurved; lamellæ close, adnate or decurrent, whitish or pale yellow; stem subequal, stuffed or hollow, whitish; spores subglobose or broadly elliptical, .0002 to .00025 in. long.

Plant 1 to 3 in. high, pileus 1 to 3 in. broad, stem 2 to 4 lines thick.

Woods. Brewerton. September.

The species belongs to the section DISCIFORMES, and is near *Clitocybe subalutacea*, but distinct from it and all its other allies by the hairy pileus. Sometimes the hairs are more conspicuous on the margin than on the disk.

Collybia cremoracea.

Pileus thin, submembranous, convex or campanulate, obtuse, dry, slightly silky, dingy cream-colored, the margin sometimes wavy; lamellæ broad, ventricose, emarginate, with a decurrent tooth, whitish; stem slender, equal, slightly silky, stuffed or hollow, pallid or colored like the pileus; spores subglobose or broadly elliptical, about .00025 in. long, .0002 in. broad.

Plant 1.5 to 2 in. high, pileus 6 to 12 lines broad, stem 1 to 2 lines thick.

Thin woods. Gansevoort. August.

The species belongs to the section LÆVIPEDES.

Collybia hygrophoroides.

Plate 2. Figs. 23-26.

Pileus subconical, then convex or expanded, smooth, hygrophanous, reddish or yellowish-red when moist, paler when dry; lamellæ broad, subdistant, rounded behind or deeply emarginate, eroded on the edge, whitish; stem subequal, striate, stuffed or hollow, whitish; spores subelliptical, .0002 to .00025 in. long, .00016 in. broad.

Plant subcæspitose, 2 to 3 inches high, pileus 1 to 1.5 inches broad, stem 2 to 3 lines thick.

Decaying half-buried wood. Knowersville. May.

The young pileus resembles that of *Hygrophorus conicus*, both in shape and in color. When dry it becomes pallid or subochraceous. The species belongs to the section TEPHROPHANÆ.

Mycena luteopallens.

Pileus submembranous, convex, glabrous, striatulate on the margin when moist, bright-yellow, paler when dry; lamellæ subdistant, slightly arcuate, yellow; stem equal or slightly tapering upward, smooth, hollow, yellow, furnished at the base with yellow hairs and fibrils.

Plant scattered or cæspitose, about 2 in. high, pileus 3 to 6 lines broad, stem about 1 line thick.

Among fallen leaves in woods. Adirondack mountains. August.

It resembles *Hygrophorus parvulus* in color, but it is readily distinguished from that species by its subcæspitose mode of growth, its proportionately longer and more slender stem and the yellow hairs at its base.

Inocybe eutheloides.

Pileus thin, broadly conical or campanulate, becoming nearly plane with age, distinctly umbonate, silky-fibrillose, more or less rimose, varying in color from grayish-cervine to chestnut-brown, the disk sometimes squamulose, the flesh white; lamellæ moderately close, rather broad, ventricose, narrowed or rounded behind, adnexed, whitish, becoming ferruginous-brown, white and denticulate on the edge; stem equal, subflexuous, solid, fibrillose, whitish or pallid; spores even, uninucleate, subelliptical, .00035 to .00045 in. long, .00025 to .0003 in. broad.

Plant 1 to 2 in. high, pileus 6 to 12 lines broad, stem 1 to 2 lines thick.

Woods. Brewerton. September.

The species belongs to the section RIMOSI. It agrees in many respects with the description of *Inocybe eutheles*, but differs in the character of the lamellæ, which are rather abruptly and strongly narrowed behind and adnexed, not adnate. The spores are longer than in that species and the plant is destitute of a farinaceous odor. The pileus is sometimes scarcely rimose and it varies considerably in color. The stem is decidedly paler than the pileus.

Inocybe infelix.

Pileus thin, subcampanulate, then convex or expanded, umbonate, fibrillose-squamulose, umber-brown or grayish-brown, flesh white; lamellæ close, rather broad, ventricose, emarginate, whitish, becoming ferruginous-brown; stem equal, solid, silky-fibrillose, whitish or pallid, pruinose above; spores oblong, even, .00045 to .0006 in. long, .0002 to .00025 in. broad.

Plant 1 to 2 in. high, pileus 6 to 12 lines broad, stem 1 to 2 lines thick.

Sterile or mossy ground. Indian lake, Adirondack mountains. August.

The species belongs to the section LACERI. The pileus is more lacerated in wet weather than in dry, and generally becomes paler with age. A small form, variety *brevipes*, has the pileus 4 to 6 lines broad and but slightly umbonate, and the stem scarcely more than half an inch long. Sometimes the stem is white above and darker toward the base. The long narrow spores constitute a marked feature of the species.

Myxacium amarum.

Pileus thin, convex or nearly plane, often irregular, smooth, glutinous, yellow, the disk often tinged with red, the margin whitish, flesh white, taste very bitter; lamellæ close, rounded behind, whitish, becoming ochraceous-cinnamon; stem soft, viscid in wet weather, solid, tapering upward, whitish, clothed with silky white fibrils; spores elliptical, .0003 to .0004 in. long, .0002 to .00025 broad.

Plant gregarious or subcæspitose, 1 to 2 in. high, pileus about 1 in. broad, stem 2 to 4 lines thick.

Under spruce and balsam trees. Adirondack mountains. August.

The very bitter taste is suggestive of the specific name. The stem is scarcely viscid except in wet weather.

Russula compacta Frost MS.

“Pileus white, firm, solid, cracked in age, sometimes tinged with red or yellow or both in spots, turning up in age, seldom depressed; lamellæ very white, almost free, not forked or dimidiate, becoming brown when bruised or dry; stem solid, white, even, smooth; flesh at first white, then brownish.”

Pileus fleshy, compact, convex or centrally depressed, whitish, sometimes tinged with red or yellow, becoming reddish-alutaceous or dingy-ochraceous with age, the margin thin, even, incurved when young; lamellæ rather broad, subdistant, nearly free, some of them forked, a few dimidiate, white, becoming brown with age or where bruised; stem short, equal, firm, solid, white, changing color like the pileus; spores subglobose, nearly even, .00035 in. in diameter.

Plant 2 to 4 in. high, pileus 3 to 5 in. broad, stem 8 to 12 lines thick.

Open woods. Sandlake and Brewerton. August and September.

The late Mr. C. C. Frost sent me specimens and manuscript descriptions of a few species of fungi collected by him in Vermont. He gave names to those which he considered new species, and it gives me pleasure to adopt his names whenever it is rendered possible by the discovery of the species within our limits. The plant here described does not fully agree with his manuscript description, which I have quoted, but it approaches so near an agreement that there cannot be much doubt of the specific identity of the two plants. In our plant the pileus is sometimes split on the margin. The change in the color of the pileus and stem is nearly the same, but the lamellæ sometimes become darker than either. When drying, the specimens emit

a strong and very disagreeable odor. The species belongs to the section COMPACTÆ.

Russula flavida *Frost MS.*

“Pileus fleshy, convex, slightly depressed, unpolished, bright-yellow; lamellæ white, adnate, turning cinereous; stem yellow, solid, white at the extreme apex.”

Pileus fleshy, convex, then plane or slightly depressed, yellow, becoming paler with age, flesh white, taste mild, the margin at first even, then tuberculate-striate; lamellæ nearly simple, subdistant and broader before, adnate, white, the interspaces venose; stem short, equal or tapering upward, firm, glabrous, solid or merely spongy within, yellow; spores globose, .00025 to .0003 in. in diameter.

Plant gregarious, 1 to 2 in. high, pileus 1 to 2 in. broad, stem 4 to 6 lines thick.

Grassy places in copses and open woods. Sandlake. July.

The species belongs to the section RIGIDÆ. The pileus is dry and sometimes slightly mealy or granular. When young it is bright-yellow, but it fades with age and sometimes becomes white on the margin.

Boletus rubinellus.

Plate 2. Figs. 20-22.

Pileus at first broadly conical or subconvex, then nearly plane, subtomentose, red, becoming paler with age; tubes convex, adnate or slightly depressed about the stem, rather large, subrotund, pinkish-red, becoming sordid-yellow; stem equal, smooth, yellow with reddish stains; spores oblong-fusiform, .0004 to .0005 in. long, .00016 broad.

Plant about 2 in. high, pileus 1 to 2 in. broad, stem 2 to 3 lines thick.

Woods. Gansevoort. August.

Apparently related to *B. rubinus*, and also resembling *B. piperatus*, but the stem is differently colored, and I have not found the pileus at all viscid.

Tremella subcarnosa.

Small, tufted, compressed, irregular, wavy or contorted, subcarnose, externally gelatinous, whitish or pinkish-alutaceous, becoming brownish-incarnate and somewhat glaucous when dry; spores obovate, pointed at one end, .0002 to .0003 in. long, .00016 broad.

Tufts 2 to 4 lines high and about as broad.

Decaying wood of deciduous trees. Carlisle. June.

The affinities of this fungus are doubtful. It is provisionally referred to the genus *Tremella*, although the central part of the substance is fleshy rather than gelatinous. The plants revive on the application of moisture and when moist are somewhat tremelloid. The tufts form beautiful little rosettes.

***Grandinia membranacea* P. & C., n. sp.**

Effused, thin, membranaceous, whitish or subalutaceous, sometimes slightly tinged with greenish-yellow or olivaceous; granules numerous, crowded, unequal; spores broadly elliptical or subglobose, slightly rough, .00025 to .0003 in. long.

Much decayed wood, leaves, etc. Tonawanda. G. W. CLINTON.

Apparently related in texture to *G. papillosa*, but differing in color and in its even, not rimose, hymenium.

***Phoma callospora* P. & C., n. sp.**

Perithecia small, scattered, slightly prominent, covered by the epidermis, black; spores oblong or cylindrical, obtuse, straight or curved, containing 3 to 5 nuclei, .0006 to .0008 in. long, .0002 to .00025 broad.

Dead stems of *Polygonum*. Buffalo. October. G. W. CLINTON.

***Phoma cornina*.**

Perithecia numerous, not crowded, minute, nearly covered by the stellately ruptured epidermis, black, opening by a large pore; spores oblong, obtuse, .0012 to .0016 in. long, .0005 to .00055 broad.

Dead branches of green osier, *Cornus circinata*. Sprakers. June.

This and the preceding species are erroneously referred to the genus *Sphæropsis* in the Thirty-second Report.

***Sphæropsis typhina*.**

Perithecia scattered, subconical, slightly prominent, often compressed; spores fusiform, pointed at each end, colored, .0006 in. long, .00016 broad.

Dead leaves of *Typha latifolia*. Sprakers. June.

The fusiform pointed spores constitute a noticeable character in this species.

***Protomyces conglomeratus*.**

Spores imbedded in the tissues of the stems of the host plant, large, globose, colored, .0016 to .002 in. in diameter, aggregated in

groups or clusters and forming small protuberances or tubercles on the dry stems.

Common saltwort, *Salicornia herbacea*. Syracuse. September.

The species is remarkable for the large size of the spores and their clustered mode of growth.

Periconia albiceps.

Plate 1, figs. 8-11.

Stems short, .02 to .03 in. high, equal or slightly tapering upward, black; head subglobose, white; spores oblong or subfusiform, colorless, .0003 to .0006 in. long.

Dead stems of balmony, *Chelone glabra*. Sandlake. May.

The stems of the fungus are composed of compacted filaments, and I have followed the English mycologists in referring the species to the genus *Periconia*. It is *Sporocybe* of Bonorden.

Gonatobotryum tenellum.

Patches thinly effused, subolivaceous; flocci subtufted, erect, slender, simple or rarely branched, not nodulose-inflated, septate, brown, .006 to .014 in. high; spores in verticils of 2 to 4 at the septa, oblong, simple, subfuliginous, .00045 to .0005 in. long, .00016 to .0002 broad.

Dead stems of stoneroot, *Collinsonia Canadensis*. North Greenbush. October.

By reason of the equal, not nodulose, flocci the species does not well agree with the character of the genus. Because of the colored flocci it would go no better in *Arthrimum*. *

Ramularia effusa.

Hypophyllous, often occupying the whole lower surface of the leaf, whitish; spores very variable, globose, obovate-elliptical, oblong or cylindrical, .00016 to .0011 in. long, .00016 to .0002 broad, sometimes uniseptate.

Living leaves of black huckleberry, *Gaylussacia resinosa*. Karner. July.

Sometimes all the leaves on a branch have the lower surface whitened by this fungus.

Ramularia albomaculata.

Spots suborbicular, 2 to 3 lines in diameter, sometimes confluent, pale yellowish-green on the upper surface, becoming purplish

or brown with age, whitened by the fungus below; spores oblong or elliptical, generally binucleate, .0003 to .0004 in. long, .00016 broad.

Living leaves of hickory, *Carya alba*. Albany and Greenbush. June and July.

Sometimes the spots are angular, being limited by the veinlets of the leaf. In this species and in the next one I have not seen the spores septate, but suspecting that the nuclei indicate septa in more mature specimens, I have referred the species to this genus for the present. They may belong rather to *Cylindrium* or *Fusidium*.

Ramularia angustata.

Spots small, orbicular, sometimes confluent, pale greenish-yellow, becoming reddish-brown or brown, frosted on the lower surface by the fungus; flocci minute; spores narrowly fusiform or subcylindrical, .0003 to .0004 in. long, about .0001 in. broad, often containing two or three nucleoli.

Living leaves of pinxter plant, *Azalea nudiflora*. Central Bridge and Carlisle. June.

The very narrow spores suggest the specific name.

Ramularia lineola.

Spots suborbicular, sometimes confluent, brown, concentrically lineolate; flocci obscure, tufted, hypophyllous; spores slender, cylindrical, obtuse, .0005 to .0008 in. long, often uniseptate.

Living leaves of dandelion, *Taraxacum*, *Dens-leonis*. Greenbush. July.

The fungus is so minute that it is scarcely visible to the naked eye.

Sporotrichum larvicolum.

Flocci slender, simple or branched, forming a continuous, dense, soft, white or yellowish stratum coating the whole matrix; spores abundant, minute, globose, .00008 to .00012 in. broad.

Dead larvæ lying on the ground under alders. Adirondack mountains. July.

The larvæ were very numerous and, but for the check imposed upon the increase of the species by the attacks of this fungus, they would probably in a short time have completely defoliated all the alders in that locality. In some specimens the fungus spores were so abundant that the surface of the stratum had a pulverulent appearance.

Acremonium flexuosum.

