











William Tully's
COMPENDIUM

FLORÆ PHILADELPHICÆ:

CONTAINING A DESCRIPTION

OF THE

INDIGENOUS AND NATURALIZED PLANTS

FOUND

WITHIN A CIRCUIT OF TEN MILES AROUND

PHILADELPHIA.

BY

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IN TWO VOLUMES.

VOL. II.

PHILADELPHIA:

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.....
1818.

Eastern District of Pennsylvania, to wit :

BE IT REMEMBERED, That on the ninth day of July, in the forty-third year of the Independence of the United States of America, A. D. 1818, William P. C. Barton, M. D. of the said District, hath deposited in this office the title of a Book, the right whereof he claims as author, in the words following, to wit:

“Compendium Floræ Philadelphicæ : Containing a description of the Indigenous and Naturalized Plants found within a circuit of ten miles around Philadelphia. By William P. C. Barton, M. D. Surgeon in the U. States’ Navy, and of the Naval Hospital at Philadelphia ; and Professor of Botany in the University of Pennsylvania. In two volumes.”

In conformity to the act of the congress of the United States, entitled “ An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned ;” and also to the act entitled, “ An Act supplementary to an act entitled, ‘ An Act for the encouragement of learning, by securing the copies of maps, charts, and books to the authors and proprietors of such copies, during the times therein mentioned,’ and extending the benefits thereof to the arts of designing, engraving and etching historical and other prints.”

D. CALDWELL,
Clerk of the Eastern District of Pennsylvania.

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1818
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POLYANDRIA.

TILIA.	HYPERICUM.
HELIANTHEMUM.	ELODEA.
PORTULACA.	MAGNOLIA.
CHELIDONIUM.	LIRIODENDRON.
SANGUINARIA.	PORCELIA.
PODOPHYLLUM.	CLEMATIS.
ACTÆA.	ANEMONE.
SARRACENIA.	THALICTRUM.
NUPHAR.	HYDRASTIS.
NYMPHÆA.	CALTHA.
AQUILEGIA.	HEPATICA.
CIMICIFUGA.	RANUNCULUS.
ASCYRUM.	BRASENIA.
	CYAMUS.

CLASS XII.—POLYANDRIA.

ORDER I. MONOGYNIA.

237. TILIA. Gen. pl. 894. (*Tiliaceæ.*)

Calix inferior, 5-parted, deciduous. *Petals* 5. Immature *capsule* 5-celled, 5-valved, cells 1 or 2-seeded; mature capsule coriaceous, globose, 1-seeded, bursting at the base.—*Nutt.*

glabra.

1. *T.* leaves suborbiculate, cordate, abruptly acuminate, narrowly serrate, subcoriaceous, smooth; petals truncate at the end, crenate, the style nearly equal to the petals; nut ovate, subcositate.—*Ventenat.*

T. *Americana*, Willd.

T. *Caroliniana*, Wangh. Amer. 56. (Pursh.)

T. *Canadensis*, Mich.

Icon. Mich. Arbr. forest. vol. 3. p. 311. t. 1.

Lime-tree. Linden-tree. Bass-wood. Spoon-wood.

A well-known tree under the above appellations. Frequent on the country seats of this neighbourhood, and planted occasionally in the streets of this city. $\frac{1}{2}$. May, June.

238. HELIANTHEMUM. Juss. Gen. pl. 326. (*Cisti.*)

Segments of the *calix* mostly unequal, the 2 exterior smaller. *Petals* 5. *Capsule*, superior, 1-celled, 3-valved, valves septiferous in the centre.—*Nutt.*

Canadense.

1. *H.* without stipules, erect; leaves alternate, erect, linear-lanceolate, flat, tomentose beneath; racemes terminal, few-flowered; calicine seg-

ments broad, ovate-acuminate; capsules shorter than the calix.—*Willd.* and *Pursh.*

Cistus Canadensis, L.

Rock-rose.

From ten inches to a foot high. Flowers large, yellow; petals spreading. In dry woods, Jersey, every where common. Perennial. June.

2. *H.* without stipules, erect, powdery-tomentose; ^{ramuliflorum.} leaves alternate, oblong, acute, revolute on the margin, tomentose beneath; racemes very short, above sub-3-flowered, calicine segments orbiculate-powdery, capsules globose, the length of the calix.—*Mich.* and *Pursh.*

Mecandra ramis alternis, Clayt. fl. Virg. 20.

From a span to ten inches high. An ordinary looking plant, with very small flowers, also yellow. In sandy commons and fields of Jersey, about five or eight miles below the city, frequent. In a sandy, grassy lawn, Jersey, about a quarter of a mile south-east of the ferry, opposite Gloucester point; very abundant. Perennial. July.

3. *H.* without stipules, erect, branched, finely pubescent; ^{corymbosum.} leaves alternate, lanceolate, hoary-tomentose beneath; corymbs fastigiate, crowded, many-flowered; calicine segments ovate-acute; capsules scarcely longer than the calix.—*Mich.*

Resembles No. 2, exceedingly. Flowers sometimes apetalous, in which state it resembles *Lechea major*. Grows with No. 2. Perennial. June to August.

239. PORTULACA. Gen. pl. 824. (*Portulacacee.*)

Calix inferior, bifid. *Petals* 5. *Capsule* 1-celled, opening circularly. *Receptacle* unconnected, 5-lobed.—*Nutt.*

1. *P.* leaves cuneiform, flowers sessile.—*Willd.* ^{oleracea.}
Icon. Schkuhr. handb. 130. (*Pursh.*)

POLYANDRIA, MONOGYNIA.

Purslane.

A well-known pot-herb, common in gardens and wastes. July.

240. CHELIDONIUM. Gen. pl. 880. (*Papaveraceæ.*)

Calix 2-leaved, deciduous. *Petals* 4. *Stigma* small and bifid, sessile. *Silique* superior, 2-valved, 1-celled, linear. *Dissepiment* none. *Seeds* many, crested.—*Nutt.*

majus.

1. *C.* leaves alternate, pinnate, lobate; umbels axillary, pedunculated.—*Willd.*

Icon. Fl. Dan. 542. Engl. Bot. 1581.

Celandine.

As well-known as the preceding, and equally common among rubbish; and, along the banks of the Wissahickon and Schuylkill, appearing to grow wild. It is however introduced, though completely naturalized. It is hardly necessary to mention the reputed power of the juice of this plant, which is so universally believed to cure warts. It is, for this purpose inefficacious. Perennial, May.

241. SANGUINARIA. Gen. pl. 878. (*Papaveraceæ.*)

Calix 2-leaved, deciduous. *Petals* 8. *Stigma* sessile, 2-grooved. *Capsule* superior, oblong, 1-celled, 2-valved, apex attenuated. *Receptacles* 2, filiform, marginal.—*Nutt.*

Canadensis.

1. *S.* leaves subreniform, sinuate-lobate, scape one-flowered.—*Willd.*

Icon. Bot. Mag. 162. Bart. Veg. Mat. Med.

U. S. vol. 1. t. 2.

Blood-root. Puccoon. Indian Paint. Turmeric, &c.

This elegant plant is admirable for its delicacy, and interesting from the circumstance of its very early inflorescence.

The root is powerfully medicinal. (See Veg. Mat. Med. U. S.) On the edges of rich woods, every where common west of the Delaware. Perennial. April, May.

242. PODOPHYLLUM. Gen. pl. 879. (*Ranunculaceæ.*)

Calix 3-leaved. *Petals* 9. *Stigma* crenate, sessile. *Capsule* superior, 1-celled, many-seeded, becoming an ovate berry. *Receptacle* unilateral, large and pulpy.—*Nutt.*

1. *P.* stem one-flowered; leaves peltate, palmate, ^{peltatum.} lobes cuneate, incised.

Icon. Catesb. Car. 1. t. 24.

May Apple. Mandrake. Wild Lemon.

A very important medicinal plant, extensively diffused throughout the U. States. Fruit yellow, esculent and palatable; leaves deleterious. About a foot or fourteen inches high; stem supporting a single white spreading flower, and two large leaves. The leaves are frequently maculated with brown discolourations. The root properly prepared, is equal to jalap. (See Veg. Mat. Med. U. S.) In moist shady situations, growing in great quantities together, every where common, west of the Delaware. Perennial. May.

243. ACTÆA. Gen. pl. 877. (*Rosaceæ.*)

Calix 4-leaved, deciduous. *Petals* 4, often wanting. *Style* none; stigma capitate. *Berry* superior, 1-celled, many-seeded. *Seeds* semi-orbicular. *Receptacle* unilateral.—*Nutt.*

1. *A.* leaves decomposed; folioles oblong, gradually acute, cut-serrate; raceme ovate, petals shorter than the stamens.—*Pursh.* ^{Americana.}

A. spicata, Mich.

A. rubra, Willd. enum.

Herb Christopher. Cohosh.

About two feet high. On the high banks of the Wissahickon, not far from Germantown. Rare. Perennial. April, May.

244. SARRACENIA. Gen. pl. 885. (*Planta incertæ sedis.*)

Calix double, exterior smaller 3-leaved, interior 5-leaved, both persistent. *Petals* 5, deciduous, erect, spreading from about the middle. *Stigma* very large and persistent, clypeate, covering the stamina, margin pentangular. *Capsule* 5-celled, 5-valved, many-seeded, valves septiferous in the centre.—*Nutt.*

purpurea.

1. S. leaves short, with an inflated gibbous tube, the mouth constricted, ventral-wing broad-arched, appendix erect, subreniform, cordate, muticate, sessile.—*Mich.* and *Willd.*

Icon. Barton's Elements of Botany. Bot. Mag. 849. Catesby. Car. 2. t. 70.

Side-saddle Flower.

A very curious and elegant plant. Leaves hollow, and ventricose, generally half filled with water and dead insects. Flowers reddish purple. The old leaves often purple, and conspicuously veined with the same colour. In the low bogs and sphagnous marshes of Jersey, ten miles south-east of Philadelphia. In the bogs of the woodlands; very rare. Perennial. June, July.

245. NUPHAR. Smith, prodr. fl. græc. 1. p. 361.
(*Hydrocharides.*)

Calix 5 or 6-leaved. *Petals* many, minute, inserted with the stamina upon the receptacle, externally nectariferous. *Stigma* orbicular, radiated, sessile. *Capsule* carnosose, many-celled, many-seeded, superior.—*Nutt.*

advena.

1. N. leaves erect, cordate, very entire; lobes divaricate, calix 6-leaved, stigma slightly umbilicate, 15-radiate, pericarp furrowed.—*Ait. Kew. 2d. ed.*

Nymphæa advena, Willd.

N. arifolia, Salisbury.

Icon. Bot. Mag. 684. Willd. hort. berol. 38.

Splatter-dock.

From two to three feet high, with very large leaves. In great profusion on the marshy shores of the Delaware, Schuylkill, and all other waters in our neighbourhood, covering the shores for miles together in extent. Also in ditches, very common. Flowers yellow, globular. Perennial. July, August.

2. *N. leaves cordate, lobes approximating, calix* Kalmiana.
5-leaved, stigma incised, 8-12-rayed.—*Ait.*
Kew. ed. 2d.

Nymphæa Kalmiana, Bot. Mag.

N. lutea, β *Kalmiana*, Mich.

N. microphylla, Pers.

N. lutea, Walt.

N. minima, Muhl., but not *N. lutea*, var. *minima*, Willd.

Icon. Bot. Mag. 1243.

Small water Lily.

Leaves floating, one-third as large as the preceding; flowers yellow, also floating; about half an inch in diameter. In a pool on the east shore of the Schuylkill, about a mile south of the falls; very rare. I have not found it in any other locality. Perennial. July, August.

246. NYMPHÆA. Gen. pl. 886. (*Hydrocharides*.)

Calix 4 or 5-leaved. *Petals* many, inserted upon the germ beneath the stamina. *Stigma* orbicular, radiated, sessile, nectariferous in the centre. *Capsule* carnosé, many-celled, many-seeded, superior.—*Nutt.*

1. *N. leaves orbiculate-cordate, very entire, sub-odorata.*
emarginate, the lobes divaricate, with a blunt point; calix 4-leaved.—*Ait.* and *Willd.*

N. alba, Mich. and Walt.

Castalia pudica, Salisbury.

Icon. Bot. Mag. 819. Bot. Repos. 297?

Fragrant water Lily.

A very beautiful aquatic plant, with white flowers, which exhale a delicious fragrance. Leaves and flowers floating on the surface of the water. In a ditch on the road to Gloucester point, and in ditches in Jersey; rare. Perennial. July.

ORDER II. DI-PENTAGYNIA. (2 to 5 styles.)

247. AQUILEGIA. Gen. pl. 934. (*Ranunculaceæ.*)

Calix none. *Petals* 5. *Lepanthia* 5, corniculate, situated between the petals. *Capsules* 5, distinct.—*Nutt.*

Canadensis. 1. *A.* horns straight, stamens exerted.—*Willd.*
Icon. Bot. Mag. 246.

American Columbine.

This is one of the most elegant plants of America, far exceeding in beauty the common foreign columbine, so generally cultivated in gardens. From one to two feet high. Flowers scarlet and crimson, mixed with yellow. On the high rocks of the Schuylkill and Wissahickon, every where common; grows frequently in crevices, where the roots seem to have no earth for their nourishment. Perennial. April, May.

248. CIMICIFUGA. Gen. pl. 193. (*Ranunculaceæ.*)

Calix 4 or 5-leaved. *Petals* 4 to 8 deformed, thickish, sometimes wanting. *Capsules* 1 to 5, oblong, many-seeded. *Seeds* squamose.—*Nutt.*

racemosa. 1. *C.* leaves decomposed, folioles ovate-oblong, incised, dentate; teeth mucronate, divaricate;

racemes virgately paniculate, elongated; flowers sub-monogynous, capsules ovate.—*Pursh.*

Cimicifuga serpentaria, Pursh.

Actæa racemosa, Willd.

A. monogyna, Walt.

Icon. Pluk. alm. t. 383. f. 3.

Black Snake-root. Rich-weed, &c.

A very fine looking plant, from three to five feet high, bearing a profusion of white flowers, on numerous long spikes or racemes. The root is medicinal. In rich woods, very common. Perennial. July.

249. ASCYRUM. Gen. pl. 1225. (*Hyperica*.)

Calix 4-leaved; the 2 interior cordate and larger. *Petals* 4. *Filaments* disposed in 4 parcels. *Capsule* oblong, 1-celled, 2-valved, included in the calix. (*Styles* 2 or 3.)
—*Nutt.*

1. *A.* many-stemmed, diffuse; leaves lanceolate-oblong, obtuse; corymb terminal, flowers subsessile, digynous; stem subterete.—*Willd.*

A. multicaule, Mich.

A. Crux Andreæ, Pursh.

Many-stemmed St. Peter's-wort.

Under twelve inches high; stems very numerous; flowers pale-yellow, with narrow petals. In the woods of Jersey, very frequent; also on the woody banks of the Wissahickon. Perennial. July.

2. *A.* erect, branched; branches ancipital, leaves oblong, biglandulous at base; flowers solitary, shortly pedicellate, trigynous.—*Willd.* and *Pursh.*

A. stans, Mich.

About twelve or fourteen inches high; flowers large. The whole plant has the aspect of *Hypericum*. In the woods of Jersey with No. 1, frequent. $\frac{1}{2}$. July, August.

250. HYPERICUM. Gen. pl. 1224. (*Hyperica.*)

Calix 5-parted, segments equal. *Petals* 5. *Stamina* numerous, scarcely united at the base. *Capsule* roundish; cells equal with the number of styles; 1, 2, 3, and 5.—*Nutt.*

perforatum. 1. *H. erect*, branched; stem ancipital, leaves oblong, obtuse, transparently dotted; panicle terminal, brachiate-leafy; petals longer than the acute-lanceolate calix.—*Willd.* and *Pursh.*

H. Virginicum, Walt.

Icon. Fl. Dan. 1043. Eng. Bot. 295. Curt. Fl. Lond.

Common St. John's-wort.

About a foot or eighteen inches high; flowers as in all the following species, yellow. This plant has become a most pestiferous weed, every where throughout the Union. It is accused of injuring horses. Introduced originally from Europe. In fields, and by road and fence sides, every where unfortunately, abundant. Perennial. From June till August.

sphærocarpum?

2. *H. erect*, very smooth; leaves oblong; panicle naked, dichotomous; all the forks one-flowered; styles coalescing, capsule globose.—*Mich.*
H. sphærocarpum, Mich.?

About ten or twelve inches high. Flowers pale-yellow, small. This plant may not be the *H. sphærocarpum* of Mich., but it comes very near it; and for the present I have thought with Mr. Nuttall, that it had best be referred to that species. On the borders of a ditch, surrounding a meadow on the east side of the road to Woodbury, near the "causeway," abundant. I have found it no where else. It has also been found in Jersey, by Mr. Collins. Perennial. June, July.

angulosum.

3. *H. erect*; stem four-angled, leaves oblong, acute, narrowly sessile; panicle terminal, dichotomous; branches divaricate, with the flowers arranged on them distantly alternate;

calices subcampanulate, segments lanceolate, acute, carinated below almost as long as the corolla; petals with one lateral tooth.—*Willd.* and *Pursh.*

H. denticulatum, Walt.

Stem erect, simple; from a span to twelve inches high, four sided. Leaves from a quarter to a half-inch long, and little better than an eighth of an inch broad; oblong-acute and very closely sessile or semi-amplexicaule. Flowers the size of those of No. 1, and of a fine fulvous or copper-colour. Up the Delaware, eight miles from Philadelphia, rare; Mr. Collins. Perennial. June, July.

4. **H. stem erect, ancipital immediately below each pair of leaves, roundish towards the root. Leaves opposite, closely sessile; lanceolate-obtuse, finely punctated with pellucid dots; leaves of the branches numerous, crowded, sub-linear, obtuse. Cymes crowded with small acute leaves; flowers terminal and axillary, monogynous, petals obtuse, entire. Capsules sub-conoid. B. Hypericum, No. 6. Bart. Prod. Fl. Phil. p. 74.** adpressum.

A very elegant species, from one foot to two and an half feet high. The branches are divaricating, slender, appressed and frequently inflexed or curved downward, and crowded with numerous leaves much narrower than the stem leaves, less obtuse, and even inclining to acute. From the axills of the stem leaves proceeds a cluster of five or six sub-linear obtuse leaves, which appear to arise from abortive branches. The flowers are yellow, about the size of those of No. 7. I discovered this new species, about four years since, in a rich, wet, or swampy meadow on the lower edge of Landsdown grounds, close to the Schuylkill, and not far above Breck's island. It grows there in profusion, but I have not found it elsewhere. It stands in my Prodomus, (No. 6.) without a name, not being certain at the time I published that work, that it was undescribed, although I could not find it to fit any of the described species. Mr. Collins has also found this plant in this neighbourhood. Perennial. July.

5. **H. erect, small, small-flowered; stem four-angled, dichotomous above; leaves sessile, linear, attenuated at the base; the primary branches** Canadense.

of the panicle opposite, the secondary dichotomous; capsules long, conoid, coloured.—*Willd.*

Slender St. John's-wort.

A very delicate species, with exceedingly small flowers; and bright red capsules. From a span to twelve inches high. In bogs, swamps, and low wet meadows; every where extremely common. Annual. June, July.

parviflorum. 6. *H. erect*, very much branched, glabrous; stem sub-four-angled; leaves ovate-oblong, subcordate, obtuse, nerved, sessile; panicles terminal, dichotomal-corymbose, petals shorter than the lanceolate calix.—*Willd.*

H. quinquenervium, Walt. Sp. Pl. 3. p. 1456.

H. mutilum, Willd. Sp. Pl. 3. p. 1471.

This species resembles No. 4, somewhat, particularly in the size of the flowers; but may easily be known by its leaves, which are twice or thrice as broad as those of No. 4, and it never has red capsules. In wet grassy places, and in company with No. 4; also very common. Perennial. July till August.

corymbosum. 7. *H. erect*, glabrous, dotted with black; stem terete, branched; leaves amplexicaule, oblong-oval, obtuse, corymbs terminal, brachate thickly flowered, calicine segments lanceolate-acute.—*Willd.* and *Pursh.*

H. maculatum, Walt.

H. punctatum, Lamark.

Black spotted St. John's-wort.

About fourteen inches high; resembles No. 1, exceedingly, but may be easily known from it by the numerous black punctated leaves, and the much smaller flowers. In shady woods and on rocks, common. Perennial. June, July.

251. ELODEA. Adanson. (*Hyperica.*)

Calix 5-parted, equal. *Petals* 5, claws nectariferous. *Filaments* 9 to 15, growing to-

gether in 3 parcels. *Glands* between the parcels. *Styles* 3, divergent. *Capsule* partly 3-celled, many-seeded.—*Nutt.*

1. *E.* leaves sessile, amplexicaule, cordate-oblong, ^{Virginica.} very obtuse; fascicles pedunculated, few-flowered, axillary and terminal; corollas sub-campanulate, stamens 9—12, very smooth, enlarged at their base.—*Pursh.*

Elodea campanulata, Pursh.

Hypericum campanulatum, Walt.

Hypericum Virginicum, L.

Icon. Bot. Repos. 552.

From twelve to fourteen inches high. Flowers reddish and yellow, handsome; leaves and the whole plant sometimes deep crimson-red. In bogs and swamps of Jersey, common; not so frequent west of the Delaware. Perennial. July to August.

2. *E.* leaves petiolated, oblong-oval, rotund-ob- ^{petiolata.} tuse; flowers opposite, axillary, subsessile, subternate; stamens connate as far as the middle, capsules oblong.—*Pursh.*

Hypericum petiolatum, Walt.

H. axillare, Mich.

Also a handsome species, for which I am indebted to Mr. Collins, not having met with it myself. Found by him two years ago, on the margin of the Schuylkill, near its mouth. Perennial.

ORDER III. POLYGYNIA.

252. MAGNOLIA. Gen. pl. 942. (*Magnoliæ.*)

Calix 3-leaved. *Petals* 6 to 9. *Capsules* 2-valved, 1-seeded, imbricated in a cone. *Seeds* pendulous, arillate.—*Nutt.*

1. *M.* leaves oval, glaucous beneath, petals obo- ^{glauc.} vate, attenuated at base.—*Willd.*

Icon. Mich. Arbr. forest. vol. 3. p. 77. Bart.
Veg. Mat. Med. U. S. vol. 1. t. 7.

*Small Magnolia. Swamp Sassafras. Sweet Bay.
Swamp Laurel. Beaver-wood, &c.*

An elegant and favourite little tree, bearing fine fragrant cream-coloured flowers. In bogs and swamps, woods and thickets, Jersey; common. The bark is medicinal. (See Veg. Mat. Med. U. S.) $\frac{1}{2}$. May to July.

253. LIRIODENDRON. Gen. pl. 941. (*Magnolie.*)

Calix 3-leaved. *Petals* 6. *Samaræ* sublan-
ceolate, 1 or 2-seeded, imbricated in a
cone.—*Nutt.*

tulipifera. 1. L. leaves cut-truncate, 4-lobed, calix triphyl-
lous.—*Mich.*

Icon. Mich. Arbr. forest. vol. 3. p. 202. Bart.
Veg. Mat. Med. U. S. vol. 1. t. 8.

*Tulip-tree. American Poplar. White, and Yellow
Poplar.*

This magnificent and stately tree is well known to most persons. Its foliage is curious, its flowers elegant, its wood highly useful, and its bark medicinal. (See Veg. Mat. Med. U. S.) On the borders of rich woods, and in fields; common. $\frac{1}{2}$. June, July.

254. PORCELIA. Persoon. (*Anonæ.*)

Calix 3-leaved. *Petals* 6. *Stigmas* sessile,
obtuse. *Berries* (1 or more) large, cylin-
dric or ovate, many seeded. *Seeds* aril-
late, attached to the internal suture.—
Nutt.

trifloba. 1. P. leaves smoothish, oblong-cuneate-obovate;
exterior petals orbicular, fruit large, fleshy.—
Pers.

Porcelia triloba, Pers.

Anona triloba, Willd.

Orchidocarpum, Arietinum, Mich.

Icon. Mich. Arbr. forest, vol. 3. p. 161.

Papaw. Custard-apple.

Papaw-tree is very rare in this vicinity, and here its fruit seldom comes to maturity. It is a very small tree, with deep brown unhandsome flowers, and an oblong fleshy esculent fruit, about three inches long, and one and a half in diameter. On the Wissahickon; and on the road to the falls of Schuylkill, west side of the river, and about three miles south of the falls; scarce. $\frac{1}{2}$. April, May.

255. CLEMATIS. Gen. pl. 960. (*Ranunculaceæ.*)

Calix none. *Petals* 4, more rarely 5. *Seeds* compressed, caudate, cauda mostly plumose.

1. *C.* climbing; leaves ternate, folioles ovate sub-cordate, cut-dentate, and lobed; corymbs dichotomous, few-flowered, petals longer than the stamens, flowers dioicous.—*Willd.* and *Pursh.* Virginiana.

Virgin's Bower. Traveller's Joy.

A fine climbing plant, supporting itself by winding the petioles around other plants. Flowers white, fragrant. Seed furnished with a long silken or feather cauda, which gives a handsome appearance to the plant in fruit. In thickets, hedges and shrubberies, near water; common. $\frac{1}{2}$. June, July.

256. ANEMONE. Gen. pl. 948. (*Ranunculaceæ.*)

Calix none. *Petals* 5 to 9, or more. *Seeds* many.

1. *A.* flowers umbellate, involucrate; radical thalictroides. leaves biternate, folioles subcordate, 3-toothed; involucre 6-leaved, folioles petiolate, umbel few-flowered, seeds naked, striate; root tuberous.—*Willd.* and *Pursh.*

Thalictrum anemonoides, Mich.

Icon. Bot. Mag. 866. Annales. du. mus. 3. t. 21. f. 2. a. & b. Pluk. alm. t. 106. f. 4. Willd. hort. berol. 44.

Wild Anemone.

This delicate plant is universally esteemed for its beauty. Flowers white, with a tendency to duplication in the petals, under culture. It is now cultivated in gardens and in flower-pots, in this double state. In woods or rich soil, every where very common. Perennial. April, May.

- Virginiana. 2. *A.* stem dichotomous, leaves thrice ternate, upper ones opposite; folioles cut-lobate, serrate and acute; peduncles solitary, one-flowered, elongated; seeds in an oblong capitulum, woolly, mucronate.—*Willd.* and *Pursh.*

Icon. Herm. parad. t. 18.

Virginian Anemone.

From fourteen inches to two feet high. Flowers greenish-white. In open woods, hedges, and on the borders of neglected fields; frequent. Perennial. May, June.

- quinquefolia. 3. *A.* stem one-flowered, stem leaves thrice ternate, lateral ones deeply bipartite; folioles cuneate, cut-lobate, dentate, acute; corolla 5—6 petalled, seeds ovate, pointed. *B.*

A. nemorosa, Mich.

A. nemorosa, β . *quinquefolia*, Willd. and Pursh.

A. quinquefolia, Muhl.

Icon. Pluk. alm. t. 106. f. 3.

Five-leaved Anemone.

A very delicate and handsome species, about six or seven inches high, bearing a single blossom-red flower. This plant has often been confounded with the *A. nemorosa* of Europe, but it is certainly specifically distinct. It does not agree either with the descriptions or figure of that plant. In shady woods and copses, forming large patches together; very common. Perennial. Early in May.

257. THALICTRUM. Gen. pl. 951. (*Ranunculaceæ.*)

Calix none. *Petals* 4 or 5. *Stamina* very long. *Seeds* ecaudate, striate, terete.

1. *T.* smooth; leaves supra-decompound, folioles ^{dioicum.} subrotund, cordate, obtuse-lobate, glaucous beneath, smooth; panicles axillary, filiform, shorter than the leaf; flowers small, in few-flowered umbels.—*Willd.* and *Pursh.*

T. lævigatum, Mich.

Dioicous Meadow-rue.

The smallest species of the genus growing about this neighbourhood. Flowers twelve to fourteen inches high. On the rocks on the Wissahickon, and on those in the woods above the falls of Schuylkill, west side. Rare. Perennial. April, May.

2. *T.* stem striate, leaves supra-decompound, folioles ^{rugosum.} ovate, lanceolate and rugose, veined, obtuse-lobate, panicles large, terminal.—*Willd.* and *Pursh.*

Rough-leaved Meadow-rue.

A very tall species, frequently attaining a height of five or even six feet. Flowers white. In watery thickets, and the margins of shrubbery, borders swamps and rivulets, not uncommon. Perennial. June, August.

3. *T.* delicately tomentose-pubescent; leaves ^{pubescens.} supra-decompound; folioles ovate, subcordate and cuneate, 3-lobed at the apex, subrugose above, sub-tomentose beneath, panicles terminal, pedicels sub-umbellate-divaricate; flowers polygamous.—*Pursh.*

T. pubescens, Pursh.

T. polygamum, Muhl.

Polygamous Meadow-rue.

Also a very tall species, very much resembling No. 2, and found growing in similar places, as well as in low wet meadows. More common than No. 2. Flowers also white.

4. *T.* stem twice as tall as the leaves; leaves ^{purpurascens.} compound; folioles subrotund, trifid, incised; pani-

cles somewhat naked, flowers drooping, stamens coloured.—*Willd.* and *Pursh.*

Purple Meadow-rue.

About eighteen inches or two feet high. Stem and filaments deep reddish-purple; rare. In low meadows near Woodbury, scarce. On the margins of a fosse, on the lower or east edge of Powelton, but rare. Perennial. June.

258. HYDRASTIS. Gen. pl. 958. (*Ranunculaceæ.*)

Calix none. *Petals* 3. *Nectary* none. *Berry* compound, granulations 1-seeded.

Canadensis. 1. *H.* stem above oppositely two-leaved; leaves petiolate, emarginate at the base, palmate, serrate, incised; peduncle terminal, solitary, one-flowered.—*Willd.* and *Pursh.*

Warnera Canadensis, Miller.

Icon. Mill. ic. t. 285.

Yellow-root.

About a foot or fourteen inches high. Flowers small, inconspicuous. Roots very yellow, and yield a fine yellow dye. Possesses medicinal properties. A very rare plant in this vicinity. I have only found it on the high banks of the Wissahickon, near Germantown. Perennial. April, May.

259. CALTHA. Gen. pl. 957. (*Ranunculaceæ.*)

Calix none. *Petals* 5 to 9. *Nectary* none. *Capsules* several, many-seeded.

palustris. 1. *C.* stem erect, corymbose, leaves cordate, reniform: lobes spreading, the circumference acutely-crenate; flowers subsessile, petals ovate.—*Willd.* and *Pursh.*

Populago palustris, Scop.

Icon. Fl. Dan. 668. Engl. Bot. 506.

Marsh Marigold. Meadow Cowslip.

A very fine plant, with deep green leaves and bright deep yellow shining flowers. Whole plant has the habit of Ranunculus. In a swampy wood, about half a mile or three quarters due west of the three miles-stone, on the Germantown road. Very rare. I have not found it elsewhere. Perennial. April.

260. HEPATICA. Willd. enum. (*Ranunculaceae.*)

Calix 3-leaved. *Petals* 6 to 9. *Seeds* naked.

1. *H.* leaves three-lobed, very entire, lobes round-triloba.
obtuse, scape one-flowered.—Willd. *a obtusa.*

Anemone Hepatica, Willd. Sp. Pl. 2. p. 1273.

Icon. Fl. Dan. 610. Bot. Mag. 10.

Three-lobed Liver-wort.

One of the earliest blooming spring plants, often flowering before the leaves have come up, and while snow is yet on the ground. Flowers purple, rarely white. In woods, under decayed and fallen leaves, on rich soil. Common. Perennial. March till May.

261. RANUNCULUS. Gen. pl. 953. (*Ranunculaceae.*)

Calix 5-leaved. *Petals* 5; having the inner side of each claw furnished with a melliferous pore, often membranaceously margined or covered by a separate scale. *Seeds* naked, numerous.—Nutt.

1. *R.* smooth; stem declinate, leaves narrow-lan-Flammula.
ceolate, acute, entire and denticulate; the lower ones petiolate, peduncles terminal, axillary, one-flowered; calices subreflexed.—Willd. and Pursh.

Icon. Fl. Dan. 575. Engl. Bot. 387.

About a foot or two feet high, leaning obliquely from the root. Leaves of a delicate blueish-green. Flowers small, yel-

low. In ditches in Jersey, along the course of the Delaware, and in ditches in the Neck, on this side of the river, not unfrequent. Perennial. July, August.

- abortivus.* 2. *R.* smooth; stems striate, naked below; radical leaves cordate, reniform, obtuse-crenate; those of the stem petiolate, ternate, angular, the upper ones sessile; the branchlets sub-3-flowered.—*Willd.* and *Pursh.*

Abortive-flowered Crow-foot.

About twelve or fourteen inches high, with very small inconspicuous yellow flowers. In woods, and shady wet places, common. Perennial. May, July.

- sceleratus.* 3. *R.* smooth; lower leaves palmate, upper ones sessile, digitate; fruit oblong.—*Willd.* and *Pursh.*

Icon. Fl. Dan. 571. Engl. Bot. 681.

Scelery-leaved Crow-foot.

A very branching or bushy species, about twelve or fifteen inches high, with small yellow flowers. Stem hollow. Whole plant very acrid, so much so as to blister when applied bruised for any length of time to the cuticle. It is used medicinally. In wet meadows, and all dirty ditches and plashes, on commons and road-sides, and in wastes; common. Perennial. May, June.

- hispidus.* 4. *R.* very hirsute, erect; leaves ternate, folioles acutely lobate; stems below the first peduncle naked, few-flowered; calix appressed.—*Mich.*
R. hispidus, Mich.
R. hirtus.

Hispid Crow-foot.

About twelve inches high; flowers small, yellow. In the hilly woods above the falls of Schuylkill, west side, frequent. Perennial. June.

- repens.* 5. *R.* hirsute; leaves compound, ternate, trifid,

incised, sarments creeping; peduncles furrowed, calices spreading.—*Willd.*

Icon. Fl. Dan. 795. Engl. Bot. 516.

Creeping Crow-foot.

A fine species, which spreads rapidly and extensively by its creeping roots. Flowers large, deep-yellow. In damp, shady woods, and unmolested moist places near shrubbery; frequent. Perennial. July.

6. *R.* very hirsute; leaves compound, ternate, trifid, incised and toothed; stem erect, many-flowered; peduncles furrowed, calices reflexed, root bulbous.—*Willd.*

Icon. Fl. Dan. 551. Engl. Bot. 515.

Common Bulbous Crow-foot, or Butter-cup.

An introduced, but naturalized species, found every where in pastures, grass-plots, and in grassy fields and lanes. Leaves a very deep-green; flowers fine deep-shining-yellow. Possesses medicinal virtues. Whole fields are often rendered yellow by the profusion of this plant. Perennial. From May till August.

7. *R.* hairy, erect, branched; leaves ternate, trifid, incised, hairy underneath; peduncles terete, calices reflexed, petals the length of the calix.—*Willd.*

Pennsylvanicus?

R. trifolius, Bart. Prod. Fl. Ph. 60.

An excessively hairy species, which comes near to *Pennsylvanicus*, but may not be it on further examination. In grassy retired places; not common. On the grounds of Lemon-hill. Perennial. July.

8. *R.* root very much fascicled; leaves ternate, sub-pinnate, glabrous. *B.*

R. fascicularis, Muhl.

A fine species, eighteen inches or two feet high, growing on the margins of our rivers and creeks, and frequently mistaken for *R. acris*, from which it materially differs. Perennial. May, June.

fluvialis.

9. *R.* leaves all dichotomously capillaceous, stem swimming.—*Willd.*

Icon. Fl. Dan. 376.

River Crow-foot.

A deep-green aquatic plant, covering ditches for a great extent, with its stems and leaves. Flowers white, small, and raised about an inch above the surface of the water. In all the ditches of the Neck, and in those of Jersey; very common. Perennial. June, July.

262. BRASENIA. Gen. pl. 938. (*Hydrocharides.*)

Calix 6-leaved, petaloid, persistent, the 3 interior longer. *Corolla* none. *Stamina* 18 to 36, about the length of the calix. *Utriculi* oblong, 6 to 9; 2-seeded.—*Nutt.*

peltata.