Plate 1, figs. 16-18.

Flocci procumbent, interwoven, branched, forming a thin, soft, tomentose, white or cream-colored stratum, the branches widely divergent, sometimes opposite, narrowed and flexuous toward the tips and bearing scattered, alternate spicules or sporophores; spores oval or elliptical, .0005 to .0008 in. long, .0003 to .0005 in. broad.

Decaying wood. Griffins, Delaware county. September.

From *Acremonium album* it differs in habit and habitat, as well as in the flexuous terminal portions of the flocci and their alternate pointed spicules; and from *Acremonium alternatum* it is distinguished by its elliptical spores.

Sepedonium brunneum.

Effused, pulverulent, brown; spores globose, rough, .0008 to .001 in. in diameter.

Decaying fungi. Gansevoort. August.

This is similar in habit to *Sepedonium chrysospermum*, from which its dark snuff-brown spores distinguish it. Like that fungus, this is also probably a mere state of some species of Hypomyces.

Morchella angusticeps.

Plate 1, figs 19-21.

Pileus narrowly conical or oblong-conical, acute or subobtuse, 1 to 2 in. long, its diameter at the base scarcely exceeding that of the stem, pale-buff or cream-colored, adnate, sometimes a little curved, the costæ longitudinal, anastomosing or connected by transverse veins; stem subequal, hollow, furfuraceous, even or sometimes marked by irregular longitudinal ridges and furrows, whitish, about equal to the pileus in length; asci cylindrical; spores elliptical, yellowish, .0008 to .001 in. long, .0005 to .0007 broad.

Borders of woods and open places. Albany and Karner. April and May. Edible.

This morel is perhaps too closely related to *Morchella conica* Pers., but if that species is correctly represented in Mycographia, plate 81, fig. 315, our plant is easily distinguished by its much more narrow pileus, which scarcely exceeds the stem in diameter. The paraphyses of that species are also represented as filiform, and are described (l. c. p. 182) as thickened above. In our plant I find no such paraphyses, but instead of them there are oblong or subelavate

bodies much shorter than the asci, but nearly as broad. They are often filled with large, unequal, crowded nuclei, and appear more like undeveloped asci than like ordinary paraphyses. The interior surface of the stem is scurfy like the exterior.

Peziza orbicularis.

Plate 2, figs. 4-6.

Receptacle 8 to 12 lines broad, sessile, appressed to the matrix, nearly plane, orbicular or sometimes irregular, externally whitish or subolivaceous and slightly gelatinous when moist, the disk reddish-brown or chestnut-colored; asci cylindrical; spores uniseriate, elliptical, .0009 to .0011 in. long, .00045 to .0005 in. broad; paraphyses filiform, thickened at the tips, brownish.

Wet, much decayed wood. Brewerton and Guilderland. September and October.

The spores usually contain one or two large nuclei. The contrast between the dark color of the disk and the light color of the external surface is quite noticeable. The flattened orbicular form of the receptacle when growing on smooth surfaces suggests the specific name. In the Thirty-second Report both this and the next species were referred to the genus *Bulgaria* under the respective names *B. bicolor* and *B. deligata*, but upon further observation their affinities appear to me to bring them in the genus *Peziza*, subgenus *Discina*, in consequence of which I am obliged to change the names.

Peziza leucobasis.

Plate 2, figs. 1-3.

Receptacles 1 to 3 lines broad, scattered or crowded, plane or convex, sessile, scarcely margined, purplish-black when moist, black and more or less angular when dry, surrounded at the base by dense whitish filaments; asci cylindrical, .01 to .012 in. long, .0009 to .001 broad; spores uniseriate, elliptical, even, binucleate, subhyaline, .001 to .0013 in. long, .0006 to .0007 broad; paraphyses numerous, filiform, septate, colored, slightly thickened above.

Wet, decaying hemlock wood. Catskill mountains. July.

The numerous white filaments that appear to bind the receptacles to the matrix, constitute a marked feature in this species and suggest the specific name.

Peziza longipila.

Plate 2, figs. 15-19.

Receptacle small, .014 to .02 in. broad, narrowed below into a short stem, densely clothed with long, rigid, erect, septate, tawny-

brown hairs, the uppermost .01 to .014 in. long, .0003 broad, the disk whitish, concealed in the dry plant by the hairs of the margin; asci cylindrical, .0025 to .003 in. long, .00025 to .0003 broad; spores oblong or subfusiform, straight or slightly curved, colorless, .0003 to .0004 in. long, .00008 to .00012 broad.

Dead stems of *Eupatorium maculatum*. Adirondack mountains. July.

Apparently near *P. relicina* Fr., but that is described as sessile and of a bay color.

This and the next following species belong to the subgenus *Dasyscypha*.

Peziza urticina.

Receptacle minute, .007 to .014 in. broad, sessile, subglobose, almost hyaline, and with the mouth connivent when moist, whitish and pulverulent-hairy when dry; asci subfusiform; spores crowded or biseriata, fusiform, .0004 to .0005 in. long; paraphyses filiform.

Dead stems of nettles, *Laportea Canadensis*. Catskill mountains. July.

When moist the hairs are appressed and the cups appear longitudinally striate. When dry the disk is generally concealed. The plants are so small that they appear to the naked eye like minute white grains.

Helotium fraternum.

Plate I, figs. 12-14.

Receptacle small, $\frac{1}{2}$ to 1 line broad, stipitate, the disk plane or slightly concave, pallid or reddish-yellow, becoming more concave and dull-red in drying, the stem about equal in length to the diameter of the receptacle; asci clavate or subcylindrical, .003 to .004 in. long, .0004 to .0005 broad; spores crowded or biseriata, subcylindrical, .00065 to .0008 in. long, .00016 to .0002 broad; paraphyses numerous, filiform, scarcely thickened at the tips.

Petioles and midveins of fallen leaves of maple, *Acer saccharinum*. Adirondack mountains. July.

Pezicula minuta.

Receptacle minute, .009 to .017 in. broad, numerous, scattered or two or three crowded together, attached to the matrix by a minute point, grayish, pulverulent, the margin obtuse or obsolete, the disk plane or convex, subochraceous; asci oblong-clavate; spores crowded,

oblong-elliptical, colorless, .0008 to .001 in. long; paraphyses filiform, thickened at the apex.

Dead stems of hobble bush, *Viburnum lantanoïdes*. Catskill mountains. July.

Ascophanus tetraonalis.

Receptacle sessile, 1 to 2 lines broad. externally cinereous, the margin sometimes wavy or flexuous, the disk blackish or blackish-brown; asci cylindrical, truncate at the apex; spores uniseriate, elliptical, smooth, colorless, .0006 to .0007 in. long, .0003 broad.

Excrement of partridges or ruffed grouse. Catskill mountains. July.

The receptacles are about equal in size to those of *Ascophanus gallinaceus*, which has a similar habitat, but a paler color and shorter spores. This and the next following species were erroneously referred to the genus *Peziza* in the Thirty-second Report.

Ascophanus humosoides.

Receptacles small, scarcely more than half a line broad, sessile, scattered or crowded, orange-colored inclining to vinous-red, the disk plane or slightly convex, slightly margined; asci short, cylindrical or clavate; spores crowded or elliptical, even, .0008 to .001 in. long, .0005 broad; paraphyses filiform, slightly thickened above.

Excrement of some wild animal. Catskill mountains. July.

The cups are attached to the matrix by a few white filaments.

Patellaria pusilla.

Receptacle small, .014 to .028 in. broad, sessile, slightly margined, black, the disk plane or convex when moist, slightly concave when dry; asci clavate; spores crowded or biseriata, subclavate, .00065 to .0008 in. long, .0001 to .00012 broad, six to eight nucleate; paraphyses numerous, filiform.

Decaying beech wood. Catskill mountains. July.

The spores are similar in shape to those of *P. atrata*. They are extremely narrow and probably become five to seven-septate when mature.

Acanthostigma scopula.

Perithecia small, .006 to .008 in. broad, subglobose, very black, bristly with short, rigid, divergent black hairs or setæ which are .003 to .005 in. long, .00016 to .0002 thick; asci lanceolate or subclavate; spores crowded or biseriata, elongated, gradually narrowed

toward each end, straight or slightly curved, multinucleate, at length obscurely multiseptate, greenish-yellow, .0025 to .003 in. long, .00012 to .00016 broad.

Decaying wood of hemlock. Adirondack mountains. August.

This is *Sphaeria scopula* C. & P. in the Thirty-second Report. It is here referred to the genus *Acanthostigma* because of the shape of the spores. From *A. Clintonii* it may be distinguished by its larger perithecia and longer spores.

Lasiosphaeria intricata.

Perithecia scattered or crowded, somewhat elongated, .025 to .035 in. long, .018 to .02 broad, generally narrowed toward the base, obtuse, subfragile, tomentose-hairy, brown or blackish-brown; subiculum very thin or none; asci slender, elongated, .005 to .008 in. long, .0004 to .0005 broad; spores crowded, linear, curved or flexuous, greenish-yellow, .0016 to .0025 in. long, .00016 to .0002 broad.

Decaying wood and leaves in damp places. Sandlake.

The species belongs to the section LEPTOSPORA. The perithecia, though small, resemble in shape those of *Bombardia fasciculata*. The minute papillate ostiolum is often concealed by the tomentum of the perithecia. This is composed of intricate, matted, slender, septate, brown filaments, which, by their soft, tomentose character, readily distinguish this species from the related *L. strigosa*, *L. hispida*, *L. hirsuta*, etc.

Herpotrichia leucostoma.

Perithecia small, .012 to .018 in. broad, numerous, somewhat crowded, subglobose, seated upon or involved in a blackish-brown tomentum, the ostiola naked, not prominent, whitish when moist, grayish or sordid when dry; asci cylindrical or subclavate, .006 to .008 in. long, .0004 to .0006 broad; spores crowded or biseriate, oblong-fusiform, at first uniseptate, constricted at the septum and containing two or three nuclei in each cell, then three to five-septate, colorless, .0015 to .002 in. long, .0003 to .00035 in. broad.

Dead branches of mountain maple-bush, *Acer spicatum*. Catskill mountains. September.

The whitish ostiola constitute a marked feature in this species. It is distinguished from *Herpotrichia Schiedermayeriana* Fekl. by its much smaller perithecia, and the more numerous septa of the spores. I have observed no globose appendages at the ends of the spores in

our plant. The threads of the subiculum are obscurely septate and sometimes slightly branched. The more classical name "leucostoma" is here substituted for "albidostoma."

Zignoella humulina.

Perithecia small, .011 to .014 in. broad, depressed-hemispherical, slightly sunk in the matrix, subglabrous, black, with a minute papillate ostiolum; asci cylindrical, .0025 to .003 in. long, .0003 to .0004 in. broad; spores uniseriate or obliquely monostichous, elliptical, four-locular, appearing obscurely triseptate, colorless, .0005 to .0006 in. long, .00025 to .0003 in. broad.

Dead stems of hops, *Humulus lupulus*. Carlisle. June.

The spores are not distinctly triseptate, and the species apparently belongs to the subgenus *Zignoina*. The perithecia have a dull, squalid, unpolished or subscabrous appearance.

Acrospermum album.

Perithecia elongated, subfusiform, somewhat compressed, pointed at the apex, narrowed below into a short, terete, stem-like base, white; spores very long, filiform.

Dead stems of spikenard, *Aralia racemosa*. Catskill mountains. July.

This resembles *A. compressum* in size, but it is at once distinguished from that and other related species by its persistently white color.

ADDITIONS, REMARKS AND OBSERVATIONS.

The first fourteen species of the following list are additions to our State flora, and have not before been reported.

Hieracium Pilosella L.

Door yards. Aurora, Cayuga county. *C. Atwood, M. D.*

This plant has been introduced from Europe, and is yet scarce and perhaps not thoroughly established.

Atriplex hortensis L.

Roadsides. High Bridge, Onondaga county. *Mrs. S. M. Rust* and *Mrs. C. Barnes.*

Probably a stray from cultivation, and perhaps not permanently established.

Amanita pantherina DC.

Thin woods. Sandlake, Rensselaer county. July.

According to the figure and description of this species the pileus is brown or brownish, but in all our specimens it is white or merely tinged with brown on the disk. In other respects they agree so well with the description that there can be no doubt of their specific identity. They afford a striking instance of the tendency in some of our American forms to depart from the color of the European plant. The different character of its volva will distinguish it from white forms of *A. muscarius*, and the warts on the pileus and annulus on the stem will separate it from *A. nivalis*.

Clitocybe phyllophila Fr.

Among fallen leaves in woods. Karner. September.

Clitocybe pithyophila Fr.

Among fallen leaves in woods. Sandlake.

Collybia aquosa Bull.

Among sphagnum. Karner. October.

In our specimens the lamellæ, instead of being rounded behind and free, according to the description of the species, are adnate or

slightly decurrent. They are therefore designated, variety *adnati-folia*. In drying, the moisture escapes from the thicker, central part of the pileus sooner than from the thin margin.

Myceena clavicularis Fr.

Under pine trees. Sandlake. June.

Psilocybe bullaceus Fr.

Manured ground. Sandlake. July.

Lactarius cilicioides Fr.

Sandy soil. West Albany. October.

A small, white form with very sparse milk.

Hygrophorus virgineus Fr.

Roadsides and grassy fields. Sandlake. August.

Cortinarius cinnabarinus Fr.

Thin woods and bushy places. Sandlake. June.

Hydnum scrobiculatum Fr.

Woods. Sandlake. July.

The disk is sometimes very uneven with irregular prominences.

Valsa sepincola Fekl.

Dead stems of raspberry, *Rubus strigosus*. Karner. October.

Cryptospora Betulæ Tul.

Dead bark and twigs of white birch, *Betula populifolia*. Karner. October.

Ampelopsis quinquefolia Mx.

Specimens sometimes occur with some of the leaves trifoliate.

Geranium Robertianum L.

A white-flowered form. Isley island, Sodus Bay, Wayne county. F. W. Battershall.

Galium lanceolatum Torr.

A white-flowered form. Sandlake.

Rhodora Canadensis L.

Thirteenth pond, Johnsburch, Warren county. May. Mrs. I. B. Sampson.

The specimens are in flower, but the leaves had not yet developed. The original herbarium specimens bear old capsules, but no leaves,

so that leaf-bearing specimens are yet wanting. I do not find this plant recorded in any of the local catalogues of plants of various parts of the State, and Dr. Torrey admitted it in the New York Flora with the following explanatory remark: "I am not quite certain that I have received specimens of this plant from within the limits of the State; but it doubtless grows in some of the northern counties." The result has proved the accuracy of his supposition, but the plant is evidently rare in our State.

Potamogeton pauciflorus *Pursh.*

A peculiar form of this species occurs in Glass lake, Rensselaer county. The stems are 1 to 2 feet long, the spikes numerous and axillary and the foliage of a dull-brownish or reddish-brown color, quite unlike the ordinary bright-green hue of the species.

Pogonia affinis *Aust.*

In a swamp near Tappantown, Rockland county. June. *E. F. Smith.*

Juncus Canadensis var. **coarctatus** *Engelm.*

This plant sometimes has the flower heads wholly or in part changed to enlarged leafy buds, or rather galls, for they are produced by the attacks of insects.

Clitopilus Noveboracensis *Pk.*

Sometimes the pileus is dark-brown, much darker than in the typical form. There is also a variety *tomentosipes*, in which the stem is clothed with a whitish or grayish hairy tomentum. The plants are also sometimes cæspitose. Sandlake. July.

Entoloma strictior var. **isabellinus** *Pk.*

Pileus, when moist, of a watery isabelline hue and striatulate on the margin, when dry, whitish or pale straw color.

Sphagnous marshes. Sandlake. August.

Clavaria amethystina *Bull.*

Woods. Sandlake. July.

Sometimes the color inclines to a grayish-violaceous hue. Both the small sparsely branched and the abundantly branched forms occur.

Dacrymyces conglobatus *Pk.*

Plate 1, figs. 1-4.

In the Thirty-second Report, this was provisionally referred to the genus *Dacrymyces*. It is apparently *Peziza rubella* Pers., and *Om-*

brophila rubella Quel., which is figured in *Tabulæ Analyticæ Fungorum*, by M. Patouillard, Fasc. 11, fig. 157. But unless it shall yet be found to have an ascigerous form it can not well be received in either of these genera. It may yet be necessary to institute a genus for its reception.

Glomerularia Corni *Pk.*

Plate 2, figs. 10-14.

This species was originally found on leaves of dwarf cornel, *Cornus Canadensis*. It also occurs in the Adirondack forests on leaves of fly honeysuckle, *Lonicera ciliata*. On this host it forms extensive patches, sometimes occupying nearly the whole leaf, and its filaments are more highly developed. It has been described in *Sylloge Fungorum*, vol. IV, p. 10.

Geoglossum irregulare *Pk.*

Plate 1, figs. 5-7.

A description of this fungus is contained in *Revue Mycologique*, 1882, p. 212, under the name *Geoglossum vitellinum* Bres. Owing to the imperfect publication of the Thirty-second Report it will be better to adopt this later name.

Helotium vibrisseoides *Pk.*

Plate 2, figs. 7-9.

In 1881 this fungus was published under the name of *Vibrissea turbinata* Phillips. It is *Gorgoniceps turbinata* Sacc., a name which should be adopted for the reason already given.

NEW YORK SPECIES OF PAXILLUS.

PAXILLUS Fr.

“Hymenophorum continuous with the stem, decurrent. Lamellæ membranous, scissile, somewhat branched and often anastomosing behind, *distinct from the hymenophorum and easily separable from it.* Spores sordid-whitish or ferruginous.

“*Fleshy putrescent fungi continuously and gradually unfolding and expanding from an involute margin.*” *Hymen. Europ.*, p. 400.

The species of this genus are related to the Agarici on one hand, and to the Boleti on the other. The important distinguishing character is afforded by the lamellæ, which are easily and smoothly separable from the pileus, just as the tubes of a Boletus are from the pileus that supports them. This relationship between the Paxilli and Boleti is still further indicated by the anastomosing of the lamellæ, which in one species, *Paxillus porosus*, is carried to such an extent that the hymenium is as distinctly porous as it is in some Boleti. On the other hand, the close relationship that exists between this genus and the genus Agaricus may be inferred from the fact that *Agaricus personatus* and *A. cinerascens* are still retained by Fries among the Agarici, although he makes the remark that they belong rather to the Paxilli. In the second edition of *Epicrisis* he has modified the diagnosis of the genus, and at the same time admitted that it is “not yet correctly defined.” Neither is the limitation of the two tribes into which he divides the species very satisfactory, for a central stem and sordid spores, characters assigned to *Lepista*, are not always associated together, nor are ferruginous spores found only in species with the stem commonly lateral or eccentric. It has, therefore, seemed best to me, for the present, to refer to this genus such species only as have the spores colored and the separable lamellæ more or less branched, crisped or anastomosing. This reduces our species to five, three of which are found also in Europe. They grow chiefly in woods and occur in the latter part of summer and in autumn. The separable character of the hymenium can only be ascertained by the mutilation of a specimen.

Synopsis of the Species.

1 Hymenium clearly lamellate.	2.
2 Pileus white, stem present.	P. simulans.
2 Pileus colored.	3.
3 Stem glabrous.	P. involutus.
3 Stem densely hairy.	P. atrotomentosus.
3 Stem none.	P. pannoides.
1 Hymenium wholly porous.	P. porosus.

Paxillus simulans *n. sp.*

Simulating Paxillus.

Pileus broadly convex, expanded or subinfundibuliform, compact, subglabrous, even or somewhat scabrous-pustulate, *white or whitish*, the involute margin often tomentose-hairy, flesh white; lamellæ close, forked, crisped near the stem, adnate or decurrent, *white, then ochraceous-yellow tinged with salmon color*; stem *central*, short, firm, equal, *stuffed or hollow*, pubescent, white; spores pale ochraceous-yellow, subglobose or broadly elliptical, .0002 to .0003 in. long, .0002 in. broad.

Plant 1 to 3 in. high, pileus 2 to 4 in. broad, stem 6 to 12 lines thick.

In thin woods. Sandlake. July. Rare.

A large species externally resembling *Lactarius vellereus*, and perhaps hitherto confused with it, but easily distinguished from it by the absence of a milky juice and by the lamellæ which are crisped near the base and which soon assume a peculiar salmon-yellow hue, which also appears in the spores when collected on white paper. This change of color begins in the crisped portion near the stem and gradually advances toward the outer extremity. In the dried specimens the lamellæ are ochraceous-brown and they have the edge more or less beaded with white granules. They are often forked near the outer extremity as well as toward the inner. The length of the stem sometimes scarcely exceeds its breadth. In but a single instance was it eccentric, and in that case the pileus was lobed and irregular. The surface of the pileus is sometimes roughened with minute pustules or papillæ and sometimes has a pitted appearance. Rarely the margin is obscurely zonate. The taste is bitterish and unpleasant, and sometimes the plant emits a subacid odor. It is a singular species.

Paxillus involutus *Fr.*

Involute Paxillus.

Pileus compact, convex or expanded, sometimes centrally depressed, glabrous, *viscid when moist*, varying in color from grayish

or sordid-buff to ferruginous or brownish-ochraceous, the margin at first *strongly involute and covered with a dense grayish tomentose villosity*, flesh grayish-white or pallid; lamellæ close, decurrent, branched and anastomosing behind, whitish, then yellowish or subferruginous, becoming reddish-brown or fuscous where cut or bruised, the interspaces venose; stem equal or slightly thickened at the base, central or sometimes eccentric, glabrous, solid; spores elliptical, .0003 to .0004 in. long, .0002 to .00025 in. broad.

Plant 2 to 4 in. high, pileus 2 to 4 in. broad, stem 4 to 8 lines thick.

In woods on the ground and on decaying wood. Common in the Adirondack mountains and not rare in the mixed woods of all our hilly districts. August to November.

This species is said, by Fries and other authors, to be edible, but I have not tested its edible qualities. It is said to be held in high estimation as an article of food in Russia. It is somewhat solitary in its mode of growth and prefers a soil chiefly composed of vegetable mold. Damp shaded mossy banks and deep hemlock and spruce woods are favorite habitats for it. It sometimes grows on much decayed stumps and old prostrate trunks of trees. In such cases the stem is sometimes eccentric, but when growing on the ground it is almost always central, though Fries places the species in the tribe Tapinia. Neither do the spores of our plant agree well with the dimensions given in the Handbook of British Fungi, still it does not appear to me to be specifically distinct. The pileus is generally regular in outline and, when expanded, bears upon its margin short, distant and somewhat irregular striations. The hairiness of the margin is more distinct in the young plants. The color of the pileus is not very decided, being somewhat variable, and a peculiar mixture of gray, ochraceous, ferruginous and brown. The surface is sometimes opaque, sometimes shining. The lamellæ and often other parts of the plant change color when cut or bruised. In drying, the lamellæ of this and also of the preceding and the two following species frequently assume a smoky-brown or blackish hue.

Paxillus atrotomentosus Fr.

Dark-Downy Paxillus.

Pileus compact, convex, then expanded or centrally depressed, varying from subglabrous to scabrous-granulose, sometimes tomentose-hairy on the disk, often minutely rivulose, ochraceous-red, ferruginous-brown or reddish-brown, the margin sometimes paler, flesh

white ; lamellæ close, rather broad, adnate or slightly decurrent, somewhat branched and anastomosing at the base, pale creamy-yellow, the interspaces venose ; stem firm, stout, solid, eccentric or lateral, rarely central, *densely tomentose-hairy, dark-brown* ; spores elliptical, .0002 to .00025 in. long, .00016 in. broad.

Plant single or cæspitose, 3 to 6 in. high, pileus 3 to 6 in. broad, stem 6 to 15 lines thick.

Ground and much decayed wood of pine and hemlock. Helderberg mountains, Sandlake and Gansevoort. August.

This is a large species, easily recognized by the dark-brown coarsely velvety or densely hairy coat of the stem, which character is suggestive of the specific name. It sometimes grows in large tufts, and then the pileus is frequently irregular by reason of mutual compression. In wet weather the pileus is moist and sometimes obscurely mottled with dark spots. Occasionally it emits an unpleasant, dirt-like odor.

***Paxillus panuoides* Fr.**

Panus-like Paxillus. Stemless Paxillus. Pale Paxillus.

Pileus fleshy, thin, convex or nearly plane, *sessile* or resupinate, sometimes narrowed behind into a short stem-like base, pubescent or glabrous, yellowish or brownish-yellow ; lamellæ narrow, close, anastomosing and crisped at the base, yellow ; spores subglobose or broadly elliptical, .00018 to .0002 in. long, .00013 to .00016 in. broad.

Pileus 1 to 2 in. broad and long.

Decaying wood, usually of pine and hemlock. Albany, Maryland and Adirondack mountains. August and September.

This is our only sessile species. It grows in open places as well as in woods. It is quite variable in Europe, according to the description in Hymenomycetes Europæi. A form with a whitish pileus (*Agaricus lamellirugis* Dec. Fl., *Merulius crispus* Turpin) is the variety B of Fries. A form with a resupinate cup-like pileus, variety *pezizoides*, is his variety C, and *Gomphus pezizoides* Pers. The Handbook also describes a form with a white pileus tinged with violet. Of these, only the var. *pezizoides* has been found here. It occurs in the Adirondack mountain region.

***Paxillus porosus* Berk.**

Porous Paxillus.

Pileus fleshy, broadly convex or expanded, often irregular or sub-reniform, dry, glabrous or minutely tomentose, reddish-brown, some-

times ochraceous-brown, flesh yellowish; lamellæ *wholly connected by numerous narrow transverse branches, causing the hymenium to consist of large angular pores*, decurrent, bright-yellow; stem short, hard, eccentric or lateral, generally reticulated above, colored like the pileus; spores elliptical, uninucleate, .00035 to .00045 in. long, .00024 to .00032 in. broad.

Plant 1 to 2 in. high, pileus 2 to 4 in. broad, stem 3 to 6 lines thick.

Ground in woods and open places. Sandlake, Oneida, Brewerton and Catskill mountains. August.

A singular species remarkable for its boletoid or porous hymenium. It is thus far peculiar to this country. Its spores, according to Prof. A. P. Morgan, are bright-yellow. They are larger than in any of our other species of Paxillus. The author of the species makes the remark that "without examining the fructification it might be taken for a *Boletus*." It is admitted that the spores are broader in proportion to their length than are the spores of most Boleti, but in *Boletus strobilaceus* the spores make quite as wide a departure from the ordinary form. In fresh specimens the radiating lamellæ are distinguishable, being somewhat broader than the connecting veins or branches, but in the dried specimens this difference is so obscured that the hymenium appears in no manner to differ from that of some of the large and angular-pored Boleti. Indeed this same kind of union of radiating lamellæ is discernible in the hymenium of *Boletus paluster* in which the spores approach much more closely to the ordinary form of Boletus spores; from which it may be inferred that if the species just described is a genuine Paxillus, the distinction between that genus and the genus Boletus is very slight indeed, consisting in this case merely in the eccentric or lateral stem.

The stem in *P. porosus* is most often lateral, and at the point of its insertion there is generally an excavation in the margin of the pileus which gives to it a somewhat reniform outline. The pileus has been described as "viscid when moist," but I have never observed this character in our plant. The color of the hymenium in the fresh plant is a bright chrome-yellow. The fresh plant sometimes emits a disagreeable, dirt-like odor.

Paxillus strigosus Pk. does not have the lamellæ branched or crisped at the base, and it has been omitted. It probably belongs rather to *Inocybe*.

NEW YORK SPECIES OF CANTHARELLUS.

CANTHARELLUS *Adans.*

“Hymenophorum continuous with the stem, descending unchanged into the trama. Lamellæ thick, fleshy or waxy, *fold-like*, sub-branched, *obtuse on the edge*. Spores white. *Fleshy or membranous putrescent fungi destitute of a veil.*” *Hymen. Europ.*, p. 455.

The prominent distinguishing characters of this genus are the fleshy substance of the plants and the obtuse edge of the lamellæ. In nearly all the species these are either dichotomously branched or reticulately or anastomosingly connected with each other. They are so narrow and thick in some species that they appear more like folds or veins than like lamellæ. When a transverse section of the lamellæ is made their fold-like character becomes apparent. The hymenial substance covers the entire lower surface of the pileus and hence the interspaces are fertile as well as the lamellæ. Although some species formerly included in this genus are now excluded, it still contains some incongruous members. Thus *C. floccosus* bears very little general resemblance to *C. infundibuliformis*, and *C. aurantiacus* looks strangely by the side of *C. pruinosis*. It has, therefore, seemed best to group the species into subgenera or sections according to their natural affinities.