1. *B.* leaves centrally peltate, oval, very entire, peduncles solitary, one-flowered.—*Pursh.*
Hydropeltis purpurea, Mich.

Icon. Bot. Mag. 1147. Pluk. alm. t. 349. f. 3.

Water-shield.

An aquatic plant, which I have never seen. Above the falls of Schuylkill, two or three miles, east side; Mr. Collins. Perennial. June.

263. CYAMUS. Salisbury. (*Hydrocharides.*)

Calix petaloid, 4 or 5-leaved. *Petals* many. *Fruit* turbinate, with a truncated disk excavated with numerous cells, each containing a single seed. *Seed* an ovate nut crowned with the persistent style.—*Nutt.*

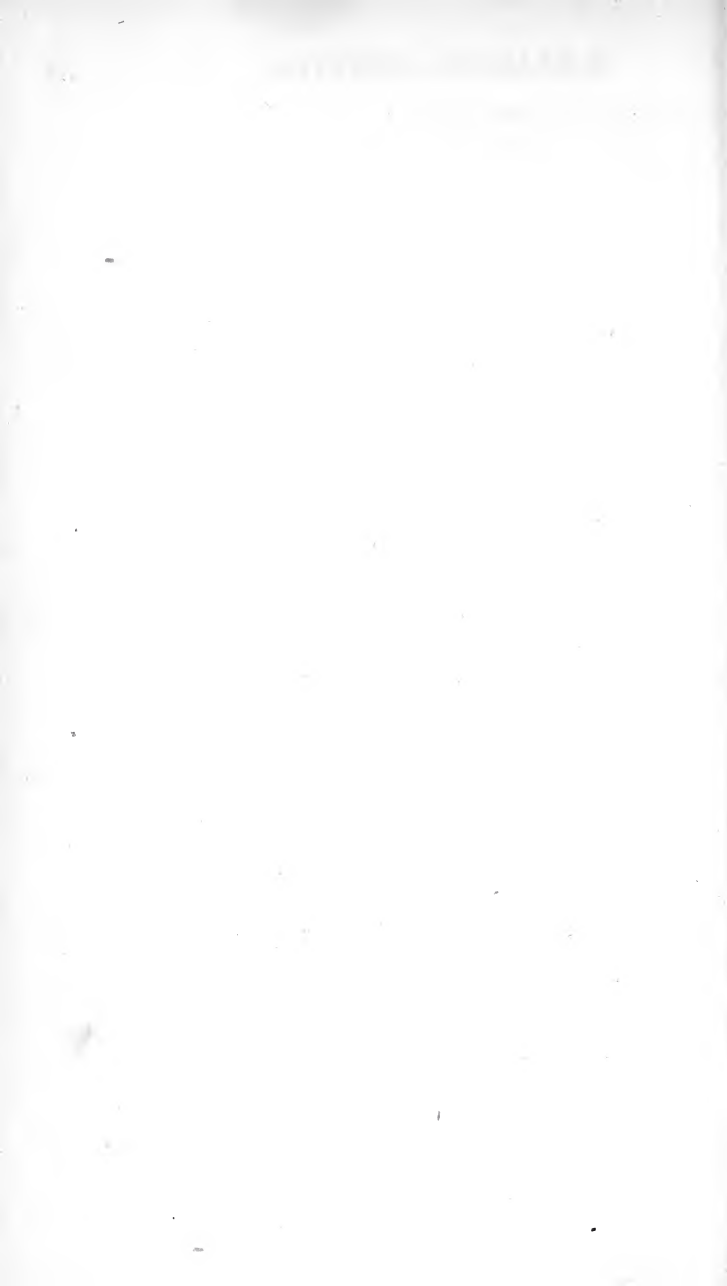
luteus.

1. *C.* leaves peltate, orbiculate, very entire; corolla polypetalous, anthers linear above.—*Salisbury.* Peduncles and petioles muricate.—*Bart.*
Prod. Fl. Ph. p. 59.

- Cyamus flavicomus, Salisb.
 C. nelumbo, Smith, Exot. Bot.
 Nelumbium speciosum, Willd. and Ait.
 N. luteum, Willd. Sp. Pl. 2. p. 1259.
 N. luteum, Mich.
 Nymphæa Nelumbo, β L. Sp. Pl.
 Nelumbo Indica, Pers.

Sacred-bean of India. Egyptian-bean.

There is not surely in North America any plant comparable to this for grandeur, simplicity and beauty. Truly may it be styled as I have elsewhere called it, the *Queen of American Flowers*. I regret to say that it is not as abundant in our vicinity as it was five years ago. This may be an accidental or temporary decrease, owing to a disturbance of the site where it grows. The leaves are perfectly round and centrally peltate. They are from a foot to eighteen inches in diameter, of a rich velvety-green above, and very pale underneath. They are supported by petioles from two, to three and a half feet in length. The flowers are pale-yellow, globose, and about three or four inches in diameter, supported by petioles or a scape, a yard in length, frequently *muricate* towards the upper part. From this circumstance, together with an accurate examination of a fine Chinese painting of the India species, which differed in nothing from our plant, except in the rose-coloured flower, I considered the two species as identical, and accordingly added the synonyms which stand in my Prodrômus. Another years' examination of our plant has not given me reason to alter my opinion on this subject, nor can I conceive that a mere difference in colour of the flowers should be considered sufficient to establish the difference. Walter says his *Nelumbo* had white flowers: so that even in our own country, a discrepancy occurs here. I am glad to find that Mr. Nuttall has also noticed in his work, that the "peduncles are partly muricate."



DIDYNAMIA.

TEUCRIUM.	TRICHOSTEMA.
MENTHA.	PHRYMA.
HYSSOPUS.	VERBENA.
NEPETA.	LIMOSELLA.
LAMIUM.	SCROPHULARIA.
STACHYS.	BIGNONIA.
LEONURUS.	ANTIRRHINUM.
GLECHOMA.	GERARDIA.
MARRUBIUM.	PEDICULARIS.
PYCNANTHEMUM.	MIMULUS.
CLINOPODIUM.	CHELONE.
ORIGANUM.	PENSTEMON.
MELISSA.	EUCHROMA.
PRUNELLA.	MELAMPYRUM.
SCUTELLARIA.	OROBANCHE.
	EPIFAGUS.

CLASS XIII.—DIDYNAMIA.

ORDER I. GYMNOSPERMIA. (4 naked seeds.)

264. TEUCRIUM. Gen. pl. 960. (*Labiatae.*)

Upper lip of the corolla none, but a fissure in its place through which the *Stamina* are exerted.—*Nutt.*

- Canadense. 1. *T. cano-hirsute*; leaves ovate-lanceolate, serrate, all petiolate; stem erect, spikes verticillate, crowded, bracteas twice as long as the calix.—*Willd.* and *Pursh.*

Nettle-leaved Germander.

About eighteen inches or two feet high. Flowers purple. Along the grassy banks of our rivers and creeks; and in low meadows, common. Perennial. July.

- Virginicum. 2. *T. pubescent*; leaves ovate, oblong, serrate, the upper ones subsessile; stem erect, spikes verticillate, crowded, bractes the length of the calix.—*Willd.*

Icon. Schkuhr. handb. 160. (*Pursh.*)

Resembles the preceding exceedingly. Flowers also purple. Grows with No. 1, but is very rare.

265. MENTHA. Gen. pl. 967. (*Labiatae.*)

Corolla subequal, 4-cleft; having the broader segment emarginate. *Stamina* erect and distant.—*Nutt.*

- Borealis. 1. *M. upright*, pubescent; leaves petiolate, oval-lanceolate, very acute at each end; flowers verticillate; stamens exerted.—*Mich.*

Mentha Canadensis, Kalm.

In similar places with the two preceding plants; very common. Flowers white, or very pale-purple. Perennial. July.

Mentha viridis, or common spear-mint, and *Mentha piperita*, or common pepper-mint, are frequently found in wet meadows near springs and rivulets, where they have been planted, or found their way from gardens; but they are not properly naturalized.

266. HYSSOPUS. Gen. pl. 963. (*Labiatae*.)

Lower lip of the *Corolla* 3-parted, intermediate segment subcrenate. *Stamina* straight, and distant.—*Nutt*.

1. *H.* spikes verticillate, cylindrical; styles shorter than the corolla; leaves subcordate, ovate-acuminate, acutely dentate.—*Willd.* and *Pursh.*
Icon. Pluk. alm. t. 150. f. 3. Jacq. hort. 1. t. 69. (Pursh.) nepetoides.

Catmint Hyssop. *Tall Hyssop.*

A very tall plant, often flowering at a height of two feet, but frequently attaining a stature of six. Flowers in long dense spikes, ochroleucous. I have seen them purple, though rarely. In thickets, shady woods, hedges, and on the borders of fields, common, particularly six or ten miles from the city. Perennial. July.

2. *H.* spikes verticillate, cylindrical; styles longer than the corolla; leaves cordate-ovate, acuminate, obtusely dentate.—*Willd.* and *Pursh.*
Agastache, Gronovius, Fl. Virg. 88. seropularifolius.
Icon. Herm. parad. t. 106.

A very rare plant, easily known from the preceding. From fourteen inches to two feet high. Flowers purple. On the banks of the Delaware, Jersey side, on the walk from Kaighn's point to the next ferry below, close to a shady thicket. Perennial. July.

267. NEPETA. Gen. pl. 964. (*Labiatae*.)

Calix arid, striated. Tube of the *Corolla* longish; intermediate segment of the lower

lip crenate; margin of the orifice reflected.
Stamina approximate.—*Nutt.*

Catania.

1. *N.* flowers spiked, whorls subpedicellate; leaves petiolate, cordate, dentate-serrate.—*Willd.*
Icon. Fl. Dan. 580.

Catmint. Nep. Catnep.

A well-known herb, in common use in domestic medical practice. Flowers white. Naturalized in cultivated grounds, in wastes and on road sides, every where. Perennial. July, August.

268. LAMIUM. Gen. pl. 971. (*Labiatae.*)

Calix 5-cleft, segments subulate, spreading. Upper lip of the *corolla* entire and vaulted: lower lip 2-lobed; the margin of the orifice toothed on either side.—*Nutt.*

amplexi-
caule.

1. *L.* floral leaves sessile, amplexicaule, obtuse.—*Willd.*

Polichia amplexicaulis, Roth.

Icon. Fl. Dan. 752.

Stem-clasping Archangel. Great Henbit. Dead-nettle. Henbit Archangel.

From six inches to a foot high. Flowers reddish-purple. In all cultivated grounds, and particularly on the margins of fields, very common. Annual. All summer.

269. STACHYS. Gen. pl. 979. (*Labiatae.*)

Calix 5-cleft, awned. Upper lip of the *corolla* vaulted; the lower reflected at the sides, with the intermediate segment larger and emarginated. *Stamina* at length reflected to the sides.—*Nutt.*

aspera.

1. *S.* stems erect, very hispid backward; leaves subpetiolate, lanceolate, acute, serrate, very

grabrous; whorls sub-6-flowered; calices divaricate, spinous.—*Mich.* and *Pursh.*

S. tenuifolia, Willd.?

S. arvensis, Walt.

Rough Wound-wort. Hedge-nettle.

From one to two feet high. In full flower very handsome. Flowers purple. Along the banks of rivers and creeks, and in low meadows, common; particularly along the bank-walks of the Delaware and Schuylkill. Perennial. July.

270. LEONURUS. Gen. pl. 977. (*Labiatae.*)

Calix pentangular, 5-toothed. Upper lip of the *corolla* villous, flat, entire; lower lip 3-parted, with the middle segment undivided. "Lobes of the *anthers* parallel."

R. BROWN.—*Nutt.*

1. *L.* leaves cuneiform-ovate, three lobed, dentate; corollas larger than the prickly calix; middle segments of the lower lip acute.—*Willd.* Cardiaca.
Icon. Fl. Dan. 727. Engl. Bot. 286.

Mother-wort. Mug-wort.

About two feet high. Flowers white and red, or purple. Introduced, and naturalized abundantly in all wastes near habitations. Perennial. July.

271. GLECHOMA. Gen. pl. 970. (*Labiatae.*)

Calix 5-cleft, subequal. *Anthers* approaching each other in pairs, each pair producing the form of a cross.—*Nutt.*

1. *G.* leaves reniform-crenate.—*Willd.* hederacea.
Icon. Fl. Dan. 789. Curt. Lond. 2. t. 44.

Ground Ivy. Gill. Alehoof.

A creeping plant, with blue flowers. Mr. Nuttall is inclined

to think it indigenous, having found it abundant along the banks of the Ohio and Potomac, remote from settlements. In wastes and hedges, common. Perennial. May to August.

272. MARRUBIUM. Gen. pl. 976. (*Labiatae*.)

Calix salverform, rigid, 10-striate. Upper lip of the *corolla* bifid, linear, straight.—*Nutt*.

vulgare.

1. *M.* leaves subrotund, ovate, dentate, rugose-veined; calix teeth setaceous, hooked.—*Willd*.
Icon. Fl. Dan. 1036. Engl. Bot. 410.

Horehound.

Also plentifully naturalized in wastes. Whole plant of a grey aspect. Flowers white. Much used as a domestic medicine. Perennial. July.

273. PYCNANTHEMUM. Mich. fl. am. 2. p. 7. (*Labiatae*.)

Capitulum surrounded by an involucre of many bractes.—*Calix* tubular, striate, 5-toothed. Upper lip of the *corolla* nearly entire; lower trifold. “Middle segment longer. *Stamina* distant; cells of the anthers parallel.” R. BROWN.—*Nutt*.

incanum.

1. *P.* leaves oblong-ovate, acute, subserrate, canotomentose; capituli compound, the lateral ones pedunculated; bractes setaceous.—*Mich.* and *Pursh*.

Clinopodium incanum, L.

Origanum incanum, Walt.

Icon. Pluk. mant. t. 344. f. 7. (*Pursh*.)

Hoary Basil.

About three feet high. Whole plant grey or hoary. Flowers white and pale-red. It possesses the fine odour of *Origanum*

vulgare. On a bluff bordering the Schuylkill, Woodlands; abundant. Perennial. July, August.

2. *P.* stem upright, very much branched, rough-linifolium.
ish; leaves linear, 3-nerved, very entire; capituli terminal, fasciculate-corymbose.—*Pursh.*

Brachystemum linifolius, Willd.

B. Virginicum, Mich.

Thymus Virginicus, L.

Pycnanthemum Virginicum, Ait.

Satureja Virginiana, Sp. Pl. 2. p. 793.

Origanum flexuosum, Walt.

Icon. Herm. parad. t. 218. (*Pursh.*) Pluk. alm. t. 54. f. 2.

Flax-leaved Basil. Virginian Thyme.

About eighteen inches high. Flowers small, white. Whole plant smells like Thyme. On the borders of open damp woods, and along water-courses in thickets, frequent. In the woods bordering the Mantua-road, and on the bank walks of the Delaware and Schuylkill, common. Perennial. July, August.

3. *P.* stem upright, very much branched, rough-lanceolatum.
ish; leaves linear-lanceolate, veined, very entire; capituli terminal, fasciculate-corymbose.—*Pursh.*

Bachystemum lanceolatum, Willd. enum.

Lance-leaved Basil.

Resembles No. 2, very much in general habit, but easily known from it by the broader leaves. Flowers also white. In similar places with No. 2, but less common. Perennial. July August.

4. *P.* leaves ovate-lanceolate, subdentate, smooth-muticum.
ish; capituli terminal, bractes lanceolate, somewhat acute.—*Pers.*

Bachystemum muticum, Mich.

Icon. Mich. fl. am. 2. t. 32.

About eighteen inches or two feet high. Flowers pale blossom-red. On the margin of a small open wood in the Neck,

about half a mile south-east of the corner of Federal and Fifth streets, Southwark. Very rare. Perennial. July.

- verticillatum. 5. *P.* leaves ovate-lanceolate, very entire; whorls sessile, compact, bractes acuminate.—*Pers.* and *Pursh.*

Brachystemum verticillatum, Mich.

Origanum clinopodoides, Walt.

Icon. Mich. Fl. am. 2. t. 31.

This species resembles No. 4, exceedingly. It is also very rare; I have only found it on the bank walk from Gray's ferry to Kingsess gardens, in the low ground. Perennial. July, August.

274. CLINOPODIUM. Gen. pl. 980. (*Labiatae.*)

Verticill surrounded by a setaceous involu-
crum.—Upper lip of the *corolla* flat, ob-
cordate and strait.—*Nutt.*

- vulgare. 1. *C.* capituli verticillate, bractes setaceous, his-
pid; leaves hairy above, remotely dentate, stem
nearly simple.—*Willd.*

Icon. Fl. Dan. 930. Engl. Bot. 1401.

Common Wild Basil.

About a foot high; flowers purple, and sometimes, though rarely, white. In dry fields, and in dry thickets. Perennial. August.

275. ORIGANUM. Gen. pl. 981. (*Labiatae.*)

Flowers collected into a 4-sided strobilus or
dense spike.—Upper lip of the *corolla*
erect, flat; lower 3-parted; segments equal.
—*Nutt.*

- vulgare. 1. *O.* spikes subrotund, paniculate, conglomerate,
bractes ovate, longer than the calix.—*Willd.*

Icon. Fl. Dan. 638.

Common Marjoram.

A fine plant, exhaling a very grateful odour. From one to two feet high. Flowers red. Indigenous; on stony hills and the borders of dry stony fields; frequent. Perennial. July, August.

276. MELISSA. Gen. pl. 983. (*Labiatae.*)

Calix arid, above nearly flat; upper lip subfastigiate. Upper lip of the *corolla* partly vaulted, bifid; middle lobe of the lower lip cordate.—*Nutt.*

1. *M.* whorls dimidiate, bractes oblong, pedicel-officialis. late; leaves ovate-acute, serrate.—*Willd.*

Balm.

Common balm is well-known. It is not unfrequently found along the edges of fields and by road sides, appearing naturalized. Its domestic use as a *tisan*, is extensive, and merited. Perennial. July.

277. PRUNELLA. Gen. pl. 990. (*Labiatae.*)

Upper lip of the calix dilated. *Filaments* of the stamina forked, only one of the points antheriferous. *Stigma* bifid.—*Nutt.*

1. *P.* leaves petiolate, ovate and lanceolate, den-Pennsylvanica. tate at the base; calix lips equal, the upper truncate, three awned, stem adscendent —*Willd. hort. berol.*

leaves ovate.

α ovata.

leaves lanceolate.

β lanceolata.

Self-heal.

From eight inches to a foot high. Flowers deep purple, rarely white. Var. *α.* flowers in June; *β.* flowers in August, and is a large plant. In fields and by road and fence sides, very common. Perennial.

278. SCUTELLARIA. Gen. pl. 989. (*Labiatae.*)

Margin of the *Calix* entire, after flowering closed with a galeate lid. Tube of the *corolla* elongated.—*Nutt.*

galericulata. 1. *S.* branching; leaves cordate-lanceolate, crenate, under side pulverulently pubescent, paler; flowers axillary.—*Nutt.*

Not S. galericulata, of Pursh.

Icon. Fl. Dan. 637. Engl. Bot. 523.

Common Skull-cap.

A very elegant species, with fine blue flowers. From eighteen inches to two feet high, weak, branching. On the margins of meadow-drains and ditches, and sometimes among sedge in wet meadows of Jersey, not unfrequent. Perennial. July.

gracilis. 2. *S.* stem mostly simple; leaves remote, broad-ovate, dentate, smooth and sessile, scabrous on the margin, upper ones smaller, entire; flowers axillary.—*Nutt.*

S. gracilis, Nutt.

S. galericulata, Pursh?

Slender Skull-cap.

A small species, with simple erect stems, and every where very glabrous. On the edges of woods and thickets bordering the Schuylkill, particularly between Kingsess gardens and Gray's ferry; very common. July.

lateriflora. 3. *S.* very much branched, somewhat smooth; leaves with very long petioles, ovate, dentate, nerved; raceme terminal, loose, leafy.—*Willd.*

Side-flowering Skull-cap.

From a foot to two feet high, with a profusion of blue flowers. A very handsome species. On the borders of all our waters, and on the edges of pools and ditches, very common. Perennial. July to September.

4. *S.* somewhat simple, densely pubescent; leaves ^{integrifolia.} subsessile, oblong or linear, obtuse, very entire, attenuated at base; racemes loose, leafy.—*Willd.*

Icon. Pluk. alm. 441. f. 6.

Entire-leaved Skull-cap.

Leaves all linear.—*Willd.*

β hyssopifolia.

Hyssop-leaved Skull-cap.

A very elegant and striking species, with a profusion of large blue flowers. In meadows and fields of Jersey, very abundant. Also in fields west of the Delaware. *β.* is more rare—generally in woods and thickets. Perennial. July, August.

5. *S.* somewhat simple, pubescent; leaves remote, ^{ovalifolia.} rhomboid-ovate, obtuse, round-crenate, attenuated at base, with short petioles; racemes terminal, loose, for the most part branched; branches lanceolate, entire.—*Mich.* and *Pursh.*

S. ovalifolia, Muhl.

S. ovalifolia, Pers.?

S. Caroliniana, Walt.

S. pilosa, Mich. and Pursh.

Icon. Pluk. alm. t. 313. f. 4.

A very common and ordinary looking species. In woods, every where abundant. Perennial. July, August.

279. TRICHOSTEMA. Gen. pl. 988. (*Labiatae.*)

Calix resupinate. Upper lip of the *corolla* falcate. *Stamina* very long and incurved.—*Nutt.*

1. *T.* leaves rhomboid-lanceolate, the flower-bearing branchlets bifurcate, stamens very long.—*Willd.* and *Pursh.* ^{dichotoma.}

Bastard Pennyroyal.

From six to ten inches high. Flowers Prussian-blue, hand-

some. Whole plant possessing in a small degree, the scent of Pennyroyal. In sandy fields and on exposed road sides; every where very common, especially in Jersey. Annual. July.

linearis.

2. *T.* leaves linear, smooth, sessile, attenuated somewhat at either end; dentures of the calix conspicuously awned, stamina very long.—*Nutt.*

Trichostema linearis, Nutt.

T. dichotoma, β . *linearis*, Walt. and Pursh.

Linear-leaved Bastard Pennyroyal.

Resembles the preceding exceedingly, but is very distinct. I have heretofore considered it only as a variety, but my attention being particularly directed to the plant by the observations of Mr. Nuttall, I have no hesitation in adopting it as a genuine species. I have found it all through Maryland, preserving its character. In the sandy fields of Jersey, near Woodbury. Annual. July, August.

280. PHRYMA. Gen. pl. 994. (*Labiatae*.)

Calix cylindric, upper lip longer, trifid; lower bidentate. Upper lip of the *corolla* emarginate, lower much larger. *Seed* one.—*Nutt.*

Leptostachia. 1. *P.* leaves ovate, deeply serrate, petiolate; spikes terminal, slender; flowers opposite.—*Willd.*
Icon. Pluk. amalth. t. 380. f. 5. Lam. Illust. t. 516.

From one to two feet high. Flowers on very long, slender weak spikes; small, white and purple. In shady rich woods, particularly along the western banks of the Schuylkill towards and above the falls; common. Perennial. June.

281. VERBENA. Gen. pl. 43. (*Vitices*.)

Calix 5-cleft. *Corolla* funnellform, tube incurved, limb unequal, 5-lobed. *Stamina* 4, fertile. *Seeds* 4.

1. *V.* stem decumbent, very much divaricate-^{spuria.} branched; leaves multifid, laciniate, spikes filiform, bractes longer than the calix.—*Willd.* and *Pursh.*

Bastard Vervain.

About twelve or fifteen inches high. Leaves greyish-green. Flowers blue, very small. The whole plant strongly resembles *Verbena officinalis*. In the suburbs of Southwark and Northern Liberties; among rubbish in the streets of Camden, and by Kaighn's point, forming large patches. Biennial. July, August.

2. *V.* erect, tall; leaves lanceolate, acuminate,^{hastata.} cut-serrate, sometimes cut-hastate; spikes linear, paniculated, subimbricate.—*Willd.*

Icon. Herm. parad. 242.

Tall Vervain.

A very fine species, from two to four feet high, with deep-blue flowers, larger and handsomer than those of No. 1. On the banks of all our waters, on the margins of ditches, and in wet meadows, very abundant; more particularly in Jersey. Perennial. July.

Leaves oblong-lanceolate, deeply-serrated, acute; ^{β oblongifolia.} spikes filiform, paniculate; flowers smaller, pale blue.—*Nutt.*

V. hastata, β . *oblongifolia*, *Nutt.*

Resembles No. 2, very closely, and grows with it. July.

3. *V.* erect, subpubescent; leaves ovate-acute, ser-^{urticifolia.} rate, petiolate; spikes filiform, distinct, axillary and terminal.—*Willd.* and *Pursh.*

Icon. Riv. monop. 57. Rob. ic. 26. (*Pursh.*)

Nettle-leaved Vervain.

About fifteen inches or two feet high, being a common weed in wastes, road-sides and on the borders of cultivated grounds. Flowers minute, white. Perennial. All summer.

DIDYNAMIA, GYMNOSPERMIA.

282. LIMOSELLA. Gen. pl. 1039. (*Lisimachia*.)

Calix 5-cleft. *Corolla* 4 and 5 lobed, equal. *Stamina* approximating by pairs. *Capsule* 2-valved, subbilocular, many-seeded. —*Nutt.*

tenuifolia.

1. *L.* leaves linear and very narrow; scarcely dilated at the points; scape 1-flowered, about equal in length with the leaves.—*Nutt.*

Jour. Acad. Nat. Sc. Ph. vol. 1. p. 115.

Root surculose. *Leaves* radical, succulent and somewhat fragile, erect, subcylindric-filiform, a little compressed and obtuse towards the point, membranaceously sheathing and radicanat at the base, radical fibres white, compressed, and flaccid. Scapes or peduncles shorter than the leaves, one-flowered, radical, axillary, terete, at first erect, in fruit deflected. *Calix* cylindric-campanulate, border four and five-toothed, dentures acute. *Corolla* monopetalous, tubular, white, shaded with greyish blue outside, tube yellowish and glandular within, border spreading four and five-lobed, lobes oblong-oval, or oval, obtuse. *Stamina* four, approximating by pairs, included in the tube of the corolla; filaments short; anthers pale blue, two-celled. *Style* included, stigma capitate. *Capsule* nearly spherical, smooth, bursting the calix, bivalve, subbilocular, many-seeded. *Seeds* numerous, angular, somewhat gibbous, attached to a large and rounded receptacle, compressed at its base, and dilated on two sides, producing imperfect dissepiments, which are continued to the margin of the valves, hence the capsule is bilocular near its base, and only one-celled above.—*Nutt.*

Icon. Transactions of the Physico-Medical Society of New York, vol. 1. p. 439.

Mudwort.

First discovered on the low gravelly banks of the Delaware, above Kensington, by Mr. Nuttall. It has also been found in Connecticut by Dr. Ives. It is abundant on the shores of the Delaware at low tide, but must be vigilantly searched for, or from its minuteness it will be overlooked. I have also found it at low tide on the shores of the Schuylkill, a little below Breck's island. July.

283. SCROPHULARIA. Gen. pl. 1014. (*Scrophulariæ.*)

Calix 5-cleft. *Corolla* subglobose, resupinate. *Capsule* 2-celled.

1. *S.* leaves cordate, serrate, acute, roundish at base; petioles ciliated below, the fascicles of the panicle loosely few-flowered.—*Willd.*
S. nodosa, β . *Americana*, Mich. Marilandica.

Figwort.

From three to four feet high. Flowers brownish. On the borders of fields, and along fences bordering road-sides; not frequent. Perennial. August.

284. BIGNONIA. Gen. pl. 1018. (*Bignoniæ.*)

Calix 5-toothed, cyathiform, partly coriaceous. *Corolla* 5-lobed, campanulate, ventricose on the under side. *Siliqua* 2-celled. *Seeds* membranaceously alated.—*Nutt.*

1. *B.* leaves pinnate, folioles ovate, dentate, acuminate, with a terminal corymb; tube of the corolla three times as long as the calix, stem radican- radicans.
 dicant.—*Willd.* and *Pursh.*

Trumpet Creeper.

This well-known creeper grows wild, on the rocks bordering the Schuylkill near the falls, and in a watery thicket three miles below Kaighn's point, Jersey; near the spot where *Salsola* Caroliniana grows. Flowers red and orange. $\frac{1}{2}$. July, August.

285. ANTIRRHINUM. Gen. pl. 1035. (*Scrophulariæ.*)

Calix 5-parted; the lower segments remote. *Corolla* calcarate, ringent, orifice closed by the prominent palate. *Capsule* ovate, 2-celled, 2-valved, bursting at the summit

with 3 to 5 reflected dentures, a stapediform styliferous arch remaining betwixt either aperture.—*Gærtner*.

Linaria.

1. *A.* erect, glabrous; leaves scattered, lanceolate-linear, crowded; spikes terminal, thickly flowered; calices glabrous, shorter than the spine.—*Willd.* and *Pursh*.

Icon. Fl. Dan. 982. Engl. Bot. 658.

Toad Flax. Ransted-weed. Wild Snap-dragon.

A very elegant plant, but disgusting from its offensive phosphoretic smell. Leaves greyish-green. Flowers bright yellow; said to contain phosphorus. Introduced, but every where extensively naturalized, in the United States. On road-sides, commons, wastes, and the borders of fields, very common and abundant. Perennial, from July till October.

Canadense.

2. *A.* assurgent, glabrous, very simple; leaves scattered, erect, narrow-linear, obtuse, remote; flowers racemous, shoots creeping.—*Willd.* and *Pursh*.

Icon. Vent. hort. cels. 49.

Purple Toad Flax.

A very delicate plant, with small oval radical leaves, acute at each end; narrow linear stem leaves, and purple flowers. In sandy fields, roads, and woods of Jersey; common. Annual. June, July.

286. GERARDIA. Gen. pl. 1004. (*Scrophularia*.)

Calix half 5-cleft, or 5-toothed. *Corolla* subcampanulate, unequally 5-lobed, segments mostly rounded. *Capsule* 2-celled, opening at the summit.—*Nutt*.

purpurea.

1. *G.* stem opposite, very much branched; leaves linear; flowers axillary, opposite, sessile.—*Willd.* and *Pursh*.

Icon. Pluk. mant. t. 388. f. 1. (*Pursh*.)

From fifteen to eighteen inches, or two feet high. Flowers large, purple, handsome. Along all our waters, in marshes, and in damp low grounds and rich moist woods, very common. Biennial. July, August.

2. *G. paniculate*-branched, leaves linear; peduncles axillary, opposite, longer than the flower. *tenuifolia*.
Willd.

G. erecta, Walt. and Mich.

Icon. Pluk. alm. t. 12. f. 4.

A small, slender and delicate species, resembling small specimens of the preceding. From a span to a foot high. Flowers like those of No. 1. In woods and fields, very common. Prefers a dryer soil than No. 1. Biennial. July, August.

3. *G. pubescent*; stems sub-simple; leaves lanceolate, very entire or dentated, the lower ones sub-pinnatifid-incised; flowers axillary, opposite, subsessile.—*Willd.* and *Pursh.*

Icon. Pluk. mant. 389. f. 3.

A fine showey species, with large yellow flowers. From two to three feet high. In dry shady places, and on rocks in woods, common. Perennial. July.

4. *G. glabrous*; stem paniculate, leaves petiolate, pinnatifid: segments lanceolate-acute, entire or cut-dentate behind, the upper ones lanceolate-entire; flowers axillary, opposite, pedicellate.—*Pursh.*

G. quercifolia, Pursh.

G. flava, sive *glauca*, Muhl.?

Rhinanthus Virginicus, Willd.

Also a very elegant and showey plant, with yellow flowers. As I have found this species near Lancaster, I conclude Dr. Muhlenberg must have intended it by his *G. flava*, sive *glauca*. In Jersey, near swampy thickets, three miles below Kaighn's point, and in the woods near Woodbury. Rare. Perennial.

5. *G. pubescent*, brachiate-paniculate; leaves oblong, doubly cut-serrate and pinnatifid; flowers

axillary, opposite-pedicellate; calicine segments leafy, cut-dentate.—*Willd. and Pursh.*

Icon. Lam. Illust. t. 529. f. 2.

About two feet high and bushy. Leaves resembling those of *Pedicularis*, or Lousewort. Flowers yellow, large. In shady woods on the Schuylkill above the falls, and in similar situations in Jersey. In the woods of the Woodlands; tolerably frequent. Biennial. July, August.

287. *PEDICULARIS*. Gen. pl. 1003. (*Pediculares*.)

Calix ventricose, half 5-cleft. *Galea* (or upper lip of the *corolla*) emarginate and compressed. *Capsule* bilocular, mucronate, oblique. *Seeds* angular, tunicated.—*Nutt.*

pallida.

1. *P.* stem branched, tall, glabrous; leaves subopposite, lanceolate, crenate-dentate; spike leafless, glabrous, galea of the corolla obtuse; calix bifid, roundish.—*Herb. Banks.*

P. Virginica, Lamark.

P. serotina, Muhl.

Pale-flowered Louse-wort.

About a foot or two feet high, with pale or straw-yellow flowers. This, which is so common a species at Lancaster, is rare in this vicinity. I have only found it sparingly in the swampy thickets near Woodbury, Jersey. Mr. Nuttall thinks it the *P. lanceolata*, of Mich. Perennial. August, September.

Canadensis.

2. *P.* stem simple, leaves pinnatifid, cut-dentate; capitulum leafy at the base, hirsute; galea of the corolla bristly-bidentate, calices at length, truncate.—*Willd. and Pursh.*

Common Louse-wort.

About six or ten inches high. Flowers whitish, sometimes tinged with purple. In meadows and damp low woods; common. Perennial. May, June.

288. MIMULUS. Gen. pl. 1049. (*Scrophulariæ.*)

Calix prismatic, 5-toothed. *Corolla* ringent: upper lip reflected at the sides; palate of the lower lip prominent. *Stigma* thick and bifid. *Capsule* 2-celled, many-seeded. *Seeds* minute.—*Nutt.*

1. *M. erect*, glabrous; leaves sessile, lanceolate, ^{ringens.} acuminate-serrate, peduncles axillary, opposite, longer than the flowers, calicine teeth oblong-acuminate.—*Willd.* and *Pursh.*

Icon. Bot. Mag. 283. Pluk. amalth. t. 393. f. 3.

Gaping Monkey-flower.

A fine plant, about fifteen inches high, with large blue flowers. In boggy meadows and low grounds, every where common. Perennial. July, August.

2. *M. erect*, glabrous; leaves petiolate, ovate-acu- ^{alatus.} minate, serrate, peduncles axillary, opposite, shorter than the flower; teeth of the calix round, mucronate, stem four-angled, winged.—*Willd.*

Wing-stemmed Monkey-flower.

Resembles No. 1, so closely as to be easily mistaken for it. It is a taller plant. Flowers the size and colour of No. 1. In similar places. On the bank walk from the Navy Yard to Gloucester point; frequent. Perennial. July, August.

289. CHELONE. Gen. pl. 1005 (*Bignoniæ.*)

Calix 5-parted, tribracteate. *Corolla* ringent, ventricose. *Sterile filament* shorter than the rest; *anthers* lanuginous. *Capsule* 2-celled, 2-valved. *Seeds* membranaceously margined.—*Nutt.*

1. *C. leaves* opposite, lanceolate-oblong, acumi- ^{glabra.} nate, serrate; spikes terminal, close-flowered.—*Willd.*

Snake-head.

From two to three feet high. Flowers cream-coloured. The corolla has some faint resemblance to a snake's head. In similar places with *Mimulus ringens*, and *alatus*. Perennial. July, August.

290. PENTSTEMON. Gen. pl. 1758. (*Scrophulariæ.*)

Calix 5-leaved. *Corolla* bilabiate, ventricose. The *fifth* sterile filament longer than the rest and bearded on the upper side. *Anthers* smooth. *Capsule* ovate, 2-celled, 2-valved. *Seeds* numerous, angular.—*Nutt.*

pubescens.

1. *P.* stem pubescent, leaves serrulate, lanceolate-oblong, sessile; flowers paniculate, sterile filament bearded from the apex as far as below the middle.—*Willd.* and *Pursh.*

Chelone Pentstemon, Mant. 415.

A very elegant plant, from ten to fifteen inches high. Flowers pale-purple or blue. On the borders of open woods and fields; common. Perennial. July.