In the section AGARICOIDES the pileus is fleshy and is rapidly narrowed below into the stem. The lamellæ are very thin and close, resembling much those of the Agarici, but they are obtuse on the edge and regularly and sometimes repeatedly dichotomous. The species of this group are closely related to the Agarici.

In EUCANTHARELLUS the pileus is narrowly obconic and tapers downward gradually till it is lost in the short stem. Sometimes the spreading margin makes it trumpet-shaped. The lamellæ are very narrow, thick and abundantly and reticulately branched.

In CANTHARELLUS (proper) the pileus is fleshy, glabrous and more horizontally expanded, and the lamellæ are broader, more distant, and more sparingly branched than in the preceding group. The stem is also longer in proportion to the size of the pileus.

In *LEPTOCANTHARELLUS* the pileus is fleshy but thin, and floccose, fibrillose or pruinose. It is umbilicate, centrally depressed or funnel-shaped and sometimes pervious. The lamellæ are mostly sparingly branched, and the slender stem is generally hollow. The last three groups contain species which have their respective counterparts or corresponding species in the genus *Craterellus*.

In the diagnosis of the genus which I have quoted the spores are said to be white, but in some of our species they vary considerably from this color.

The name of the genus is derived from *cantharus*, a kind of drinking cup.

Synopsis of the Species.

1 Lamellæ thin, regularly and repeatedly dichotomous.	2.
2 Lamellæ orange-colored.	C. aurantiacus.
2 Lamellæ white.	C. umbonatus.
1 Lamellæ thick, simple or irregularly branched.	3.
3 Stem very short, hairy or subtomentose.	4.
4 Pileus floccose-scaly.	C. floccosus.
4 Pileus glabrous.	C. brevipes.
3 Stem longer, glabrous.	5.
5 Pileus glabrous, yellow.	6.
6 Pileus thick, stem solid.	C. cibarius.
6 Pileus thin, stem stuffed or hollow.	C. minor.
5 Pileus glabrous, cinnabar-red.	C. cinnabarinus.
5 Pileus not glabrous.	7.
7 Floccose or fibrillose.	8.
8 Dingy-yellow or brownish.	C. infundibuliformis.
8 Dingy-cinereous or blackish-cinereous.	C. cinereus.
7 Pruinosæ.	C. pruinosus.

AGARICOIDES. *Lamellæ thin, close, regularly dichotomous.*

Cantharellus aurantiacus *Wulf.*

Orange Chantarelle. False Chantarelle.

Pileus fleshy, thick, soft, minutely tomentose, plane or slightly depressed, *yellowish-orange*, often tinged with smoky-brown, the margin decurved or involute, flesh whitish or yellowish; lamellæ narrow, close, repeatedly forked, decurrent, *bright-orange*, sometimes yellowish; stem equal or slightly tapering upward, solid, subconcolorous; spores subelliptical, .00025 to .0003 in. long, .00016 to .00018 broad.

Plant 2 to 3 in. high, pileus 1 to 3 in. broad, stem 2 to 5 lines thick.

Ground and much decayed wood. Common in hilly and mountainous districts. July to October.

The bright color and regular bifurcations of the lamellæ render this a beautiful and easily recognizable species. The pileus is somewhat obconic in outline, but it is subject to some variation in color. The disk is often tinged with brown or smoky-brown and sometimes the whole surface fades to a dingy buff-red. The margin is sometimes a pale yellow or even whitish, and a form with whitish lamellæ has occurred in a sphagnous marsh near Albany. In the European plant the stem is said occasionally to become black. This form is *Merulius nigripes* Pers. The wholly white European form has not been found here.

The species is pronounced "poisonous" by some authors, and "scarcely esculent" by Rev. M. J. Berkeley. It is especially fond of a damp mossy soil filled with vegetable mold, and it sometimes occurs quite late in the season.

Cantharellus umbonatus Fr.

Umbonate Chantarelle.

Pileus thin, soft, at first convex, then plane or centrally depressed, umbonate, papillate or even, smooth or flocculose-silky, rarely minutely squamulose, bluish-cinereous, grayish-brown or blackish-cinereous, the flesh white; lamellæ thin, straight, more or less decurrent, dichotomous; white; stem equal or slightly tapering upward, solid or stuffed, generally slightly silky, villose or white-tomentose at the base, whitish or tinged with the color of the pileus; spores white, oblong or subfusiform, .0004 to .0005 in. long, .00016 to .0002 broad.

Plant 1 to 6 in. high, pileus 6 to 12 lines broad, stem 2 to 4 lines thick.

Damp, mossy ground in woods and open places. North Elba, Catskill mountains and Karner. August to October.

Var. *subcæruleus*. Pileus bluish or bluish-gray, silky and shining.

Var. *dichotomus*. Pileus even or the umbo reduced to a mere papilla, grayish-brown.

Var. *brevior*. Pileus as in variety *dichotomus*, but the stem very short, about 1 inch long, equal and scarcely silky.

This is a variable species. All the descriptions of the European plant which have come under my notice speak of it as umbonate, and some emphasize this character and describe it as "always persistent," "unchanged," etc. In the American plant it is often entirely absent, and when present it is generally a mere acute papilla.

If of fair size in the fresh plant it becomes small and inconspicuous in the dried specimen. In consequence of this disagreement between the American plant and the descriptions of the European, the former was supposed to be distinct, and described in the Twenty-third Report as *Cantharellus dichotomus*; but from its close agreement in other respects I am now of the opinion that our plant is but a variety of the European, and I have modified the description of the species so that it may include our forms. I have looked in vain for a description of the spore characters of this species in any of the European works at my command. These characters here given are taken from the American plant. Should they be found to differ from those of the European plant, it will be necessary to keep our plant distinct. In ours, as in the European, wounds of the flesh and lamellæ often change to a reddish hue, and sometimes the lamellæ assume this color in drying. When growing among mosses the stem is often considerably elongated, and the white tomentum at its base so closely invests the surrounding mosses that it is difficult to pluck the plant entire without taking with it a tuft of moss.

EUCANTHARELLUS. *Lamellæ very narrow, thick, vein-like, abundantly branching or anastomosing; pileus narrowly obconic; stem very short.*

The species of this section appear thus far to be peculiar to America.

Cantharellus floccosus Schw.

Floccose Chantarelle.

Pileus fleshy, firm, *elongated funnel-form or trumpet shape, floccose-scaly, ochraceous-yellow*; lamellæ thick, narrow, close, abundantly anastomosing above, long-decurrent and subparallel below, *subconcolorous*; stem very short, thick, sometimes with a flexuous, root-like prolongation; spores ochraceous, narrowly elliptical, .0005 to .0006 in. long, .0003 in. broad, with an oblique apiculus at one end.

Plant 2 to 5 in. high, pileus 2 to 4 in. broad, stem 4 to 8 lines thick.

Woods and their borders. Common. July and August.

This is our largest species of Chantarelle. At first the plant is almost cylindrical, it being scarcely broader at the top than at the base; but it gradually expands above and spreads its margin until it becomes trumpet-shaped. The pileus of the young plant is some-

times tinged with orange. The scales are sometimes thick and persistent, and again thin and subevanescent. The pileus is depressed or umbilicate at a very early age, and it frequently becomes pervious when mature. The interstices or reticulations formed by the anastomosing of the lamellæ are in some specimens as broad as long, in others much longer than broad. The stem is often, though not always, somewhat tomentose.

Cantharellus brevipes *Pk.*

Short-stemmed Chantarelle.

Pileus fleshy, narrowly obconic, *glabrous, alutaceous or dingy cream color*, the thin margin erect, often irregular and lobed, tinged with lilac in the young plant, flesh soft, whitish; lamellæ numerous, nearly straight on the margin, abundantly anastomosing below, *pale umber tinged with lilac*; stem short, tomentose-pubescent, solid, cinereous, often tapering downwards; spores yellowish, oblong-elliptical, unincleate, .0004 to .0005 in. long, .0002 in. broad.

Plant subcæspitose, 3 to 4 in. high, pileus 2 to 3 in. broad, stem 4 to 6 lines thick.

Woods. Ballston. July.

This is a very rare species. It occurred in very limited quantity in 1879, in the locality mentioned, and has not since been found. It is smaller than *C. floccosus*, more cæspitose in its mode of growth, and with thinner lamellæ. The thick fleshy pileus is neither pervious nor umbilicate and but slightly depressed.

CANTHARELLUS. *Lamellæ narrow, distant, sparingly and irregularly branched or anastomosing; pileus fleshy, glabrous; stem fleshy, generally solid.*

Cantharellus cibarius *Fr.*

Edible Chantarelle.

Pileus fleshy, firm, convex, then expanded or slightly depressed, glabrous, *yellow*, the margin at first involute, then spreading, often wavy or irregular, flesh white within; lamellæ narrow, thick, distant, decurrent, somewhat branched or anastomosing, yellow; stem firm, glabrous, *solid, yellow*, sometimes tapering downwards; spores sub-elliptical, .0003 to .0004 in. long, .0002 to .00025 broad.

Plant 1.5 to 4 in. high, pileus 1.5 to 4 in. broad, stem 3 to 6 lines thick.

Woods, copses and open places. Common. June to September.

The edible Chantarelle, though often irregular in shape, is beautiful in color. The whole plant is of a clear, rich egg-yellow hue, and this, with its solid stem, renders its identification easy. The American plant scarcely varies in color, but in Europe there is said to be a white variety of it. When old, the margin first begins to dry, and soon assumes a dull reddish-brown hue. The flesh both of the pileus and stem is white, though often tinged with yellow near the surface. Some authors attribute to it an odor like that of ripe apricots, but I have not been able to detect any decided odor in it. The lamellæ vary somewhat in their degree of proximity to each other and in the extent of their ramification. They are sometimes wavy or crisped as in some species of *Paxillus*. The interspaces are usually venose. The length of the stem is generally about equal to the breadth of the pileus. It is more frequently curved or flexuous than straight, and sometimes it is narrowed downward. The spores are described by most authors as white, but if they are collected on white paper they have a slight yellowish or salmon-yellow tint. The plant grows either in a scattered manner or arranged in curved lines, as if attempting to form a "fairy ring." A favorite habitat is in the deep shade of hemlock trees, but it also grows freely and plentifully in thin woods of deciduous trees in damp, showery weather. The species is quite celebrated for its edible qualities. Fries says that "it is justly enumerated among the most sapid fungi;" Badham, that "no fungus is more popular;" Berkeley, that "it is occasionally served up at public dinners at the principal hotels in London on state occasions, when every effort is made to secure the rarest and most costly dainties;" Cooke, that "it is alike esteemed in France, Germany, Austria and Italy," and that "it is not at all uncommon to hear from epicures rapturous encomiums of this golden fungus." According to Badham, "it requires to be gently stewed, and a long time, to make it tender; but by soaking it in milk the night before, less cooking will be requisite."

***Cantharellus cinnabarinus* Schw.**

Cinnabar-colored Chantarelle.

Pileus fleshy, rather thin, firm, convex, then depressed or subinfundibuliform, often irregular, *cinnabar-red*, the margin at first inflexed, often lobed in large specimens, flesh whitish, externally tinged with red; lamellæ subdistant, branched, decurrent, *cinnabar-*

red; stem glabrous, solid, *cinnabar-red*; spores subelliptical, .0003 to .0004 in. long, .0002 to .00025 in. broad.

Plant 1 to 2 in. high, pileus 8 to 16 lines broad, stem 2 to 4 lines thick.

Thin woods and open places. Sandlake, Brewerton and Forestburgh. July to September.

This Chantarelle is beautifully colored, though frequently irregular in shape. It is closely related to the preceding species, from which its color, smaller size and comparatively broader lamellæ distinguish it. It varies slightly in the depth of its color, the pileus being sometimes tinged with yellow. It is difficult to preserve its red hue in the dried specimens. The width of the lamellæ is generally equal to or greater than the thickness of the flesh of the pileus. The flesh has a slightly pungent or peppery taste. The species was placed by Fries in the genus *Hygrophorus*, but it is a genuine *Cantharellus*.

Cantharellus minor *Pk.*

Small Chantarelle.

Pileus fleshy, thin, convex, then expanded, often umbilicate or centrally depressed, glabrous, *yellow*, flesh, pale-yellow; lamellæ narrow, distant, sparingly branched, yellow; stem *slender*, subflexuous, subequal, smooth, *stuffed or hollow*, yellow, with a whitish mycelium at the base; spores subelliptical, .00025 to .0003 in. long, .00016 to .0002 in. broad.

Plant gregarious or subcæspitose, 1 to 1.5 in. high, pileus 6 to 12 lines broad, stem 1 to 2 lines thick.

Thin woods and open places. Greenbush and Sandlake. June and July.

This is a very small Chantarelle. It is colored like *C. cibarius*, from which it is distinguished by its smaller size, thin and frequently umbilicate pileus, comparatively broader lamellæ, and more slender stem, and smaller spores. In very small or young specimens the stem sometimes appears to be solid, but in large and mature specimens it is stuffed or hollow, especially in the upper part. By this character it connects this section with the next. In wet weather the pileus is moist and has a watery-yellow hue which fades slightly in drying.

LEPTOCANTHARELLUS. *Pileus thin or submembranous, not glabrous; stem subelongated, generally hollow.*

***Cantharellus infundibuliformis* Scop.**

Funnel-shaped Chantarelle.

Pileus thin or submembranous, convex and umbilicate, then funnel-shaped and often pervious, slightly floccose or fibrillose, uneven, varying in color from dingy-yellow to dark watery-brown when moist, grayish or grayish-yellow or grayish-brown when dry, the margin frequently wavy, irregular or lobed; lamellæ narrow, thick, decurrent, distant, irregularly or dichotomously branched, yellow or subcinereous, *becoming pruinose*, the interspaces generally venose; stem rather slender, glabrous, hollow, *yellow*; spores broadly elliptical, .00035 to .00045 in. long, .0003 to .00035 in. broad.

Var. *typicus*. Pileus dingy-yellow; stem pale-yellow.

Var. *luteolus*. (*Cantharellus lutescens*, 23d Rep., p. 122.) Pileus convex, umbilicate, dingy-yellow; lamellæ very distant, sparingly branched, yellowish; stem yellow, tinged with red or orange.

Var. *zonatus* Fr. Pileus zonate.

Var. *subcinereus*. Pileus dark watery-brown when moist, gray or grayish-brown when dry; stem yellowish, dingy above.

Plant gregarious or subcæspitose, 1.5 to 4 in. high, pileus 6 to 18 lines broad, stem 1.5 to 3 lines thick.

Woods and swamps among moss or fallen leaves and on decayed wood. Common. June to October.

This species is so variable that it seems desirable to designate its principal varieties by name. Through variety *subcinereus* it approaches *C. cinereus* on one hand, and, through variety *luteolus*, *C. tubæformis* on the other. Indeed, so closely is it allied to this last-named species that the two were united in *Systema Mycologicum*. But in all our forms or varieties the lamellæ become frosted or pruinose in appearance, and this character, according to the descriptions of Professor Fries, is a distinguishing feature of *C. infundibuliformis*. In the description of *C. tubæformis*, as given in the Handbook, the lamellæ of it also are said to be "frosted with a white bloom," but the dimensions there ascribed to its stem and spores do not correspond to those of any of our specimens. In our plant the pileus of fresh growing specimens has a moist or watery appearance, and as the moisture evaporates the color becomes paler. The surface of the pileus is a little uneven, and the fibrils are so arranged that they give it a somewhat streaked or virgate appearance approaching sometimes to a subreticulate aspect. Occasionally the pileus is slightly zonate,

but such specimens grow intermingled with others that are not zónate and are evidently the same species. In the larger specimens the pileus is frequently more lobed and irregular than in the others. In these also the lamellæ are apt to be less distant and more branched and the interspaces more venose than usual. The color of the lamellæ may be yellow, grayish-yellow, subcinereous or even tinged with lilac. The stem in variety *typicus* is pale-yellow or flavid, in variety *luteolus* it is more or less tinged with red, and in variety *subcinereus* it has a dingy or smoky tint above. This variety occurs especially among Sphagnum in marshes.

Cantharellus cinereus Pers.

Gray Chantarelle.

Pileus thin, submembranous, centrally depressed or funnel-shaped, often becoming pervious, minutely hairy or scaly, *cinereous* or *blackish-cinereous*, the margin frequently lobed or irregular; lamellæ thick, distant or subdistant, decurrent, branched and anastomosing, *cinereous*; stem hollow, often compressed or irregular, *cinereous* or *blackish-cinereous*; spores elliptical, .0003 to .00035 in. long, .0002 to .00025 broad.

Plant gregarious or cæspitose, 1.5 to 3 in. high, pileus 1 to 2 in. broad, stem 2 to 4 lines thick.

Woods. Greig, Sandlake and Albany. August and September.

The gray Chantarelle is less common than the preceding species to which it is closely related, but from which it may be distinguished by the absence of yellow hues from its pileus and stem. Its stem is generally comparatively thicker and its mode of growth more cæspitose.

Cantharellus pruinoseus Pk.

Frosted Chantarelle.

Pileus thin, convex, subumbilicate, *pruinose, white*; lamellæ *rather broad*, distant, long-decurrent, *simple or rarely branched, white*; stem long, slender, slightly enlarged above, *pruinose, whitish*; spores *globose*, .0002 to .00025 in. in diameter.

Plant about 1 in. high, pileus 2 to 3 lines broad, stem scarcely 1 line thick.

Ground in pastures. Sageville. August.

This is our smallest species, and is one most readily recognized by its slender habit, white color and minutely mealy or pruinose surface.

In some respects it approaches the European *C. Brownii* B. & Br., but is clearly distinct from it, by its broad and very decurrent lamellæ, by its pruinose surface and by its umbilicate instead of an umbonate pileus.

Cantharellus crispus differs from all the preceding species in habit and texture and is now referred to the genus *Trogia*.

Satisfactory examples of *Cantharellus tubæformis* have not occurred within our limits. The specimens formerly referred to this species and to *C. lutescens* prove to be only forms of *C. infundibuliformis*.

Several dimidiate and resupinate species of this genus are found in Europe, but none have occurred within our limits.

NEW YORK SPECIES OF CRATERELLUS.

CRATERELLUS Fr.

"Hymenium waxy-membranous, distinct, but adnate to the hymenophorum, definitely inferior, continuous, glabrous, even or rugose. Spores white.

"*Terrestrial, fleshy or membranous, autumnal fungi, related to the Cantharelli and furnished with an entire pileus and a stem.*" *Hymen. Europ.*, p. 630.

This genus is intimately related to *Cantharellus* on one hand, and by its nearly even hymenium it approaches *Thelephora* and *Clavaria* on the other. So intimate is its relationship with *Cantharellus* that, in the *Systema Mycologicum*, its species were referred to that genus, and in his later work, the *Hymenomycetes Europæi*, Professor Fries justly remarks that the analogy between various species of the two genera is wonderful. Indeed, some of the species of these genera cannot readily be distinguished without an inspection of the hymenium, so closely do they resemble each other in size, shape and color. The species of *Craterellus* have the hymenium nearly even, or merely rugose or rugose-wrinkled, the folds or wrinkles being irregular or indistinct, or so interwoven and lost in each other and in the hymenium that any particular one cannot readily be traced from the stem to the margin of the pileus, as they can be in species of *Cantharellus*. In the same species the wrinkles are more distinct in some specimens than in others, and often they are more distinct in the fresh plant than in the dried one. In all our species the hymenium is decurrent. The pileus is frequently more or less split or lobed on the margin and sometimes is divided nearly to its base. It is not clear why the genus should be characterized as "autumnal," for some of the species occur as early as July. In some of the older works these fungi are distributed in the genera *Cantharellus*, *Merulius*, *Elvella* and *Peziza*. The name *Craterellus* signifies a little cup, and has reference to the shape of the pileus in some species.

Synopsis of the Species.

- | | |
|--|--------------------|
| 1 Stem hollow, pileus mostly pervious. | 2. |
| 2 Hymenium cinereous or brown. | 3. |
| 3 Pileus tubiform, spores .0005 to .0007 in. long. | C. cornucopioides. |
| 3 Pileus funnel-shaped, spores .00025 to .0003 in. long. | C. dubius. |
| 2 Hymenium yellow. | C. lutescens. |
| 1 Stem solid, pileus not pervious. | 4. |
| 4 Hymenium and stem similarly colored. | C. Cantharellus. |
| 4 Hymenium and stem dissimilarly colored. | C. clavatus. |

Craterellus cornucopioides Pers.

Cornucopia-like Craterellus. Horn-like Craterellus.

Pileus thin, submembranous, *tubiform*, pervious, sometimes granular or minutely scaly, cinereous, smoky-brown or blackish, the spreading or decurved margin generally lobed, wavy or irregular; hymenium even or rugose-wrinkled, cinereous or brown; stem very short, hollow, *blackish-brown or black*; spores *narrowly elliptical*, .0005 to .0007 in. long, .0003 to .0004 broad.

Plant gregarious or subcaespitose, 2 to 3 in. high, pileus 1 to 2.5 in. broad, stem 2 to 3 lines thick.

Woods. Common. July to September.

This is our most common Craterellus. It is easily recognized by its elongated tubular or narrowly trumpet-shaped pileus and its dingy-gray or smoky-brown hue. The pileus is thin but rather tough and elastic. The hymenium is generally a little paler than the pileus and varies in color from cinereous to reddish-brown and dark smoky-brown. It sometimes becomes pruinose when dry. The stem is short or almost obsolete, the hymenium extending nearly or quite to the surface of the ground. The spores are larger than in any of our other species. It grows especially on naked soil on shaded banks or knolls or in old roads in woods. In shape it corresponds very closely to *Cantharellus floccosus*, but in every other respect it differs decidedly from that species. In color it resembles *Cantharellus cinereus*, from which its more elongated pileus, shorter stem and different hymenium at once separate it. *Cantharellus cornucopioides* Fr., *Peziza cornucopioides* L., *Merulius cornucopioides* Pers., *Merulius purpureus* With. and *Helvella cornucopioides* Scop. are ancient synonyms.

Craterellus dubius Pk.

Doubtful Craterellus.

Pileus thin, *infundibuliform or subtubiform*, subfibrillose, dark-brown or lurid-brown, pervious, the margin generally wavy and

lobed ; hymenium dark-cinereous and rugose when moist, the obscure crowded irregular wrinkles abundantly anastomosing, nearly even and paler when dry ; stem short, hollow, *colored like the hymenium* ; spores *broadly elliptical or subglobose*, .00025 to .0003 in. long, .0002 to .00025 in. broad.

Plant single or cæspitose, 2 to 3 in. high, pileus 1 to 2 in. broad, stem about 2 lines thick.

Ground under spruce trees. Adirondack mountains. August.

This very rare species has not been found by us since its discovery in Keene Valley, Essex county, in 1877. It is closely related to *C. cornucopioides*, from which its shorter more funnel-shaped pileus, longer paler stem and smaller spores will distinguish it. It is also apparently similar to *C. sinuosus* and *C. crispus*, and both it and they may yet prove to be different forms of one very variable species. In all of our specimens the pileus is pervious and the stem hollow to the base. This last character will distinguish the species from both those mentioned. In some specimens the pileus is much lobed or multifid on the margin. The hymenium is darker colored and much more rugose or uneven when moist than it is when dry. In the dried specimens it is pale-cinereous, often with a tinge of yellow, and its color extends to the base of the stem. The darker color of the pileus is continued downwards in the cavity of the stem. In general appearance this species corresponds more closely to *Cantharellus cinereus* than does *C. cornucopioides*, which is sometimes compared with that species.

Craterellus lutescens Fr.

Yellowish Craterellus.

Pileus thin, submembranous, varying from convex and umbilicate to tubiform or funnel-shaped, often becoming pervious, *yellowish, dingy-yellow or brownish*, the margin frequently lobed, wavy or irregular; hymenium nearly even or distinctly and sometimes densely rugose-wrinkled, *yellow* ; stem rather slender, subflexuous, glabrous, *hollow, yellow* ; spores subelliptical, .0004 to .0005 in. long, .00025 to .0003 in. broad.

Plant single or gregarious, occasionally cæspitose, 2 to 3 in. high, pileus 1 to 2 in. broad, stem 1.5 to 3 lines thick.

Moist places in woods and swamps. Sandlake and Helderberg mountains. July and August.

This species corresponds closely in size, color and general appearance to *Cantharellus infundibuliformis*, from which it is not readily distinguished except by its hymenium, which is neither pruinose nor furnished with distinct lamellæ, though its vein-like wrinkles sometimes make a close approach to the narrow lamellæ of that Chantarelle. It is commonly compared with *Cantharellus tubæformis*, with which, according to Fries, it was formerly confused, and to which it corresponds very closely by reason of its naked yellow hymenium. The pileus of the European plant is described as "flocculose," but in our plant it is usually almost glabrous or but slightly fibrillose. The hymenium is sometimes slightly reddish or orange-tinted and the stem is colored like it rather than like the pileus. In small or young plants it is not uncommon to find the stem stuffed below and hollow above only. The base of the stem is frequently hairy or strigose.

Cantharellus lutescens Fr., *Merulius lutescens* Pers., *Merulius xanthopus* Pers., *Helvella tubæformis* Schæff. and *Peziza undulata* Bolt. are synonyms of the older works.

Craterellus Cantharellus Schw.

Chantarelle Craterellus.

Pileus fleshy, firm, *convex, then centrally depressed or infundibuliform*, glabrous, yellow or pinkish-yellow, the margin commonly lobed, wavy or irregular, flesh white; hymenium nearly even or rugose-wrinkled, *yellow*; stem glabrous, *solid, yellow*; spores subelliptical, .0003 to .0004 in. long, .0002 to .00025 in. broad.

Plant single or cæspitose, 1.5 to 3 in. high, pileus 1.5 to 3 in. broad, stem 3 to 5 lines thick.

Thin woods and bushy places. Sandlake. August.

So closely does this plant resemble the edible Chantarelle, both in size, shape and color, that it would be natural to suppose it a form of that species with an undeveloped or abnormally developed hymenium. Its color is a vitelline or egg-yellow, as in that species, but sometimes there is a slight pinkish tinge to the pileus and a faint shade of salmon color or orange to the hymenium. The spores also, when collected on white paper, have a yellowish or salmon-yellow tint. The plant is more frequently cæspitose than *Cantharellus cibarius*, and consequently the pileus is generally more irregular. It was placed by Schweinitz in the genus *Thelephora*, section CRATERELLÆ, whence the synonym *Thelephora Cantharellus* Schw. In Grevillea, vol. 1, p. 147, this name is given as a synonym of *Craterellus late-*

ritius B., which is described as "brick-red" with a deeply umbilicate pileus. I have seen no such forms of our plant and hesitate to adopt the opinion there expressed. The species appears to be peculiar to this country.

Craterellus clavatus Pers.

Pileus fleshy, soft, *clavate or narrowly obconic*, turbinate, truncate or slightly depressed, nearly glabrous, yellowish, flesh white; hymenium slightly corrugated or rugose-wrinkled, *dull-purplish or brownish incarnate*; stem short, solid, pallid or yellowish; spores subelliptical, .0004 to .0005 in. long, .0002 to .0003 in. broad.

Plant 2 to 3 in. high, pileus 1 to 2 in. broad, stem 3 to 6 lines thick. Hemlock woods. Brewerton. September. Rare.

This species has not been found by me since its discovery in our State in 1878. Its corresponding species among the Chantarelles is *Cantharellus brevipes*. Its resemblance to *Clavaria pistillaris* is also noticeable. The pileus is sometimes slightly uneven or rugose, and its margin is rather obtuse and sometimes crenately irregular. The color of the hymenium is a peculiar mixture of pink, brown, lilac and purple, which is not easy to define. It sometimes approaches a pale-liver color. Fries describes it as passing from violet-flesh color to fuliginous and umber-brown. These variations in the color of the hymenium have given rise to various synonyms; for example, *Merulius violaceus* Pers., *Merulius purpurascens* Pers., *Merulius carneus* Pers., and *Merulius umbrinus* Pers. Other synonyms are *Merulius clavatus* Pers., *Clavaria truncata* Schmidt, and *Clavaria elvelloides* Wulf.

Craterellus cespitosus Pk. is a spurious species and is therefore omitted.

Sphæriaceæ.