291. EUCHROMA. Nutt. Gen. Am. pl. vol. 2. p. 54.
(*Pedicularæ.*)

Calix spathæform, bifid, and emarginate, or quadrifid, with the segments subulate. *Corolla* bilabiate, upper lip very long and linear, embracing the style and stamina; lower lip short and trifid, without glands. *Anthers* linear, with unequal lobes, all cohering in the form of an oblong disk. *Capsule* compressed, ovate, oblique, 2-celled, 2-valved; dissepiment medial, bipartite. *Seeds* numerous, and small, surrounded with a membranaceous inflated vesicle.—*Nutt.*

1. **E.** leaves and coloured bractes divaricately ^{coccinea.} trifold; calix bifid, nearly equal with the corolla, segments retuse and emarginate.—*Nutt.*

Bartsia coccinea, L.

Icon. Pluk. alm. t. 102. f. 5.

Painted-cup.

A gorgeous and much admired plant. The rich scarlet bractes which are usually mistaken for flowers, constitute the great beauty of the plant. Under a foot high. In the meadows bordering the Wissahickon. Rare. Perennial. July.

292. MELAMPYRUM. Gen. pl. 999. (*Pediculares.*)

Calix 4-cleft. Upper lip of the *corolla* compressed, margin folded back; lower lip grooved, trifold, subequal. *Capsule* 2-celled, oblique, opening on one side; cells 2-seeded. *Seeds* cartilaginous, cylindric-oblong.—*Nutt.*

1. **M.** slender; lower leaves linear, entire; floral ^{lineare.} leaves lanceolate, toothed behind; flowers axillary, distinct.—*Lamark.*

M. Americanum, Mich.

all the leaves lanceolate.

β latifolium.

Cow-wheat.

About a foot high. Flowers yellowish-white, tinged with pale-red. In woods and copses every where common. *β.* differs in having much broader leaves. I have only found it in the woods near Woodbury, where it is abundant. Annual. July. *β.* August and later.

293. OROBANCHE. Gen. pl. 1045. (*Pediculares.*)

Calix 4 or 5-cleft, segments often unequal. *Corolla* ringent. *Capsule* ovate, acute, 1-celled, 2-valved; seeds numerous. A gland beneath the base of the germ.—*Nutt.*

- Americana.* 1. *O.* stem very simple, squamæ, oval-lanceolate, imbricate, closed; spike terminal, glabrous; corollas recurved, stamens exerted.—*Willd.* and *Pursh.*

Parasitic. On the authority of Mr. Bartram, I have introduced this plant, never having met with it myself. He says it grows in the woods near Philadelphia. Perennial. July.

294. EPIFAGUS. Nutt. Gen. Am. pl. vol. 2. p. 60.
(*Pediculares.*)

Polygamous.—*Calix* abbreviated, 5-toothed. *Corolla* of the infertile flower ringent, compressed, 4-cleft, lower lip flat: fertile flower minute, 4-toothed, deciduous. *Capsule* truncate, oblique, 1-celled, imperfectly 2-valved, opening only on one side.—*Nutt.*

- Virginiana.* 1. *E.* stem branched, flowers alternate, distant; corollas deciduous, 4-toothed.—*Willd.*
Epifagus Americanus, Nutt.
Orobanche Virginiana, L.

Cancer Root. Beech-drops.

A parasitic plant, always found under beech-trees. It is powerfully astringent, and possesses medicinal virtues. Common where the beech-tree is found. Perennial. July, till September.

TETRADYNAMIA.

**DRABA.
LEPIDIUM.
THLASPI.
DENTARIA.
CARDAMINE.
BARBAREA.
SISYMBRIUM.
ERYSIMUM.
ARABIS.
TURRITIS.**

CLASS XIV.—TETRADYNAMIA.

ORDER I. SILICULOSA.

296. DRABA. Gen. pl. 1076. (*Cruciferae*.)

Silicle entire, oval-oblong, valves flattish, parallel with the dissepiment, *Style* scarcely any.

verna.

1. *D.* scape naked, leaves oblong-acute, subseriate, hairy; petals bifid, stigma sessile.—*Willd.*

D. hispidula, Mich.

D. verna, β . *Americana*, Pers.

Icon. Fl. Dan. 983. Engl. Bot. 586.

Whitlow-grass. Shad-blossom.

A very humble plant, but extremely interesting, because it is the earliest blooming plant of our country. It is often found in flower in the last of February or early in March, when only one-half or three quarters of an inch high. It afterwards acquires a greater size, and sometimes is four inches high. It flowers twice in the season. Annual.

279. LEPIDIUM. Gen. pl. 1077. (*Cruciferae*.)

Silicle emarginate, elliptic, cells 1-seeded, valves carinate, dissepiment contrary.

Virginicum.

1. *L.* radical leaves pinnatifid, stem leaves linear-lanceolate, sub-cut-serrate; flowers 4-petalled, diandrous, silicle lentiform.—*Willd.* and *Pursh.*

Icon. Sloan. Jam. 1. t. 123. f. 3. (*Pursh.*)

Wild Pepper-grass or Pepper-wort.

From twelve to fifteen inches high. Flowers very minute. In stony roads and way-sides, on dry soil, and in dry fields, every where common. Whole plant tastes pepperish. Biennial. All summer.

298. THLASPI. Gen. pl. 1078. (*Cruciferae*.)

Silicle emarginate, obcordate, many seeded : valves navicular, with a carinate margin.—*Nutt.*

1. *T. hirsute*, silicle deltoid-obcordate, radical Bursa pastoris. leaves pinnatifid.—*Willd.*
Icon. Engl. Bot. 1485.

Shepherd's Purse.

One of the common weeds growing every where, even in the crevices of brick pavements. It sometimes covers whole fields. The young radical leaves are brought to market and sold for greens, in the spring of the year. Annual. From April till October.

ORDER II. SILIQUOSA.

299. DENTARIA. Gen. pl. 1087. (*Cruciferae*.)

Silique springing open elastically and the valves "nerveless" and revolute. *Dissepiment* partly fungose. *Stigma* emarginate. *Calix* longitudinally connivent.—*Nutt.*

1. *D.* leaves thrice ternate, folioles tripartite-lilaciniata, near-oblong, cut-dentate; roots tuberous, moniliform.—*Willd.*
D. concatenata, Mich.

Jagged-leaved Tooth-wort.

A handsome plant, near a foot high. Flowers pale-purple and white. On the shady hilly woods bordering the Schuylkill, near the falls, particularly on rocks; also, on the rocky banks of the Wissahickon, very common. Perennial. May.

heterophylla. 2. **D.** stem 2-leaved, leaves ternate, petiolate, leaflets linear, sublanceolate, acute, entire, margin asperate, ciliate; radical leaflets ovate-oblong, incisely and grossly toothed. **Obs.** The smallest species with which I am acquainted. Root concatenately and also simply tuberous, tubers oblong, dentoid. One radical leaf always present upon a long petiole arising from the base of the scape, deeply toothed, dentures obtuse, with a small abrupt point; cauline leaflets very rarely subserrate, generally entire, invariably ciliated, nearly linear, more than an inch long, and only about 2 lines wide. Corymb small, about 9-flowered; flowers pale purple, nearly the size of those of *Cardamine pratensis*, petals oblong, entire, longer than the stamina. Flowering in June. Figure Pluk. Amalth. t. 435. f. 2.? but in this figure the leaves are a little toothed.—*Nutt.*

D. heterophylla, *Nutt.*

In the shady fir woods on the banks of the Wissahickon; Mr. Nuttall. I have not met with it.

300. BARBAREA. R. Brown. (*Cruciferae.*)

Siliques 4-sided-ancipital. *Cotyledones* accumbent. *Seeds* in a single series. *Calix* erect. *Glands* disposed at the internal base of the shorter filaments.—**R. BROWN.** Hort. Kew. 4. p. 109.

vulgaris.

1. **B.** leaves lyrate pinnatifid; stem branched; flowers yellow, terminally racemose.—*Nutt.*
Barbarea vulgaris, R. Brown.
Erysimum Barbarea, L.

Water Cress.

From fifteen inches to two feet high, bearing a profusion of elegant flowers. The plant is eaten in its young state at our tables as a sallad, under the above English name. On the

retired banks of the Wissahickon, and on the edges of grassy-lanes, not unfrequent. Perennial. June, July.

301. SISYMBRIUM. Gen. pl. 1089. (*Cruciferae*.)

Siliqua terminated by a short terete rostrum, valves nearly straight, not elastic. *Calix* and *corolla* spreading.—*Nutt.*

1. *S. siliques* declinate, oblong-ovate; leaves ob-amphibium. long-lanceolate or pinnatifid, serrate, petals longer than the calix.—*Willd.*
Icon. Fl. Dan. 984.

Water Radish.

From fifteen inches to three feet high. Whole plant of a very yellow-green. Flowers small, yellow. Leaves subject to be eaten by insects. On the margins of our rivers and creeks; and along the borders of dirty ditches, véry common. Perennial. July, August.

2. *S. siliqua* declinate, leaves pinnate; leaflets vulgare. lanceolate, incisely serrate. L.
S. vulgare, Pers.
S. sylvestre, L.

Creeping Water-cress.

Scarcely more than a foot or fifteen inches high. Flowers yellow, and not unhandsome. This plant covers large patches of ground on the low wet margins of the Delaware, just above Kensington; and it has every appearance of being a native there. It is not improbable, however, that it has been accidentally introduced in that neighbourhood, where at least it is unequivocally naturalized. I have this summer found young leafing specimens four miles higher up the Delaware. Perennial. July.

302. ERYSIMUM. Gen. pl. 1090. (*Cruciferae*.)

Siliqua columnar, 4-sided. *Calix* closed.

1. *E. siliques* of the spike adpressed, leaves unci-officinale. nate.—*Willd.*
Icon. Fl. Dan. 560.

Officinale Hedge-mustard.

A straggling plant, with very small yellow flowers, and a hot pungent taste. About a foot or two feet high. On the borders of fields and along fences, every where common. Annual. July.

303. ARABIS. Gen. pl. 1049. (*Cruciferae*.)

Silique linear (mostly compressed) crowned with the sessile stigma; valves venose or nerved. *Seeds* disposed in a single series. *Cotyledones* accumbent. *Calix* erect. —*R. Brown*. Hort. Kew. 4. p. 104.

thaliana.

1. *A.* radical leaves oblong, petiolate; stem leaves lanceolate, sessile; stem erect, hairy at the base; petals twice the length of the calix.—*Willd.*

Icon. Curt. Fl. Lond. 2. t. 49.

Mouse-ear Wall-cress or Turkey-pod.

From six to ten inches high. Flowers small, white. In sandy fields, woods and road-sides, every where common. Annual. April till July.

lyrata.

2. *A.* leaves glabrous, radical ones lyrate, those of the stem linear.—*Willd.*

Lyre-leaved Wall-cress.

About the size of the preceding, but has much larger flowers—also white. On all the high rocks of the neighbourhood, at the roots of trees in the woods of Jersey, and in fields and dry road-sides, every where abundant. It flowers often when snow is on the ground in March, and continues in bloom till July. Annual.

falcata.

3. *A.* leaves lanceolate, narrow at each end, remotely dentate, hastate-sessile; siliques pendulous, two-edged, scythe-shaped.—*Mich.*

A. Canadensis, Mich.

Turritis foliis lanceolatis, dentatis, &c.

Icon. Pluk. alm. t. 86. f. 8. Gron. Virg.

Sickle-leaved Wall-cress.

A large species, being often two or three feet high. Flowers white, larger than those of *Turritis lævigata*. Siliques arcuate, rigid, a little better than an eighth of an inch broad, with a line on each side. On the rocks bordering Schuylkill, not common. Perennial. May.

4. *A.* leaves glabrous, rhomboid, repand-obsolete, ^{rhomboidea.} dentate; the lower ones on long petioles, root tuberous.—*Pers.*

A. rhomboidea, *Pers.* and *Pursh.*

A. bulbosa, *Muhl.*

A. amara, *Banks.* (*Pursh.*)

Cardamine rotundifolium, *Michx?*

Bulbous-rooted Wall-cress or Turkey-pod.

From ten to fifteen inches high. Flowers large, white; root tuberous. Along the marshy borders of the Delaware: on the borders of the Schuylkill and Wissahickon; in meadows near rivulets and in ditches; common. Perennial. March, April.

304. TURRITIS. Gen. pl. 1095. (*Cruciferae.*)

Silique elongated, ancipital; valves nervose or carinate. *Seeds* disposed in a double series. *Cotyledones* accumbent.—*R. Brown.*

1. *T.* leaves glabrous, radical ones obovate, serrate, those of the stem lanceolate-linear, very entire, amplexicaule.—*Willd.* ^{*lævigata.*}

Smooth Tower-mustard.

From one foot to two feet high, very smooth. Flowers yellowish-white, small. The plant resembles *Arabis falcata*. It differs however, strikingly in fruit. Siliques from three to four inches long, very numerous, quite flat, straight and little more than one-sixteenth of an inch broad. On the high shady banks of the Schuylkill, east side, about a mile or two south of the falls. I have found it sparingly on the west side above the falls, on rocks; rare. Biennial. April, May.

MONADELPHIA.

**LOBELIA.
GERANIUM.
SIDA.
MALVA.
HIBISCUS.**

CLASS XV.—MONADELPHIA.

ORDER I. PENTANDRIA.

305. LOBELIA. Gen. pl. 1363. (*Lobeliaceæ.*)

Calix 5-cleft. *Corolla* monopetalous, irregular, on the upper side cleft nearly to its base. *Stamina* united into a tube. *Stigma* 2-lobed; involucrate! involucre (or indusium) bearded. *Capsule* inferior or semi-superior, 2 or 3-celled, opening at the summit. *Seeds* minute, scabrous.—*Nutt.*

Claytoniana. 1. *L.* erect, simple, subpubescent; leaves oblong, somewhat obtuse, radical ones entire, those of the stem above, denticulate; raceme virgate, bractes subulate.—*Mich.* and *Pursh.*

L. spicata, Lamark.

Rapuntium foliis villosis mollibus, &c. Gron. Virg.

Clayton's Lobelia.

About eighteen inches high; flowers blue. In cultivated fields and woods, common. Perennial. July, August.

Kalmii. 2. *L.* slender, erect, somewhat simple; radical leaves spatulate, stem leaves linear, very slightly denticulate; flowers racemose, alternate, remote, pedicellate.—*Willd.*

A delicate species, about a foot high, with blue flowers. In fields and meadows, common. Annual. July, August.

Does this plant differ from the one below, which I have quoted on the authority of Mr. Nuttall? The plant intended by me referred to the above name, was considered by Dr. Muhlenberg the *Kalmii*, and without any doubt. Mr. Nuttall makes this different; and as the plant has not flowered since I have seen

his work, I have consequently no opportunity of examining more accurately. The plant described by Mr. Nuttall as *gracilis*, is the one so common in Jersey, and is the same intended by me in the present head. It appears to be Willdenow's *Kalmii*, as it certainly is Muhlenberg's.

[*L.* stem erect, minutely scabrous, simple or fili-^{gracilis.}formly branched; leaves oblong-linear, minutely denticulate, partly obtuse and remote; flowers slenderly racemose, distant; peduncle coloured, shorter than the flower, bibracteate at the base; segments of the calix subulate, longer than the capsule which is obtuse below. **Obs.** The radical leaves are spatulate and mostly hirsute; stem leaves remote, sessile, scarcely ever exceeding an inch in length. Stem filiform, often somewhat flexuous, but erect. Peduncles only 2 or 3 lines long, in the flower blue; segments of the calix nearly double the length of the capsule. Flower blue; palate of the lower lip marked with 2 acute white lines, and 2 greenish spots with 2 others also near the base of the tube. The root is slender but apparently perennial.—*Nutt.*]

3. *L.* erect, branched, very hirsute; leaves ovate,^{inflata.} serrate; racemes leafy, capsules inflated.—*Willd.*

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 16.

Indian Tobacco. Wild Tobacco. Emetic-weed.

An ordinary looking plant, of a grey aspect, from one foot to eighteen inches high, having large inflated capsules and small blue flowers. Possesses powerful medicinal virtues. (See Veg. Mat. Med. U. S.) In pastures, neglected fields, and on road-sides, every where frequent. Annual. From June till September.

4. *L.* erect, simple, a little hairy; leaves ovate-^{Siphilitica.} lanceolate, subserrate, raceme leafy; calices

hirsute, with the divisions reflexed.—*Willd.* and *Pursh.*

Icon. Woodville's Med. Bot. vol. 1. p. 177. t. 63.

A very elegant plant, from eighteen inches to three feet high. Flowers Prussian-blue, very large, and handsome. Possesses medicinal virtues, and has been much celebrated. On the east margin of the Schuylkill, a mile or two south of the falls; and in swamps eight or ten miles from this city, west. Not common. Perennial. July, August.

Cardinalis.

5. *L.* erect, simple, pubescent; leaves ovate-lanceolate-acuminate, erose-denticulate; raceme subsecund, many-flowered, the organs longer than the corolla.—*Willd.* and *Pursh.*

Icon. Bot. Mag. 320.

Cardinal Plant.

This is one of the most superb plants of the United States; it is highly deserving cultivation in gardens, where with a little attention it thrives exceedingly well. Flowers rich velvety-crimson. Plant from fifteen inches to three feet high. On the marshy borders of all our waters and ditches. In low wet meadows and watery thickets; abundant. Perennial. July, August.

pallida.

6. *L.*

L. pallida, Muhl.

L. goodenoides, Willd.

I have a specimen of a lobelia, common in this neighbourhood, marked by Dr. Muhlenberg, "*L. pallida*," with which he makes the *L. goodenoides*, Willd. synonymous. I know not in what this *pallida* differs from *Claytoniana*, which Pursh makes synonymous with the *goodenoides*, of Willd. For the present I leave it undecided.

ORDER III. DECANDRIA.

306. GERANIUM. Gen. pl. 1118. (*Gerania.*)

Calix 5-leaved. *Petals* 5, regular. *Nectarium* 5 melliferous glands adnate to the base of the longer filaments. *Arilli* 5,

1-seeded, awned, awns naked and straight.
Nutt.

1. *G. erect*, retrorsely pubescent; stem dichotomous; leaves opposite, 3-5-parted, incised, upper ones sessile; peduncles elongated, two-flowered, petals obovate.—*Willd.*

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 13.

Wild-geranium. Common Crane's-bill. Spotted Crane's-bill.

A fine showy species, with large purple flowers. About fifteen or eighteen inches high. Possesses medicinal virtues. (See Veg. Mat. Med. U. S.) In shady woods, meadows, borders of fields, and in hedges; very common. Perennial. June, July.

2. *G. diffuse*, pubescent; leaves opposite, 5-lobed, trifid, incised; peduncles 2-flowered, subfasciculate; petals emarginate, of the length of the awns of the calix, arillus, villose.—*Willd.* and *Pursh.*

G. Carolinianum, β . *album*, Muhl.

G. lanuginosum, Jacq. hort. schrœnb. 2. t. 140.
(*Pursh.*)

White-flowered Crane's-bill.

Almost procumbent, but very spreading. Flowers quite small, white. In the sandy fields of Jersey, and cultivated fields elsewhere; common. Biennial. July.

3. *G. peduncles* two-flowered, longer than the leaf, leaves 5-parted; lobes multifid, linear, petals emarginate; capsules smooth, seeds reticulate.—*Smith, Willd.* and *Pursh.*

A small species, scarcely exceeding six inches in height, with deep purple flowers on a very long peduncle. On the borders of fields and thickets, near Woodbury; common. I have not found it elsewhere. Annual. July.

4. *G. peduncles* 2-flowered, flowers pentandrous, petals emarginate, of the length of the awnless

calix; leaves sub-7-lobed, trifid; arillus pubescent.—*Willd.*

Smallest-flowered Crane's-bill.

This species has very minute purple flowers. On the road-sides close to Kaighn's point, and in other similar places of Jersey; rare. Annual. June.

ORDER IV. POLYANDRIA.

307. SIDA. Gen. pl. 1129. (*Malvaceæ.*)

Calix 5-cleft, simple. *Style* multipartile.
Capsules many, 1 or 3-seeded.

spinosa.

1. S. stem spreading, axills subspinous, leaves on long petioles, ovate-lanceolate, obsoletely cordate-dentate; peduncles solitary, axillary; stipules setaceous, longer than the peduncle; capsules birostrate.—*Willd.*

Pluk. alm. t. 9. f. 6.

Thorny Indian Mallow.

About a foot high. Flowers yellow. In and about Camden, and on road-sides and among rubbish, both in Jersey and west of the Delaware. Not uncommon. Annual. July.

Abutilon.

2. S. leaves subrotund-cordate, acuminate, dentate, tomentose; peduncles solitary, shorter than the petiole; capsules bi-aristate, truncate.—*Willd.*

Icon. Schkuhr. handb. 190. (Pursh.)

Round-leaved Indian Mallow.

From one to four or five feet high. Leaves soft. Flowers pale-yellow. In cultivated grounds and in wastes, every where very common. Annual. July. August.

308. MALVA. Gen. pl. 1134. (*Malvaceæ.*)

Calix double; the exterior mostly 3-leaved.
Petals 5. *Capsules* many, 1-seeded, disposed orbicularly.—*Nutt.*

1. *M.* stem prostrate; leaves cordate-orbulate, ^{rotundifolia.} obsoletely 5-lobed; peduncles of the fruit declinate.—*Willd.*

Icon. Fl. Dan. 721.

Round-leaved Mallow.

An introduced and well-known weed, found always among rubbish, near habitations, and in cultivated grounds, where it is perfectly naturalized. Perennial. All summer.

309. HIBISCUS. Gen. pl. 1139. (*Malvaceæ.*)

Calix double; exterior many-leaved. *Stigmas* mostly 5. *Capsule* 5-celled, many-seeded.

1. *H.* leaves broad-ovate, obtusely serrate, sub-^{palustris.} trilobed, 3-nerved, tomentose beneath; peduncles axillary, longer than the petiole.—*Willd.*

Icon. Cavan. Diss. 3. t. 65. f. 2.

Marsh Hibiscus.

This elegant plant is very ornamental to our swamps and water-sides. From two to four feet high. Flowers very large, reddish-purple; rarely white. Along the Delaware, on either side, below the city; very abundant. Perennial. August, September.



DIADELPHIA.

CORYDALIS.
POLYGALA.
LUPINUS.
CROTALARIA.

LATHYRUS.

VICIA.

TRIFOLIUM.

STYLOSANTHES.

LESPEDEZA.

HEDYSARUM.

ÆSCHYNOMENE.

PHASEOLUS.

APIOS.

GLYCINE.

GALACTIA.

CLITORIA.

ROBINIA.

TEPHROSIA.

CLASS XVI.—DIADELPHIA.

ORDER II. HEXANDRIA.

310. CORYDALIS. Vent. choix de pl. 19. (*Papaveraceæ.*)

Calix 2-leaved. *Corolla* ringent. *Filaments* 2, membranaceous, each bearing 3 anthers. *Capsule* siliquose, many seeded.—*Nutt.*

Cucullaria.

1. *C.* scape naked, raceme simple, secund; nectaries divaricate, the length of the corolla, style included; root bulbous.—*Pers.*
Fumaria Cucullaria, Willd. and Mich.
Bicucullata Canadensis, Marchant.
Diclytra Canadensis, Bosc.
Icon. Bot. Mag. 1127.

Dutch-mans' Breeches.

A very elegant plant; with cream-coloured flowers, on a naked scape. On the high woody banks of the Schuylkill, east side, a little south of the falls, in the greatest profusion. Perennial. April.

aurea.

2. *C.* stem branched, diffused; leaves bipinnate, folioles divided, linear-lanceolate, acute at each end; racemes leaning one way; bractes broad-lanceolate, sub-denticulate; siliques terete, turgid, twice the length of the peduncle.—*Willd. enum.*

Golden-flowered Corydalis.

Flowers smaller than the preceding, and of a golden-yellow. On the high rocks bordering the Wissahickon; rare. Also on the east banks of the Schuylkill, two miles above the falls, but scarce. Annual. April, May.

glauc.

3. *C.* stem branched, erect; leaves glaucous, those of the stem biternate; racemes subcorymbose,

bractes minute, siliques linear, thrice as long as the peduncle.—*Pers.*

Fumaria sempervirens, Willd.

Icon. Bot. Mag. 179.

On the banks of the Schuylkill above the falls; and on the Wissahickon above Langstroth's Mills; rare. Annual or Biennial.

ORDER III.—OCTANDRIA.

311. POLYGALA. Gen. pl. 115. (*Pediculares.*)

Calix 5-leaved; 2 of the leaves in the form of wings, and coloured. *Capsule* obcordate, 2-celled, 2-valved.—*Nutt.*

1. *P.* stem simple or branched; lower and radical leaves spatulate, the rest lanceolate; spike cylindrical-capitate, crowded with flowers, pedunculated.—*Willd.* and *Pursh.*

Icon. Pluk. amalth. t. 438. f. 6.

Yellow-flowered Milk-wort.

About ten or twelve inches high. Flower-heads yellow. In bogs near Haddonfield, Jersey. Rare.

2. *P.* stem fastigiately branched; leaves alternate, oblong-linear; flowers beardless, imbricated in obtuse cylindric spikes; rachis squarrose; wings of the calix cordate-ovate, erect, twice as long as the capsule.—*Nutt.*

P. purpurea, Nutt.

P. sanguinea, Mich. and Pursh.

P. sanguinea, Bart. Prod. Fl. Ph.

From three to ten inches high. Flowers reddish-purple, in terminal oblong-oval capituli. In the boggy grounds of the Woodlands; abundant. In low grounds and fields of Jersey; common. This plant has been considered the real *P. sanguinea* of L., but according to Mr. Nuttall it differs specifically. Annual. July, August.

sanguinea. 3. *P.* stem fastigiately branched ; leaves alternate, narrow-linear ; flowers beardless, disposed in long and crowded spikes ; rachis squarrose ; calicine wings obovate, the length of the capsule.—*Nutt.*

P. sanguinea, L., not of Mich. and Pursh.
Pluk. Mant. 153. t. 438. f. 5.

A smaller plant than No. 2. Leaves narrow, short ; spikes becoming finally, two or three inches long. Flowers dark red, mingled with yellow and green. In the woods near Woodbury, Jersey ; not uncommon. Annual. July, August.

verticillata. 4. *P.* leaves verticillate, linear and remote ; flowers cristate, greenish ; calicine wings roundish, nearly veinless, and shorter than the fruit to which they are appressed ; spikes pedunculate, subacute ; bractes deciduous ; stem erect and branched.—*Nutt.*

Icon. Pluk. Mant. t. 438. f. 4.

From six to twelve inches high, very much branched. Flowers small, white and pale-red. In open woods, common. Annual. June, August.

ambigua. 5. *P.* first leaves verticillate, linear, the rest alternate ; stem virgately branched ; spikes acute, upon very long peduncles ; flowers cristate, purplish ; calicine wings round and venose, equal with the fruit to which they are appressed ; bractes deciduous.—*Nutt.*

P. ambigua, Nutt.

Hitherto confounded with No. 4, which it closely resembles. In woods, road-sides and the borders of cultivated fields ; not uncommon. Annual. July, August.

ORDER IV. DECANDRIA.

312. LUPINUS. Gen. pl. 1176. (*Leguminosæ.*)

Calix bilabiate. Five of the *anthers* oblong, and 5 partly round. *Legume* coriaceous, torulose.—*Nutt.*

1. *L. perennialis*, *repent*; stem and leaves smoothish; leaves digitate; folioles (8-9) lanceolate, somewhat obtuse; calices alternate, without appendices; upper lip emarginate, lower one entire.—*Willd.* and *Pursh.*

Icon. Bot. Mag. 202.

Perennial Lupin.

From one foot to eighteen inches high. Flowers fine purple. This elegant plant ought to be cultivated in gardens. In the woods of Jersey, every where abundant. Perennial. May till July.

313. CROTALARIA. Gen. pl. 1172. (*Leguminosæ.*)

Vexillum large and cordate; *carina* acuminate. *Filaments* united in one body, with a dorsal fissure. *Legume* pedicellate, turgid.—*Nutt.*

1. *C. hirsuta*, erect, branched; leaves simple, oblong-lanceolate; stipules lanceolate-acuminate, decurrent; racemes opposite-leaved, sub-3-flowered; corollas smaller than the calix.—*Willd.*

C. sagittalis, β . *oblonga*, Mich.

Arrow Rattle-box.

From four to ten inches high. Flowers yellow. The pods are indigo-blue or black, and very hard, so that the seed contained within, rattle against the sides; hence the name. In the sandy fields of Jersey, very abundant. In a stony field above the falls of Schuylkill and elsewhere, frequent. Annual. July.

DIADELPHIA, DECANDRIA.

314. LATHYRUS. Gen. pl. 1186. (*Leguminosæ.*)

Style flat, broader above and villous on the upper side. The upper segments of the *calix* shorter.—*Nutt.*

myrtifolius.

1. *L.* stem naked, tetragonous; stipules semi-sagittate, lanceolate-acuminate; folioles 4, oblong-lanceolate, acute, mucronate, venose-reticulate; peduncles longer than the leaf, sub-3-flowered.—*Willd.*

Myrtle-leaved Pea-vine.

Flowers pale purple. Among the large autumnal plants in the marshy borders of the Delaware; common. Perennial. July, August.

315. VICIA. Gen. pl. 1187. (*Leguminosæ.*)

Stigma transversely bearded on the under side. *Calix* emarginate and bidentate above, the 3 lower dentures long and straight. *Vexillum* emarginate.—*Nutt.*

Americana.

1. *V.* peduncles many-flowered, shorter than the leaf; stipules semi-sagittate, dentate; folioles 8-12, elliptic-lanceolate, obtuse, glabrous.—*Willd.*

American Vetch.

Resembles *Lathyrus palustris*, somewhat. Flowers purple. On the Schuylkill above Lemon-hill; rare. Perennial. July.

Cracca?

2. *V.* spikes many-flowered, retrorsely imbricated, longer than the leaf; stipules semi-sagittate, linear-subulate, very entire; folioles numerous, lanceolate-oblong, pubescent.—*Willd. & Pursh.*

Flowers blue. Resembles No. 1, but much more rare. In watery thickets, scarce. Perennial. July.

316. TRIFOLIUM. Gen. pl. 1211. (*Leguminosæ.*)

Flowers subcapitate.—*Legume* valveless, covered by the calix, 2 to 4-seeded.

1. *T. procumbent*, pubescent; folioles obovate, ^{reflexum.} stipules oblique cordate; capituli many-flowered, flowers pedicellate, all finally reflexed; legumens sub-3-seeded.—*Willd.* and *Pursh.*

Buffaloe Clover.

A handsome species, with large rosaceous flowers. On the bluff bordering the Schuylkill, Woodlands; rare. Perennial. June.

2. *T. repent*; folioles ovate-oblong, emarginate, ^{repens.} serrulate; capituli umbelled, calicine teeth nearly equal; legumens 4-seeded.—*Willd.* and *Pursh.*

Icon. Fl. Dan. 990.

White Clover.

A well-known clover with white flowers. In pastures, commons, woods, and on new-cleared grounds; every where abundant. Perennial. May till September.

3. *T. spikes* dense; stem ascending; corollas un- ^{pratense.} equal; four of the calix teeth equal; stipules awned.—*Smith.*

Icon. Fl. Dan. 989.

Red Clover.

Common red clover, though not a native, is completely naturalized. In pastures, on commons, and in woods. Perennial. All summer.

4. *T. erect*, very much branched, villous; folioles ^{arvens.} linear-lanceolate, serrulate at the apex; stipules connate, subulate at the apex; spikes very villose, subcylindrical; calicine teeth longer than the corolla.—*Willd.*

Icon. Fl. Dan. 724. Curt. fl. Lond. 50.

Hares'-foot. Bull's Clover.

From ten to twelve inches high. Capituli reddish. In fields of Jersey in the greatest profusion, rendering them quite red at a distance. This plant is said to be medicinal, and it is brought to our markets for use in domestic medicine. It is found in cultivated grounds, and on the edges of open woods, every where. Flowers white, with red spots. Annual. July till September.

agrarium.

5. *T. erect*, subpubescent; folioles lanceolate-cuneate, obtuse, the intermediate sessile; stipules lanceolate, acute; spikes oval, imbricate; vexillum deflexed, persistent; calicine teeth subulate, glabrous, unequal.—*Willd.*

T. aureum, Pollich. fl. palat. 708.

T. strepens, Crantz. fl. aust. 411. m. 8. (Pursh.)
Icon. Fl. Dan. 558.

Large Hop-trefoil.

About twelve or fifteen inches high, with bright golden-yellow capituli. This elegant species I have only found along the course of the Schuylkill, west side, in woods. In the woods near Mantua and Powelton, abundant. Annual. June, August.

procumbens.

6. *T. procumbent*; stem hairy, folioles obovate, emarginate, glabrous; stipules lanceolate-acuminate, pubescent or ciliate; capituli oval, imbricate; vexillum deflexed, persistent, furrowed. B.

T. procumbens, Schreber.

T. minus, Smith?

Small Hop-trefoil.

Intermediate in size between No. 5, and No. 7; procumbent. Capituli pale straw-yellow, ovate; stipules and stem very pubescent. In Jersey, on commons and in pastures; frequent. July, August.

minimus.

7. *T. semi-procumbent*; stem glabrous; folioles long-cuneate, emarginate, denticulate, glabrous; stipules ovate-acuminate, peduncles filiform, capituli nearly round, vexillum deflexed. B.

Is this *T. campestre*, Muhl. Cat.?

Least Hop-trefoil.

Stem from an inch or two long, to thirteen inches, always glabrous. I have found this species common in Jersey, particularly near Woodbury, on commons and in pastures. July.

317. STYLOSANTHES. [Swartz.] Gen. pl. 1203. (*Leguminosæ.*)

Calix tubulous and very long, bearing the corolla. *Germ* beneath the corolla. *Loment* with 1 or 2 articulations, hooked.—*Nutt.*

1. *S.* stem pubescent; folioles lanceolate-glabrous; ^{elator.} bractes lanceolate-ciliate; capituli 2-3-flowered.—*Mich.*

Stylosanthes elator, Swartz.

S. hispida, β . *hispidissima*, Mich.

Trifolium biflorum, Sp. Pl. 1088.

Arachis aprica, Walt.

Hispid Stylosanthes.

From six to twelve inches high. Flowers yellow. In sandy fields, woods, and on road-sides in Jersey; every where common. West of the Delaware, more rare. Perennial. July, August.

318. LESPEDEZA. Mich. Fl. Am. (*Leguminosæ.*)

Calix 5-parted; bibracteate at the base, segments subequal. *Carina* transversely obtuse. *Loment* lenticular, unarmed, 1-seeded.—*Mich.*

1. *L.* erect and somewhat ramose; leaflets ob-^{sessiflora.} long-oval, obtuse; fascicles of flowers subsessile, axillary ones partly racemose; loment naked, acute.

Hedysarum reticulatum, Muhl.

H. sessiflorum, Lam.

H. junceum, Walt.

H. reticulatum, Willd.

Medicago Virginica, Syst. Veg.

Veined-leaved Lespedeza.

A slender and handsome species, from one to two feet high. Flowers purple. In the borders of sandy fields in Jersey; frequent. Perennial. July.

capitata.

2. *L. erect*, simple; leaves subsessile; folioles elliptical; spikes capitate, shortly pedunculated, axillary and conglomerate-terminal; calices villose, the length of the corolla; loment much smaller than the calix.—*Mich.* and *Pursh.*

Lespedeza fruticosa, Pers.

Hedysarum frutescens, L.

Shrubby Lespedeza.

Almost three feet high. Flowers white, or very pale purple. On the borders of fields in Jersey; not unfrequent. In the hedges near Kaighn's point. $\frac{1}{2}$. June, July.

polystachya.

3. *L. erect*, branched, very villose; leaves subsessile; folioles rotund, oval; spikes axillary, on long peduncles; corolla nearly equal to the calix; loment nearly equal to the calix.—*Mich.*

Hedysarum hirtum, Willd.

Icon. *Mich. fl. am.* 2. t. 40.

About the same height as the preceding, with handsomer foliage. Flowers small, white. Grows with No. 3, but much more rare. $\frac{1}{2}$. June, July.

violacen.