- Cœlosphæria exilis* *Sacc.*
Fracchiæa callista *B. & C.*
Calosphæria Princeps *Sel.*
Coronophora oötheca *Sacc.*
Quaternaria Persoonii *Tul.*
Valsa Pini *Fr.*
V. Vitis *Fckl.*
V. Alni *Pk.*
V. Linderæ *Pk.*
V. subclypeata *C. & P.*
V. Americana *B. & C.*
V. truncata *C. & P.*
V. centripeta *Fr.*
V. colliculus *Wormsk.*
V. Rubi *Fckl.*
V. nivea *Fr.*
V. leucostoma *Fr.*
V. ambiens *Fr.*
V. salicina *Fr.*
V. translucens *De Not.*
Eutypella Prunastri *Sacc.*
E. stellulata *Sacc.*
E. Platani *Sacc.*
E. fraxinicola *Sacc.*
E. tumidula *Sacc.*
E. innumerabilis *Sacc.*
Eutypa Acharii *Tul.*
E. lata *Tul.*
E. spinosa *Tul.*
Diatrype disciformis *Fr.*
D. Stigma *Fr.*
D. platystoma *Berk.*
D. bullata *Fr.*
D. corniculata *B. & Br.*
D. asterostoma *B. & C.*
D. Duriei *Mont.*
Diatrypella Tocciana *De Not.*
D. aspera *Nits.*
D. discoidea *C. & P.*
D. betulina *Pk.*
D. Cephalanthi *Sacc.*
D. prominens *Howe.*
Ceratostoma rubefaciens *Sacc.*
C. piliferum *Fckl.*
Chætomium lanosum *Pk.*
C. funiculum *Cke.*
C. melioloides *C. & P.*
C. comatum *Fr.*
Sordaria coprophila *C. & D.*
S. fimiseda *C. & D.*
S. ampicornis *Ellis.*
- Sphæria exilis* *A. & S.*
S. callista *B. & C.*
Valsa pulchella *Fr.*
Sphæria oötheca *B. & C.*
Valsa quaternata *Fr.*
- Valsa Prunastri* *Fr.*
V. stellulata *Fr.*
V. Platani *Schw.*
V. fraxinicola *C. & P.*
V. tumidula *C. & P.*
V. innumerabilis *Pk.*
- Sphæria limæformis* *Schw.*
- Diatrype Tocciana* *De Not.*
D. aspera *Fr.*
D. discoidea *C. & P.*
D. betulina *Pk.*
D. Cephalanthi *Schw.*
- Sphæria rubefaciens* *Pk.*
S. piliferum *Fr.*
- Chætomium elatum* *Kze.*
Hypoxylon coprophilum *Fr.*
Sphæria fimiseda *C. & D.*
S. eximia *Pk.*

- Sordaria valsoides* Sacc.
Hypocpra leucoplaca Sacc.
Coprolepa fimeti Sacc.
Philocpra canina Sacc.
Rosellinia aquila De Not.
R. Desmazierii Sacc.
R. mutans Sacc.
R. obtusissima Sacc.
R. pulveracea Fekl.
R. sordaria Rehm.
R. hirtissima Sacc.
Bombardia fasciculata Fr.
Anthostomella Closterium Sacc.
A. rostrispora Sacc.
A. smilacinina Sacc.
Anthostoma adustum Sacc.
A. cercidicolum Sacc.
A. atropunctatum Sacc.
A. ? scoriadeum Sacc.
Xylaria polymorpha Grev.
X. corniformis Fr.
X. grandis Pk.
X. acuta Pk.
X. Hypoxylon Grev.
X. digitata Grev.
X. graminicola Ger.
X. filiformis Fr.
Ustulina vulgaris Tul.
Daldinia concentrica C. & D.
Hypoxylon coccineum Bull.
H. argillaceum Berk.
H. Howeanum Pk.
H. fuscum Fr.
H. xanthocreas B. & C.
H. cohærens Fr.
H. perforatum Schw.
H. multifforme Fr.
H. Morsei B. & C.
H. serpens Fr.
H. Sassafras Berk.
H. atropurpureum Fr.
H. rubiginosum Fr.
H. fuscopurpureum Berk.
H. smilacicum Sacc.
Nummularia discreta Tul.
N. Bulliardii Tul.
Ceratostomella rostrata Sacc.
Gnomoniella tubiformis Sacc.
G. mirabilis Sacc.
G. vulgaris Sacc.
G. curvicolla Sacc.
G. eccentrica Sacc.
- Sphæria valsoides* Pk.
S. leucoplaca B. & R.
S. fimeti Pers.
S. canina Pk.
S. aquila Fr.
S. Desmazierii B. & Br.
S. mutans C. & P.
S. obtusissima B. & C.
S. pulveracea Ehrh.
S. sordaria Fr.
S. hirtissima Pk.
S. bombardia Batsch.
S. Closterium B. & C.
S. rostrispora Ger.
S. smilacinina Pk.
Diatrype adusta C. & P.
D. cercidicola B. & C.
D. atropunctata Schw.
Sphæria scoriadea Fr.
- Hypoxylon ustulatum* Bull.
H. concentricum Bolt.
H. fragiforme Pers.
- Diatrype smilacicola* Schw.
D. discreta Schw.
Hypoxylon nummularia Bull.
Sphæria rostrata Fr.
S. tubæformis Tode.
S. mirabilis Pk.
S. Gnomon Tode.
S. curvicolla Pk.
S. eccentrica C. & P.

Gnomoniella fimbriata Sacc.

G. *Coryli* Sacc.

G. *melanostyla* Sacc.

Læstadia carpinea Sacc.

L. *fraxinicola* Sacc.

L. *brunnea* Sacc.

Physalospora minutella Sacc.

P. *ceanothina* Sacc.

Trichosphæria fissurarum Sacc.

T. *subcorticalis* Sacc.

Wallrothiella Arceuthobii Sacc.

W. *squalidula* Sacc.

Botryosphæria Quercuum Sacc.

Cryptosporella leptasca Sacc.

C. *anomala* Sacc.

Sphærella punctiformis Rabh.

S. *maculiformis* Auersw.

S. *spleniata* C. & P.

S. *orbicularis* Pk.

S. *colorata* Pk.

S. *indistincta* Pk.

S. *Impatientis* P. & C.

S. *Vaccinii* Cke.

S. *sparsa* Auersw.

S. *Sarraceniæ* Sacc.

S. *smilacicola* Cke.

Stigmatea Robertiana Fr.

Didymella Sphærellula Sacc.

D. *onosmodina* Sacc.

Melanopsamma recessa Sacc.

M. *Papilla* Sacc.

Bertia moriformis De Not.

Venturia ditricha Karst.

V. *Clintonii* Pk.

V. *compacta* Pk.

V. *Kalmiæ* Pk.

V. *orbicula* C. & P.

V. *pulchella* C. & P.

V. *Dickiei* C. & D.

V. *Myrtilli* Cke.

Endothia gyrosa Fekl.

Melanconis stilbostoma Tul.

M. *thelebola* Sacc.

Diaporthe platasca Sacc.

D. *acerina* Sacc.

D. *Woolworthii* Sacc.

D. *leiphæma* Sacc.

D. *impulsa* Sacc.

D. *Cratægi* Fekl.

D. *bicineta* Sacc.

D. *oxyspora* Sacc.

D. *obscura* Sacc.

Sphæria fimbriata Pers.

S. *Coryli* Batsch.

S. *melanostyla* Fr.

Sphærella carpinea Fr.

Depazea fraxinicola Curt.

D. *brunnea* B. & C.

Sphæria minutella Pk.

S. *ceanothina* Pk.

S. *fissurarum* B. & C.

S. *subcorticalis* Pk.

S. *Arceuthobii* Pk.

S. *squalidula* C. & P.

Melogramma Quercuum Fr.

Valsa leptasca P. & C.

Diatrype anomala Pk.

Sphæria punctiformis Pers.

S. *Sarraceniæ* Schw.

Depazea smilacicola Schw.

Dothidea Robertiana Fr.

Sphæria Sphærellula Pk.

S. *onosmodina* P. & C.

S. *recessa* C. & P.

S. *Papilla* Schw.

S. *moriformis* Tode.

S. *gyrosa* Schw.

Valsa stilbostoma Fr.

V. *thelebola* Fr.

Diatrype platasca Pk.

Valsa acerina Pk.

V. *Woolworthii* Pk.

V. *leiphæma* Fr.

V. *impulsa* C. & P.

V. *Cratægi* Curr.

V. *bicineta* C. & P.

V. *oxyspora* Pk.

V. *obscura* Pk.

- Diaporthe mucronata* Sacc.
D. salicella Sacc.
D. spiculosa Nitsch.
D. aculeata Sacc.
D. racemula Sacc.
D. Desmodii Sacc.
D. exercitalis Sacc.
D. picea Sacc.
Didymosphæria Parnassiæ Sacc.
Massariella bufonia Speg.
Parodiella perisporioides Speg.
Amphisphæria phileura Sacc.
A. salebrosa Sacc.
A. thujina Sacc.
Othia alnea Sacc.
O. seriata Sacc.
Valsaria Peckii Sacc.
V. moroides Sacc.
Massaria Corni Sacc.
M. Argus Tul.
M. vomitoria B. & C.
Leptosphæria Doliolum De Not.
L. subconica Sacc.
L. viridella Sacc.
L. ramulicola Sacc.
L. scapophila Sacc.
L. sorghophila Sacc.
L. orthogramma Sacc.
L. culmifraga C. & D.
L. Crepini De Not.
L. Marcyensis Sacc.
L. taxicola Sacc.
L. platanicola Sacc.
Clypeosphæria Hendersoniæ Sacc.
Chætosphæria leonina Sacc.
C. phæostromoides Sacc.
Melanomma pulvis-pyrius Fekl.
Trematosphæria pertusa Fekl.
Sporormia minima Auersw.
Aglaospora profusa Lamb.
Pseudovalsa bicornis Sacc.
P. lancif. v. elliptica Pk.
P. sambucina Sacc.
P. hapalocystis Sacc.
Melogramma vagans De Not.
Metasphæria Semen Sacc.
M. staphylina Sacc.
Lasiosphæria hirsuta C. & D.
L. cæsariata Sacc.
L. viridicoma Sacc.
L. canescens Karst.
L. xestothele Sacc.
Valsa mucronata Pk.
Sphæria salicella Fr.
S. spiculosa Pers.
S. aculeata Schw.
S. racemula C. & P.
S. Desmodii Pk.
S. exercitalis Pk.
S. picea Pers.
S. Parnassiæ Pk.
Massaria bufonia Tul.
Sphæria perisporioides B. & C.
S. phileura C. & P.
S. salebrosa C. & P.
S. thujina Pk.
Cucurbitaria alnea Pk.
C. seriata Pk.
Valsa Peckii Howe.
Diatrype moroides C. & P.
Massaria gigaspora Desm.

Sphæria Doliolum Pers.
S. subconica C. & P.
S. viridella Pk.
S. ramulicola Pk.
S. scapophila Pk.
S. sorghophila Pk.
S. orthogramma B. & C.
S. culmifraga Desm.
S. Crepini West. ¶
S. Marciensis Pk.
S. taxicola Pk.
S. platanicola Howe.
S. Hendersoniæ Ellis.
S. leonina C. & P.
S. phæostromoides Pk.
S. pulvis-pyrius Pers.
S. pertusa Pers.
S. minima Auersw.
Valsa profusa Fr.
Melanconis bicornis Oke.
M. elliptica Pk.
Valsa sambucina Pk.
V. hapalocystis B. & Br.
Melogramma Bulliardii Tul.
Sphæria Semen C. & P.
S. staphylina Pk.
S. hirsuta Fr.
S. cæsariata C. & P.
S. viridicoma C. & P.
S. canescens Pers.
S. xestothele B. & C.

- Lasiosphæria* *Pezizula* *Sacc.*
L. spermoides *C. & D.*
L. ovina *C. & D.*
Acanthostigma *Clintonii* *Sacc.*
Zignoella *exigua* *Sacc.*
Pleospora *herbarum* *Rabh.*
Pyrenophora *phæocomes* *Sacc.*
Lullella *monosperma* *Sacc.*
Teichospora *obducens* *Fekl.*
T. interstitialis *Sacc.*
T. phellogena *Sacc.*
Cucurbitaria *elongata* *Grev.*
C. Berberidis *Gray.*
Thyridium *Spraguei* *Sacc.*
Fenestella *superficialis* *Sacc.*
F. Xanthoxyli *Sacc.*
Ophiobolus *fulgidus* *Sacc.*
O. porphyrogonus *Sacc.*
O. acuminatus *Duby.*
O. Urticæ *Sacc.*
Sillia *ferruginea* *Karst.*
Cryptospora *suffusa* *Tul.*
C. femoralis *Sacc.*
C. cinctula *Sacc.*
C. trichospora *Sacc.*
- Sphæria* *Pezizula* *B. & C.*
S. spermoides *Hoffm.*
S. ovina *Pers.*
S. Clintonii *Pk.*
S. exigua *C. & P.*
S. herbarum *Pers.*

S. monosperma *Pk.*
S. obducens *Fr.*
S. interstitialis *C. & P.*
S. phellogena *B. & C.*
S. elongata *Fr.*

S. Spraguei *B. & C.*
Melogramma *superficialis* *P. & C.*
Valsa *Xanthoxyli* *Pk.*
Sphæria *fulgida* *C. & P.*
S. rubella *Pers.*
S. acuminata *Sow.*
S. Urticæ *Rabh.*
Diatrype *ferruginea* *Fr.*
Valsa *suffusa* *Fr.*
V. femoralis *Pk.*
V. cinctula *C. & P.*
V. trichospora *C. & P.*

Hypocreaceæ.

- Nectriella* *mycetophila* *Sacc.*
Melanospora *lagenaria* *Fekl.*
Hypomyces *lateritius* *Tul.*
H. Lactiflorum *Tul.*
H. floccosus *Fr.*
H. ochraceus *Tul.*
H. aurantius *Fekl.*
H. Van Bruntianus *Ger.*
H. polyporinus *Pk.*
H. transformans *Pk.*
Hypocrea *rufa* *Fr.*
H. Patella *C. & P.*
H. chromosperma *C. & P.*
H. gelatinosa *Fr.*
H. contorta *Schw.*
H. Richardsoni *B. & M.*
H. citrina *Fr.*
H. alutacea *C. & D.*
H. apiculata *C. & P.*
Nectria *Ribis* *Rabh.*
N. cinnabarina *Fr.*
N. Celastri *Schw.*
N. cucurbitula *Fr.*
N. sanguinea *Fr.*
- Nectria* *mycetophila* *Pk.*
Sphæria *lagenaria* *Pers.*
Hypocrea *lateritia* *Fr.*
H. Lactiflorum *Schw.*
H. floccosa *Fr.*

Hysteriaceæ.