4. *L. leaves ternate*, elliptical, obtuse; racemes umbellate, the length of the petiole; flowers in pairs; loment rhomboid-reticulate, glabrous.—*Willd.*

Hedysarum violaceum, Willd.

Violet-flowered Lespedeza.

A handsome species, with violet-coloured flowers. In sandy woods, six or ten miles west of the Delaware, and in similar places in Jersey; not very common. Perennial. July.

5. *L. diffuse*, Branched; folioles oblong, obtuse, ^{divergens} adpressed, hairy below; racemes longer than the petiole flowers, in pairs; laments ovate, reticulate, smooth.—*Pursh.*

Hedysarum divergens, Willd.

Diverging Lespedeza.

Proximately allied to No. 4, but certainly a distinct species, and not a mere variety. I am quite familiar with this plant, which grows in such profusion in the vicinity of Lancaster. It is common also through the woods of Maryland, and near the city of Washington, in all which places it preserves its characters. Flowers purple. In the sandy woods near Woodbury; very rare. Perennial. July.

6. *L. procumbent* and slender, every where pubes- ^{procumbens.} cent, but more particularly the stem petioles and peduncles; leaflets oval; peduncles very long and setaceous; raceme short, subumbellate; flowers by pairs, distinct; loment oval, nearly smooth.—*Nutt.*

Hedysarum Lespedeza, Lamark.

H. prostratum, Willd., *not H. divergens*, Willd.

(See Persoon's Synopsis.)

Trailing Lespedeza.

This delicate and handsome plant is one of the commonest species of the genus in this vicinity, being found every where in sandy grounds of Jersey; and west of the river. Mr. Pursh and Mr. Nuttall, have, besides this species, *L. prostrata*, Willd. which is identical with the present plant. Flowers rosaceous-purple. Perennial. June, July.

7. *L. leaves ternate*, subrotund-elliptical, emar- ^{repens.} ginate; racemes axillary; laments repand.—*Willd.*

Hedysarum repens, Willd. and Muhl.

A delicate and pretty species, found in the shady woods of Jersey, and, in woods above the falls of Schuylkill, east side. Perennial. July.

319. HEDYSARUM. Gen. pl. 1204. (*Leguminosæ.*)

Calix 5-cleft. *Carina* transversely obtuse. *Loment* of several articulations; joints 1-seeded, compressed, and mostly hispid.—*Nutt.*

- Canadense. 1. *H. erect*, smoothish; leaves ternate, oblongo-lanceolate; stipules filiform; flowers racemose; the joints of the loment obtuse, triangular, hispid.—*Willd.*

About two and a half feet high. Whole plant of a greyish-green. Flowers purplish. In woods and thickets, common. Perennial. July, August.

- Marilandicum. 2. *H. erect*, branched, hairy; leaves ternate, oblong, villous beneath; stipules subulate; racemes paniculate; loment tri-articulate, joints rhomboid, reticulate, hairy.—*Willd.*
Icon. Dill. elth. t. 174. f. 171. (*Pursh.*)

About the size of No. 1. Flowers also purplish. In similar places with the preceding. Not uncommon. Perennial. July, August.

- viridiflorum. 3. *H. erect*, branched, pubescent; leaves ternate, ovate-oblong, scabrous underneath; stipules lanceolate-cuspidate; racemes paniculate, bracteate; loment rough, joints oval.—*Willd.*
Icon. Pluk. alm. t. 308. f. 5.

Three, or three and a half feet high. Flowers first purple or reddish, and afterwards bluish-green. In woods, and on the borders of neglected fields, common. Perennial. July, August.

- bracteosum. 4. *H. erect*, glabrous; leaves ternate, oblong-oval, acuminate; stipules subulate; raceme ter-

minal, few-flowered ; bractes ovate, acuminate, striate, glabrous ; joints of the loment suboval.

—*Mich.* and *Pursh.*

H. cuspidatum, Willd.

A very large species, often four feet high. Pursh has described this plant and the *H. cuspidatum* severally—they are identical. In open woods and thickets, not uncommon. On the bluff at the Woodlands, abundant. Flowers large, purplish-red. Perennial. July to September.

5. **H. erect, smoothish ; leaves ternate, ovate, pubescent beneath, ciliated on the margin ; stipules filiform ; panicle terminal ; joints of the loment semi-orbiculate, hispid.—Willd.**

ciliare.

About two and a half feet high. It is sometimes pubescent. Flowers small, violet-coloured. On the margins of sandy fields in Jersey, every where common. Perennial. July.

6. **H. erect, glabrous ; leaves ternate, oblong-lanceolate or elliptical, smooth ; stipules subulate ; panicle terminal ; joints of the loment (4,) rhomboid pubescent.—Willd.**

paniculatum.

Icon. Pluk. Mant. t. 432. f. 6.

From two to three feet high. Leaves of a deep green, with a whitish central longitudinal spot. Flowers purple. Growing in thickets and woods ; common. Perennial. July.

7. **H. very erect, glabrous, simple ; leaves petiolate, ternate, linear-elliptical, glabrous, reticulate, veined, glaucous beneath ; stipules subulate ; panicle terminal, pedunculate, few-flowered.—Pursh.**

strictum.

Flowers small, pale purple. In the woods of Jersey, near Woodbury ; rare. Perennial. July, August.

8. **H. erect, simple ; leaves long, petiolate, ternate, subrotund-ovate acuminate ; panicle scape-form from the base of the stem ; peduncles hairy, viscous ; joints of the loment oblong-triangular, smootish.—Willd.**

glutinosum.

H. glutinosum, Muhl.

H. acuminatum, Mich.

About a foot or two high. Flowers purple. In woods and thickets, common. Perennial. July.

nudiflorum.

9. *H. erect*, simple, smoothish; leaves ternate, broad-oval, acuminate; scape paniculate, glabrous; joints of the loment subrotund-triangular, smoothish.—*Willd.*

Resembles No. 8, very closely. Flowers like the preceding. Perennial. June to September.

rotundifolium.

10. *H. trailing*, hirsute; leaves ternate, orbicular, every where hairy; stipules rotund-cordate, reflexed; racemes axillary and paniculate, terminal, few-flowered; bractes cordate; joints of the loment sub-rhomboid, reticulate, scabrous.—*Mich. and Pursh.*

H. canescens, Willd.?

Easily distinguished from any of the species of this elegant genus, by the round leaves. Flowers purple. In woods, on rocks and in dry copses; common. Perennial. July.

320. *ÆSCHYNOMENE*. Gen. pl. 1202. (*Leguminosæ.*)

“*Stamina* divided into 2 equal bodies.”

BROWN. *Loment* exserted, compressed, one of the sutures straight, the other lobed; articulations truncated, 1-seeded. *Calix* bilabiate, labia dentate.—*Nutt.*

hispida.

1. *Æ.* the erect stem and petioles tuberculate-hispid; leaves in many-pairs; folioles linear, obtuse; stipules membranaceous, semi-sagittate; racemes simple, few-flowered; loment hispid.—*Willd. Sp. Pl. 3. p. 1163.*

Hedysarum Virginicum, Willd. *Sp. Pl. 3. p. 1212.*

A striking and elegant plant, about two feet high. Flowers yellow, veined with red. On the banks of the Delaware be-

tween Kaighn's point and the ferry below. Very rare. Annual. July.

321. PHASEOLUS. Gen. pl. 1180. (*Leguminosæ*.)

Carina with the style and stamina spirally convolute. *Legume* compressed, falcate. *Seeds* compressed, reniform.—*Nutt.*

1. *P.* twining, altogether pubescent; leaves broad-^{perennis.}ovate, the odd one subcordate; racemes in pairs, longer than the leaf; peduncles in pairs; bractes obsolete; legumens pendulous.—*Willd.* and *Pursh.*

P. paniculata, Mich.

Dolichos polystachys, Willd.

Perennial Kidney-bean.

In woods among rocks, rare. Perennial. July, August.

2. *P.* twining, perennial, a little hairy; folioles ^{peduncularis.}oblong-oval, subdeltoid, somewhat obtuse; capituli on long peduncles; vexillum short; wings large, expanded; legumes terete-linear.—*Willd.* and *Pursh.*

Glycine peduncularis, Muhl.

Glycine umbellata, Willd.

Phaseolous helvolus, L. and Mich.

Icon. Dill. elth. t. 233. f. 300. (*Pursh.*)

A handsome species, trailing on the ground. Flowers pink and deep purple; peduncles very long. In fields and woods of Jersey, abundant; sufficiently common in similar situations elsewhere. Perennial. July.

leaves lanceolate, sub-acuminate; peduncles very ^{*β* *parabolica.*} long. B.

Glycine peduncularis, *β. parabolica*, Bart. Prod.

Fl. Ph. p. 71.

Phaseolus parabolica, Nutt.

Resembles No. 2, very much, and grows with it. Flowers pink and dark purple. Perennial. July.

trilobus.

3. *P. twining*, pubescent; lower folioles rhomboid-oval, upper trilobate; capituli on long peduncles; legumens linear.—*Mich.*

Phaseolus trilobus, Mich, not of Willd. and Ait. which latter is *Dolichos trilobus*, L.

P. vexillatus, Walt.

Glycine angulosa, Willd.

Is this *P. angulosus*, Pers.?

On the high sandy banks of the Delaware, Jersey side, about four miles below Kaighn's point; rare. Annual. July.

322. APIOS. [Glycine. Gen. pl.] (*Leguminosæ.*)

Calix sub-bilabiate, truncate, with but a single denture situated beneath the carina.

Carina falcate, reflecting the apex of the vexillum. *Germ* cylindrically sheathed at the base. *Legume* many-seeded.—*Nutt.*

tuberosus.

1. *A. twining*, glabrous; root tuberosus; leaves pinnate; folioles 5-7, ovate-lanceolate, narrow above; spikes crowded, shorter than the leaves.—*Pursh.*

Apios tuberosus, Pursh.

Glycine Apios, Willd.

Icon. Bot. Mag. 1198.

Wild Potatoe-vine.

Root tuberosus, esculent. Flowers brownish purple. In bogs of Jersey, and along hedges elsewhere; not uncommon. Perennial. July.

323. GLYCINE. Gen. pl. 1182. (*Leguminosæ.*)

Calix 4-cleft, subequal, upper segment bifid, base partly attenuated. *Vexillum* oboval; wings bidentate at the base; *carina* often incurved, shorter than the vexillum. *Germ* naked at the base. *Legume* oblong, compressed, 2-seeded, sessile.—*Nutt.*

1. *G.* stem weak, hairy backward; leaves ternate, ovate, acute, glabrous, membranaceous; racemes cauline, pendulous, loose, corollate for the most part sterile; bractes suborbiculate, concave.—*Willd.* and *Pursh.*

G. bracteata, Sp. Pl. p. 754.

A common plant in shady woods and thickets. Flowers blue, sometimes white. Annual. July, August.

324. GALACTIA. Brown. Mich. Fl. Am. 2. p. 61.
(*Leguminosæ.*)

Calix 4-cleft, bibracteolate. *Petals* all oblong, the vexillum broader and incumbent. *Anthers* oblong. *Stigma* obsolete. *Stipe* of the germ naked. *Legume* terete, many-seeded.—*Nutt.*

1. *G.* nearly smooth; leaves ternate, elliptic-oblong, subcoriaceous and lucid, at either extremity, emarginate; racemes pedunculate, a little shorter than the leaves; flowers pedicellate; calix and legume smooth; stem prostrate.—*Nutt.*

Dolichos regularis, Willd.

Ervum volubile, Walt.

A procumbent trailing plant, with flowers of purple, red and white mixed. Peduncles about an inch and a half, or two inches long. In sandy fields, and a sandy grassy lane, a little south of the ferry, three miles below Kaighn's point, Jersey. Perennial. June, July.

325. CLITORIA. Gen. pl. 1183. (*Leguminosæ.*)

Calix campanulate (the 2 lower dentures longer and often falcate) or tubulous, 5-toothed. *Corolla* resupinate; *vexillum* very large and spreading, overshadowing the wings. *Legume* linear, acuminate, many-seeded.—*Nutt.*

Mariana.

1. *C.* leaves ternate; calix much larger than the linear-lanceolate bractes, oblong-tubulous, 5-cleft; legumen torulose, with convex front; seeds glutinous.—*Mich.*

A very elegant plant, with large rose-coloured flowers. On the rocks bordering the Schuylkill, about half a mile above Lemon-hill. Scarce. I have found it no where else. Perennial. July, August.

326. ROBINIA. Gen. pl. 1195. (*Leguminosæ.*)

Calix small and campanulate, 4-cleft, upper segment bifid. *Legume* compressed and elongated, many-seeded, seeds compressed, small.—*Nutt.*

pseud-acacia.

1. *R.* leaves oddly-pinnate; stipules thorny; racemes pendulous; calicine teeth awnless; legumes smooth.—*Willd.*

Icon. Schmidt. arb. 32. (Pursh.)

White Locust-tree. American Locust. False Acasia.

A very ornamental tree, with white, sweet-scented flowers. Its wood is extremely durable, resisting injuries from moisture, for which reason it is much used for making the posts of rail fences throughout the United States, also the posts of gates. On the borders of fields for ten miles around Philadelphia, common. $\frac{1}{2}$. May, June.

327. TEPHROSIA. Persoon. (*Leguminosæ.*)

Dentures of the *calix* subulate, subequal. *Stamina* monadelphous. *Legume* compressed, subcoriaceous.—*Nutt.*

Virginiana.

1. *T.* erect; white-villous; folioles (17-21) oval-oblong, acuminate; raceme terminal, short, sessile; legumes retro-falcate, villous; calices woolly.—*Pers.* and *Pursh.*

Galega Virginiana.

Icon. Pluk. alm. t. 23. f. 2.

Goats'-rue.

About twelve or fifteen inches high. An extremely elegant plant, highly deserving universal cultivation in our gardens. Flowers blossom-red and white mixed. In the high woody banks of the Wissahickon. In the woods of Jersey, abundant. And in dry sandy woods elsewhere, not unfrequent. Perennial. June.



SYNGENESIA.

CICHORIUM.
LEONTODON.
PRENANTHES.
LACTUCA.
SONCHUS.
HIERACIUM.
KRIGIA.
ARCTIUM.
CNICUS.
LIATRIS
VERNONIA:
KUHNIA.
EUPATORIUM.
MIKANIA.
CACALIA.
TANACETUM.

GNAPHALIUM.
ERIGERON.
INULA.
ASTER.
SOLIDAGO.
SENECIO.
CHRYSANTHEMUM.
ACHILLEA.
HELIOPSIS.
HELENIUM.
HELIANTHUS.
RUDBECKIA.
BIDENS.
ACTINOMERIS.
AMBROSIA.
XANTHIUM.

CLASS XVII.—SYNGENESIA.

ORDER I. POLYGAMIA ÆQUALIS.

(*Flowers all hermaphrodite, fertile.*)

§ 1. Florets all ligulate.

328. CICHORIUM. Gen. pl. 1251. (*Cichoraceæ.*)

Calix caliculate. *Receptacle* subpaleaceous.
Pappus many-leaved, paleaceous.

Intybus.

1. *C.* flowers axillary, in pairs, subsessile; leaves runcinate.—*Willd.*

Icon. Fl. Dan. 907. Engl. Bot. 539. Woodville's Med. Bot.

Wild Succory.

A straggling plant, with ordinary foliage, but rather handsome blue flowers. They occur occasionally white. Introduced, but naturalized in wastes near the city; abundant. Possesses medicinal virtues. (See Woodville's Med. Bot.) Perennial. July, August.

329. LEONTODON. Gen. pl. 1237. (*Cichoraceæ.*)

Calix double. *Receptacle* naked. *Pappus* stipitate, plumose.

Taraxacum,

1. *L.* exterior calix reflexed; scape one-flowered; leaves runcinate, glabrous; segments lanceolate-dentate.—*Willd.*

Icon. Fl. Dan. 574. Engl. Bot. 510. Woodville's Med. Bot. vol. 1. t. 3.

Dandelion.

Every person is familiar with this common weed. Like chickweed and the common plantanes, it is little injured by hard usage, so that it thrives and flowers among bricks on the

pavements, and in turnpike-roads. In pastures, grass-plots, fields and road-sides, every where abundant. It is possessed of medicinal properties, among which its diuretic power is universally known. Perennial. All summer.

330. PRENANTHES. Gen. pl. 1236. (*Cichoraceæ.*)

Flosculi definite, 5 to 20. *Calix* caliculate. *Receptacle* naked. *Pappus* simple, sessile.

1. *P. radical* leaves angular-hastate, dentate, sub-^{alba}lobate; those of the stem subrotund-ovate, dentate, petiolate; upper ones lanceolate; panicle loose, fascicles terminal, nutant; calices 8-fid, 9-10-flowered.—*Willd.* and *Pursh.*

P. suavis, *Parad. Lond.* 85.

Icon. Bot. Mag. 1079.

White-flowered Wild Lettuce, or Ivy-leaf.

From two to five feet high. Leaves thick; flowers yellowish-white; calices purple. On the edges of shady woods; not rare. Perennial. August, September.

2. *P. stem* paniculate above; leaves petiolate, ^{cordata}cordate, dentate, ciliate; floral leaves sessile, oblong, very entire; panicle loose, raceme-flowered; flowers nutant; calices 6-cleft, 6-flowered.—*Willd. hort. berol.* 25, and *Pursh.*

From eighteen inches to two and a half feet high. Leaves thin, or semi-membranaceous. Flowers slender, whitish-yellow. In shady woods; rare. Perennial. August, September.

3. *P. leaves* dentate, rough; those of the root palmate-sinuate, of the stem long, petiolate, sinuate-pinnatifid, nearly three lobed; intermediate divisions three-parted, upper ones lanceolate; racemes terminal, subpaniculate, short, nutant; calices 8-cleft, 12-flowered.—*Pursh.*

P. Serpentaria, *Pursh.*

Icon. Pursh. Fl. Am. Sep. vol. 2. t. 24.

Lion's-foot. Dr. Witt's Snake-root.

Seldom exceeding two feet and a half in height, and not unfrequently flowering much under this size. I cannot think, as Mr. Nuttall has intimated, that this plant is scarcely more than a variety of *P. alba*, for I have met with hundreds of specimens of it in a pedestrian journey through Maryland, constantly presenting the same aspect and characters, and found it in company with *P. alba*, which latter is always a much larger plant, frequently attaining a height of six feet. On the border of woods about 9 or 10 miles south-west of Philadelphia, not far from the Chester-road. Very rare in this vicinity. Stem and flowers dingy-purple and yellow. Possesses medicinal virtues. (Pursh.) Perennial. September.

rubicunda.

4. *P.* leaves ciliate, radical, hastate-angular, subentire; lower ones obovate, attenuate at the base, subangular; the upper ones lanceolate, very entire; raceme simple, flowers nutant.—*Willd. and Pursh.*

P. alba, β . Sp. Pl. 1122.

P. autumnalis, Gron. Fl. Virg. p. 89.

About fifteen or eighteen inches high. On the edge of the woods near the Lancaster turnpike-road, 9 or 10 miles from Philadelphia, frequent. Perennial. August, September.

301. LACTUCA. Gen. pl. 1234. (*Cichoraceæ*.)

Calix imbricated, cylindric, margin (of the segments) membranaceous. *Receptacle* naked. *Pappus* simple, stipitate. *Seed* even.—*Nutt.*

elongata.

1. *L.* leaves smooth beneath, lowest ones runcinate, very entire, amplexicaule; lower ones dentate, upper ones lanceolate; flowers corymbose-paniculate.—*Willd. enum.*

L. longifolia, Mich.

Long-leaved Wild-lettuce. Fire-weed.

From three to six feet high. Flowers small, yellowish. On the borders of fields, in woods, and on road-sides, very common. Biennial. August, September.

302. SONCHUS. Gen. pl. 1233. (*Cichoraceæ*.)

Calix imbricated, ventricose. *Receptacle* naked. *Pappus* pilose, sessile.

1. *S.* peduncles sub-squamose; flowers paniculate; ^{Floridanus.} leaves lyrate-runcinate, denticulate, petiolate.—*Willd.* and *Pursh.*

Gall of the earth. Blue-flowered Sow-thistle.

From three to six feet high. Flowers large, blue. *Pursh* says this plant is used like *Prenanthes Serpentaria*, to cure the bite of the rattle-snake. On the bank walk of the Schuylkill from Gray's ferry to Kingsess Gardens. Also on the Woodlands, near the Schuylkill; not common. Perennial. July, September.

2. *S.* peduncles sub-tomentose, umbellate; calices ^{oleraceus.} glabrous; leaves oblong-lanceolate, amplexicaule-denticulate, subsinuate.—*Willd.*

Icon. Fl. Dan. 682. Curt. Fl. Dan. 58.

Yellow-flowered or common Sow-thistle.

A well-known pestiferous weed to farmers. From three to six feet high. Flowers pale-yellow. On the borders of fields and the edges of woods, abundant every where. Annual. July, September.

3. *S.* peduncles squamose; flowers racemose; ^{leucophæus.} leaves runcinate, acuminate; stem paniculate-virgate.—*Willd.*

L. spicatus, Lamark.

About three or four feet high. Flowers small, white; slightly tinged with blue. On the bank walk of the Schuylkill from Gray's ferry, to Kingsess Gardens. Biennial. July, September.

4. *S.* peduncles subsquamose; flowers paniculate; ^{acuminatus.} radical leaves subruncinate; stem leaves ovate-acuminate, petiolate, denticulate in the middle.—*Willd.* and *Pursh.*

Lactuca villosa, Jacqu. ?

Resembles No. 1, very much, but the flowers, which are blue, are half the size of them. Grows with No. 1.; not common. Biennial. August, September.

303. HIERACIUM. Gen. pl. 1238. (*Cichoraceae.*)

Calix imbricate, ovate. *Receptacle* nearly naked. *Pappus* simple, sessile, (pale yellowish brown.)

venosum.

1. *H.* scape naked, corymbose-paniculate, glabrous; pedicels filiform; leaves obovate-lanceolate, rarely hairy above; beneath naked, ciliate at the margin, glandulous-denticulate; veins coloured, calices smooth.—*Willd.* and *Pursh.*

Veined-leaved Hawk-weed. Poor Robert's Plantane.

From one to two feet high. Leaves veined with red. Flowers bright yellow. In shady woods, every where very common. Perennial. June to August.

Gronovii.

2. *H.* scape leafy, corymbose-paniculate; calices and peduncles glandulous-hairy; leaves obovate, obtuse, very entire above; sparingly strigose-villous, the middle nerve beneath very villous.—*Willd.* and *Pursh.*

About the size of the preceding. Flowers pale-yellow and much smaller. In woods and on dry exposed places; common. Perennial. July, August.

paniculatum.

3. *H.* smoothish; stem erect, leafy-paniculate, white-woolly below; pedicels capillary; leaves lanceolate, naked, dentate, membranaceous.—*Willd.* and *Pursh.*

In more moist places than No. 1, and 2, common. Flowers yellow, small. Perennial. July, August.

scabrum.

4. *H.* very hirsute; stem erect, leafy, hispid, very scabrous with brown dots; leaves oblong-ovate, entire, every where hirsute; panicle somewhat simple, many-flowered, with glandulous-hispid calices; pedicels short, divaricate.—*Mich.* and *Pursh.*

H. marianum, Muhl.

Easily known from all the preceding species by its being very hairy. In woods and shady places, and not unfrequently on the borders of fields. Common. Perennial. August, September.

304. KRIGIA. Gen. pl. 1244. (*Cichoraceæ*.)

Calix many-leaved, simple. *Receptacle* naked. *Pappus* double, external membranaceous 5 or 8-leaved, interior about 5, 8, or 24 scabrous setæ.—*Nutt.*

1. *K.* small; leaves lyrate, glaucous, smoothish, margin ciliated; scape one-flowered, twice as long as the leaves; calix about 8-leaved.—*Willd.* and *Pursh.* Virginia.

Hosceris Virginia, Sp. Pl. 1138.

Icon. Lamark, Jour. Hist. Nat. 1. t. 12.

About three or six inches high. Leaves and stem of a bluish-green. Flowers small, deep-yellow. On commons and road-sides; in pastures and fields, every where common. Annual. May till July.

caulescent, dichotomous; leaves sub-spathulate-linear, nearly entire, sparingly ciliate; scapes numerous, long, one-flowered. *B.* *β. dichotoma.*

Hosceris? *ramosissima*, Bart. Prod. Fl. Ph. 75.

Krigia dichotoma, Nutt.

From ten to twelve inches high, very much branched from the root. Flowers yellow, and of the same size as in No. 1.

After close attention to this plant, I believe it to be no more than a variety of the preceding, having found a few specimens this season, (1818,) approximating towards the diffuse caulescent variety above. I have found this variety in the sandy fields of Jersey, opposite Southwark, and in Maryland on the road to Baltimore. Annual. July, August.

2. *H.* glabrous, glaucous; stem erect, in 2-3-divisions, nearly naked; leaves glabrous, radical ones sublyrate, those of the stem amplexicaule, lanceolate, very entire, glabrous.—*Pers.* amplexicaulis.

- Hyosceris amplexicaulis*, Mich.
H. prenanthoides, Willd.
H. biflora, Walt.
Tragopogon Virginicum, Sp. Pl. 1111.
Troximon Virginicum, Gært., Pers., Pursh.

Stem-clasping Swines'-succory.

About a foot high. Flowers large, deep orange-yellow. In shady damp woods, meadows, and moist copses; common. Perennial. July, August.

§ 2. FLOSCULOSÆ. (Florets all tubular; border 5-cleft.)

305. ARCTIUM. Gen. pl. 1253. (*Cinarocephalæ.*)

Calix globose; scales hooked inwards at the points. *Receptacle* paleaceous. *Pappus* setosely-paleaceous.

Lappa.

1. *A.* stem-leaves cordate, petiolate-denticulate; flowers paniculate, globose; calices smooth.—*Willd.* and *Pursh.*

Icon. Woodville's Med. Bot. vol. 1. t. 15.

Burdock.

Common Burdock perhaps has been introduced, but if so, it is thoroughly naturalized, being found every where in old fields and wastes. From three to five feet high. Leaves very large, flowers purple. Biennial. July, August.

306. CNICUS. Gen. pl. 1255. (*Cinarocephalæ.*)

Receptacle villous. *Pappus* capillary. *Calix* ventricose.

lanceolatus.

1. *C.* leaves decurrent, hispid, pinnatifid; segments bilobed, divaricate, spinous; calices ovate, with a gossamer pubescence; scales lanceolate, spinous, spreading.—*Willd.*

Carduus lanceolatus, Sp. Pl. 1149.

Common Thistle.

This is the commonest species, being found every where on way-sides, among rubbish, and on commons. Flowers purple, very large. Probably introduced. Biennial. From June till autumn.

2. *C. leaves sessile, pinnatifid, acute, incised, horridulus.*
 very spinous; involucre terminal, one-flowered, many-leaved; folioles very spinous; calices unarmed.—*Pursh.*

C. horridulus, Pers.

C. horridus, Muhl.

C. pubescens, Gronovius.

Serratula discolor, Lamark.

Cirsium horridulum, Mich.

Carduus spinosissimus, Walt.

Yellow Thistle.

From two to three feet high, very thorny. Flowers large, pale-yellow. Along the course of the Delaware, Jersey side, from Market Street ferry to Kaighn's point; rare. Perennial. July, September.

3. *C. stem tall, leafy, and divaricately branched; discolor.*
 leaves lanceolate, sessile or amplexicaule, more or less deeply pinnatifid, above smooth, beneath tomentose; segments bilobed, partly ciliated and terminated by spines; calix subglobose; scales ovate, spiny.—*Nutt.*

C. discolor, Muhl.

This common species is surprisingly omitted by Pursh. It is abundant in Maryland and Pennsylvania. From three to five feet high, very much branched. Leaves always pinnatifid. Flowers purple. On road-sides and in woods of Jersey, and in similar places near this city; near Hamilton and Mantua villages; common. Perennial. July, September.

4. *C. stem retrorsely pilose, 1 to 3-flowered; odoratus.*
 leaves of the same colour on both sides, amplexicaule, oblong-lanceolate and pinnatifid; segments irregularly lobed, ciliated and terminated with spines; calix large and partly globose,

naked; scales appressed, lanceolate, acuminate, spiny.—*Nutt.*

C. odoratus, Muhl.

C. pumilus, Nutt.

From one to three feet high. Flowers reddish-purple, very large. On the borders of open woods, and on road-sides, Jersey; frequent. Perennial. July.

307. LIATRIS. [Schreber.] Gen. pl. 1263. (*Corymbiferae.*)

Calix oblong, imbricate. *Receptacle* naked.

Pappus plumose, persistent, (often coloured.) *Anthers* entire at the base. *Seed* pubescent, striate, and inversely conic.—*Nutt.*

macrostachya.

1. *L.* stem simple, tall; leaves linear, glabrous, ciliate at the base, nerved and punctate; spike very long; flowers sessile; calicine scales linear-oblong, obtuse, appressed.—*Mich.* and *Pursh.*

L. macrostachya, Mich.

L. spicata, Willd.

Anonymos graminifolius, Walt.

Serratula spicata, Sp. Pl. 1147.

Suprago spicata, Gært.

Icon. Bot. Repos. 401. Pluk. alm. t. 424. f. 6.

Blue Blazing-star.

From two to five feet high, a very elegant plant. Flowers purple, in long crowded spikes. Near Frankford, and on the Woodlands; rare. Possesses medicinal virtues. Perennial. August.

308. VERNONIA. Gen. pl. 1262. (*Corymbiferae.*)

Calix ovate imbricate. *Stigma* bifid. *Receptacle* naked. *Pappus* double; exterior short and paleaceous, interior capillary.—*Nutt.*

1. V. very tall; leaves thick, lanceolate, serrulate, ^{noveboracensis.} scabrous; corymb fastigiata; calicine scales filiform.—*Willd.* and *Pursh.*

Serratula noveboracensis, Hort. cliff. 392.

Chrysocoma gigantea, Walt.

Icon. Dill. elth. t. 263. f. 342. (Pursh.) Pluk. alm. t. 109. f. 3.

About five feet high. Flowers purple; leaves narrow. A very showey plant, found on the margins of all our waters, in meadows and on road sides; common. Perennial. August, October.

2. V. stem very high, angular, densely pubescent; ^{præalta.} leaves thick, lanceolate, acute, serrate, pubescent beneath; corymb fastigiata; calicine scales ovate-acute, awnless.—*Willd.* and *Pursh.*

Serratula præalta, Sp. Pl. 1146.

Chrysocoma tomentosa, Walt.

C. præalta, H. P. (Pers. Syn.)

Icon. Dill. elth. t. 264. f. 343. Mill. ic. 234. Pluk. alm. t. 280. f. 6.

Resembles No. 1, very much. Flowers also purple. Leaves broader. Grows in similar places. Perennial. August, October.

309. KUHNTIA. Gen. pl. 1272. (*Corymbiferae*.)

Critonia, Gært. carp. 2. p. 411.

Dalea, Brown. jam. 314.

Calix imbricate, cylindric. *Receptacle* naked. *Pappus* plumose. *Seed* pubescent, multistriate.

1. K. glabrous; leaves petiolate, broad-lanceolate, serrate; corymb terminal, few-flowered, ^{Eupatorioides.} coarctate.—*Willd.* and *Pursh.*

Eupatorium alternifolium, Ard. Spec. 2. p. 40. t. 20. (Pursh.)

Icon. Lin. fil. dec. t. 11. Pluk. alm. t. 87. f.

2. (Pursh.)

About two or three feet high. Resembles an *Eupatorium* very much. Flowers white. On the rocks bordering the Schuylkill, about half a mile above Lemon-hill. Very rare. Perennial. August, September.

310. EUPATORIUM. Gen. pl. 1272. (*Corymbifera*.)

Calix simple or imbricate, oblong. *Style* long and semibifid. *Receptacle* naked. *Pappus* pilose, or more commonly scabrous. *Seed* smooth and glandular, quinquestriate.—*Nutt.*

hyssopifolium.

1. *E.* leaves opposite, sub-verticillate, linear, very entire, pubescent, three-nerved punctate; radical ones subdentate.—*Willd.*

Icon. Dill. elth. t. 115. f. 140. Pluk. alm. t. 88. f. 2. (Pursh.)

Hyssop-leaved Eupatorium.

About two feet high. Leaves verticillate and very narrow; flowers white. In hedges, Jersey. Not common. In a hedge bordering a sandy field, near Kaighn's-point, Jersey. Perennial. August to October.

sessilifolium.

2. *E.* leaves sessile, amplexicaule, distinct, ovate-lanceolate, rotund at the base; serrate, very glabrous; stem smoothish.—*Willd.*

Sessile-leaved Eupatorium.

About two or two and a half feet high. Whole plant very smooth, and destitute of that grey aspect which characterizes so many of the white-flowered species. Flowers white. In rocky thickets a half mile east of Woodbury, Jersey. Rare. Perennial. August, September.

glandulosum.

3. *E.* leaves subsessile, oblong-lanceolate, roughish, serrate; interior calicine scales elongated, lanceolate, scariose, coloured.—*Willd.*

E. glandulosum, Mich.

E. album, L., Muhl., and Pursh.

Glandulous Hemp-weed.

Under two feet high. Flowers white. In Jersey, near bogs, common. Perennial. August, October.

4. *E.* leaves sessile, distinct, oblong-lanceolate, ^{lanceolatum.} scabrous, deeply serrate; calicine scales of a uniform colour.—*Willd.* and *Pursh.*

Spear-leaved Hemp-weed.

This species so much resembles No. 3, that it may easily be confounded with it on a hasty view. About the same size; flowers white. On the borders of fields and woods in Jersey, every where common. Perennial. August till November.

5. *E.* leaves sessile, distinct, ovate, scabrous; up- ^{teucrifolium.} per ones deeply serrated at the base, those at the top quite entire.—*Willd.*

Not *E. verbenæfolium*, of Mich. as *Pursh* supposes.

E. pilosum, Walt. ?

Germander-leaved Hemp-weed.

About two feet high, not unlike the two preceding. Flowers white. In Jersey, with No. 3, and No. 4, common. Perennial. August to October.

6. *E.* leaves sessile, distinct, subrotund-cordate, ^{rotundifolium.} obtuse, serrate, veined; calicine scales acuminate.—*Willd.* and *Pursh.*

Icon. Pluk. alm. t. 88. f. 4.

Roundish-leaved Hemp-weed.

Eighteen inches high. Flowers white. In Jersey near Woodbury, in swampy grounds; rare. Perennial. August to November.

7. *E.* leaves petiolate, ovate, somewhat obtuse, ^{melissoides.} serrate, veined, smoothish.—*Willd.*

Balm-leaved Hemp-weed.

About one or two feet high. Flowers white. Leaves resemble those of common balm. In hedges and borders of sandy fields of Jersey, every where common. Perennial. August, October.

- ageratoides. 8. *E.* leaves petiolate, ovate-acuminate, three-nerved, unequal and deeply serrate, glabrous; corymb many-flowered, divaricate; calices subsimple.—*Willd.*

E. ageratoides, L. and Willd.

E. urticæfolium, Mich.

Ageratum altissimum, Sp. Pl. ed. 2d. p. 1176.

Icon. Morris. Hist. 3. s. 7. t. 18. f. 11.

Two or two and a half feet high. Flowers very white. Easily known from other species. In thickets a little east of the Woodlands, and along the course of the Schuylkill; common. Perennial. August, October.

- trifoliatum. 9. *E.* leaves petiolate, in three's or four's, ovate, attenuated at each end, serrate, somewhat scabrous.—*Willd.*

E. trifoliatum, Willd., not L.

Three-leaved Hemp-weed.

From four to five feet high, unbranched. Flowers reddish-purple. On the banks of our waters, in watery thickets and meadows, not uncommon. This and No. 10, resembles each other. Perennial. August, September.

- purpureum. 10. *E.* leaves petiolate, in four's or five's, ovate-lanceolate, serrate, rugose-veined, somewhat scabrous; stem fistulous.—*Willd.*

E. purpurea, L.

Not. E. purpureum, Mich.

Icon. Rob. ic. 217. Corn. Canad. t. 72. (Pursh.)

Morris. Hist. 3. s. 7. t. 13. f. 4. Dod. Mem. t. 217. (Pursh.)

Hollow-stemmed Hemp-weed.

From five to six or seven feet high. Stem hollow, by which mark it can be always known. Flowers dark reddish-purple.

In watery thickets and near swamps; common. Perennial. August, September.

11. *E.* leaves petiolate, in four's or five's, ovate-maculatum-lanceolate, unequally serrate, pubescent beneath; stem solid, furrowed.—*Willd.*

Icon. Herm. Parad. t. 158. (Pursh.) Morris. Hist. 3. s. 7. t. 18.

Maculated Hemp-weed.

Resembles No. 10, somewhat, but is not so tall. Flowers purple. In swampy thickets near the Buck-inn on the Lancaster turnpike, and in similar situations near Frankford. Rare. Perennial. August, September.

12. *E.* leaves petiolate, in three's or four's, ovate-verticillatum-lanceolate, cuneate at the base, unequally serrate and smoothish; stem solid, smooth.—*Willd.*

E. verticillatum, Willd. and Muhl.

E. purpureum, Mich.

E. trifoliatum, L. ?

Whorled-leaved Hemp-weed.

Near six feet high. Flowers purple. It resembles No. 10, exceedingly, but differs in its solid stem and smooth leaves. In similar places with No. 10; common. Perennial. July, September.

13. *E.* leaves sessile, sub-lanceolate-oval, acute, somewhat obtuse, cut-dentate, roughish, pubescent; calices pubescent, awnless, 5-flowered.—*Mich.*

E. verbenæfolium, Mich.

Vervain-leaved Hemp-weed.

About two feet high. Flowers white. On the edges of open woods in Jersey, not unfrequent. Perennial. August.

14. *E.* leaves connate, perfoliate, oblong, narrow above, serrate, rough, tomentose beneath; stem villous.—*Willd.* and *Pursh.*

E. connatum, Mich.

Icon. Pluk. alm. t. 87. f. 6.

Bone-set. Thorough-wort. Cross-wort. Indian Sage.

A very important plant, on account of its valuable medicinal virtues. (See Veg. Mat. Med. U. S.) From fifteen inches to three feet high. Whole plant of a grey aspect. Leaves united at their base: the stem appearing to go through them. Flowers white, rarely purple. It is not improbable that some other species of this large genus, will be found possessed of medicinal virtues like the present. In swamps, bogs, and wet meadows, in Jersey, and Pennsylvania side of the Delaware, very common and abundant. Perennial. August till October.

311. MIKANIA. Willd. Sp. pl. 3. p. 1142. (*Corymbifera*.)

Calix 4 or 6-leaved, equal, 4 or 6-flowered.
Receptacle naked. *Pappus* pilous.

scandens.

1. *M.* stem scandent, smooth; leaves cordate, repand-dentate, acuminate; lobes divaricate, unequal; flowers corymbose.—*Willd.*

Eupatorium scandens, Sp. Pl. 1171.

Icon. Jacqu. ic. rar. 1. t. 169. (Pursh.) Pluk. alm. t. 163. f. 3.

Climbing Mikania.

A climbing plant, resembling in its flowers, which are white, an *Eupatorium*. On the stone-wall and in thickets on the bank of the Delaware, between Kaighn's point and the next ferry below, Jersey. Perennial. July, August.

312. CACALIA. Gen. pl. 1275. (*Corymbifera*.)

Calix cylindric, oblong, the base only somewhat caliculate. *Receptacle* naked. *Pappus* pilous.

atriplicifolia. 1. *C.* stem herbaceous; leaves petiolate, glabrous, glaucous beneath; radical ones cordate-dentate, those of the stem rhomboid, every where sub-

dentate; flowers corymbose, erect; calices 5-flowered.—*Willd.* and *Pursh.*

C. glauca, Muhl.

Icon. Pluk. alm. t. 101. f. 1.

Orach-leaved Cacalia.

From two to five feet high. Lower leaves very large; all the leaves as well as the stem, bluish or glaucous beneath. Flowers white, inodorous. On the high banks of the Wissahickon, and in the woods above the falls of Schuylkill, west side; rare. Perennial. August.

ORDER II. POLYGAMIA SUPERFLUA.

(*Florets of the disk bi-sexual, of the ray feminine; all fertile.*)

§ 1. Florets discoid; those of the ray obsolete.

311. TANACETUM. Gen. pl. 1280. (*Corymbiferae.*)

Calix imbricated, hemispherical, scales acuminated. Rays of the *corolla* obsolete, trifid. *Receptacle* naked. *Pappus* submarginate.—*Nutt.*

1. *T.* leaves bipinnate, incised, serrate.—*Willd.* vulgare.
Icon. Oed. Dan. 871.

Tansey.

Common tansey is often met with on the edges of fields, and on road-sides, with the appearance of growing wild. In these places it is completely naturalized. Well-known in domestic medicine as a *tisan*. Leaves deep green. Flowers bright yellow. Perennial. July.

314. GNAPHALIUM. Gen. pl. 1282. (*Corymbiferae.*)

Calix imbricated, marginal scales rounded, scariose, shining and coloured. *Radii* none; feminine florets marginal, entire, mostly nu-

merous. *Receptacle* naked. *Pappus* pilous, or scabrous.—*Nutt.*

margaritaceum.

1. *G.* herbaceous; leaves linear-lanceolate, gradually narrowed, acute; stem branched above; corymb fastigiate; flowers pedicellate.—*Willd.* and *Pursh.*

Icon. Eng. Bot. 2018.

Life-everlasting. Dead-man's Flower. Coffin-plant.

A fine aromatic plant, with a most agreeable odour. From one foot to eighteen inches high. Whole plant whitish. Flowers white, with a yellow disk, larger than in any of the succeeding species. In old fields, on road-sides and commons; every where abundant. The flowers are smoked through pipes in Lancaster county, to cure the tooth-ach. Perennial. August, October.

plantagineum.

2. *G.* sarments procumbent; stem very simple; radical leaves ovate, nerved, mucronate; corymb contracted; flowers dioicous; interior calicine scales elongated, somewhat acute, coloured.—*Willd.*

G. plantaginifolium, L.

Icon. Pluk. alm. t. 348. f. 9.

Plantane-leaved Cudweed.

About six inches or a foot high. Radical leaves broad, resembling somewhat those of common plantane. Flowers white. Whole plant more or less covered with white down. In woods and on hills, every where common. Perennial. May, July.

dioicum.

3. *G.* sarments procumbent; stem very simple; radical leaves spathulate; corymb coarctate; flowers dioicous; interior calicine scales elongated, obtuse, coloured.—*Willd.*

About five or seven inches high; very greyish. Flowers white. In commons, every where common. Perennial. July.

Pennsylvanicum.

4. *G.* herbaceous; leaves obovate-lanceolate, acute, glabrous above, tomentose beneath, margin pubescent; flowers sessile, axillary and terminal, crowded. *B.*

G. Pennsylvanicum, Muhl.

About ten inches high. Flowers white. On grassy commons near Woodbury and Frankford, and on the Darby road. Annual. July.

5. *G. herbaceus*, erect; leaves linear-lanceolate, acute, glabrous above, pubescent underneath; stem paniculate, tomentose; corymbs terminal, coarctate.—*Mich.* and *Pursh.* ^{polycephalum.}

G. obtusifolium, Willd.

About six or seven inches high. Diffuse and branched. On the commons, west of the city; abundant. Annual. August.

6. *G. herbaceus*; leaves linear-spathulate, tomentose beneath; stem erect, very simple; flowers sessile, glomerate, terminal and axillary. —*Willd.* ^{purpureum.}

Icon. Dill. elth. t. 109. f. 132. (*Pursh.*)

About a foot high. Flowers and calices dingy purple. This species grows very large and luxuriantly on the Chickisalonga rocks, on the Susquehanna, and it is there a very handsome plant. It is not very common in this vicinity, and seldom exceeds six or eight inches in height. In Jersey, near Woodbury, on the borders of woods. Perennial. July, October.

7. *G. stem herbaceus*, branched, diffuse, woolly; leaves linear-lanceolate, narrowed at each end, tomentose; flowers terminal, congest.—*Willd.* ^{uliginosum.}

Icon. Fl. Dan. 859.

About ten or twelve inches high, whole plant very white. Flowers small, white, inclining to yellow; calices first yellowish, afterwards brown. In dry ditches and other places that have been covered with water. On the road to Lemon-hill. On the banks of the Schuylkill and on our commons, west of the city, not unfrequent. Annual. August, September.

8. *G. herbaceus*; stem erect, dichotomous; leaves linear-lanceolate, acute, tomentose; flowers globose-capitate.—*Willd.* ^{Germanicum.}

Filago Germanica, Sp. Pl. 1311.

Icon. Fl. Dan. 997. Engl. Bot. 946.

About six or ten inches high, easily recognized by its dichotomous habit, which is constant. Flowers white, calices pale-yellow. This species is extremely common in the neighbourhood of Washington, (Columbia,) all through Maryland, and from York-town to the Susquehanna. Hence I conclude it is a native. In this vicinity it is rare. On the road to Chester, scarce. Annual. July, August.

315. ERIGERON. Gen. pl. 1287. (*Corymbiferae*.)

Calix imbricated, sub-hemispherical, in fruit often reflected. *Rays* of the corolla linear, very narrow, and numerous. *Receptacle* naked. *Pappus* double, exterior minute, interior pilous, of few rays. (12 to 25?)—*Nutt.*

bellidifolium. 1. *E. hirsute*, hoary; radical leaves obovate, subserrate: stem leaves few, distant, lanceolate, very entire; stem about 3-flowered; rays elongated.—*Willd.* and *Pursh.*

E. bellidifolium, Mich., Muhl., and Pursh.

E. Serpentaria, Herb. Banks. Mss. (Pursh.)

E. pulchellum, Mich.

E. caule simplicissimo, &c. Gron.

Poor Robert's Plantane.

From eighteen inches to two feet high. Flowers (rays) pale-purple. I have understood through Mr. Heckewelder, (who described the plant minutely) that this is one of the vegetable cures among the Indians, for the bite of the rattle-snake. Hence perhaps the name by which it stands in the herbarium of Sir Joseph Banks, as quoted above. Though the name *Poor Robert's Plantane* is sometimes applied to *Hieracium venosum*, yet the plant now under notice is much more commonly recognized by that appellation. As its congener *Erigeron Philadelphicum*, and *E. heterophyllum* are possessed of active medicinal virtues, it is not unlikely that the remediate powers attributed to this species by the Indians, are worthy of attention. In shady woods and especially on hills, common. Perennial. June, July.

Philadelphicum.

2. *E. pubescent*; leaves cuneate-oblong, rarely cuneate, those of the stem semi-amplexicaule;

stem weak, simple, corymbose above; peduncles elongated, one-flowered; rays capillary, twice the length of the hemispherical calix.—*Willd.*, *Mich.*, and *Pursh.*

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 20.

Scabious. Philadelphia Flea-bane.

From two to three feet high. Flowers white or pale blue. Possesses medicinal virtues, and on this account is valuable. (See Veg. Mat. Med. U. S.) In cultivated fields, every where in the greatest profusion. Perennial. August, September.

3. *E.* radical leaves subrotund-ovate, deeply dentate, petiolate; those of the stem lanceolate-acute, serrate in the middle; corymb terminal. ^{heterophyllum.}
—*Willd.* Sp. Pl. 5. p. 1956.

Aster annuus, L. and *Willd.* Sp. Pl. 3. p. 2041.

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 21.

Sweet Scabious. Various-leaved Flea-bane.

This species resembles No. 2, somewhat, in flowers and habit. It differs however, strikingly, in its leaves, especially the lower and radical ones. The general likeness of one to the other, has caused them to be collected promiscuously for medicinal purposes; thus accidentally leading me to ascertain that this species is medicinal, like the preceding. (See Veg. Mat. Med. U. S.) About three feet high. Flowers purplish (rays). In cultivated fields with No. 2, but not so abundant. Along water-courses, among grass; frequent. Biennial. June, August.

4. *E.* stem hispid-paniculate, very much branched; leaves lanceolate-linear, ciliate; calices cylindrical, rays crowded, very short.—*Willd.* and *Pursh.* ^{Canadense.}

Icon. Trans. Physico-Medical Society, New-York, vol. 1. p. 49.

This is one of the most noxious weeds of our country, and has perhaps been introduced. It varies from six inches to four feet in height. The smallest variety Mr. Nuttall considers a distinct species—for the present I add it below as a variety

adopting his characters. But as I have so repeatedly found it in all the grades of stature from two or three inches up to four feet, I am rather inclined to suspect that it is a polymorphous plant, assuming all those different sizes and shapes, from the influence of situation, soil, &c. It appears to be possessed of medicinal properties. (See a paper in the Transactions of the New-York Physico-Medical Society, by Dr. De Puy, vol. 1, p. 49, accompanied with a good figure.) In cultivated fields, on commons, road-sides, and particularly on the borders of brick-ponds, every where, unfortunately, in profusion. Annual. All summer.

pusillum.

erect, low and slender; stem smooth; panicle nearly simple; peduncles almost naked, filiform and divaricate; leaves lanceolate-linear, all entire, margin scabrous; discal florets 4-cleft.

316. INULA. Gen. pl. 1295. (*Corymbifera.*)

Calix squarrose or imbricate. *Rays* of the corolla numerous, yellow. *Anthers* each bisetose at the base. *Receptacle* naked. *Pappus* simple.—*Nutt.*

mariana.

1. *I.* villose; leaves sessile, oblong-lanceolate, attenuated at the base, obtuse, glandular-denticulate; lower ones petiolate, serrate; peduncles axillary, corymbose, glandular, hairy.—*Willd.* and *Pursh.*

I. glandulosa, Lamark.

Icon. Mill. dict. ic. t. 57.

Wild Elecampane. Yellow-aster.

From six to fifteen inches high. Flowers large, yellow. In woods and on road-sides, where the soil is arid or sandy; every where common. Perennial. August, October.

Helenium.

2. *I.* leaves amplexicaule, ovate, rough, tomentose beneath; calix with ovate scales.—*Willd.*

Icon. Fl. Dan. 728. Engl. Bot. 1546. Woodville's Med. Bot. vol. 2. t. 108.

Elecampane.

This well-known plant, is becoming naturalized in this vicinity, as it has long been in different parts of the United States. I have found it in many places in Jersey, Pennsylvania, Maryland, and Virginia, with every appearance of being a native plant. On the borders of fields, near the Buck Inn, on the Lancaster road. In Jersey near Woodbury, and on the Botanic-garden-ground of the University of Pennsylvania; rare. Possesses medicinal properties and has been much esteemed by physicians. (See Woodville.) At present its use is confined to domestic practice.—Plant three or four feet high, leaves very large and rough. Flowers also large and globose. Perennial. July, August.

317. ASTER. Gen. pl. 1291. (*Corymbiferae.*)

Calix imbricated, the lower scales partly foliaceous and often spreading. *Radial* florets generally more than 10, rarely fewer, violaceous or white. *Receptacle* naked. *Pappus* simple, pilous.—*Nutt.*

1. A. leaves linear-lanceolate, obsoletely 3-nerved, very entire, obtuse, rough on the margin; branches corymbose-fastigiata; flowers sessile, crowded; ray 5-flowered; calices imbricated, shorter than the disk; scales oblong, obtuse, adpressed, somewhat reflexed at the apex.—*Willd.* and *Pursh.* Solidaginoides.

A. Solidaginoides, Willd. and Muhl.

A. Solidagineus, Mich.

A. Dracunculoides, Lamark?

Conza linifolia, L. and Walt.

Icon. Pluk. alm. t. 79. f. 2.

White-topped Star-wort. Golden-rod Aster.

About fifteen or eighteen inches high. Flowers white. In Jersey, on the borders of open woods; in similar places west of the Delaware; common. Perennial. July, August.

2. A. leaves oblong, 3-nerved, narrow at the base, acute; upper ones sessile, very entire; lower Conyzoides.

ones petiolate, serrate; stem simple, corymbose at the top; calices cylindrical, squarrose; rays 5, short.—*Willd.* and *Pursh.*

A. Marylandicus, Mich.

Conyza Asteroides, Sp. Pl. 1206.

Plowmans'-wort.

Resembles No. 1, somewhat in habit, but may be easily distinguished by the difference in the leaves, they being much broader in the present plant. Flowers white. In similar places with No. 1; common. Perennial. August, September.

- linariifolius. 3. A. leaves linear, mucronate, without nerves and without dots, carinated, rough and stiff; branches recurved; stem sub-decumbent; branches fastigiate, 1-flowered; calices imbricate, the length of the disk.—*Willd. Ait.* and *Pursh.*
A. squarrosus, Herb. Banks. Mss. (*Pursh.*)

Savoury-leaved Star-wort.

From ten to twelve inches high. Leaves narrow and stiff. Flowers pale-blue. On the edges of sandy woods in Jersey, abundant. Perennial. August, October.

- ericoides. 4. A. leaves linear, very smooth, those of the branches subulate, close together; those of the stem elongated; calices subsquarrose; folioles acute; stem glabrous.—*Willd.*

Heath-leaved Aster.

This is by far the commonest species in this vicinity, growing every where on barren ground, even among the turn-pike stones, and along the edges of fences. It is diffuse or spreading. Flowers small, white. Perennial. All summer.

- concolor. 5. A. leaves oblong-lanceolate, covered all over with a white pubescence; stem quite simple, erect, pubescent; raceme terminal; calices imbricated; scales lanceolate, silky, adpressed.—*Willd.*

Soft-leaved Aster.

A very elegant species, well worthy of cultivation in gardens. I have transplanted it into my garden where it thrived

exceedingly well. Flowers deep-purple. Leaves soft, small. In Jersey, along the edges of woods towards Woodbury, and immediately near that village, abundant. I have not found it west of the Delaware. Perennial. August, September.

6. *A. leaves lanceolate, attenuated at the base, umbellatus, acuminata; rough on the margin; stem simple, corymbose-fastigiata at the top; calices loosely imbricated; scales lanceolate-obtuse—Lamark.*

A. umbellatus, Ait. and Muhl.

A. amygdalinus, Mich., Lamark, and Pursh.

Umbelled-flowered Star-wort.

From two, to three and a half feet high. Flowers large, white. Leaves remarkably dry, and become brittle if not prepared for the herbarium with care. In the boggy ground of the Woodlands, close to the Darby road. In a swamp near Woodbury. Rare. Perennial. September.

7. *A. leaves ovate-oblong, acute, amplexicaule, amplexicaulis, cordate, serrate; stem paniculate, glabrous; branches 1-2-flowered; calicine scales lanceolate, closely imbricated.—Willd. and Pursh.*

A. amplexicaulis, Willd., not Mich.

A. cyanæus, var. γ, according to Muhl.

A. Pennsylvanicus, Lamark?

About three feet high. Flowers blue. On the edges of woods and thickets; not uncommon. Perennial. August, September.

8. *A. leaves linear-lanceolate, nearly entire, glabrous; stem smooth, paniced at the top; calices loose, imbricated; scales acute, spreading; opening at the apex.—Willd. and Pursh.*

A. præaltus, Lamark.

Icon. Rob. ic. 307. (Pursh.)

Willow-leaved Aster.

From three to five feet high. Leaves resembling exceedingly those of the willow tree. Flowers blue or reddish-blue. On the margins of ditches and in boggy thickets; rare. Near a

ditch about a quarter of a mile down Eighth-street, below the hospital, abundant. Perennial. August.

spurius.

9. *A.* leaves lanceolate, amplexicaule, very entire, auriculated at the base; stem paniculate, hairy; branches about one-flowered; calicine scales loose, lanceolate, equal to the disk.—*Willd.*

A. spurius, Willd.

A. rubricaulis, Lamark.

A. novæ angliæ, β . Ait.

Spurious Aster.

Near three feet high. Stem very hairy, reddish. Flowers reddish-purple, handsome. Near swamps and watery thickets in Jersey near Woodbury, rare. Perennial. September, October.

Phlogifolius.

10. *A.* leaves lanceolate, cordate, amplexicaule, pubescent beneath, rough on the margin; stem very simple, pubescent; panicle terminal, loose, few-flowered; calicine scales loose, imbricated, lanceolate.—*Willd.* and *Pursh.*

A. phlogifolius, Muhl.

A. amplexicaulis, Mich.

Phlox-leaved Aster.

A very elegant species, with leaves resembling some species of Phlox. From two to three feet high. Flowers fine violet-blue. In thickets among large autumnal plants, and in woods, not uncommon. Perennial. August, September.

undulatus.

11. *A.* leaves oblong, cordate, amplexicaule, entire, hairy, somewhat waved; lower ones ovate, cordate, subserrate, petiolate; petioles winged; stem paniculate, hispid; branches leaning one way, leafy, one-flowered.—*Willd.*

A. undulatus, L., not of Ait.

A. amplexicaulis, var. β . Mich.

Herm. parad. 96. (*Pursh.*) Icon. Hoff. Phyt. 1. t. c. f. 1.

Waved-stemmed Aster.

About two feet high. Flowers violet. In similar places with No. 10. Perennial. August.

12. *A.* leaves oblong-lanceolate, ciliate, cordate, ^{patens.}
 amplexicaule, every where rough, hairy; stem
 branched, hairy; branches spreading, elonga-
 ted, few-flowered, with small leaves; calicine
 scales imbricated, lanceolate, spreading.—
Willd. and Pursh.
A. patens, Willd. and Pers.
A. diversifolius, Mich.
A. undulatus, $\beta.$, Ait.

Spreading or various-leaved Aster.

A very fine species, blooming with a profusion of flowers for a long time. From six inches to four feet high. Lower-leaves panduriform, all of them of a greyish-green. The plant when vigorous is very much branched or bushy. Flowers small, pale-blue or purple. In the woods of Jersey this species is found, at the roots of trees, flowering with a simple stem scarce six inches high. In more favourable situations it becomes as large as above described. I have cultivated it in my garden, and found it a hardy, showy, perennial, continuing in full flower for two months. It is therefore deserving of cultivation. In woods and thickets, every where common. Perennial. September till November.

13. *A.* leaves ovate-lanceolate, sub-serrate, petio- ^{paniculatus.}
 late, glabrous; those at the root ovate-cordate,
 serrate, rough, petiolate: petioles naked; stem
 very much branched, glabrous, small: branches
 hairy; calices loose, nearly imbricated.—*Willd.*
Icon. Corn. Canad. 65. (Pursh.)

Panicled Aster.

A well-marked species, from eighteen inches to four feet high. Flowers reddish and white, small, numerous, not handsome. In thickets, but scarce; seems to like a moist soil. Perennial. August, September.

14. *A.* leaves cordate, hairy beneath, narrowly ^{cordifolius.}
 serrate, petiolate: petioles winged; stem pani-
 culate, somewhat smooth: panicle divaricate;
 calices loose, somewhat imbricated.—*Willd. and*
Pursh.
A. cordifolius, L., Mich., and Pursh.

Heart-leaved Aster.

From one to three feet high. Flowers pale-blue or violet; sometimes whitish. In woods and thickets, common. Perennial. August.

In Muhlenberg's Catalogue, this Aster stands synonymous with *A. heterophyllus* of Willd.—perhaps *heterophyllus* of his *Mss.* or *Enumeratio*—the *heterophyllus* of his species plantarum, being given on the authority of Thunberg, from the Cape of Good Hope.

- corymbosus. 15. *A.* leaves ovate, narrowly serrate, acuminate, somewhat smooth; lower ones cordate, petiolate: petioles naked; stem smooth, corymbose-fastigiata; branches hairy; calices oblong, imbricated; scales obtuse, closely adpressed.—*Willd.* and *Pursh.*

A. corymbosus, Ait.

Corymbous-flowered Aster.

From fourteen inches to two feet high. Flowers white, in a large corymb. On the shaded rocks bordering the Schuylkill; in shaded woods and thickets, every where common. Perennial. July.

- β. alatus.* leaves deeply and sharply serrated, long-acuminate; petioles with broad wings. *B.*

A. corymbosus, *β. alatus*, Bart. Prod. Fl. Ph.

This is a permanent variety of the preceding, which I have constantly observed, not only in this vicinity, but in other parts of the United States. Grows with No. 15. July.

- Cornifolius. 16. *A.* smooth; leaves oblong-ovate, acuminate, on short petioles, margin rough; stem glabrous; panicle few-flowered; branches 2-flowered; calices somewhat imbricated.—*Willd.*

A. Cornifolius, Muhl.

Dogwood-leaved Aster.

A very strongly characterized species, with leaves resembling those of Dogwood. It is one of the most common species all through Maryland, where it attains a height of four feet. In this vicinity it is very rare, and I have not met with it above two feet high. Flowers white, large. In the thickets a little west of M'Mahon's Garden, and in those four miles above the falls of the Schuylkill; scarce. Perennial. August, September.

17. *A.* leaves ovate, petiolate, serrate, rough; upper ones ovate, cordate, sessile, lower ones cordate petiolate: petioles submarginate; stem branched, diffuse; calices cylindric, narrowly imbricated; scales oblong, acute.—*Willd.* and *Pursh.* macrophyllus.

Large-leaved Aster.

About twelve or fifteen inches high. Flowers bluish. In the shady woods above the falls of Schuylkill, west side, abundant. Perennial. September.

18. *A.* leaves amplexicaule, lanceolate, serrate, roughish; branches paniculate; calices loose, exceeding the disk; folioles linear-lanceolate, nearly equal; stem hispid.—*Willd.* puniceus.

A. puniceus, L.

A. hispidus, Lamark.

Icon. Herm. Lugdb. 651. (*Pursh.*)

Red-stalked Aster.

From one to four feet high. Stem red, very hispid. Flowers large, blue. A fine species deserving of cultivation. In all the swamps and watery thickets of our neighbourhood, and on the margins of our waters; common. Perennial. September, October.

19. *A.* leaves subamplexicaule, remote, oblong, very entire, shining; radical ones subserrate; branches simple, one-flowered; calices imbricated; folioles subcuneiform, acute, thickest at the apex; stem glabrous, angular.—*Willd.* and *Pursh.* lævis.

Smooth Aster.

A pretty and well-marked species, with simple upright stems, three or three and a half feet high. Flowers bluish-purple. In thickets about half a mile south-east of the Buckinn, on the Lancaster road. Rare. Perennial. September.

- miser. 20. *A.* leaves sessile, lanceolate, serrate, glabrous; calices imbricated, folioles acute; disk and rays equal; stem somewhat villous.—*Willd.*

Small-flowered Aster. Small Aster.

A small species, seldom above a foot high, and often but six inches. Flowers yellowish-white. This plant is nearly allied in aspect to small specimens of *Solidago latifolia*. In the damp woods near Woodbury; rare. Perennial. September.

- pendulus. 21. *A.* leaves elliptic-lanceolate, serrated, glabrous: those of the branches somewhat remote; branches very divaricate, pendulous; stem pubescent.—*Willd.*

Drooping Aster.

A bushy species of no great height, the branches pendulous; flowers white, turning brown after a few days. In thickets; common. Perennial. October, November.

- divergens. 22. *A.* leaves elliptic-lanceolate, serrate, glabrous: those of the stem linear-lanceolate, elongated; branches open; calices imbricated; stem pubescent.—*Willd.*

Diverging Aster.

About two or three feet high. Flowers small, rays white, disk reddish-brown. In thickets, not rare. Perennial. September, November.

- diffusus. 23. *A.* leaves elliptic-lanceolate, serrate, glabrous, proportionate; branches open; calices imbricated; stem pubescent.—*Willd.*

Red-flowered Aster.

Resembles No. 22, very much. Flowers small, white, with a reddish disk. In similar places with the preceding. Perennial. September till November.

24. A. leaves lanceolate, somewhat scabrous, sub-spectabilis.
amplexicaule; lower ones serrate in the middle; branches corymbose; calicine folioles loose, leafy, sub-cuneiform, somewhat acute; squarrose.—*Willd.*

Showy Aster.

From two to three feet high. Flowers large, blue. In Jersey near Woodbury; rare. Perennial. August, October.

25. A. leaves linear, smoothish; stem very much multiflorus.
branched, diffused, pubescent: branches leaning one way; calices imbricated; scales oblong, squarrose, acute.—*Willd.*

Icon. Dill. elth. t. 36. f. 40. (Pursh.)

Many-flowered Aster.

A very common species, resembling No. 4, somewhat. Flowers middle size, white, rarely pale-blue. In old fields and on grassy way-sides, every where very common. Perennial. September.

leaves ciliate, those of the stem linear-lanceolate, β . *ciliatus*.
nerved—of the branches very short, lanceolate, 3-nerved; stem branched, pubescent; branches paniculate; calices imbricated; scales spatulate, squarrose.—*Willd.*

Fringed-leaved Aster.

Closely allied to the preceding, but easily known from it by the above characters. Grows with it, but very rare. September.

26. A. leaves linear, or linear-lanceolate, obso- fragilis.
letely and sparingly serrated in the middle: β *tenuiculus*.
branches weak; calices imbricated; folioles lanceolate-acute, margined. B.

A. *tenuiculus*, Bart. Prod. Fl. Ph. p. 81.

About one or two feet high. Very slender and weak. Flowers white, rather small. In swampy thickets, not uncommon. Perennial. August.

- ledifolius. 27. *A.* leaves linear-lanceolate, attenuated at the base, nerveless, scabrous, margin revolute; branches corymbose; branchlets filiform, one-flowered, somewhat naked; calices loose, imbricated, twice as short as the disk; folioles very acute; ray sub-20-flowered.—*Pursh.*
A. salsuginosus, Bart. Prod. Fl. Ph.

Fifteen inches high. In the swamps of Jersey, near Woodbury; rare. Perennial. July.

- tenuifolius. 28. *A.* leaves linear-lanceolate, attenuated at each end, hispid on the margin; stem glabrous, branched, erect; branchlets one-flowered; calices imbricated, scales oblong-acute, loose.—*Willd.*
A. Philadelphicus, Bart. Prod. Fl. Ph.

From one to two feet high. In neglected fields. August. Resembles No. 4 and No. 25, but very distinct. It appears to me to be a variety of *A. Tradescanti*. But in reality this polymorphous genus is so deceptive, that it is not improbable 4, 25 and this No. will turn out to be little else than anomalous varieties of one species. The same observation applies to many other species, which I have enumerated above, though I give them the places usually assigned to them in the books. Close attention to the cultivation of the 79 species of this elegant genus, and their enumerated varieties, would in all probability result in a reduction of the species to one half that number.

318. SOLIDAGO. Gen. pl. 1292. (*Corymbifera*.)

Calix imbricated, scales closed. *Radical florets* about 5, yellow. *Receptacle* naked, punctate. *Pappus* simple, pilose.

- Canadensis. 1. *S.* stem villous; leaves lanceolate, serrated, three-nerved, rough; racemes paniculated, leaning one way, recurved; ligulæ short.—*Willd.*
 Icon. Pluk. alm. t. 263. f. 1.

Three-nerved Golden-rod.

This is one of the finest species of this handsome genus. From two to five feet high. Flowers in this as in all the succeeding species, except No. 10, are yellow. On the borders of fields, and in natural hedges, every where common. Perennial. July till September.

2. *S.* stem erect, glabrous; leaves lanceolate, serrate, with a scabrous margin, obsolete three-nerved; racemes paniced, leaning one way; peduncles hairy; ligulæ short.—*Willd.*

Large Golden-rod.

A species resembling No. 1, very closely. It grows in similar places. Also a fine plant. Perennial. July till September.

3. *S.* stem erect, terete, hairy; leaves ovate, sub-elliptical, very scabrous, rugose, serrate, without nerves; racemes paniculate, leaning one way.—*Willd.*

Icon. Dill. elth. t. 305. f. 392. (Pursh.)

Rough Golden-rod.

From two to three feet high. Not a handsome species, and easily known by its rough, rugose leaves. In old fields and natural hedges, not common. Perennial. September, October.

4. *S.* stem erect, hairy; leaves lanceolate, lower ones deeply serrated, very scabrous and rugose; panicle leaning one way.—*Willd.*

Icon. Mart. Cent. 14. (Pursh.)

Tallest Golden-rod.

A very tall species of which there are two or three varieties. In thickets, hedges and old fields, common. Perennial. August, September.

5. *S.* stem erect, hairy, furrowed; leaves oblong, attenuated at each end, acuminate, glabrous above, rugose, scabrous beneath, addressed-serrated in the middle; racemes secund.—*Willd.*

Scabrous-leaved Golden-rod.

A handsome and well-marked species, with brilliant flowers. From eighteen inches to three feet and a half high. In damp places and boggy grounds, not unfrequent. In the lowest grounds of Powelton, abundant. Perennial. August, September.

patula.

6. *S.* stem erect, glabrous; leaves elliptical, serrated, glabrous; those of the root oblong-spathulate; racemes paniculate, leaning one way, open or spreading; peduncles pubescent.—*Willd.*
S. patula, Muhl.

Spreading-branched Golden-rod.

From two to three and a half feet high. Not a handsome species. In hedges, neglected fields and thickets, not uncommon. Perennial. August, September.

ulmifolia.

7. *S.* stem erect, glabrous, striate; leaves elliptical, deeply serrate, acuminate, villous beneath, those at the root obovate; racemes paniculated; peduncles villous; ligulæ short.—*Willd.* and *Pursh.*
S. ulmifolia, Muhl.

Elm-leaved Golden-rod.

An ordinary looking species, with leaves somewhat resembling those of an elm-tree. From fourteen inches to two and a half feet high. In woods, fields and hedges, and the edges of swamps in Jersey, common. More rare west of the Delaware. Perennial. August till October.

arguta.

8. *S.* stem erect, smooth; leaves smooth, finely and unequally serrated; those of the stem elliptical, of the root ovate-oblong; racemes paniculated, leaning one way; ligulæ long.—*Mich.*

Sharp-notched Golden-rod.

A very handsome and well-characterized species, with the leaves finely and irregularly serrated. It is the earliest blooming species of the genus in this vicinity. Flowers brilliant. Plant from eighteen inches to four feet high. In hedges, the borders of rivulets, and in meadows, every where common. Perennial. Early in July, September.

9. *S.* stem erect, pubescent; leaves linear-lanceolate, very entire, glabrous, rough on the margin; racemes paniculated, leaning one way.—*Willd.*

Icon. Pluk. alm. 116. f. 6.

Fragrant Golden-rod.

This handsome species is well-marked, and easily distinguished from other species by its foliage, but more especially by its delicious fragrance, somewhat resembling that of *anise-seed*. The whole plant exhales this scent. Possesses medicinal virtues. In Jersey, in thickets along the course of the Delaware, and not far from the water. Perennial. August, September.

10. *S.* stem and leaves elliptical, hairy, lower ones serrated; branches leafy; racemes erect; calicines folioles obtuse.—*Willd.*

Icon. Pluk. alm. t. 114. f. 3.

White-flowered Golden-rod.

From fourteen inches to three feet high. Flowers whitish, in long, dense racemes. This species is strikingly dissimilar to any of the rest, in its white-rayed flowers. I have rarely seen them with even a shade of yellow. In dry woods, particularly on the borders, and on exposed sunny hills; very common. Perennial. August, September.

11. *S.* stem tall and smooth, simple or virgately branched; leaves lanceolate, entire, somewhat carnosose, scabrous on the margin, the lower very broad, radical ones subserrate; racemes terminal, erect and compound, pubescent; peduncles mostly shorter than the calix; rays elongated, about 5; seed smooth.—*Nutt.*

S. petiolaris, Willd. and Muhl.

S. speciosa, Nutt.

Late-flowering Golden-rod.

This elegant species is extremely rare. It attains a great height, and is proportionably large in other respects. I have found it near seven feet high in Jersey, about a mile east of Woodbury. Flowers large, leaves fleshy. The plant describ-

ed above by Mr. Nuttall, which he says is allied to *petiolaris*, is the real *S. petiolaris* of Muhl. and consequently of Willd. It is one of the latest flowering species, seldom ever in full bloom, till the last of October or beginning of November, and continuing a month in flower. In Jersey, near Woodbury, and in the woods above the falls of Schuylkill; rare. Perennial.

lanceolata.

12. *S.* stem hairy, angular, very much branched; leaves lanceolate-linear, very entire, somewhat erect, 3-5-nerved, somewhat scabrous; nerves hairy beneath; axills naked; corymbs terminal, fastigiate; branchlets capitate; ligulæ as high as the disk.—*Willd.* and *Pursh.*

S. lanceolata, var. α ., Mich.

Chrysocoma graminifolia, L.

Spear-leaved Golden-rod.