- Aulographum subconfluens* *Pk.*
Glonium stellatum *Muhl.*
G. parvulum *Ger.*
G. simulans *Ger.*
G. hyalospermum *Ger.*
G. lineare *De Not.*
Angelina rufescens *Duby.*
Hysterium pulicare *Pers.*
H. angustatum *A. & S.*
H. truncatulum *C. & P.*
H. ellipticum *Fr.*
H. macrosporum *Pk.*
H. Thuiarum *C. & P.*
H. magnosporum *Ger.*
H. Azaleæ *Schw.*
H. riminolum *Schw.*
Mytilidion tortile *Sacc.*
Dichæna faginea *Fr.*
Gloniopsis australis *Sacc.*
Hystero-graphium Fraxini *De Not.*
H. insidens *Sacc.*
H. Roussellii *Sacc.*
H. variabile *Sacc.*
H. vulvatum *Rehm.*
Hypoderma ilicinum *De Not.*
H. nervisequum *DC.*
H. Desmazieri *Duby.*
H. lineare *Pk.*
H. virgultorum *DC.*
H. commune *Duby.*
H. scirpinum *DC.*
H. Smilacis *Rehm.*
Lophodermium exaridum *C. & P.*
L. maculare *De Not.*
L. hysteroioides *Sacc.*
L. sphærioides *Duby.*
L. Pinastris *Chev.*
L. typhinum *Lamb.*
Lophium mytilinum *Fr.*
Colpoma morbidum *Sacc.*
C. lacteum *Pk.*
Acrospermum compressum *Tode.*
- Hysterium lineare* *Fr.*
Ascobolus conglomeratus *Schw.*
- Dothidea rimincola* *Schw.*
Hysterium tortile *Schw.*
- H. australis* *Duby.*
H. Fraxini *Pers.*
H. insidens *Schw.*
H. Roussellii *De Not.*
H. variabile *C. & P.*
H. vulvatum *Schw.*
H. ilicinum *De Not.*
- Rhytisma lineare* *Pk.*
- Hysterium commune* *Fr.*
H. scirpinum *Fr.*
H. Smilacis *Schw.*
- H. maculare* *Fr.*
H. xylomoides *Chev.*
H. sphærioides *A. & S.*
H. Pinastris *Schrad.*
H. typhinum *Fr.*
- Triblidium morbidum* *Pk.*

NEW YORK SPECIES OF VISCID BOLETI.

BOLETUS *Dill.*

Hymenium composed of separable tubes crowded into a porous stratum, without a trama, distinct and easily separable from the hymenophore. Mouths of the tubes either porous, round or angular; spores normally fusiform, rarely oval or subrotund. *Terrestrial, fleshy, putrescent, centrally stipitate fungi. Many of them valuable for their edible qualities, a few poisonous. Hym. Europ., p. 495.*

This genus is related to Paxillus on one hand and to Polyporus on the other. It is more accurately limited than many others, but its species are numerous and less clearly defined. Some are very variable, others are too closely allied to be readily distinguished. Fries remarks that "no genus has given me more trouble than that of the Boleti." The difficulty is apparently due to the imperfect descriptions given by some authors and to the variability of some species whose limits have not been well ascertained.

Most of the Boleti grow in the warmest part of the season, and especially in very warm showery weather. They are scarce in dry weather. Some species attain a very large size, others exhibit a singular change of color in their tubes or flesh when cut or bruised. They are described as terrestrial, yet a few species sometimes occur also on much decayed wood.

The spores vary in color in different species, but this variation occurs in closely related species, so that it is not deemed available for classifying in series as in the genus Agaricus. It is, however, valuable as a specific character and should always be noted. Fries has taken the primary color of the tubes as the distinguishing character of the series, but the same objection holds in this case as in the other.

New York is rich in species of this genus. Two sections, LACERPEDES Pk. (Torr. Bull. 1883, p. 73) and HIRTIPELLES Pk. (in. ed.) are represented, of which no examples appear to have occurred in Europe. We attempt here an exposition of the species of the Viscipelles, the first section in the Friesian arrangement.

VISCIPELLES. *Pileus covered with a viscose pellicle.* Stem solid, neither bulbous nor reticulated with veins. Tubes adnate to the stem, rarely sinuate, of one color. *Hym. Europ.*, p. 496.

In this section the species have the pileus either viscid or glutinous when moist, and in most of them the viscid pellicle is separable from the flesh. The flesh, when cut or exposed to the air does not, with one exception, assume the bluish tints so often seen in some of the members of other sections, yet in some, dull-pinkish or more obscure tints appear. In mature plants it generally becomes soft, almost floccose or cottony in texture. The tubes are mostly adnate or even slightly decurrent. In rare instances they may be somewhat depressed around the stem. The pores are usually of medium or large size and frequently angular. The dissepiments are often uneven or dentate. The mouths are colored like the rest of the tubes. Yellow or ochraceous hues prevail, but the tubes when young are paler than when mature. The stem is not distinctly bulbous, is always solid and generally glabrous or merely dotted. It is annulate in some, naked in others. In several closely related central species of the group it, as well as the tubes, exudes, when young, drops of a thick, gummy fluid, which soon hardens, becomes darker and forms sugary granules or glandular dots. The color of the spores is by no means uniform, but it is some shade of ochraceous, ferruginous or brown. The first and last species here described are exceptional by their slight viscosity. The first is also exceptional by its universal tomentose-pulverulent veil. Several species are edible. Nearly all occur in regions inhabited by pine or other coniferous trees, and are wanting in localities destitute of these trees.

Synopsis of the Species.

Stem annulate.	1.
Stem not annulate.	6.
1 Cuticle of the pileus red.	2.
1 Cuticle of the pileus not red.	3.
2 Pileus either wholly or on the margin yellow-pulverulent.	B. Ravenelii.
2 Pileus squamose.	B. spectabilis.
3 Young tubes whitish.	B. Elbensis.
3 Young tubes yellow.	4.
4 Stem not dotted.	B. Clintonianus.
4 Stem dotted.	5.
5 Stem 5 lines or more thick, annulus not glutinous.	B. luteus.
5 Stem less than 5 lines thick, annulus glutinous.	B. subluteus.
6 Stem dotted.	7.
6 Stem not dotted.	9.

- | | |
|---|----------------|
| 7 Pileus yellow. | 8. |
| 7 Pileus not clear yellow. | B. granulatus. |
| 8 Stem rhubarb color. | B. punctipes. |
| 8 Stem yellow, 4 lines or more thick. | B. subaureus. |
| 8 Stem generally yellow, less than 4 lines thick. | B. Americanus. |
| 9 Pileus bay-brown or chestnut color. | 10. |
| 9 Pileus some other color. | B. piperatus. |
| 10 Pileus very glutinous, stem very short. | B. brevipes. |
| 10 Pileus merely viscid when moist, stem longer. | B. badius. |

Boletus Ravenelii B. & C.

Ravenel's Boletus.

Pileus convex or nearly plane, slightly viscid when young or moist, at first covered with a sulphur-yellow pulverulent tomentum, the disk at length naked, dull-red, flesh whitish, sometimes with yellowish strains; tubes at first plane, adnate, pale-yellow, at length yellowish-brown or umber, sometimes becoming convex and slightly depressed around the stem, dingy-greenish when bruised, medium size, subrotund; stem nearly equal, clothed and colored like the young pileus, yellow within, with a slight somewhat evanescent tomentose annulus; spores ochraceous-brown, .0004 to .0005 in. long, .0002 to .00025 broad.

Plant solitary, rarely cæspitose, pileus 1 to 3 in. broad, stem 1.5 to 4 in. long, 3 to 6 lines thick.

Woods and copses. Rensselaer, Saratoga and Fulton counties.

This is a very distinct and beautiful species. Mr. Ravenel remarks in his notes that "this plant is not infested by larvæ, and preserves more constant characters than any other Boletus with which I am acquainted." The webby powdered filaments constitute a universal veil, which at first covers the whole plant and conceals the young tubes. As the pileus expands, the veil generally disappears from the disk and ruptures between the margin and the stem, a part adhering to each. In consequence of the peculiar veil and the slight viscosity of the pileus the species does not harmonize well with the associated species, and but for the slight annulus it might as well be placed near *B. piperatus*. The annulus is sometimes stained by the spores. These, when caught on white paper, at first appear to have a slight greenish tint.

Boletus spectabilis Pk.

Showy Boletus.

Pileus broadly convex, at first covered with a red tomentum, then squamose, viscid when moist, red, the tomentose scales becoming grayish-red, brownish or yellowish, flesh whitish or pale-yellow; tubes

at first yellow, concealed by a reddish glutinous membrane, then ochraceous, convex, *large, angular*, adnate; stem nearly equal, annulate, yellow above the annulus, red or red with yellow stains below; spores *purplish-brown*, .0005 to .0006 in. long, .00025 to .00028 broad.

Pileus 2 to 5 in. broad, stem 3 to 5 in. long, 4 to 6 lines thick.

Thin woods in swamps. Adirondack mountains. August.

This rare and showy species is at present known only from two localities, North Elba, where it was first discovered in 1869, and at Jacksons, near Cedar river, where it occurred in 1878. When cut the flesh emits a strong, unpleasant odor. Wounds of the flesh, made by insects or small animals, had a bright-yellow color. When young, the tomentose veil covers the whole plant, but it soon breaks up into scales on the pileus, and partly or wholly disappears from the stem. The color of the spores is darker than in any of the other species of this section.

Boletus Elbensis *Pk.*

Elba Boletus.

Pileus gibbous or convex, smooth, viscid when moist, *dingy-gray* or *pinkish-gray*, obscurely virgate-spotted, flesh white; tubes at first *whitish*, nearly plane, adnate or slightly decurrent, rather large, angular, becoming dingy or brownish-ochraceous; stem nearly equal, annulate, *whitish above the annulus*, colored like the pileus below, sometimes slightly reticulated at the apex by the decurrent walls of the tubes; spores *ferruginous-brown*, .0004 to .0005 in. long, .00016 to .0002 broad.

Plant subgregarious, pileus 2 to 4 in. broad, stem 3 to 5 in. long, 4 to 6 lines thick.

Thin woods of larch, spruce and balsam. Adirondack mountains. July to September.

This species is so closely related to the European *B. laricinus*, that it might almost be regarded as a variety of that species. I have separated it because of its smooth pileus and stem. I have never seen the former squamose, nor the latter scrobiculate. From *B. viscidus* it differs decidedly in its coloration.

Boletus Clintonianus *Pk.*

Clinton's Boletus.

Pileus thick, convex, very viscid or glutinous, smooth, soft, shining, varying in color, *golden-yellow, reddish yellow* or *chestnut-color*, the margin thin, flesh pale-yellow, becoming less bright or dingy on exposure to the air; tubes nearly plane, adnate or subdecurrent, small,

angular or subrotund, pale-yellow when young, becoming dingy-ochraceous, changing to purplish-brown where bruised; stem equal or slightly thickened at the base, straight or flexuous, annulate, *yellow at the apex*, elsewhere reddish or reddish-brown, sometimes stained with yellow, slightly reticulate at the apex by the decurrent walls of the tubes, annulus *whitish or yellow, persistent*, forming a thick tomentose band about the stem; spores *brownish-ochraceous*, .0004 to .00045 in. long, .00016 to .0002 broad.

Plant single or rarely cæspitose, pileus 2 to 5 in. broad, stem 2 to 5 in. long, 4 to 9 lines thick.

Mossy ground in woods and grassy ground in open places; generally under or near larch trees.

This fine species is apparently the American analogue of the European *B. elegans*, from which it differs in its generally darker color, in its persistent, not fugacious, annulus, and in its stem, which is not at all dotted, either above or below the annulus. It is edible, and has a mild taste in the fresh uncooked state. It has occurred once in Washington Park, Albany, near some larch trees, with which it was probably introduced.

Boletus luteus L.

Yellow-brown Boletus.

Pileus gibbous or convex, sometimes nearly plane, viscid or glutinous when moist, virgate-spotted, yellowish-brown, flesh white or yellowish; tubes small, simple, adnate, at first pale-yellow, then dingy-ochraceous; stem *stout*, rather short, annulate, *rough with dots and yellowish above the ring*, brownish-white or yellowish below, the annulus *large, membranous*, whitish or brownish-white; spores ochraceo-ferruginous, nearly fusiform, .0003 in. long, .00015 broad.

Gregarious or rarely subcæspitose, pileus 2 to 5 in. broad, stem 1 to 2 in. long, 5 to 8 lines thick.

Under pine trees, *Pinus sylvestris*. Menands. October.

This is the only instance in which I have observed this species in our State. Possibly it may have been introduced in this place with the young pines under which it was growing. Its annulus is very conspicuous. It is sometimes torn and partly adherent in fragments to the margin of the pileus. In short-stemmed specimens it extends downwards and covers the lower part of the stem like a sheath, resembling in this respect the western *Boletus sphaerosporus*, a related species. In other specimens it forms a broad band with the upper margin widely spreading. In the dried specimens the pileus has assumed a dull-brownish or reddish-brown hue. The plant is edible.

Boletus subluteus *n. sp.*

Small Yellowish Boletus.

Pileus convex or nearly plane, viscid or glutinous when moist, sometimes obscurely virgate-spotted, dingy-yellowish inclining to ferruginous-brown, flesh whitish varying to dull-yellowish; tubes plane or convex, adnate, small, subrotund, yellow, becoming ochraceous; stem equal, *slender*, annulate, pallid or yellowish, *marked both above and below the annulus with reddish or brownish glandular dots*, annulus submembranous, *glutinous*, at first concealing the tubes, then *collapsing and forming a narrow whitish or brownish band* about the stem; spores ochraceo-ferruginous, subfusiform, .0003 to .0004 in. long, .00016 to .0002 broad.

Solitary or gregarious, pileus 1.5 to 3 in. broad, stem 1.5 to 2.5 in. long, 2 to 4 lines thick.

Sandy soil in pine woods or groves. Albany and Lewis counties. September and October.

In the Twenty-third Report this fungus was referred as an aberrant form to *B. luteus*, which it much resembles in its general characters. But I find it so constant in its peculiar features that I am disposed to regard it as a distinct species. It differs from *B. luteus* in its smaller size, more slender stem and glutinous collapsing annulus. This never extends downwards so as to sheathe the lower part of the stem, but forms a narrow band with scarcely any spreading margin. Besides the stem is conspicuously dotted both above and below the annulus. The markings of the pileus in this species, *B. luteus* and *B. Elbensis* are similar and resemble little patches of innate brownish fibrils. The species is probably edible, but I have not tested it.