A very handsome species, with leaves of a very yellow-green. From two to three feet high. Rather rare. On the bank walk from Gray's ferry to Kingsess gardens—and on the road to Lemon-hill, not far from the Schuylkill. Perennial. August.

tenuifolia.

13. *S.* stem scabrous, angular, corymbose, branched; leaves very narrow, linear, spreading, obscurely three-nerved, scabrous; axills leafy; corymbs terminal, fastigiate; branchlets capitate; ligulæ scarcely higher than the disk.—*Pursh.*

S. tenuifolia, *Pursh.*

S. lanceolata, β . minor, Mich.

Slender-leaved Golden-rod.

From twelve to fifteen inches high. Leaves very narrow. A very rare species in this vicinity. I have only found it on the bank walk from Gray's ferry to Kingsess gardens, and near Cooper's creek, Jersey. Perennial. September.

caesia.

14. *S.* stem even, erect; leaves lanceolate, glabrous; racemes erect; ligulæ middle sized.—*Willd.*

Icon. Dill. elth. t. 307. f. 395.

Blue-stemmed Golden-rod.

A very elegant species, two or two and a half feet high. Stem blue. Flowers deep brilliant-yellow. In woods and shady thickets; common. Perennial. August, September.

15. *S. stem flexuous, glabrous, angular; racemes* ^{flexicaulis.} *erect, axillary; ligulæ middle size.—Willd. and Pursh.*

Icon. Pluk. alm. t. 235. f. 4.

Waved-stemmed Golden-rod.

From one to three feet high, resembling very much No. 14, and from which it does not seem to be sufficiently distinct. The blue stem, however, of No. 14, will always distinguish it from the present species. In similar places with No. 14; common. Perennial. August, September.

16. *S. stem erect; leaves ovate-acuminate, ser-* ^{latifolia.} *rate; racemes lateral, simple.—Sp. Pl.*

S. latifolia, Mich.

S. flexicaulis, β . *latifolia*, Willd. and Pursh.

This is generally considered as a variety of No. 15, from which it is certainly much more distinct than is that species from No. 14. I have followed Muhl. in giving it as a distinct species. A very handsome plant, from eight to sixteen inches high—leaves very broad, subject to a disease, discovering itself in circular raised spots. On the rocks bordering the Schuylkill and Wissahickon; abundant. Perennial. August, September.

17. *S. stem erect, hairy; leaves lanceolate, very* ^{rugosa.} *scabrous, rugose; lower ones adpressed-ser-rate; racemes paniculated, leaning one way, very open.—Willd.*

S. altissima, ϵ . Ait.

Icon. Dill. elth. t. 308. f. 396. (Pursh.)

Wrinkled-leaved Golden-rod.

About two feet high. An ordinary looking species. In Jersey, near Woodbury; rare. Perennial. August.

rigida.

18. S. stem hairy; leaves ovate-oblong, hairy, scabrous: those of the stem entire, the lower ones serrated; the flower-bearing branches paniculated; racemes compact; ligulæ elongated.—*Willd.*

Icon. Herm. parad. 243. (Pursh.)

Stiff Golden-rod.

About two feet high, not handsome. Resembles an Aster. Flowers large, pale-yellow. In Jersey, near Haddonfield; rare. Perennial. August till October.

nemoralis.

19. S. stem erect, tomentose; stem-leaves lanceolate, hispid, very entire, those of the root sub-cuneiform, serrated; racemes paniculated, leaning one way.—*Willd.*

From one to two feet high. Whole plant of a grey aspect. Flowers deep-yellow and handsome. In dry woods and fields, common. Perennial. August till October.

procera.

20. S. stem villous, erect; leaves lanceolate, serrated, three-nerved, scabrous, villous beneath; racemes spike-form, erect; ligulæ short.—*Willd.*

Great Golden-rod.

A very tall species, as high as No. 4. In the hedges near Woodbury; rare. Perennial. July, September.

stricta.

21. S. stem erect, glabrous; stem-leaves lanceolate, very entire, glabrous, scabrous on the margin, those of the root serrate; racemes paniculated, erect; peduncles glabrous.—*Willd.*

About two feet high. In the dry sandy woods of Jersey, between Woodbury and the Delaware; rare. Perennial. August, October.

319. SENECEO. Gen. pl. 1291. (*Corymbiferae.*)

Receptacle naked. Pappus simple. Calix cylindrical, calyculate; scales sphacelate at the apex.

1. **S. leaves amplexicaule, pinnatifid, dentate; flow-ers corymbose, coarctate.**—*Willd.* and *Pursh.* vulgaris.

Common Groundsel.

An introduced weed, from Europe. Near gardens, and the fields of our vicinity, not unfrequent. Annual. From April till late in autumn.

2. **S. stem virgate, paniculated; leaves amplexicaule, oblong, acute, unequally and deeply dentated; calices smooth.**—*Willd.* and *Pursh.* hieracifolius.

Icon. Pluk. phyt. t. 112. f. 1.

Fire-weed. Hawk-weed. Groundsel.

From a foot to three feet high. Flowers white. This is one of the commonest weeds in our country, growing almost every where, even on the roofs, and in the spouts of the roofs of old houses. Annual. July, August.

3. **S. radical leaves obovate, crenate-serrate, petiolated; stem-leaves pinnatifid, dentated; flowers somewhat umbelled, on long peduncles; stem smoothish.**—*Willd.* and *Pursh.* obovatus.

S. obtusatus. Herb. Banks, Mss. (*Pursh.*)

Obovate-leaved Groundsel

About twelve or fifteen inches high. Resembles No. 4, from which it may, however, be easily distinguished by its obovate, radical leaves, its smaller and less brilliant flowers, being besides a smaller plant. In shady woods, on rocks; rare. Perennial. June.

4. **S. radical leaves ovate-cordate, serrated, petiolated; those of the stem pinnatifid, dentated, the**

terminal segments lanceolate; peduncles subumbellate, thickish.—*Willd.* and *Pursh.*

Golden-flowered Groundsel.

A very ornamental plant, bearing a profusion of fine brilliant yellow flowers. Every where on the margins of water-courses, common. From a foot to three feet high. It improves much by cultivation, as I have found by experiment. Perennial. June, July.

320. CHRYSANTHEMUM. Gen. pl. 1307. (*Corymbiferae.*)

Calix hemispherical, imbricated; innermost scales scariose. *Receptacle* naked. *Pappus* none.

Leucanthemum.

1. *C.* leaves amplexicaule, lanceolate, serrated; base cut-dentate; stem erect, branched.—*Willd.*
Icon. Fl. Dan. 994. Engl. Bot. 601.

Ox-eye Daisy. White-weed. Richardson's Clover.

About a foot or fifteen inches high. Flowers large, white. This is an introduced plant, which has become a pestiferous weed to our farmers all through the country. In cultivated fields, grassy lawns, and on road-sides, every where in profusion. It is impossible to extirpate it. Perennial. June, July.

321. ANTHEMIS. Gen. pl. 1312. (*Corymbiferae.*)

Calix hemispherical, subequal. *Rays* more than 5. *Receptacle* paleaceous; paleæ flat, with rigid acuminate points. *Pappus* none or marginal.—*Nutt.*

Cotula.

1. *A.* receptacle conical, its scales bristle-shaped; seeds naked; leaves doubly pinnatifid, somewhat smooth.—*Smith.*

A. arvensis, *Pursh*, not *L.* and others.
Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 14.

May-weed. Wild Chamomile. Stinking Chamomile. Dog's Fennel.

A well-known weed, resembling common Chamomile. Flowers white. In wastes every where, and in profusion in the streets of our suburbs. Possesses medicinal virtues. (See Veg. Mat. Med. U. S.) Annual. All summer.

322. ACHILLEA. Gen. pl. 1313. (*Corymbiferae*.)

Calix ovate, imbricated. *Rays* 5 to 10, roundish. *Receptacle* paleaceous. *Pappus* none.

1. A. leaves bipinnatifid, hairy; the segments lillefolium. near-dentate, mucronate; stem furrowed.—*Smith* and *Willd.*

Icon. Fl. Dan. 737. Engl. Bot. 758. Woodville's Med. Bot. vol. 1. p. 179. t. 64.

Yarrow. Milfoil.

Yarrow has been introduced from Europe, but is now perfectly naturalized. About eighteen inches high. Flowers white. Possesses medicinal virtues. (See Woodville's Med. Bot.) In fields, hedges, and by fences, every where common. Perennial. June, July.

323. HELIOPSIS. Pers. Syn. 2. p. 473. (*Corymbiferae*.)

Calix imbricated, scales subovate, lined. *Rays* large and linear. *Receptacle* paleaceous, conic, palæa lanceolate. *Seeds* 4-sided. *Pappus* none.—*Nutt.*

1. H. leaves opposite, ovate-serrate, three-nerved. lævis.
—*Pers.*

Heliopsis lævis, Pers.

Bupthalmum helianthoides, Willd.

Helianthus lævis, Sp. Pl. 1278. and L'Herit.
Stirp.

Rudbeckia oppositifolia, Sp. Pl. 1280.

Silphium solidaginoides, Sp. Pl. 1302.

Smooth Ox-eye.

About two or three feet high. Flowers large, yellow, and very handsome. Resembles the species of the succeeding genus. On the banks of the Delaware, between Kaighn's point and the next ferry below, in profusion, in thickets elsewhere. Perennial. August, October.

324. HELENIUM. Gen. pl. 1299. (*Corymbiferae.*)

Calix simple, many-parted. *Rays* of the flower semitrifid. *Receptacle* naked, globose; the rays only paleaceous. *Seed* villous; *pappus* paleaceous, about 5-leaved, leaflets awned.—*Nutt.*

- autumnale. 1. *H.* leaves lanceolate, serrated, sub-decurrent; stem corymbose above; corrollulæ of the disk 5-cleft; rays flat, reflexed.—*Willd.* and *Pursh.*

Sneeze-weed.

From three to four feet high. Flowers yellow. Possesses errhine-properties, and may consequently be useful in medicine. In watery thickets, and on the marshy shores of the Delaware, Schuylkill, and other waters; abundant. Perennial. October, November.

ORDER III.—POLYGAMIA, FRUSTRANEA.

(*Discal florets bi-sexual; rays neutral, sterile.*)

325. HELIANTHUS. Gen. pl. 1322. (*Corymbiferae.*)

Calix imbricated, subsquarrose, foliaceous. *Receptacle* paleaceous, flat. *Pappus* paleaceous, 2-leaved, caducous.—*Nutt.*

- mollis. 1. *H.* leaves ovate, acuminate, three-nerved; adpressed-serrate, scabrous above, white pubes-

cent, and very soft underneath; calicine scales lanceolate, adpressed.—*Willd. enum.*

H. tomentosus, Mich.

Soft-leaved Sun-flower.

From two to three feet high. Leaves remarkably soft underneath, and rough above. Flowers yellow. In fields and meadows, and along fences, every where common. Perennial. July till October.

2. *H.* leaves ovate-lanceolate, acuminate, serrated, *trachelifolius*. three-nerved, all over very rough; calicine scales linear-lanceolate, ciliate, exterior ones longer.—*Willd.*

H. Gigas, Mich.

Throat-wort-leaved Sun-flower.

About the size of No. 1. Flowers also yellow. In woods, thickets, meadows, and dry swamps; common. Perennial. August till October.

3. *H.* stem glabrous, very much branched; leaves *divaricatus*. sub-opposite, sessile, lanceolate-ovate, three-nerved; panicle trichotomous, weak, small-flowered.—*Willd.* and *Pursh.*

Small-flowered or Rough-leaved Sun-flower.

Resembles both No. 1, and No. 2, but is taller and has smaller flowers, and narrower leaves. Flowers entire, pale-yellow. In similar places with No. 1, the commonest species in this neighbourhood. Perennial. August till October.

4. *H.* leaves ovate-acuminate, remotely serrated, *decapetalus*. tripli-nerved, scabrous; calicine scales lanceolate, nearly equal, sub-ciliate; rays ten or eleven.—*Willd.* and *Pursh.*

Icon. Rob. ic. 235. (*Pursh.*)

Ten-petalled Sun-flower.

From three to four feet high. Flowers large. In dry woods of Jersey, rare. Perennial. August, September.

326. RUDBECKIA. Gen. pl. 1324. (*Corymbiferae.*)

Calix subequal, mostly consisting of a double series of leaflets. *Receptacle* paleaceous, conic. *Pappus* a 4-toothed margin.—*Nutt.*

laciniata.

1. *R.* lower leaves pinnate; wings three-lobed, upper ones ovate; pappus crenate; stem glabrous.—*Schrader. Willd. enum.*

Icon. Corn. Canad. t. 179. (Pursh.) Morris.

Hist. 3. s. 6. t. 6. f. 53.

Jagged-leaved Rudbeckia.

A fine showy plant, from three to six feet high. Flowers very large, yellow, with the petals long, drooping. I have cultivated this plant, in my garden, and found it hardy. In watery thickets, and on the margins of all the neighbouring waters; common. Perennial. August, October.

pinnata?

2. *R.* all the leaves pinnate, one or both of the lower wings bi-partite, the rest undivided; pappus very entire; stem furrowed, hispid.—*Schrader and Willd. enum.*

R. digitata, Willd. Sp. Pl.

R. odorata, Hortul.

Icon. Smith Exot. Bot. 38. Vent. jard. cels. 71.

Resembles No. 1, very much. I am not certain that this is the true pinnata; it seems, however, to fit the description. In thickets near the Buck-inn on the Lancaster-road, very rare. Flowers yellow. Perennial. July, August.

327. BIDENS. Gen. pl. 1267. (*Corymbiferae.*)

Calix subequal, caliculate. *Rays* often wanting. *Receptacle* paleaceous, flat. *Pappus* 2 or 4 reflected or erect and retrorsely scabrous awns. *Seed* 4-sided.—*Nutt.*

cernua.

1. *B.* flowers subradiated, drooping; exterior ca-

lix longer than the flower; leaves lanceolate, sub-connate, dentated.—*Willd.*

Icon. Fl. Dan. 841. Cent. fl. Lond. 3. t. 55.

A showy plant with yellow flowers, that are either with or without rays, inhabiting ditches, low wet meadows, and the marshy borders of all our waters. Annual. August, September.

leaves lanceolate, serrated, opposite, amplexicaule. β *Coreopsis.*

Sp. Pl.

Icon. Barrel. ic. t. 1209. Loess. fl. Pruss. t. 11. (Pursh.)

In similar places with the preceding. Common. Flowers either with or without rays. August.

2. **B.** flowers with rays, drooping; the ray three times as long as the subequal calix; leaves oblong, attenuated at each end, dentated, connate at the base.—*Willd.* and *Mich.* *chrysanthemoides.*

Coreopsis perfoliata, Walt.

C. *flammula*, Herb. Banks, Mss. (Pursh.)

This is the most elegant species of the genus, which grows in this neighbourhood. Flowers very large, and of a deep yellow. In all overflowed places, especially the borders of our waters; common. Annual. August, September.

3. **B.** flowers discoid; outer calix six times as long as the flower, its leaves ciliate at base; lower leaves pinnate, upper ones ternate, lanceolate, serrated.—*Willd.* *frondosa.*

Icon. Morris. Hist. 3. s. 6. t. 5. f. 21.

Burr Marigold.

About a foot or two high. In shady woods on good soil, and in shady thickets; common. Flowers without rays. Annual. July, September.

4. **B.** flowers sub-radiate; exterior calix the length of the interior; leaves bi-pinnate: folioles lanceolate, pinnatifid.—*Willd.* *bipinnata.*

Icon. Herm. Parad. t. 123. (Pursh.)

Spanish Needles.

From ten to eighteen inches high. The seeds are long, prickly, and adhere to the cloths of persons who pass through fields or woods where the plant grows. The rays of the flowers are very small, and yellow. In neglected fields and woods, abundant. Perennial. July, October.

328. COREOPSIS. Gen. pl. 1325. (*Corymbiferae.*)

Calix double, both many-leaved, (8 to 12,) interior equal, subcoriaceous and coloured. *Receptacle* paleaceous, scales flat. *Seed* compressed, emarginate, bidentate, dentures rarely awned.—*Nutt.*

aurea. 1. *C.* leaves serrated, those of the root 3-parted, of the stem trifid or entire, lanceolate-linear.—*Willd.*

C. aurea, Muhl.

Golden Thickseed Sun-flower.

This elegant plant I have heretofore only found in Jersey. Flowers large, golden-yellow, showy. On the margins of Timber-creek, and rivulets near Woodbury, Jersey. Biennial. August.

329. ACTINOMERIS. Nutt. Gen. Am. pl. vol. 2. p. 181. (*Corymbiferae.*)

Calix simple, many-leaved, foliaceous, subequal. *Rays* remote, elongated, (4 to 8.) *Receptacle* small and paleaceous, the leaflets embracing the margin of the seed. *Seed* compressed and marginated, with the summit persistently 2-awned.—*Nutt.*

alternifolia. 1. *A.* leaves broad-lanceolate, serrated; corymb paniculated; calix spreading, loose; disk subglobose, in fruit squarrose.—*Nutt.*

Actinomeris squarrosa, Nutt.

Coreopsis alternifolia, L. and others.
Verbesina Coreopsis, Mich. and Pursh.

From three to seven feet high. Flowers not handsome, yellow. On the marshy shores of all our waters, abundant. Perennial. July, September.

ORDER IV. POLYGAMIA NECESSARIA.

(*Radial florets only, fertile.*)

330. AMBROSIA. Gen. pl. 1427. (*Corymbiferae.*)

Monoicous.—**MASC.** *Calix* 1-leaved. *Anthers* approximate, but not united. *Receptacle* naked.—**FEM.** *Calix* 1-leaved, entire or 5-toothed, 1-flowered. *Corolla* none. *Nut* formed from the indurated calix, 1-seeded.—*Nutt.*

1. **A.** *hirsute*, *asperate*; leaves 3-lobed, serrated; *trifida*. lobes oval-lanceolate, acuminate; fruit 6-spined below the top.—*Willd.* and *Pursh.*

Icon. Morris. Hist. 3. s. 6. t. 1. f. 4.

Trifid-leaved Hogweed.

From four to eight feet high. Flowers very ordinary and small. On the banks of rivers, creeks and ditches, every where very common. Annual. August, September.

2. **A.** leaves bi-pinnatifid, hairy beneath, upper *artemisifolia*. ones pinnatifid; racemes ternate, terminal; branches fastigiata.—*Willd.*

Wormwood-leaved Hogweed.

From two to four feet high. A very common weed in all cultivated grounds and neglected fields. Annual. August, September.

elator.

3. A. leaves bi-pinnatifid, smoothish; petioles long, ciliated; racemes terminal, paniculated; stem virgate.—*Willd.*

Tall Hog-weed.

In similar places, near the Buck-inn, on the Lancaster-road. Rare. Annual. June, July.

331. XANTHIUM. Gen. pl. 1426. (*Corymbiferae.*)

Monoicous.—**MASC.** *Calix* imbricated. *Anthers* approximate, but not united. *Receptacle* paleaceous.—**FEM.** *Calix* a 2-leaved involucre, 1-flowered. *Corolla* none. *Utriculus* muricated, bifid. *Nut* 2-celled.—*Nutt.*

strumarium.

1. X. stem branched, without prickles; leaves cordate, serrated, rough, three-nerved at the base; fruit elliptical, pubescent, with stiff-hooked bristles.—*Willd.* and *Pursh.*

Icon. Fl. Dan. 970.

Clotweed. Cockle-burr. Lesser-burdock.

From one to three feet high. A very ordinary looking plant, with green inconspicuous flowers. This is said to be the plant mentioned by Wilson in his Ornithology, under the name "Cockle-burr," the seeds of which constitute the favourite food of the *Psitticus Caroliniensis*, or Carolina parrot, sometimes called paraquet. This cockle-burr grows in great abundance on the shores of the Ohio and Mississippi—where it injures the wool of the sheep that pasture near it, insinuating its prickly burrs so deeply into their wool that it is scarcely worth any thing. In wastes, and among rubbish, even in the suburbs of our city; common. Annual. September.

GYNANDRIA.

ORCHIS.
GOODYERA.
NEOTTIA.
LISTERIA.
POGONIA.
CALOPOGON.

ARETHUSA.
MALAXIS.
CORALLORHIZA.
CYPRIPEDIUM.
ARISTOLOCHIA.
ASARUM.

CLASS XVIII.—GYNANDRIA.

ORDER I.—MONOGYNIA.

† “*Anther* adnate, subterminal and persistent.—*Pollinia* (masses of pollen) affixed by the base, composed of angular particles elastically cohering.” R. BROWN? Hort. Kew. 5. p. 188.

332. ORCHIS. [Swartz. Act. Stockholm, 1800. p. 205.]
(*Orchideæ.*)

Corolla ringent, upper leaflet vaulted. *Lip* dilated, the base beneath calcarate. *Pollinia* (anthers, *L.*) 2, terminal, adnate.—*Nutt.*

ciliaris,

1. *O.* lip oblong-lanceolate, pinnate-ciliate, twice the length of the petals; horn longer than the germ.—*Willd.*

Habenaria ciliaris, Brown, in Hort. Kew.
Icon. Bot. Rep. 42.

Yellow-fringed Orchis.

A very elegant plant, about twelve inches high, with rich orange-coloured flowers. In meadows, dry swamps and boggy grounds not uncommon, especially in Jersey. Perennial. July.

blephariglotis.

2. *O.* lip lanceolate-ciliate, the length of the upper petal; the horn longer than the germ.—*Willd.*

Orchis testiculata floribus niveis, &c. Clayt. No. 560.

White-fringed Orchis.

Also a handsome plant closely resembling the preceding, except that its flowers are snow-white. In the low boggy

meadows of Jersey, near Woodbury; very rare. Perennial. July, August.

3. O. lip 3-parted; segments sub-digitate, filiform; lacera. horn the length of the germ; flowers alternate.
—*Mich.*

O. physcodes, Willd. and Pursh.

Ragged Orchis.

About a foot high, resembling No. 2, somewhat. Easily distinguished from it, however, by its flowers which are greenish-white. In similar places with No. 1. Rare. July, August.

4. O. lip lanceolate, three-toothed at the apex; petals obtuse; horn filiform at the apex, clavate-^{clavellata.} adscendent, longer than the germ.—*Willd.* ^{*β. tridentata.*}

Orchis tridentata, Willd. and Pursh.

Three-toothed Orchis.

About eight inches high, with a small spike of few greenish-white flowers. In boggy grounds, not common. In such places on or near the Woodlands. Perennial. July.

5. O. lip obovate, undivided, crenate, retuse; ^{spectabilis.} petals upright, lateral ones longest; horn clavate, shorter than the germ; bractes longer than the flowers; stem leafless.—*Willd.*

O. humilis, Mich.

Showy Orchis.

About a span high. This is one of the most beautiful plants of our neighbourhood, and well worth cultivating. Leaves broad, bluish-green. Flowers pale rose-violet and white mixed. At the roots of trees in rich shady woods. Perennial. May, June.

6. O. lip three-parted; segments cuneiform, cili-^{fimbriata.} ate-fimbriate; lateral petals ovate, dentate; horn filiform, clavate, longer than the germ.—*Willd.*

Habenaria fimbriata, Brown, in Hort. Kew.

Purple-fringed Orchis.

From two to two and a half feet high. Flowers purple, very elegant—the most showy species of the genus in this neighbourhood. On the marshy shores of the Delaware along the bank walk from the Navy-yard to Gloucester point, and about a mile north of the point, very scarce. I have found but two specimens; both in the spot just mentioned. Perennial. July.

cristata.

7. O. lip oblong, pinnate-ciliate; petals roundish, the two lateral ones dentate; the horn shorter than the germ.—*Willd.* and *Mich.*
 O. cristata, Mich.
 O. physcodes, L.

Short-spurred Orchis.

Flowers resembling those of No. 1, but smaller, also orange-colour. In dry swamps, Jersey; but very rare. Perennial. August.

†† *Anther* persistent, parallel with the stigma.—
Pollinia affixed to the summit of the stigma, the particles farinaceous or angular. R. BROWN.

333. GOODYERA. R. Brown. (*Orchideæ.*)

NEOTTIA. Willd.

Corolla ringent; the 2 lower petals placed under the gibbous lip, which is undivided above. The *column* (or style) free. *Pollen* angular.—*Nutt.*

pubescens.

1. G. radical leaves ovate, petiolate, reticulate; scape sheathing; flowers pubescent: lip ovate-acuminate; petals ovate.—*Willd.*
Neottia pubescens, Willd.
Satyrium repens, Mich.

Rattle-snake Plantane. Veined-leaved Neottia.

About twelve inches high. Leaves thick, beautifully reticulated with white veins. Flowers white. In shady rich woods and on rocks; common. Perennial. July.

334. NEOTTIA. Swartz. R. Brown. (*Orchideæ.*)

Corolla ringent; the 2 lower petals placed under the lip, which is beardless; interior leaves connivent. *Column* apterous. *Pollen* farinaceous.—*Nutt.*

1. *N.* radical leaves linear; scape sheathing; ^{tortilis.} flowers spirally secund; lip trifid, the middle crenulate.—*Willd.*

Satyrium spirale, Swartz. Prodr.

Ophrys æstivalis, Mich.

Limodorum præcox, Walt.

Orchis spiralis, L.

Spiral Neottia. Ladies Traces.

A slender delicate plant, appearing to be destitute of leaves, about ten inches high, with a spiral spike of white flowers. In low meadows and boggy grounds; sometimes in exposed or sunny fields. Common. Perennial. June, July.

2. *N.* leaves lanceolate, three-nerved; stem sheath- ^{cernua.} ing; spike oblong, close-flowered; flowers recurvate-drooping: lip oblong, very entire, acute.—*Willd.*

Ophrys cernua, Sp. Pl.

Limodorum autumnale, Walt.

Resembles No. 1, very much, but is a larger plant, with larger flowers. Also called Ladies Traces. About one foot high. Flowers white, drooping, in a tortuous spike. In grassy places and low meadows; not uncommon. Perennial. July.

335. LISTERIA. R. Brown. (*Orchideæ.*)

OPHRYS. Smith, &c.

Corolla irregular. *Lip* pendent, bifid. *Column* apterous, (minute;) the *anther* inserted at its base. *Pollen* farinaceous.—*Nutt.*

cordata.

1. *L.* stem 2-leaved; leaves opposite, cordate-subrotund, acute; spike small-flowered; lip oblong, dilated at the top, obtuse, 2-lobed; germen sub-globose; root fibrous.—*Willd.*

Epipactis convallarioides, Pursh.

Ophrys cordata, Mich.

Heart-leaved Listeria.

A small plant, not exceeding six inches in height. Flowers brown, mixed with green. Very rare in this neighbourhood. In the dark swampy wood bordering a road leading from Kaighn's point to the Woodbury-road; scarce. Perennial. May.

††† *Anther* terminal, inserted, persistent. *Pollen* farinaceous or angular. R. BROWN.

336. POGONIA. JUSS. R. BROWN. (*Orchideae.*)

ARETHUSA, L.

Petals 5, distinct, without glands. *Lip* sessile, cucullate, internally crested. *Pollen* farinaceous.—*Nutt.*

ophioglossoides.

1. *P.* root fibrous; scape distantly 2-leaved; leaves oval, lanceolate; lip fimbriated.—*Willd.* and *Pursh.*

Icon. Lam. Illustr. t. 729. f. 2.

A very elegant plant, about eight or ten inches high, bearing a single leaf, and a single terminal rose-coloured flower. In wet meadows, in bogs and morasses; common. Perennial. June, July.

verticillata.

2. *P.* leaves in five's, oblong-lanceolate, verticillate; stem one-flowered, the three exterior petals very long, linear, the interior ones lanceolate; lip three-lobed, the middle segment undulated.—*Willd.*

Icon. Pluk. mant. t. 34. f. 1.

Whorled Pogonia.

About ten or twelve inches high, with a single whorl of leaves. Flowers singular, but not handsome, brownish-purple mixed with yellow. Flowers sometimes two or three on a stem. In shady woods of rich, moist boggy soil—also in bogs; frequent. Perennial. May, June.

337. CALOPOGON. R. Brown. (*Orchideæ.*)

CYMBIDIUM. Swartz.

Petals 5, distinct. *Lip* behind, (or inverted,) unguiculated; the lamina bearded. *Column* free. *Pollen* angular.—*Nutt.*

1. *C.* radical leaves ensiform, nerved; scape few-flowered; lip erect, attenuated at base; lamina expanded; disk concave, bearded.—*Willd.* and *Pursh.*

Cymbidium pulchellum, Willd.

Limodorum tuberosum, Syst. Veg. and Mich.

L. pulchellum, Salisbury.

Ophrys barbata, Walt.

Icon. Bot. Mag. 116.

About fifteen inches high, with a single leaf and a single terminal flower of a rose-red, and very handsome. In bogs and morasses; frequent. Perennial. July.

338. ARETHUSA. R. Brown. (*Orchideæ.*)

Petals 5, connaté at the base. *Lip* below growing to the column, cucullate above, and internally crested. *Pollen* angular.—*Nutt.*

1. *A.* without leaves; root globose; scape sheathing, one-flowered; upper calicine segments incurved; lip somewhat crenulate.—*Willd.* and *Pers.*

Icon. Lam. Illustr. t. 729. f. 1. Pluk. mant. t. 348. f. 7.

Bulbous-rooted Arethusa.

About a span high. Root tuberous, scape without leaves, and bearing a single large terminal rose-coloured-flower. A very rare plant. I have only found a single specimen, in a morass a mile south-east of Woodbury, Jersey. Perennial. June.

†††† Anther terminal, movable, deciduous. Masses of pollen at length cereaceous.

339. MALAXIS. Swartz. R. Brown. (*Orchideæ.*)

Petals 5, narrower than the lip, spreading or deflected. *Lip* flattened, undivided, sessile, (mostly situated behind.) *Column* porrected. *Pollinia* 4, parallel, affixed to the summit of the stigma.—*Nutt.*

lilifolia.

1. *M.* leaves two, ovate-lanceolate; scape triquetrous; interior petals filiform, reflexed, discoloured; lip concave, obovate, acute at the apex.—*Willd.* and *Pursh.*

Ophrys trifolia, Walt.

Ophrys scapo nudo, foliis radicalibus, &c. Gron. Virg. p. 138.

Epidendrum caule erecto simplicissimo nudo, racemo simplicifolia erecto, Gron. Virg. p. 140.

Icon. Bot. Repos. 65.

Lily-leaved Malaxis

About six inches high. Flowers brownish-yellow. A singular and not unhandsome plant. In rich shady woods at the roots of trees, growing on recent vegetable mould. Perennial. June.

longifolia.

2. *M.* bulb subrotund; scape two-leaved; leaves broad-lanceolate, longer than the scape; spike oblong; lip cordate, concave, canaliculate, shorter than the petals. *B.*

M. correana, Bart. Prod. Ph.

Long-leaved Malaxis.

From three to seven inches high. Leaves very long, always longer than the scape and spikes, when the plant is mature. Root roundish. Flowers one-third the size of those in No. 1, and a little larger than those of No. 3, of a yellowish-green colour; lateral petals yellow. I first discovered this plant in June, 1814, in the woods north of Powelton, on the Mantua-road, at which time I detected only three specimens. I found it abundantly the next season in the same place, and have subsequently met with it in the shady woods bordering the Schuylkill. Mr. Nuttall has found it this year on the Wissahickon, near Langstroth's mills, growing with No. 1. Perennial. June.

3. *M.* one leaf, ovate, amplexicaule; scape five-ophioglossoides.
angular; lip bifid at the apex.—*Willd.*

M. unifolia, Mich.

Adder-tongue Malaxis. One-leaved Malaxis.

A very delicate plant, about six inches high, with a single leaf, and a spike of small green flowers. In the shady woods, three miles north of Woodbury, bordering the road; and in shady woods on the Schuylkill, very rare and scarce where found. It is generally at the roots of trees in decayed vegetable mould. Perennial. May, June.

340. CORALLORHIZA. Haller. R. Brown. (*Orchidea.*)

CYMBIDIUM. Willd.

Petals equal and connivent. *Lip* mostly arising from the base. *Column* free. *Pollinia* 4, oblique (not parallel.)—*Nutt.*

1. *C.* lip trifid; spur obsolete, every where adnate innata.
to the germ; leaves none; capsule obovate.—
Nutt.

Corallorhiza innata, R. Brown.

Cymbidium Corallorhizon, Willd.

About ten or twelve inches high. Flowers brownish. Very rare. In the shady, hilly woods above the falls of Schuylkill, west side, very scarce. Perennial. September, October.

Odontorhiza. 2. *C.* lip entire, oval and obtuse, margin crenulate; spur obsolete, every where adnate to the germ; leaves none; capsule subglobose.—Root much branched, dentate; scape 8 to 10 inches high, attenuated and rather slender, roundish and bulbous at the base; sheaths ochreate, about 3 in number; flowers numerous, pendulous; petals brownish, connivent, and all inclined to the upper side of the corolla; lip dilated, white, and elegantly spotted with violet-purple, palate bidentate; base of the column marginated; capsule short and subglobose.—*Nutt.*

A smaller plant than No. 1, which it resembles. Seldom more than seven inches high. Edges of sandy woods in Jersey—in those near Camden, not unfrequent. I have found it very rare west of the Delaware. Perennial. July, August.

hiemalis.

3. *C.* leaf solitary, ovate, striate; lip trifid, obtuse, with the palate ridged; central lobe rounded, crenulate.—*Nutt.*

Arethusa spicata, Walt.

Cymbidium hyemale, Willd.

About twelve inches high. Flowers brown. Willdenow describes this plant as having two leaves, but I have not seen it with more than one, which is covered with numerous longitudinal nerves. In the high shady woods above the falls of Schuylkill, west side; very rare. Root consisting of two bulbs joined by a short connecting radicle. The plant is sometimes called Adam and Eve. Perennial. May.

ORDER II. DIANDRIA.

341. CYPRIPIEDUM. L. Swartz. R. Brown. (*Orchideæ.*)

Lip ventricose, inflated, saccate. *Petals* 4, the under one bifid. The *column* terminating behind in a petaloid lobe.—*Nutt.*

1. *C.* stem leafy; lobe of the style triangular-oblong, obtuse; exterior petals ovate-oblong, acuminate, interior very long, linear, contorted; lip compressed, shorter than the petals.—*Willd.*

C. flavescens, Redout. pl. liliac.

C. Calceolus, β . Sp. Pl. 1346.

C. Calceolus, Walt.

Icon. Willd. hort. berol. 1. t. 13.

Large yellow Ladies'-slipper.

About fifteen inches high. Flowers large, yellow. In the shady hills bordering the Schuylkill above the falls, west side, very scarce. I have not found it elsewhere. Perennial. May.

2. *C.* scape leafless, one-flowered; radical leaves a pair, oblong-obtuse; lobe of the style subrotund-rhomboid, acuminate, deflexed; lip longer than the lanceolate petals, with a fissure behind.—*Willd.*

C. acaule, Ait.

Icon. Bot. Mag. 192. Salisb. in Lin. trans. 1. t. 3. f. 4. Catesby. Car. app. t. 3.

Purple Ladies'-slipper. Moccasin-flower.

About eight or ten inches high, with two large bluish-green pubescent radical leaves, and a scape bearing a single flower, with a large globose pendulous nectary. In boggy grounds of Jersey, and in rich woods; common. Perennial. May, June.

ORDER III. HEXANDRIA.

342. ARISTOLOCHIA. Gen. pl. (*Aristolochia*.)

Calix none. *Corolla* of 1 petal, ligulate, with a ventricose base. *Capsule* 6-celled, many-seeded, inferior.—*Nutt.*

Serpentaria. 1. *A.* leaves cordate, oblong, acuminate; stem flexuous, adscendent; peduncles radical; lip of the corolla lanceolate.—*Willd.*

Icon. Woodville's *Med. Bot.* vol. 2. t. 106.
and Bart. *Veg. Mat. Med. U. S.* vol. 2.

Virginian Snake-root.

A well-known plant, by the above name. About six or ten inches high. Flowers at the root, dingy-purple. Possesses medicinal properties. (See Woodville and Barton.) On the banks of the Wissahickon, in the woods near Powelton, the woods of Jersey, a mile or two east of Kaighn's point; and in those above the falls of Schuylkill, west side; rather rare. Perennial. May, June.



ORDER IV. DODECANDRIA.

343. ASARUM. Gen. pl. 801. (*Aristolochie.*)

Calix subcampanulate, 3 or 4-cleft. *Corolla* none. *Anthers* adnate to the middle of the filaments. *Capsule* inferior, 6-celled, crowned with the calix.—*Nutt.*

Canadense. 1. *A.* a pair of leaves, broad-reniform; calix woolly, deeply three-parted; segments sub-lanceolate, reflexed.—*Mich., Willd., and Pursh.*

A. Carolinianum, Walt.

A. latifolium, Salisb. Prodr.

Icon. Bart. *Veg. Mat. Med. U. S.* vol. 2.

American Asarabacca. Wild Ginger.

A very aromatic plant, possessing the properties of European *Asarabacca*. Flowers at the root, dingy-purple. Leaves large and broad. On the hills bordering the Schuylkill, above the falls, west side. Not common. Perennial. April.

MONOECIA.

CHARA.
TYPHA.
SPARGANIUM.
CAREX.
COMPTONIA.
ALNUS.
BCEHMERIA.
URTICA.
MORUS.
AMARANTHUS.
ZIZANIA.
MIRIOPHYLLUM.
SAGITTARIA.

QUERCUS.
FAGUS.
CASTANEA.
BETULA.
CARPINUS.
PLATANUS.
LIQUIDAMBAR.
JUGLANS.
CARYA.
ARUM.
PINUS.
ACALYPHA.
EUPHORBIA.

CLASS XIX.—MONOECIA.

ORDER I. MONANDRIA.

344. CHARA. Sp. pl. 1397. (*Najades.*)

Calix and *corolla* none. *Anther* globose, sessile. *Style* none. *Stigmas* 5. *Berry* 4-celled, many-seeded.—*Nutt.*

vulgaris.

1. *C.* stems and branches naked at base; branches terete; joints leafy; folioles oblong-subulate; bractes shorter than the berry.—*Willd.*

Icon. Engl. Bot. 336.

Feather Beds.

Whole plant encrusted, and exceedingly disagreeable in smell. In old ponds and sometimes in ditches along the course of the Delaware, Jersey side; rare. I have found it but once this side of the Delaware, viz. in a ditch near Gloucester point. The plant dries white or whitish-green, and is with difficulty preserved for the herbarium, being friable. Annual. August, September.

ORDER III. TRIANDRIA.

345. TYPHA. Gen. pl. 1401. (*Typhæ.*)

MASC. *Ament* cylindric. *Calix* obsolete, 3-leaved. *Corolla* none. **FEM.** flowers below the masculine. *Calix* and *corolla* none. *Seed* 1, pedicellate, furnished with a pappus at the base.—*Nutt.*

latifolia.

1. *T.* leaves linear, flat; masculine and feminine spikes near each other, each cylindrical.—*Willd.*

Icon. Bot. Mag. 1455. Fl. Dan. 645.

Reed-mace. Cats'-tail. Cooper's-reed.

Every person knows the seed of this plant, by the name of Cats'-tail; it is used in making beds for the common people, but is both unhealthy and unpleasant, and in every respect inferior to long moss or straw. About four feet high. In swampy meadows below the Navy Yard; not common. Perennial. July, August.

2. T. leaves linear, a little channelled; masculine angustifolia. and feminine spikes remote from each other, each cylindrical.—*Willd.*

Icon. Bot. Mag. 1456.

Narrow-leaved Cats'-tail.

Resembles No. 1, exceedingly; rare. I have only found it sparingly on the Delaware shores, particularly below Kaighn's point. Perennial. July.

346. SPARGANIUM. Gen. pl. 1402. (*Typhæ.*)

Ament globose. *Calix* 3 to 6-leaved. *Stigma* simple or bifid. *Nut* suberose, 1-celled, 1 or 2-seeded.—*Nutt.*

1. S. leaves triquetrous at base, concave at the sides; peduncle common, branched; stigma linear.—*Smith* and *Willd.* ramosum.

S. erectum, Sp. Pl. 1378.

Icon. Curt. Lond. 5. t. 66. Engl. Bot. 744.

Burr-reed.

About three feet high. Flowers in globose capituli. On the marshy shores of the Delaware, every where abundant; also in ditches near the river. Perennial. June, July.

2. S. leaves triquetrous at base, flat at the sides; common peduncle simple; stigma linear.—*Smith* and *Willd.* simplex.

S. erectum, β. Sp. Pl. 1378.

Icon. Curt. Lond. 5. t. 67. Engl. Bot. 745.

Grows in similar situations with No. 1. Perennial. July.

347. CAREX. Gen. pl. 1407. (*Cyperoideæ.*)

Flowers imbricated in an ament. **MASC.** *Calix* of a single scale. *Corolla* none. **FEM.** *Calix* also of 1 scale. *Corolla* ventricose, monopetalous, bidentate at the apex. *Stigmas* 2 and 3. *Nut* triquetrous, included in the persistent corolla, (or utriculus.)—*Nutt.*

§ 1. *Stigmas* mostly two.

† Spikes dioicous.

sterilis.

1. *C.* spikes about six; fruit ovate, compressed-triquetrous, acuminate, recurved and bi-cuspidate at the top; margin ciliate-serrated.—*Willd.*

Icon. Schk. Car. t. Mmm. f. 146. (Pursh.)

Barren Sedge.

In damp places and meadows, common. Perennial. May.

†† Spikes androgynous.

* Spike 1, the summit masculine.

cephalophora.

2. *C.* spikes in an elliptical form; fruit ovate, compressed, bifid, margined, ciliate-serrated above.—*Willd.*

C. typhina, Mich.

Icon. Schk. Car. t. Hhh. f. 133.

Headed Sedge.

In woods, not unfrequent. Perennial. June.

squarrosa.

3. *C.* spike simple androgynous, cylindrical: masculine below; capsules imbricated, horizontal.—*Sp. Pl.*

A well-marked species, with large fruit-heads. In copses of the Neck; abundant. Perennial.

* * Spikes many, summits masculine.

4. *C.* spikelets about four, somewhat remote; *retroflexa.* fruit ovate, bi-dentate; margin glabrous, reflexed-spreading; scales oblong-lanceolate.—*Schkurr.*

Icon. Schk. Car. t. Kkk. f. 140.

On woody hills of dry soil, every where common. Perennial. June.

5. *C.* spikelets under five, oblong, aggregated; *stipata.* fruit spreading, ovate-acuminate, bi-cuspidate, convex, flat, nerved; culm triquetrous, very asperate.—*Willd.*

Icon. Schk. Car. t. Hhh. f. 132.

Close-spiked Sedge.

In low grounds, common. Perennial. April.

6. *C.* spikes narrow, paniculated, oblong, obtuse; *multiflora.* fruit ovate, bi-cuspidate; scales ovate, mucronate; bractes leafy, filiform.—*Willd.*

Icon. Schk. Car. 1. Lll. f. 144.

Many-flowered Sedge.

Very common on the borders of ditches, and in meadows. Perennial. May.

7. *C.* spikes paniculated; fruit ovate, margined *paniculata.* above, bidentate; margin ciliate-serrate; culm triquetrous.—*Willd.*

Icon. Schk. Car. t. D. f. 20. et var. t. Ttt. f. 163.

Panicled Sedge.

Grows with No. 6, to which it has some resemblance. Not common. Perennial. May.

rosea.

8. *C.* spikelets about four, remote; fruit ovate, acuminate, bidentated: margin ciliate-serrated, horizontal; scales ovate, obtuse, a leafy bracte at the base of the lower spikelet.—*Willd.*

C. echinata, β . *rosea*, Walhb. act. holm. 1803. p. 147. (Pursh.)

Icon. Schk. Car. t. Zzz. f. 179.

Rose Sedge.

In woods bordering the Wissahickon; not uncommon. Perennial. May.

*** Spikes many, summits feminine.

lagopodioides.

9. *C.* spikelets 11, alternate, elliptical, obtuse, close to each other; fruit ovate-lanceolate, marginated, bicuspidate; a long leafy bracte at the foot of the last spike.—*Willd.*

C. Richardi, Mich.

Icon. Schk. Car. t. Yyy. f. 177.

Hare's-foot Sedge.

In low grounds, common—particularly in the meadows of the Neck. Perennial. June.

scoparia.

10. *C.* spikelets about five, alternate, elliptical, obtuse, almost close together; fruit ovate-lanceolate, marginate, bicuspidate; bractes oblong, mucronate.—*Willd.*

C. viridula, Mich.

Icon. Schk. Car. t. Xxx. f. 175.

Resembles No. 8, and grows in similar places; very common. Perennial. May.

festucacea.

11. *C.* spikelets about 8, nearly close together, alternate, cylindrical, those in fruit clavate;

fruit subrotund-ovate, rostrate, bidentate, ciliate-serrated on the margin, larger than the lanceolate-mucronate scale.—*Willd.*

Icon. Schk. Car. t. Www. f. 173.

Fescue-like Sedge.

In dry woods, common. Perennial. May.

12. *C.* spike androgynous, compound; spikelets straminea. about five, subrotund, masculine below, almost close together; stigmas two; fruit subrotund-ovate, rostrate, bidentate, ciliate-serrated on the margin, larger than the lanceolate scale.—*Willd.*

Schk. Car. p. 49. n. 38. t. G. f. 34. et t. Xxx. f. 174.

Straw-coloured Sedge.

In woods, not uncommon. Perennial. June.

††† Spikes of distinct sexes.

* Male spike often solitary, the others feminine or partly androgynous.

13. *C.* feminine spikes cylindrical, obtuse, about cæspitosa. three, distant, below on short projecting peduncles; fruit ovate-obtuse, perforated at the mouth, larger than the oblong-obtuse scale; leaves spreading.—*Willd.*

C. polyandra, Schk. Car. 1. p. 59. t. Dd. f. 90.

Turfy Sedge.

This species grows in large tufts together, and is the most common one in this neighbourhood. In all meadows and low grounds. Perennial. May.

14. *C.* masculine spikes two, feminine four, crinita. distant, pedunculated, pendulous, cylindrical; fruit subrotund-elliptical, ventricose, very shortly rostellate, entire at the mouth, shorter than the oblong, aristated scale.—*Willd.* and *Lamark.*

Icon. Schk. Eee. f. 125. et t. Ttt. f. 164.

Chaffy Sedge.

Grows in similar places with No. 12, and also very common. Perennial. June.

acuta.

15. *C.* masculine spikes two or three, feminine about four, subpedunculated, subnutant, cylindrical, remote; fruit oblong, very shortly rostellate; mouth entire, equal to the oblong-acute scales.—*Willd.*

Icon. Schk. Car. t. Ee. et Ff. f. 92.

Cutting Sedge.

Common in low boggy ground. Perennial. May.

§ 2. *Stigmas three.*

† Spikes androgynous, with the summits masculine.
None.

† † Terminal spikes male, the rest androgynous.

virescens.

16. *C.* spike androgynous, linear-pedunculated, masculine below, feminine sub-approximated, by pairs, sub-pedunculated, linear; fruit globose-triquetrous, obtuse, pubescent.—*Willd.*

C. virescens, Muhl.

Icon. Schk. Car. t. Mmm. f. 147.

Green Sedge.

In woods and hills, common; very tall. Perennial. June.

Buxbaumii.

17. *C.* spike androgynous, pedunculated, obovate, masculine below, feminine subternate, remote, sub-pedunculated; fruit elliptical, triquetrous, obtuse, obsoletely bidentated, equal to the oblong, mucronate scale.—*Willd.*

C. polygama, Schk.

Icon. Schk. Car. t. X. Gg. f. 76.

Buxbaums' Sedge.

In wet places; rare. Perennial. May.

††† Spikes of distinct sexes.

* Male spike solitary, female ones sessile or with the peduncles included.

18. *C.* feminine spikes about three, sub-approximated, sessile, nearly globose; fruit sub-globose, triquetrous, rostrate, bidentate, pubescent, shorter than the oblong scale; culm erect.—*Willd.*

Icon. Schk. Car. t. Uuu. f. 167.

Variable Sedge.

In dry woods, common. Perennial. May.

19. *C.* feminine spikes about two, approximated, sub-globose, sub-sessile; fruit globose, tomentose, bidentate, larger than the oblong-ovate scale; radical leaves longer than the culm.—*Willd.*

Icon. Schk. Car. t. Lll. f. 143.

Margined Sedge.

A beautiful species, and very common, particularly in Jersey, in woods and on their borders, also by fences. Perennial. April.

20. *C.* masculine spike lanceolate, feminine two, ovate, sessile, approximated; fruit ovate, rostrate, obliquely pubescent at the mouth, nearly equal to the ovate-acute scale.—*Willd.*

Icon. Schk. Car. t. Bbbb. f. 182.

Hairy-beaked Sedge:

In shady wet woods, especially in the Neck; common. Perennial. June.

21. *C.* feminine spikes three, on included peduncles, ovate, almost in contact; bractes very long, leafy; fruit ovate, ventricose, nerved, very long, rostrate: mouth bidentate, longer than the lanceolate-mucronate scale.—*Willd.*

Icon. Schk. Car. t. Ggg. f. 130.

Long-pointed Sedge.

In wet woods and boggy ground, not rare. Perennial. May.

rostrata.

22. *C. masculine* spikes solitary; scales oblong with very long awns, feminine cylindrical, two, the lower on projecting peduncles; stigmas three; fruit ovate, inflated, 5-nerved, rostrate, bidentate at the mouth, longer than the oblong aristated scale.—*Willd.*

C. rostrata, Muhl.

Beaked Sedge.

In damp woods; common. Perennial. June.

miliaris.

23. *C. feminine* spike for the most part solitary, sessile, ovate; bracte setaceous; fruit globose, smooth.—*Mich.*

On the shady banks of the Wissahickon; not unfrequent. Perennial. May.

lupulina.

24. *C. feminine* spikes three, on included peduncles; oblong, close together; bractes very long, leafy; fruit ovate, ventricose, nerved, very long, conic-rostrate, bicuspidate at the mouth, much longer than the ovate-mucronate scale.—*Willd.*

C. lupulina, Muhl.

Icon. Schk. Car. t. Ddd. f. 123. and t. Iii. f. 194.

Hop-like Sedge.

Fruit heads very large. In the boggy woods of Jersey, on the Woodbury road; not common. Perennial. June.

oligocarpa.

25. *C. feminine* spikes 2, 3 or 4-flowered, pedunculated below; fruit subrotund-triquetrous, obovate, rostellate; mouth entire, longer than the oblong-mucronate scale.—*Willd.*

C. pauperula, Mich.

Icon. Schk. Car. t. Vvv. f. 170.

In moist places. Perennial. May.

26. *C. feminine* spike sub-solitary, about 6-flowered, peduncles sub-exserted; fruit ovate, ventricose, nerved, rostrate, 2-cleft at the mouth, longer than the ovate scale.—*Willd.*
folliculata.
 Icon. Schk. Car. t. N. f. 52.

Round-spiked Sedge.

Yellow Sedge.

β xanthophysa.

In damp woods and shady copses; common. Perennial.
 June. *β.* more rare.

* * Male spikes solitary, female long pedunculate; sheaths short.

27. *C. spikes* pedunculated, feminine four, distant; fruit elliptical, triquetrous, pedicellate, glabrous, shorter than the ovate-cuspidate scale; bractes sheathing, somewhat leafy at the top; radical ones lanceolate, nerved.—*Willd.*
plantaginea.
C. latifolia, Wahlb. act. Holm. 1803. p. 156.
 (Pursh.)
 Icon. Schk. Car. t. U. f. 70. et t. Kkkk. f. 195.

Plantane Sedge.

Leaves very broad. In shady woods, common; particularly on the Wissahickon. Perennial. May, June.

28. *C. feminine* spikes three, remote, lower ones pedunculate; fruit ovate, nerved, membranaceous at the mouth, longer than the oblong-mucronate scale.—*Willd.*
anceps.
C. striatula, Mich.
 Icon. Schk. Car. t. Fff. f. 128.

Two-edged Sedge.

In the meadow grounds of Jersey. Perennial. June.

29. *C. feminine* spikes about four, remote, with filiform, drooping peduncles; fruit distant, al-
flexuosa.

ternate, oblong-rostrate, bifid, twice the length of the ovate-mucronate scale.—*Willd.*

C. debilis, Mich.

C. tenuis, Rudge in Lin. trans. t. 7. p. 79.

Icon. Schk. Car. t. Ddd. et Aaaa. f. 124.

Zigzag-spiked Sedge.

In the sandy, low wet grounds of Jersey and the Neck. Perennial. June.

*** Male spike solitary, female ones pedunculate, sheaths almost none.

miliacea.

30. *C. feminine* spikes three, pedunculate, 8-flowered, upper ones sessile; fruit ovate-triangular, shortly rostrate, entire at the mouth, longer than the oblong-emarginate aristate scale.—*Willd.*

Icon. Schk. Car. t. Ooo. f. 151.

Millet Sedge.

In the shady woods bordering the Wissahickon. Perennial. July.

riparia.

31. *C. masculine* spikes four, feminine two, erect, cylindrical, pedunculated; fruit oblong, many-nerved, rostrate, bifurcated, longer than the oblong-mucronate scale.—*Willd.*

C. lacustris, Willd. and Pursh.

Strand Carex.

A very large species, every where common on the shores of the Delaware. Perennial. June.

Mr. Collins, who has paid very close attention to this difficult genus, informs me, that all the species enumerated by Dr. Muhlenberg, with the exception perhaps of six or eight, grow within ten miles of Philadelphia. The above are all the species I have yet met with.

348. COMPTONIA. Gærtner. (*Amentaceæ.*)

MASC. *Ament* cylindrical, scales 1-flowered; *corolla* none. *Stamina* 3 or 4, filaments simple. **FEM.** *Ament* ovate. *Calix* at

length 6-leaved. *Corolla* none. *Styles* 2.
Nut oval, 1-celled.—*Nutt.*

1. C. leaves long-linear, alternately crenate-pin-natifid.—*Willd.* asplenifolia.

Liquidambar peregrinum, Syst. Veg. 860.

L. asplenifolium, Sp. Pl. 1418.

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 19.

Sweet Fern. Fern-leaved Gale, &c.

About two feet high. Whole plant possessing a fine aromatic, resinous odour. Possesses medicinal properties. (See Bart. Veg. Mat. Med. U. S.) In Jersey, on the borders of woods; very common. On the high banks of the Wissahickon, abundant. Perennial. April.

ORDER IV. TETRANDRIA.

349. ALNUS. Willdenow. Sp. pl. 4. p. 334. (*Amentaceæ.*)

MASC. *Ament* composed of 3-flowered, cuneiform truncated receptacles. *Calix* the scales of the ament. *Corolla* 4-parted. **FEM.** *Calix* scales 2-flowered. *Corolla* none. *Seeds* compressed, ovate, apterous.—*Nutt.*

1. A. leaves obovate, acuminate; veins and axills of the veins hairy underneath; stipules elliptical-obtuse.—*Willd.* serrulata.

Betula serratula, Ait.

B. rugosa, Ehrh.

Icon. Mich. f. Arbres forest. vol. 3. p. 320. t. 4.

Common Alder. Candle Alder. Hazel Alder.

A shrub from five to twelve feet high, growing in great quantities along the margins of all our waters, and in swamps. It is said to possess medicinal properties. $\frac{1}{2}$. March, April.

2. A. leaves subrotund-cuneate, obtuse, subretuse, glutinous; axills of the veins villous beneath.—*Willd.* glutinosa?

Betula Alnus, Sp. Pl. 1394.

Icon. Engl. Bot. 1508.

Alder-tree.

On the banks of creeks and other waters; rare. $\frac{1}{2}$. April.

350. BUEHMERIA. Gen. pl. 1421. (*Urtica*.)

MASC. *Calix* 4-parted. *Corolla* none. *Nectary* none. FEM. *Calix* and *corolla* none. *Seed* 1, compressed.—*Nutt.*

cylindrica. 1. B. leaves opposite, ovate-oblong, acuminate, dentate, glabrous; flowers dioicous; male spikes glomerate, interrupted, feminine cylindrical; stem herbaceous.—*Willd.*

Urtica cylindrica, L. and Mich.

Icon. Sloan. Hist. Jam. 1. t. 82. f. 2.

An ordinary looking plant, from eighteen inches to two feet high. In shady places along the margins of water courses; not rare. Perennial. June, July.

351. URTICA. Gen. pl. 1422. (*Urtica*.)

MASC. *Calix* 4-leaved. *Corolla* none. *Nectary* central, mostly cyathiform. FEM. *Calix* 2-valved. *Corolla* none. *Seed* 1, shining.—*Nutt.*

pumila. 1. U. leaves opposite, ovate-acuminate, three-nerved, serrated; lower petioles the length of the leaves; flowers monoicous, triandrous, capitate-corymbose, shorter than the petiole.—*Willd.*

Pellucid Nettle. Rich Weed.

A common looking plant, varying in size from two inches to fifteen. Leaves and stem shining, smooth, pellucid. Near springs and rivulets; in shady damp places, and in moist woods near water-courses; every where abundant. Perennial. August.

2. U. leaves opposite, cordate, ovate-lanceolate, ^{dioica.} deeply serrated; flowers dioicous; spikes paniculated, glomerate, in pairs, longer than the petiole.—*Willd.*

Icon. Fl. Dan. 746. and Woodville's Med. Bot. vol. 3. t. 146.

Common Nettle.

From one to two feet high, always growing in quantities together. Nettle was formerly much used as a medicine. (See Woodville;) it is still employed in domestic practice. In wastes and among rubbish near habitations, introduced, but naturalized. Perennial. June, July.

3. U. leaves alternate, cordate-ovate, acuminate, ^{capitata?} serrated, three-nerved, twice as long as the petiole; glomeruli spiked; spikes solitary, shorter than the leaf, leafy above; stem naked.—*Willd.* and *Pursh.*

About the same size as No. 2, which it resembles. Along the margins of the Delaware, both sides, in thickets; common. Perennial. July.

4. U. leaves alternate, cordate-ovate, acuminate, ^{Canadensis.} serrated, every where hispid; panicles axillary, for the most part in pairs, divaricately and very much branched, the lower ones masculine, longer than the petiole, the upper ones elongated, feminine; stem very hispid and stinging.—*Willd.*

Icon. Pluk. alm. t. 237. f. 2.

Hemp Nettle.

A large and common looking plant, from two to six feet high. Leaves large. The bark of this species affords a fine strong hemp, well worth attention. In shady woods and thickets along the Schuylkill; common. Perennial. July, August.

352. MORUS. Gen. pl. 1224. (*Urtica*.)

MASC. *Calix* 4-parted. *Corolla* none. FEM.
Calix 4-leaved. *Corolla* none. *Styles* 2.
Calix becoming a berry. *Seeds* solitary.
 —*Nutt.*

rubra.

1. *M.* leaves cordate-ovate, acuminate, or three lobed, equally serrated, rough, pubescent beneath; feminine aments cylindrical.—*Willd.*
 Icon. Mich. arb. forest. 3. p. 232. t. 10.

Red Mulberry.

The red Mulberry tree is well-known. Its wood is durable. On the borders of fields in the neighbourhood. $\frac{1}{2}$. June.

ORDER V.—PENTANDRIA.

353. AMARANTHUS. Gen. pl. 1431. (*Amaranthi*.)

Calix 3 or 5-leaved. *Corolla* none. *Stamina* 3 or 5. *Styles* 3. *Capsule* 1-celled, 1-seeded, opening all round.—*Nutt.*

albus.

1. *A. glomeruli* axillary, triandrous; stem four-angled, simple.—*Willd.*
 Icon. Willd. amaranth. t. 1. f. 2. (Pursh.)

A common weed, in the suburbs of our city and liberties; and near habitations elsewhere in the neighbourhood. Flowers very inconspicuous. Annual. All summer.

hybridus.

1. *A. racemes* pentandrous, decompound, crowded, erect; leaves ovate-lanceolate.—*Willd.*

Cluster-flowered Amaranth.

Also a common weed, in cultivated grounds and wastes. Annual. All summer.

3. *A. glomeruli* axillary, in pairs, triandrous; ^{viridis?} masculine flowers triphyllous; leaves elliptical, emarginate, undulated on the margin.—*Willd. Amaranth.*

Green-flowered Amaranth.

Also a weed, found among rubbish; but rather rare. Annual. July. August.

4. *A. racemes* pentandrous, terminal, compound; ^{spinosis.} axills spinous.—*Willd. Amaranth.*

Prickly Amaranth.

One of the commonest weeds in our country—it always grows in large quantities together. Stems red and sometimes the leaves. About two feet or more high, very much branched. In the streets of the suburbs of our city and liberties, and all the villages in the neighbourhood; in wastes and on roadsides; abundant. Full of thorns. Annual. All summer.

ORDER VI. HEXANDRIA.

354. ZIZANIA. Gen. pl. 1433. (*Gramineæ.*)

MASC. *Calix* none. *Corolla* 2-valved, awnless. **FEM.** *Calix* none. *Corolla* 2-valved, cucullate, awned. *Style* 2-parted. *Seed* 1, invested by the corolla.—*Nutt.*

1. *Z. panicle* pyramidal, masculine, divaricating ^{aquatica.} below, above spiked and feminine; props of the flowers clavate, awned, long; seed long.—*Pursh.*

Z. aquatica, Lambert, in Lin. tran. 7. p. 264.

Z. palustris, L. Mant. 295. Gron. Virg. 148. and Schreber, Gram. p. 54. t. 29.

Z. clavulosa, Mich.

Icon. Lambert, as above, (excellent.)

Tuscarora Rice. Wild Rice. Indian Rice.

From three to six feet high. On the shores of the Delaware and Schuylkill, and in ditches in the Neck, in profusion. Perennial. July, August.

ORDER VI. POLYANDRIA.

355. MYRIOPHYLLUM. Gen. pl. 1440. (*Najades.*)

Calix 4-cleft. *Petals* 4, caducous. *Stamina* 4, 6, or 8. *Germs* 4. *Styles* none. *Stigmas* pubescent. *Seeds* 4, coated.—*Nutt.*

ambiguum.

1. *M.* stem floating, dichotomous; leaves petiolate, pseudopinnate, the lowest capillary, emerging ones pectinate, uppermost nearly entire, subserrate; anthers partly oblong.—*Obs.* Stem diffusely dichotomous, floating, radicles often simple. Leaves attenuated below so as to appear petiolated, pectinately pinnatifid; immersed leaves divided into long capillary segments, divisions of the upper leaves short, setaceous and acute, from one to five pair; uppermost leaves often oblong-linear and nearly entire. Flowers axillary, solitary, sessile, bibracteate, bractes dentiform, acute. Germ quadrangular, angles terminating above in the segments of the calix. Calix 4-parted, divisions oblong-ovate, erect, concave, reddish. Stamina the length of the calix, sheathed by its segments, not exerted; filaments minute; anthers somewhat oblong. Styles none. Stigmas 4, roundish and villous or pencillate. Fruit 4 coated, cylindrical-oblong seeds, furnished with internal sutures, and attached to a minute setaceous axis.—*Nutt.*
Myriophyllum-Ptilophyllum, ambiguum, Nutt.

In springs, ponds and ditches, in Jersey; common.

Stem rooting, erect; leaves rigid, partly entire, or β *limosum*.
divided above, mostly trifid; segments setaceous and acute.—*Nutt.*

Purshia humilis, Rafinesque, New York Med. Rep. 2. p. 361?

A small plant, growing on the overflowed banks of the Delaware, just above Kensington.

356. SAGITTARIA. Gen. pl. 1441. (*Junci*.)

Calix 3-leaved. *Petals* 3. *Stamina* about 24. *Germes* many. *Capsules*? aggregated, 1-seeded, not opening.—*Nutt.*

1. *S.* leaves ovate, acute, sagittate; lobes ovate, *sagittifolia*. very slenderly acuminate, straight; scape simple; flowers monoicous; bractes subrotund-obtuse.—*Willd.*

S. sagittifolia, Mich. and Muhl.

S. latifolia, Pursh, and Willd.

leaves large, abruptly acute; scape somewhat β *latifolia*. branched; flowers dioicous.—*Pursh.*

S. sagittifolia, β . *major*, Pursh.

Arrow-leaved Arrow-head.

A very fine looking plant, in profusion in all the ditches and on the margins of all the waters of our neighbourhood. From twelve inches to three feet high. Flowers white. β . is also very common, and always a much larger plant. The Indians are said to have roasted the roots of this plant for food. Perennial. July, August.

2. *S.* leaves dilate-ovate, rotund-obtuse, mucronate, *obtusa*. sagittate; lobes close together, oblong, obliquely acuminate, straight; scape single; flowers dioicous; bractes ovate, acute.—*Willd.* and *Pursh.*

Obtuse-leaved Arrow-head.

In similar places with the preceding, but rare. Flowers also white. Perennial. July, August.

- heterophylla? 3. **S.** leaves simple, linear and lanceolate, acute at each end, or elliptical acute; base obtuse, sagittate; lobe divaricate, linear; scape simple, few-flowered; flowers monoicous, feminine sessile; bractes broad-ovate, acuminate.—*Pursh.*

S. lancifolia, Bart. Prod. Fl. Ph.

Varying-leaved Arrow-head.

I am not certain that the plant intended above, is Pursh's heterophylla, but it fits the description in part. It can hardly be the lancifolia of Mich., which is a southern plant. In similar places with No. 1, common, varying in size from one to three feet. The scapes are round, the long petioles triangular; sheathing at the root. In a pool on the left of the road near Lemon-hill, abundant. Perennial. June, August.

- acutifolia. 4. **S.** leaves subulate, sheathing at the base; back convex; scape simple, few-flowered; flowers monoicous; bractes dilated, acuminate.—*Pursh.*

Acute-leaved Arrow-head.

From three to ten inches high. Leaves often with a dilated point. On the marshy shores of the Delaware, at low tide; common. Perennial. July, August.

- subulata. 5. **S.** leaves linear, obtuse and short, the summits foliaceous; scape simple, shorter than the leaves; flowers monoicous, few; female flower solitary, deflected; stamina mostly seven.—*Nutt.*

S. pusilla, Nutt.

Alisma subulata, Pursh.

From one to three or four inches high. I have strong suspicions that this is nothing more than a variety of No. 4. For the present I leave it undecided. With No. 4, common. Perennial. July, August.

§ 1. *Fructification biennial; leaves setaceously mucronate.*

† Leaves mostly entire.

357. QUERCUS. Gen. pl. 1446. (*Amentaceæ.*)

MASC. *Calix* mostly 5-cleft. *Corolla* none. *Stamina* 5 to 10. **FEM.** *Calix* 1-leaved, entire, scabrous. *Corolla* none. *Styles* 2 to 5. *Nut* (or gland) coriaceous, mostly surrounded at the base by the persistent calix.—*Nutt.*

1. **Q.** leaves deciduous, linear-lanceolate, attenuated at each end, very entire, glabrous, mucronate; cup scutellate; acorn subrotund.—*Willd. and Pursh.* Phellos.

Q. *Phellos sylvatica*, Mich. *Querc.* n. 7.

Icon. Mich. as above. Mich. f. Arb. forest. 2. t. 12.

Willow Oak.

Forty or forty-five feet high. Leaves resembling those of the willow. In low swampy grounds, especially in Jersey. $\frac{1}{2}$. May.

2. **Q.** leaves deciduous, oblong, acute at each end, mucronate, very entire, shining, pubescent beneath; cup scutellate; scales broad-ovate; acorn sub-globose.—*Willd. and Pursh.* imbricaria.

Icon. Mich. *Querc.* n. 9. t. 15 and 16. Mich. f. Arbr. forest, 2. p. 78. t. 13.

Laurel Oak. Jack Oak. Shingle Oak.

Forty or fifty feet high. In the woods, close to Woodbury; very rare. $\frac{1}{2}$. May, June.

—

†† Leaves toothed or shortly lobed.

3. **Q.** leaves on long petiolates, ovate-lanceolate or heterophylla.

oblong, entire, or unequally toothed with large dentures; cup hemispherical; acorn sub-globose.

—*Mich. f.*

Icon. Mich. f. Arbres. forest. 2. p. 87.

Burrier's Oak. Bartram's Oak. Various-leaved Oak.

The only individual of this species known; supposed to be a hybrid. On the banks of the Delaware, at Kingsess. $\frac{1}{2}$. May.

aquatica.

4. *Q.* leaves ovate-cuneiform, glabrous, very entire; apex obscurely 3-lobed, intermediate lobe longest; cup hemispherical; gland sub-globose. —*Willd.*

Q. nigra, Sp. Pl. 1413.

Q. uliginosa, Wangh. Amer. (Pursh.)

Icon. Mich. Querc. n. 11. t. 19. t. 20. fig. 1, 3, 4, 5, and t. 21. Mich. f. Arbr. forest. 2. p. 89. t. 17.

Water Oak.

In the swampy woods two miles south-east of the Buck-inn, on the Lancaster road; very rare. The leaves of this species vary very much. $\frac{1}{2}$. May.

nigra.

5. *Q.* leaves coriaceous, cuneiform, subcordate at base; apex dilated, retuse, sub-three-lobed; younger ones mucronate, glabrous above, rusty-pulverulent beneath; cup turbinated; scales obtuse, scarious; acorn short-ovate—*Willd.*

Q. nigra, β . Sp. Pl. 1413.

Q. ferruginea, Mich. f. Arb. forest. 2. p. 92.

Icon. Mich. Querc. n. 12. t. 22, 23. Mich. f. Arb. forest. t. 18. Catesby. Car. 1. t. 19.

Barren Oak. Black Jack.

In the sandy woods of Jersey, near Haddonfield and Woodbury; not rare. $\frac{1}{2}$. May.

tinctoria.

6. *Q.* leaves obovate-oblong, very slightly scalloped, pubescent beneath; lobes oblong, obtuse, obsoletely denticulate, with a bristly point; cup

scutellate; acorn depressed-globose.—*Willd.*
and *Pursh.*

Q. tinctoria angulosa, Mich. Querc.

Q. discolor, Willd. nov. act. soc. nat. scrut. berol.
3. p. 399.

Q. velutina, Lamarck.

Black Oak. Quercitron. Dyer's Oak.

In the hilly woods of our neighbourhood. $\frac{1}{2}$. May.

7. *Q.* leaves oblong, pinnatifid-scolloped, pubes-^{discolor.}
cent beneath; lobes oblong, dentated, bristly-
mucronate; cup turbinate; acorn ovate.—*Willd.*
and *Pursh.*

Q. tinctoria sinuosa, Mich. Querc.

Icon. Abbot's Insects, 2. p. 111. and. 56.

Black Oak. Red Oak. Two-coloured Oak.

Resembles No. 4, very much. Found with it. $\frac{1}{2}$. May.

† † † Leaves deeply scolloped and lobed.

8. *Q.* leaves on long petioles, oblong, deeply scol-^{coccinea.}
loped, glabrous; lobes divaricate, dentated,
acute, bristly-mucronate; cup turbinate, re-
markably scally; acorn short-ovate.—*Willd.*
and *Pursh.*

Icon. Mich. Querc. No. 18. t. 31, 32. Mich. f.

Arbr. forest. 2. p. 116. t. 23.

Scarlet Oak.

In rich woods; very rare. $\frac{1}{2}$. May.

9. *Q.* leaves on long petioles, oblong, glabrous,^{rubra.}
obtuse, scolloped; lobes somewhat acute, denta-
ted, with a bristly point; cup scutellate, near-
ly even; acorn sub-ovate, turgid.—*Willd.* and
Pursh.

Icon. Mich. Querc. No. 20. t. 35. 36. Mich.

f. Arbr. forest. 2. p. 126. t. 26.

Red Oak.

The finest timber tree among the oaks. In all our woods.
 ½. May.

falcata.

10. *Q.* leaves on long petioles, obtuse at the base, tomentose beneath, three-lobed or scalloped; lobes sub-falcate, with a bristly point, terminal, elongated; cup crateriform; acorn globose.—
Mich. fl. Amer.

Q. elongata, Willd.

Icon. Mich. Querc. No. 16. t. 28. Mich. f. Arbr. forest. 2. p. 104. t. 21.

Spanish Oak. Downy-red Oak.

In the low woods of Jersey. ½. May.

palustris.