Boletus Americanus *n. sp.*

American Boletus.

Pileus thin, convex or nearly plane, soft, very viscid or glutinous when moist, slightly *tomentose on the margin when young*, soon glabrous or slightly squamose on the margin, rarely wholly squamose-spotted from the drying of the gluten, pale-yellow, becoming dingy or less bright with age, sometimes vaguely dotted or streaked with bright-red, flesh pale-yellow, less clear or pinkish-gray on exposure to the air; tubes plane or convex, adnate, *rather large*, angular, pale-yellow, becoming sordid-ochraceous; stem *slender*, equal or slightly tapering upwards, firm, *not at all annulate*, yellow, sometimes pallid or brownish toward the base, marked with numerous brown or

reddish-brown glandular dots, yellow within; spores *ochraceo-feruginous*, oblong or subfusiform, .00035 to .00045 in. long, .00016 to .0002 broad.

Gregarious, pileus 1 to 3 in. broad, stem 1.5 to 2.5 in. long, 2 to 4 lines thick.

Under or near pine trees in woods and open places. Very common. July to October.

This is one of our most common species. It is generally associated with *B. granulatus*, from which it is easily distinguished by its thinner pileus, yellow color and more slender stem. As in that and other related species, the stem and tubes exude drops of a turbid milk or juice which hardens and forms the glandular dots seen on them. These are sometimes so numerous that they become confluent. By them and the viscosity of the pileus in this and allied species the fingers become stained in handling the fresh plants. The species is closely related to the European *B. flavidus*, to which our plant has commonly been referred by American mycologists, and under which name it stands in the Twenty-third Report. I am satisfied by more recent investigation that it should be kept distinct, inasmuch as it constantly differs in the character of the veil and the dots of the stem. In *B. flavidus* the stem is described as sprinkled with fugacious glandules above the merely viscous annulus. In *B. Americanus* the stem is dotted from top to base with persistent glandules, there is no appearance of an annulus on it and the veil is somewhat tomentose on the margin of the young pileus. The plant has a slight subacid odor which is perceptible even in the dried specimens. The mycelium is white.

Boletus subaureus *Pk.*

Pale-golden Boletus.

Pileus convex, becoming nearly plane, soft, viscose, *pale-yellow or golden-yellow*, sometimes adorned with darker spots or small tufts of hairs, the margin in the young plant slightly grayish-tomentose, flesh pale-yellow; tubes small or medium size, somewhat angular, adnate or subdecurrent, pale-yellow, becoming dingy-ochraceous; stem equal, *stout*, glandular-dotted, *yellow without and within*; spores *ochraceous-brown*, oblong or subfusiform, .00035 to .0004 in. long, .00016 broad.

Plant gregarious or rarely cæspitose, pileus 2 to 4 in. broad, stem 1.5 to 2.5 in. long, 4 to 6 lines thick.

Thin woods. Albany and Saratoga counties. July to October.

This species resembles *B. Americanus* in color, but differs from it in its thicker pileus, stouter stem and differently colored spores. These have nearly the same color as those of *B. Ravenelii*. In its more robust habit it approaches *B. granulatus*. The minute hairy squamules of the pileus are a peculiar feature, but they are not always present. The glandular dots occur also on the tubes.

Boletus punctipes *Pk.*

Punctate-stemmed Boletus.

Pileus convex or nearly plane, glutinous when moist, yellow, the thin margin at first minutely grayish-pulverulent, becoming recurved with age; tubes short, nearly plane, adnate, small, subrotund, *at first brownish*, becoming sordid-ochraceous; stem rather long, *tapering upwards*, not annulate, glandular-dotted, *rhubarb-yellow*; spores .00035 to .0004 in. long, .00016 to .0002 broad.

Plant gregarious, pileus 2 to 3 in. broad, stem 2 to 3 in. long, 3 to 5 lines thick.

Woods. Gansevoort, Saratoga county. August.

The rhubarb-colored stem and the brownish color of the young hymenium are the distinguishing features of this species. The granulations occur also on the tubes. The species is a rare one, having been found but once.

Boletus' albus *Pk.*

White Boletus.

Pileus convex, viscid when moist, *white*, flesh white or yellowish; tubes plane, rather small or medium size, subrotund, adnate, whitish, becoming yellow or ochraceous; stem equal or slightly tapering downwards, not annulate, both it and the tubes glandular-dotted, white, sometimes tinged with pink towards the base; spores *ochraceous*, subfusiform, .0003 to .00035 in. long, .00016 broad.

Plant gregarious or subcæspitose, pileus 1.5 to 3 in. broad, stem 1.5 to 3 in. long, 3 to 5 lines thick.

Pine or hemlock woods. Saratoga county and Adirondack mountains. August to October.

This species is easily known by its white pileus. This, however, becomes dark-colored or brown in drying. The fresh plant sometimes has a peculiar fetid odor, but it does not appear to be constant. *Boletus Boudieri* Q. is a closely related European species. Another European species bears the name *Boletus albus* Gillet, but the name of the American plant, which was published in 1873, has priority.

Boletus granulatus L.

Granulated Boletus.

Pileus thick, convex or nearly plane, very viscid or glutinous when moist, variable in color, *pinkish-gray, reddish-brown, yellowish, tawny-ferruginous or brownish*, flesh white or tinged with yellow; tubes nearly plane, adnate, *small*, at first whitish or very pale-yellow, becoming dingy-ochraceous; stem subequal, rather short, not annulate, both it and the tubes marked with glandular dots, whitish or pallid, sometimes yellowish; spores *ochraceo-ferruginous*, subfusiform, .0003 to .00035 in. long, .00016 broad.

Plant gregarious, pileus 1.5 to 3 in. broad, stem 1 to 2 in. long, 4 to 6 lines thick.

Woods, especially of pine, and in open places. Very common. July to October.

The pileus in this species is very variable in color, but it is never wholly white as in the preceding species. Its stem is often dotted to the base, but the dots or granules are generally more numerous and distinct on the upper part. This and *B. Boudieri* appear to be the only European species with exannulate glandular-dotted stems. If we have correctly valued our forms, New York alone has five such species. It is true, they are closely related to each other, and might be regarded by some as mere varieties of a single extremely variable species, but to me the distinguishing characters here given appear to be constant and decisive.

B. granulatus is recorded as edible by most authors. I have not tested it. Gillet remarks that it ought to be regarded at least with suspicion. *B. collinitus* in the Twenty-third Report, *B. flavorufus* Schæff., *B. lactifluis* Sow. and *B. circinans* Pers. are synonyms.

Boletus brevipes Pk.

Short-Stemmed Boletus.

Pileus thick, convex, covered with a *thick, tough gluten* when young or moist, *dark-chestnut color*, sometimes fading to dingy-tawny, the margin inflexed, flesh white or tinged with yellow; tubes short, nearly plane, adnate, small, subrotund, at first whitish, then yellowish, becoming dingy-ochraceous; stem *very short*, not annulate, whitish, *not dotted or rarely with a few very minute and inconspicuous dots at the apex*; spores subfusiform, .0003 in. long, .00012 broad.

Solitary or gregarious, pileus 1.5 to 2.5 in. broad, stem .5 to 1 in. long, 3 to 5 lines thick.

Sandy soil in pine woods. Albany county. October.

EXPLANATION OF PLATE 1.

Ombrophila rubella *Quel.*

- Fig. 1. Fragment of bark bearing the fungus.
- Fig. 2. A plant and its matrix magnified.
- Fig. 3. A branched filament bearing four clusters of spores magnified.
- Fig. 4. Five spores, $\times 400$.

Geoglossum vitellinum *Bres.*

- Fig. 5. Five plants of various forms.
- Fig. 6. Three asci; two containing spores and two united below.
- Fig. 7. Four spores, $\times 400$.

Periconia albiceps *Pk.*

- Fig. 8. Piece of a stem bearing the fungus.
- Fig. 9. Two plants magnified.
- Fig. 10. Filaments of the head; two of them bearing spores, $\times 400$.
- Fig. 11. Four spores, $\times 400$.

Helotium fraternum *Pk*

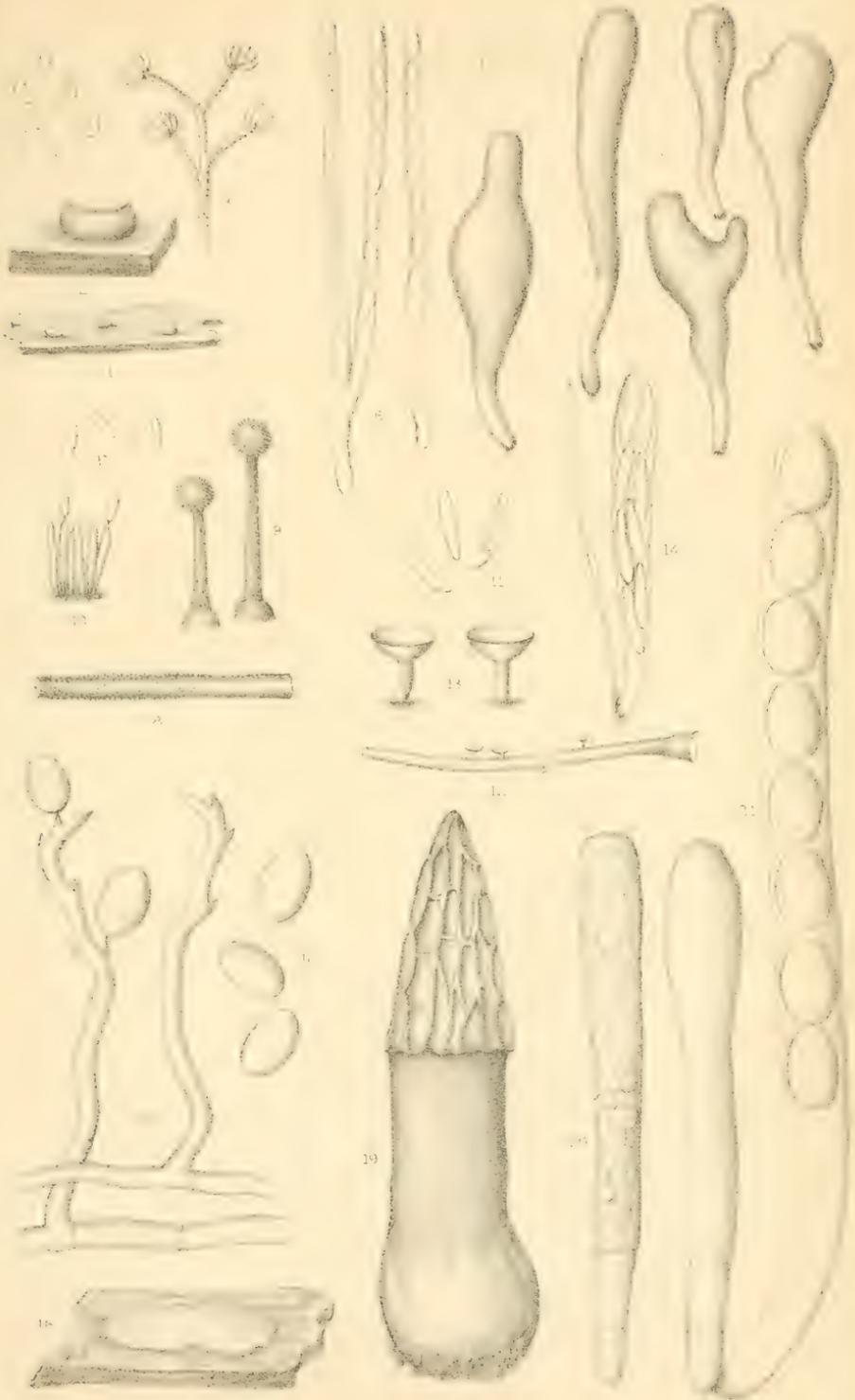
- Fig. 12. A petiole bearing four examples of the fungus.
- Fig. 13. Two plants magnified.
- Fig. 14. A paraphysis and an ascus containing spores, $\times 400$.
- Fig. 15. Three spores, $\times 400$.

Acremonium flexuosum *Pk.*

- Fig. 16. A piece of wood bearing the fungus.
- Fig. 17. Branching filaments; one of them bearing two spores, $\times 400$.
- Fig. 18. Three spores, $\times 400$.

Morchella angusticeps *Pk.*

- Fig. 19. A plant of medium size.
- Fig. 20. Two undeveloped asci; one containing crowded nuclei, $\times 400$.
- Fig. 21. An ascus containing spores, $\times 400$.





EXPLANATION OF PLATE 2.

***Peziza leucobasis* Pk.**

- Fig. 1. A piece of wood bearing the fungus.
Fig. 2. A plant magnified.
Fig. 3. A paraphysis and an ascus containing spores, $\times 400$.

***Peziza orbicularis* Pk.**

- Fig. 4. A plant and its matrix.
Fig. 5. A paraphysis and an ascus containing spores, $\times 400$.
Fig. 6. Three spores, $\times 400$.

***Gorgoniceps turbinata* Sacc.**

- Fig. 7. Piece of a branch bearing the fungus.
Fig. 8. A plant magnified.
Fig. 9. A paraphysis and an ascus containing spores, $\times 400$.
Fig. 9'. A spore, $\times 400$.

***Glomerularia Corni* Pk.**

- Fig. 10. A leaf spotted by the fungus.
Fig. 11. Short branching flocci, $\times 400$.
Fig. 12. Flocci and spores, $\times 400$.
Fig. 13. A mass of adhering spores, $\times 400$.
Fig. 14. A single spore, $\times 400$.

***Peziza longipila* Pk.**

- Fig. 15. Piece of a stem bearing the fungus.
Fig. 16. Two plants magnified.
Fig. 17. A hair from the cup, $\times 400$.
Fig. 18. A paraphysis and two asci containing spores, $\times 400$.
Fig. 19. Five spores, $\times 400$.

***Boletus rubinellus* Pk.**

- Fig. 20. A plant of medium size.
Fig. 21. Vertical section of a pileus and upper part of the stem.
Fig. 22. Four spores, $\times 400$.

***Collybia hygrophoroides* Pk.**

- Fig. 23. A young plant.
Fig. 24. An older plant with the pileus more expanded.
Fig. 25. Vertical section of a pileus and upper part of the stem.
Fig. 26. Five spores, $\times 400$.