11. *Q.* leaves on long petioles, oblong, deeply scalloped, glabrous; axills of the veins villous beneath: lobes divaricate, dentated, acute, with a bristly point; cup scutellate, even; acorn sub-globose.—*Willd. and Pursh.*

Icon. Mich. Querc. No. 19. t. 33. 34. Mich. f. Arb. forest. 2. p. 123. t. 25.

Swamp Spanish Oak. Pin Oak.

Leaves small. In low damp woods. ½. May.

Banisteri.

12. *Q.* leaves on long petioles, obovate-cuneiform, three or five-lobed, margin very entire, with an ash-coloured tomentum beneath: lobes with a bristly point; cup somewhat turbinate; acorn sub-globose.—*Mich. fl. Amer.*

Q. illicifolia, Willd. and Wangh.

Icon. Mich. Querc. No. 15. t. 27. Mich. f. Arbr. forest. 2. p. 96. t. 19.

Bear Oak. Black Scrub Oak. Dwarf Red Oak. Banister's Oak.

A small species, being little else than a shrub; from 4 to 6 feet high. On the high banks of the Wissahickon, near Langstroth's mills, abundant. ½. May.

§ 2. *Fructification annual; leaves awnless.*

† Leaves lobed.

13. *Q.* leaves oblong, scolloped, cuneate at base, pubescent beneath: lobes obtuse, upper ones dilated, 2-lobed: cup hemispherical; acorn oval. — *Mich. fl. Amer. and Pursh.*
Q. stellata, Willd. and Wangh.
 Icon. Mich. Querc. No. 1. t. 1. Mich. Arb. forest. 2. t. 4.

Upland White Oak. Iron Oak. Barren White Oak. Post Oak.

In barren woods. ½. May.

14. *Q.* leaves oblong, pinnatifid-sinuate, pubescent beneath: lobes linear-lanceolate, obtuse, very entire, attenuated at the base; fruit pedunculated; cup sub-craterate, tuberculate, flat at the base; acorn ovate.—*Willd. and Pursh.*
 Icon. Mich. f. Arbr. forest. vol. 2. t. 1.

White Oak.

One of the commonest, and a very useful species. ½. May.

†† Leaves entire, toothed.

15. *Q.* leaves on long petioles, obovate, acute, pubescent beneath, deeply dentated; teeth nearly equal, dilated, point callous; cup craterate, narrowed at base; acorn ovate.—*Willd. and Pursh.*
Q. Prinus palustris, Mich. fl. Am.
 Icon. Mich. Querc. n. 5. t. 6. Mich. f. Arbr. forest. 2. t. 7. Catesby. Car. 1. t. 18.

Chesnut White Oak. Swamp Chesnut Oak.

On the banks of the Schuylkill, above the falls. Fruit large. ½. May.

bicolor.

16. *Q.* leaves on short petioles, oblong-ovate, with a white tomentum beneath, deeply dentated, very entire at the base; teeth unequal, dilated, somewhat acute, the point callous; the fruit in pairs, on long peduncles; peduncle terminating in a bristle; cup hemispherical; acorn oblong-ovate.—*Willd.* and *Pursh.*

Q. *Prinus tomentosa*, Mich. *Querc.*

Q. *Prinus discolor*, Mich. f. *Arbr. forest.* 2. p. 46. t. 6.?

Swamp White Oak.

In wet or boggy woods. $\frac{1}{2}$. May.

montana.

17. *Q.* leaves on petioles of a middling length, broad-ovate, oblong, with a white tomentum beneath, shining above, deeply dentated, obtuse and unequal at base; teeth nearly equal, very obtuse, short; fruit in pairs, on short peduncles; cup hemispherical; scales tuberculate, rugose; acorn ovate.—*Willd.* and *Pursh.*

Q. *Prinus monticola*, Mich. *Fl. Amer.*

Icon. Mich. Querc. No. 5. t. 7. Mich. f. *Arbr. forest.* 2. t. 8. *Abbot's Insects*, 2. t. 82.

Rock Chesnut Oak.

On Chesnut-hill; common. $\frac{1}{2}$. May.

Castanea.

18. *Q.* leaves on long petioles, oblong-lanceolate, base obtuse, acuminate, tomentose-beneath, deeply dentated; teeth sub-equal, dilated, acute, callous at the point; cup hemispherical; acorn ovate-sub-globose.—*Willd.* and *Pursh.*

Q. *Prinus acuminata*, Mich. *fl. Amer.*

Icon. Mich. Querc. No. 5. t. 8. Mich. f. *Arbr. forest.* 2. p. 61. t. 9.

Yellow Oak.

A fine species. On the woods bordering the banks of the Delaware, nine or ten miles above Philadelphia. $\frac{1}{2}$. May.

19. **Q.** leaves on short petioles, obovate, acute at Chinquapin. base, deeply dentate, glaucous beneath; teeth nearly equal, dilated, callous at the point; cup hemispherical; acorn ovate.—*Pursh.*

Q. *Prinus* Chinquapin, Mich. f.

Q. *Prinoides*, Willd.

Icon. Mich. Querc. n. 5. t. 9. f. 1. Mich. f. Arbr. forest. 2. t. 10.

Chinquapin Oak. Dwarf Chesnut Oak.

A very handsome shrub, when in flower, in which state I have found it from one to four feet high. On the edges of woods near Kaighn's point, in the hedges bordering the sandy fields near the Delaware, and not far from Kaighn's point; and in similar places near Woodbury. $\frac{1}{2}$. April, May.

358. CORYLUS. Gen. pl. 1450. (*Amentaceæ.*)

MASC. *Ament* imbricated. *Calix* the scales of ament. *Stamina* 8. **FEM.** *Calix* 2-parted, lacerate. *Styles* 2. *Nut* ovate, inclosed by the persistent calix.—*Nutt.*

1. **C.** leaves subrotund, cordate-acuminate; calices Americana. of the fruit subrotund-campanulate, larger than the globose nut; limb dilated, dentate-serrated.—*Willd.*

Icon. Wangh. Amer. t. 29. f. 63.

American Hazel-nut. Wild Filbert.

A shrub, from five to eight feet high. In shady woods on the Chester-road, ten miles from the city. $\frac{1}{2}$. March.

359. FAGUS. Gen. pl. 1448. (*Amentaceæ.*)

MASC. *Ament* roundish. *Calix* 5-cleft, campanulate. *Stamina* about 12. **FEM.** *Calix* 4-toothed, setose. *Germs* 2. *Nuts* 2, included in the echinate, coriaceous and quadrifid calix.—*Nutt.*

- sylvatica.*
f. Americana. 1. **F.** leaves ovate-acuminate, slightly dentate; margin ciliate, acute at base; nuts ovate-triquetrous, obtuse, with a point.—*Willd.* and *Mich. f.*

Icon. Mich. f. Arbr. forest. 2. p. 170.

Beech-tree. White Beech.

A fine tree, common in our woods, bordering waters. $\frac{1}{2}$. May.

- ferruginea.* 2. **F.** leaves ovate-oblong, acuminate, pubescent beneath, deeply dentate, obtuse at the base, sub-cordate, unequal; nut acutely ovate-triquetrous, very acute.—*Willd.* and *Pursh.*

Icon. Mich. Arbr. 2. p. 174. t. 9.

Red Beech.

On the edges of woods, on the Chester-road. $\frac{1}{2}$. May, June.

360. CASTANEA. Tournef. Inst. t. 352. (*Amentaceæ.*)

Polygamous.—**MASC.** *Ament* naked, linear. *Corolla* 5 or 6-parted. *Stamina* 10 to 20. **FEM.** *Calix* 5 or 6-leaved, muricate. *Germes* 3. *Stigma* pencilliformed. *Nuts* 3, included in the echinated calix.—*Nutt.*

vesca:
Americana.

1. **C.** leaves lanceolate, acuminate, mucronate-serrated, every where smooth.—*Willd.*

Fagus castanea, Hort. Clift. 447.

Icon. Mich. Arbr. 2. p. 156. t. 6.

American Chesnut.

A fine large tree, the fruit of which is well-known by the name of Chesnuts. Every where in the woods; common. $\frac{1}{2}$. May.

361. BETULA. Gen. pl. 1419. (*Amentaceæ.*)

MASC. *Ament* imbricated, scales peltate, 3-

flowered. *Calix* consisting of scales. *Corolla* none. *Stamina* 10 to 12. FEM. *Calix* scales 2-flowered. *Corolla* none. *Seed* 1, alated.—*Nutt.*

1. *B.* leaves deltoid, long, acuminate, unequally *populifolia*. serrated, very glabrous; lateral scale lobes of the strobiles subrotund; petioles smooth.—*Willd.*

B. acuminata, Ehrh.

B. lenta, Du Roi. *harbk.* and *Wangh.* Amer.
Icon. Mich. Arbr. forest. 2. p. 139. t. 2.

White Birch. Old-field Birch.

A middling sized tree. In woods on the Chester-road. $\frac{1}{2}$. June.

2. *B.* leaves ovate, acuminate, doubly serrated; *papyrifera*. veins hirsute beneath; petiole smooth; feminine aments pedunculated, nutant; lateral scale lobes short, suborbiculate.—*Willd.* and *Pursh.*

B. papyracea, Willd. and Pursh.

Icon. Mich. f. Arbr. forest. 2. p. 133. t. 1.

Paper Birch. Canoe Birch.

A large tree. On the banks of the Schuylkill near the falls; on Timber-creek, and elsewhere in Jersey. $\frac{1}{2}$. May.

3. *B.* leaves cordate-ovate, narrowly serrated, *lenta*. acuminate; nerves and petioles hairy beneath; scales of the strobiles smooth; lobes obtuse, equal, with raised veins.—*Willd.* and *Pursh.*

B. carpinifolia, Ehrh.

B. nigra, Du Roi. *harbk.* and *Wangh.* Amer.

Icon. Mich. Arbr. 2. p. 145. t. 4.

Mountain Mahogany. Black Birch. Cherry Birch. Sweet Birch.

A large and elegant tree. Its branches have a fine sweet

aromatic taste and smell, and its wood is very fine and handsome. On the shores of the Schuylkill, east side, below the falls and elsewhere. $\frac{1}{2}$. May.

362. CARPINUS. Gen. pl. 1449. (*Amentaceæ*.)

Ament imbricated. MASC. Scales of the *calix* ciliated. *Stamina* about 10. FEM. *Calix* scales 2-flowered. *Corolla* trifid. *Nut* ovate, sulcate.—*Nutt.*

Americana.

1. *C.* leaves oblong-ovate, acuminate, unequally serrated; scales of the strobiles three-parted, the intermediate segment ovate-lanceolate, lateral one dentated.—*Willd.*

C. Virginiana, Mich. Arbr. forest. 3. t. 8.

American Horn-beam.

On Cooper's creek, the Wissahickon and Schuylkill; not uncommon. $\frac{1}{2}$. May.

363. PLATANUS. Gen. pl. 1451. (*Amentaceæ*.)

Ament globose. MASC. *Calix* none. *Corolla* scarcely manifest. *Anthers* adnate to the filaments from the base. FEM. *Calix* many-leaved. *Corolla* none. *Stigmas* recurved. *Capsules* sub-clavate, 1-seeded, mucronate with the style, pappose at the base.—*Nutt.*

occidentalis.

1. *P.* leaves five-angular, obscurely lobate, dentated; branches whitish.—*Willd.* and *Pursh.*

Icon. Mich. Arbr. forest. 3. t. 3.

Button-wood. Water Beech. Sycamore. Plane-tree.
In Canada—*Cotton-tree.*

The largest tree of North America. I have seen it on the islands in the Susquehanna, near Peach-bottom, of an immense diameter. In fields, and on the borders of rivers, and roads; common. $\frac{1}{2}$. May.

364. LIQUIDAMBAR. Gen. pl. 1452. (*Amentaceæ.*)

MASC. *Ament* conic, surrounded with a 4-leaved involucre. *Calix* and *corolla* none. *Filaments* numerous. **FEM.** *Ament* globose, also surrounded with a 4-leaved involucre. *Calix* 4-leaved, urceolate, 2-flowered. *Styles* 2. *Capsules* 2, surrounded by the base of the calix, 1-celled, many-seeded.—*Nutt.*

1. *L.* leaves palmate; lobes acuminate, serrated, ^{styraciflua.} sinus at the base of the veins, villous.—*Willd.* and *Pursh.*

Icon. Mich. f. Arbr. forest. 3. p. 194. t. 4.

Sweet Gum-tree.

The wood of this tree has a hard fine grain. In woods, rare. $\frac{1}{2}$. May.

365. JUGLANS. Gen. pl. 1446. (*Amentaceæ.*)

MASC. *Ament* imbricated. *Calix* consisting of scales. *Corolla* 5 or 6-parted. *Stamina* 18 to 36. **FEM.** *Calix* 4-cleft, superior. *Corolla* 4-parted. *Styles* 1 or 2. *Drupe* partly spongy; not rugose, and irregularly furrowed.—*Nutt.*

1. *J.* folioles numerous, ovate-lanceolate, serrated, ^{nigra.} subcordate, narrow above, the under side and the petioles sub-pubescent; fruit globular, rough, dotted; nut corrugated.—*Willd.*

Icon. Mich. f. Arbr. forest. 1. p. 157. t. 1.
Catesb. Car. 1. t. 67.

Black Walnut.

A stately tree, affording an excellent durable wood for cabinet ware, and an esculent nut. In the rich woods of our neighbourhood, very common. $\frac{1}{2}$. April.

366. CARYA. Nutt. Gen. Am. pl. vol. 2. p. 220. (*Amentaceæ.*)

MASC. *Ament* imbricated. *Calix* 3-parted scales. *Corolla* none. *Stamina* 4 to 6.
FEM. *Calix* 4-cleft, superior. *Corolla* none. *Styles* none. *Stigma* partly discoid, 4-lobed. *Pericarp* 4-valved. *Nut* sub-quadrangular, even.—*Nutt.*

- cathartica.* 1. *C.* folioles about 15, lanceolate, roundish-obtuse at the base, tomentose beneath, slightly serrated; fruit oblong-ovate, viscid, on a long peduncle; nut oblong-acuminated, remarkably rough.—*Mich. f.*
Juglans cathartica, Mich. f.
J. cinerea, Willd.
J. oblonga, Mill. Dict. and Retz. Obs. 1. p. 10.
 Icon. Mich. f. Arbr. forest. 1. t. 2.

Butter-nut. Oil-nut. White Walnut. Purging Hickory-nut.

I have met with this tree several times in this neighbourhood, where it had the appearance of being indigenous. ½. April, May.

- laciniosa.* 2. *C.* leaves large; folioles 7-9 pairs, ovate, acuminate, serrated, sub-tomentose, the odd one petiolated; fruit large, ovate; nut oblong, thick, moderately compressed.—*Mich. f.*
Juglans laciniosa, Mich. f.
J. compressa, β. *macrocarpa*, Muhl.
J. mucronata, Mich. fl. Am.
J. sulcata, Willd. and Pursh.
 Icon. Mich. f. Arbr. forest. 1. t. 8.

Thick Shell-bark Hickory. Springfield or Gloucester-nut.

This species is frequent about twelve miles from Philadelphia, near Springfield. I have found it a mile or two south-east of Woodbury. ½. April.

3. *C. folioles* 5, large, on long petioles, ovate-acuminate, serrated, villous beneath, the odd one sessile; masculine aments compound, glabrous and filiform: fruit globose, depressed, large: nut compressed, whitish.—*Mich. f.*

Juglans squamosa, Mich. f.

J. compressa, Gært., Willd.; and Muhl. in nov. act. soc. nat. scrut. berol. 3. p. 390.

J. alba, Mich. fl. Am. and Pursh.

Icon. Mich. f. Arbr. forest. 1. t. 7.

Shell-bark Hickory. Shagg-bark Hickory. Scaly-bark Hickory.

The common shell-bark nuts which are so well-known and so highly esteemed, are the fruit of this tree. In all our woods, frequent. $\frac{1}{2}$. April.

leaflets about 5, oblong-lanceolate; sharply serrulate, and conspicuously acuminate, on both sides smooth, beneath glandular, terminal leaflet subpetiolate; fruit subglobose, pericarp thin; nut partly quadrangular, small and rather thin shelled, mucro obsolete, truncate.—*Nutt.*

Juglans compressa, α . *microcarpa*, Muhl.

Carya microcarpa, Nutt.

On the banks of the Schuylkill, on the road to the falls. This is rather a variety of No. 2, as Muhl. considered it, than a distinct species, as it is made by Mr. Nuttall. $\frac{1}{2}$. May.

4. *C. folioles* 7-9 pairs, slightly serrated, conspicuously villous beneath, the odd one subpetiolate; aments compound, very long, filiform, remarkably tomentose; fruit globose or oblong; nut quadrangular, thick and very hard.—*Mich. f.*

Juglans alba, Willd.

Icon. Mich. f. Arbr. forest. 1. p. 186. t. 6.

Common Hickory. Mocker-nut Hickory. White-heart Hickory.

This is the commonest species in our neighbourhood. The

nuts are known by the name of Hickory-nuts, in contradistinction to those of No. 2, which are called *shell-barks*. The shell of the present species is very thick, and difficult to crack. The kernel is also difficult to be got at, but sweet tasted. ½. April.

amara.

5. C. tree large; folioles 7-9 pairs, smooth, conspicuously serrated, the odd one on short petioles; fruit subrotund-ovate, above the suture a little prominent; nut even, sub-globose, mucronate; shell fragile, the kernel bitter.—*Mich. f.* *Juglans amara*, Mich. and others.

Bitter-nut. White Hickory. Swamp Hickory.

In rich woods, common. The kernel is exceedingly bitter and astringent. ½. May.

porcina.

6. C. leaves 5-7 pairs, ovate, acuminate, glabrous; masculine aments compound, filiform, glabrous; fruit pyriform or globose; nut small, smooth, very hard.—*Mich. f.*

α obcordata.

fruit globose; nut obcordate, *Mich. f. Arbr. forest.*
1. p. 206. t. 9. f. 3 and 4.
Juglans obcordata, Willd.

β ficiformis.

fruit turbinated; nut oblong, *Mich. f. Arbr. forest.*
1. p. 209. t. 9. f. 1 and 2.
Juglans glabra, Willd.

Pig Nut. Hog Nut. Broom Hickory.

The fruit of this species is not, in general, esculent, though I have sometimes tasted it not disagreeable. The wood of the present tree is made into what are called *hickory-brooms*, for washing pavements, &c. Common. ½. April.

367. ARUM. Gen. pl. 1387. (*Aroideæ.*)

Spatha cucullate.—*Spadix* above naked, below feminine, in the middle staminiferous.

Calix and *corolla* none. *Berry* 1 or many-seeded.—*Nutt.*

1. *A.* stemless; leaves pedate; folioles lanceolate-oblong, very entire; spadix subulate, longer than the oblong-convolute spathe.—*Willd.* and *Pursh.* Dracontium.

Icon. Pluk. alm. t. 271. f. 2.

Green Dragon. Dragon Root. Pedate-leaved Wake Robin.

About two feet high. Leaves large. On the Wissahickon, and the borders of the Schuylkill, west side; rather rare. Perennial. June.

2. *A.* subcaulescent; leaves ternate; folioles ovate, acuminate; spadix clavate, half the length of the ovate, acuminate, flat, pedunculated spathe; flowers monoicous.—*Willd.* triphillum.

with a green spathe.

Icon. Pluk. amalth. t. 376. f. 3.

α virens.

with a purple spathe.

Icon. Pluk. alm. t. 77. f. 5.

β atropurpureum.

Indian Turnip.

A singular looking plant with a hooded spathe, often prettily striped within, though sometimes entirely green with obscure white stripes. Possesses medicinal properties; and a kind of *arrow-root* has been made from the root. In damp woods and copsés, and in boggy ground; common. Perennial. June.

3. *A.* stemless; leaves hastate-cordate, acute; lobes obtuse; spathe elongated, incurved; spadix above, with a long column of masculine flowers.—*Willd.* and *Pers.* Virginicum.

Calla Virginiana, Mich.

A plant not easily distinguished at a distance, from *Sagitta-*

ria sagittifolia, and growing with it in profusion. From one to three feet high. Spathe long, green, and rigidly involute. Perennial. June.

ORDER VIII. MONADELPHIA.

368. PINUS. Gen. pl. 1451. (*Coniferae*.)

MASC. *Calix* 4-leaved. *Corolla* none. *Stamina* many. *Anthers* naked. **FEM.** *Calix* a strobilus or cone; scales 2-flowered. *Corolla* none. *Pistil* 1. *Nut* alated.—*Nutt.*

Canadensis, 1. *P.* leaves solitary, flat, denticulated, somewhat distichal; cones ovate, terminal; scarcely longer than the leaf.—*Lambert, Monograph.*

Not. P. Canadensis, Du Roi. harbk. 2. t. 124.

P. Americana, Du Roi. harbk. 2. p. 107.

Abies Canadensis, Mich. f.

Icon. Lambert, Monograph of the Pines, p. 50. t. 32. Mich. f. Arbr. forest. 1. p. 137. t. 13.

Hemlock Spruce.

A very large and fine tree. The boards and scantling made from its trunk are called *hemlock timber*. On the Wissahickon; abundant. On the Schuylkill, often met with. $\frac{1}{2}$. May.

nigra, 2. *P.* leaves solitary, four-angled, every where scattered, erect, upright; cones ovate; scales elliptical; margin undulated, erose-denticulate.—*Lambert.*

P. mariana, Du Roi. harbk. 2. p. 107.

P. denticulata, Mich. Fl. Amer.

Abies nigra, Mich. f.

Icon. Lambert, monograph. p. 41. t. 27.

Black Spruce. Double Spruce.

The *extract of Spruce*, is prepared from this tree. It is much used, particularly in making a common and wholesome beverage, called *spruce beer*. On the Wissahickon; not common. $\frac{1}{2}$. May.

3. P. leaves short, in pairs; cones recurved, ob-^{inops.} long-conical, the length of the leaves; aculeæ of the scales subulate, upright.—*Lambert*.

P. *Virginiana*, Du Roi. *harbk.* 2. p. 35.

Icon. *Lambert*, monog. p. 18. t. 13. Mich. f. Arbr. forest. 1. t. 4.

New Jersey Pine. Scrub Pine. Pitch Pine.

A low, straggling, and very common species, particularly in Jersey. $\frac{1}{2}$. May.

4. P. leaves elongated, in pairs, and three's, slen-^{variabilis.} der and a little channelled; cones ovate-conical, nearly solitary; aculeæ of the scales incurved.—*Lambert*.

P. *mitis*, Mich. f.

Icon. Mich. f. Arbr. forest. 1. p. 52. t. 3.

Yellow Pine.

A very useful species, affording the hardest and best wood for floors, &c. In the pine woods of Jersey, and on the Wissahickon. $\frac{1}{2}$. May.

5. P. leaves in three's with short sheaths; mascu-^{rigida:} line aments erect-incumbent; cones ovate, scattered or aggregated; spines of the scales reflexed.—*Lambert*.

Icon. *Lambert*, monog. p. 25. t. 18, 19. Mich. f. Arbr. forest. 1. p. 89. t. 8.

Black or Pitch Pine.

A tolerably large tree. In pine woods, Jersey, and on the Wissahickon. $\frac{1}{2}$. May.

369. ACALYPHA. Gen. pl. 1461. (*Euphorbiæ.*)

MASC. *Calix* 3 or 4-parted. *Corolla* none.
Stamina 8 to 16. **FEM.** *Styles* 3, bifid.
Capsule 3-grained, 3-celled, 3-seeded.—
Nutt.

Virginia.

1. **A.** feminine flowers at the base of the masculine spike; involucre ovate, acuminate, dentated; leaves on short petioles; oblong-lanceolate, remote, obtuse-serrated.—*Willd.* and *Pursh.*
 Icon. Pluk. phyt. t. 99. f. 4.

Virginian Three-seeded Mercury.

An ordinary looking plant, found abundantly in all cultivated grounds, old fields, and on road-sides. Flowers inconspicuous. Annual. June to September.

Caroliniana.

2. **A.** feminine flowers at the base of the masculine spike; involucre cordate-dentated; leaves on long petioles, subrhomboid-ovate, serrated, very entire at the base.—*Willd.* and *Walt.*

Carolinian Three-seeded Mercury.

This species resembles No. 1, so closely, that most students would confound them with each other. The greater breadth of the leaves and the much longer petioles in the present species than in No. 1, will sufficiently discriminate them. Both species are occasionally found with leaves of dingy crimson colour. In similar places with No. 1; also common. Perennial. July.

370. EUPHORBIA. Gen. pl. 823. (*Euphorbiæ.*)

Involucrum caliciform, 8 to 10-toothed, exterior alternate dentures glanduloid or petaloid. *Stamina* indefinite, 12 or more, rarely less; feminine flower central, naked, solitary, stipitated. *Styles* 3, bifid.

1. *E. glabrous*, very much branched, spreading-^{hypericifolia.} erect; branches divaricating; leaves opposite, serrated, oval-oblong, sub-falcate; corymbs terminal.—*Willd.* and *Pursh.*

Icon. *Comm. præl.* 60. t. 10. *Rob. ic.* 11. *Sloan's Hist. Jam.* 1. t. 126. (*Pursh.*)

St. John's-wort-leaved Spurge.

About a foot or fifteen inches high. Whole plant often reddish, especially the leaves and their margins. Flowers small. The foliage has somewhat the habit of a *Hypericum*. On the banks of the Delaware, Jersey side, three miles below Kaighn's point, abundant. In cultivated and neglected fields, common. Annual. July.

2. *E. procumbent*, adpressed; leaves small, op-^{maculata.}posite, unequal at base, oblong, hairy; flowers axillary, solitary; calicine appendices coloured. B.

Icon. *Jacq. Hort. vind.* t. 186? (*Pursh.*) *Pluk. alm.* t. 65. f. 8?

Spotted Spurge.

A procumbent hairy plant, with leaves rarely more than three-eighths of an inch long, and two eighths broad, with a brownish spot or two in the middle. The plant varies in size, the stems being from two or three inches to fifteen long, and very much branched. Involucres white. Flowers very small. Whole plant closely adpressed to the earth. It is often found in the crevices of our pavements. This does not appear to me to be the *E. maculata* of *Willd.* and it is not unlikely it is an entirely distinct species; common. Annual. All summer.

3. *E. procumbent* (or semi-erect,) glabrous; leaves ^{Ipecacuanha.} opposite, obovate or lanceolate, or linear-lanceolate; peduncles axillary, one-flowered, very long. B.

Icon. *Bart. Veg. Mat. Med. U. S.* vol. 1. t. 18.

American Ipecacuanha, Ipecacuanha Spurge.
§c. §c.

A polymorphous plant both in the size and shape of the leaves, and varying in their colour. They are small, large, ovate,

oval, oblong, lanceolate, and linear-lanceolate, in different situations, and vary in colour from apple-green to crimson. The root is large and from two to six feet long. Possesses medicinal virtues, being equal to Ipecacuanha as an emetic. (See Veg. Mat. Med. U. S.) In the sandy fields of Jersey, opposite Southwark and not far from the Delaware; also in those several miles below Kaighn's point, abundant. Perennial. April, May, and often in June and July.

corollata,

4. *E. umbel* 5 to 3-cleft, dichotomous: involu-cells and leaves oblong, obtuse; calicine appendices petaloid, obovate.—*Willd.* and *Pursh.*

Icon. Pluk. Mant. t. 446. f. 3.

Corollated Spurge.

A fine species, from one to two and a half feet high, with large or conspicuous white flowers. In Jersey, abundant, opposite Southwark. On the edges of fields between Market-street bridge and Kingsess Gardens, and in similar places elsewhere. The leaves vary in breadth. Perennial. July, August.

Lathyris.

5. *E. umbel* 4-cleft, dichotomous; leaves opposite, lanceolate, very entire.—*Willd.*

Icon. Blackw. t. 123.

Mole-plant. Caper Spurge.

A hardy plant, not a native of this country, but in this neighbourhood sometimes met with, in situations where it has the appearance of growing wild. On the Wissahickon, near the paper mills. In Jersey, near Woodbury; and near Frankford. Biennial. July, August.

DIOECIA.

VALLISNERIA.
SALIX.
FRAXINUS.
NYSSA.
ACNIDA.
HUMULUS.
SMILAX.

DIOSCOREA.
GLEDITSCHIA.
POPULUS.
DIOSPYROS.
UDORA.
MENISPERMUM.
JUNIPERUS.

CLASS XX.—DIOECIA.

ORDER II. DIANDRIA.

371. VALLISNERIA. *Mitcheli*. Gen. pl. 1491. (*Hydrocharides*.)

MASC. *Spathe* ovate, 2-parted. *Spadix* covered with minute flowers. *Calix* 3-parted. **FEM.** *Spathe* bifid, 1-flowered. *Calix* 3-parted, superior. *Corolla* of 3 petals. *Stigmas* 3, ligulate, semibifid. *Capsule* valveless, 1-celled, seeds numerous, parietally attached. (Stamina 2 and 6.)—*Nutt.*

Americana. 1. *V.* leaves linear and obtuse, equal from the base, 3-nerved, margin minutely and aculeately serrulate; male peduncles very short, female ones spiral.—*Nutt.*

American Vallisneria. *Tape-grass.* *Channel-weed.*
Duck-grass.

A very singular and interesting aquatic plant, hardly more, as Pursh correctly remarks, than a local variety of *V. spiralis*. The peduncles of the female flower are always, more or less spiral, particularly in deep water. Leaves three or five feet long, and equal in breadth all their length—little more than a quarter of an inch broad. In the Schuylkill, Delaware, and ditches below the Navy-yard, common and abundant. This plant grows in great abundance in the Susquehanna, and constitutes the principal food of the *Anas Vallisneria* of Wilson, (*Anas ferina*) or canvass-back duck; and it is said to give the food of that fowl its peculiar delicate flavour. Loose leaves, peduncles and flowers of this plant, are frequently found floating on the Delaware near the shores and among boats. Perennial. August.

372. SALIX. Gen. pl. 1493. (*Amentaceæ*.)

MASC. *Ament* cylindrical. *Calix* consisting of scales. *Corolla* none. *Nectariferous glands*

at the base of the stamina. *Stamina* 1 to 6.
FEM. Flower as the male. *Style* bifid.
Capsule 1-celled, 2-valved. *Seeds* woolly.—*Nutt.*

† Leaves very entire or obscurely serrated.

1. *S.* leaves lanceolate-linear, very long, acuminate, very entire, somewhat undulated, with a silvery silkiness beneath and scattered glands towards the margin; stipules small; aments appearing before the leaves; scales nearly round, very hairy; germs sessile, ovate; style filiform; stigmas acute, undivided.—*Willd.* and *Pursh.*

Icon. Hoff. *Salic.* 1. t. 2. f. 1. and 2. t. 5. f. 2. t. 21. f. e. f. g.

Willow.

Introduced, but often found on the margins of our waters, where it is naturalized. $\frac{1}{2}$. April.

†† Leaves remote and obtuse, serrated.

2. *S.* leaves oblong-lanceolate, remotely serrated, acute, glabrous above, flat and tomentose beneath; stipules lunate, subdentate; aments appearing before the leaves, diandrous; scales lanceolate, obtuse, villous; germs pedicellated, lanceolate, silky; style bifid; stigmas bilobed.—*Willd.* and *Pursh.*

S. longirostis, Mich.

S. humilis, Marsh.?

S. conifera, Pursh.

Icon. Wangh. *Am.* t. 31. f. 72. (Pursh.)

Cone-bearing Willow.

On the edges of woods near the Chester-road, eight miles below the city. $\frac{1}{2}$. April.

3. *S.* leaves oblong, somewhat obtuse, glabrous,

remotely-serrated, very entire at the apex, glaucous beneath; stipules deciduous, lanceolate, serrated; aments appearing nearly at the same time with the leaves, diandrous, oblong, tomentose; scales oblong, acute, with black hairs; germs sessile, lanceolate, tomentose; style of moderate size; stigmas biparted.—*Willd.* and *Pursh.*

Icon. Muhl. in annals of Bot. 2. t. 5.

Red-rooted Willow.

In low swampy grounds, nine miles south-west of Philadelphia, not unfrequent. The twigs are tough and used for making baskets. ½. April.

† † † Leaves thick and acute, serrated.

* Triandrous.

rigida,

4. *S.* leaves oblong-lanceolate, acuminate, base subcordate, rigid, glabrous, narrowly serrated; serratures elongated below; petioles villous; stipules large, cordate, obtuse, glandular-serrated; aments appearing with the leaves, sub-3-androus; scales lanceolate, covered with black wool; germs on long pedicels, lanceolate, smooth; style very short; stigmas biparted.—*Willd.* and *Pursh.*

S. cordata, Mich., not Muhl.

S. cordifolia, Herb. Banks, Mss. (*Pursh.*)

Stiff-leaved Willow.

In swampy hedges, on low grounds, two miles below Philadelphia, not far from the Chester road. Also used for making baskets. ½. April.

** Diandrous.

petiolaris.

5. *S.* leaves lanceolate, every where serrated, smooth, glaucous-silky beneath, generally unequal at the base; stipules ternate, dentated, small; aments appearing before the leaves;

loose; scales obovate, obtuse, with black hairs; germs on long pedicels, ovate, silky; stigmas sessile, 2-lobed.—*Willd.* and *Pursh.*

S. Pennsylvanica, Hortul.

Icon. Engl. Bot. 1147.

On the margins of the Delaware, Jersey side. $\frac{1}{2}$. April.

6. S. leaves lanceolate, acuminate, serrated, upper and under sides sericeous, the smaller serratures glandular; stipules obsolete; aments appearing with the leaves, elongated; scales oval-lanceolate, of a uniform colour, pubescent; germs sub-sessile, ovate-oblong, becoming finally smoothish; style short; stigmas biparted, thick.—*Willd.* and *Pursh.*

Icon. Hoff. Salic. 1. t. 7 8. and t. 24. f. 3. (Pursh.)

White Willow.

A large tree, also introduced but completely naturalized. On the shores of the Delaware, and other waters in the neighbourhood, and on road sides; common. $\frac{1}{2}$. April.

7. S. leaves lanceolate, acuminate, closely serrated, glabrous above, discoloured, and somewhat silky beneath; stipules none; aments appearing nearly at the same time with the leaves, cylindrical; scales ovate-lanceolate, of one colour, pubescent without; germs sessile, ovate-lanceolate, glabrous; stigmas sub-sessile, 2-lobed.—*Willd.* and *Pursh.*

Icon. Hoff. Salic. 1. t. 11 and 12, and t. 24. f. 1. (Pursh.) Engl. Bot. 1050.

Yellow Willow.

Common on road sides. $\frac{1}{2}$. May.

373. FRAXINUS. Gen. pl. 1597. (*Jasmineæ.*)

Calix none, or 4-parted. *Corolla* none, or of 4 petals. *Pistil* 1. *Samara* 1-seeded, the wing lanceolate.—*Nutt.*

sambucifolia. 1. F. folioles petiolated, oval, serrated, sessile; branches dotted.—*Mich. f.*

Black-ash. Elder-leaved Ash. Water-ash.

A large tree, not unfrequent in the neighbouring woods.
 $\frac{1}{2}$. April.

Americana. 2. F. petioles very entire, long, acuminate, petiolated, glaucous beneath.—*Mich. f.*
 F. discolor, Muhl.

White Ash.

A large and useful tree. In our woods, common. $\frac{1}{2}$. May.

tomentosa. 3. F. folioles about nine, dentated, petiolated; branches and petioles pubescent-tomentose.—*Mich. f.*

Red Ash. Ash.

The commonest species, well known by the name of Ash.
 $\frac{1}{2}$. May.

ORDER V. PENTANDRIA.

374. NYSSA. Gen. pl. 1599. (*Eleagni.*)

HERMAPHRODITE. *Calix* 5-parted. *Corolla* none. *Pistil* 1. *Drupe* inferior. *Nut* 1-seeded. **MASC.** *Stamina* 5, 8, 10 and 12, seated around a peltate gland.—*Nutt.*

aquatica. 1. N. leaves ovate-oblong, very entire, acute at each end, glabrous; feminine peduncles 2-flowered; berries short-ovate; nut obtuse-striate.—*Willd. and Pursh.*

N. aquatica, L. and Mich. f.

N. integrifolia, Ait.

N. biflora, Mich. and Pursh.

Icon. Mich. f. Arbr. forest. 22. Catesb. Car. 1. t. 41.

Large Tupelo. Gum Tree. Sour Gum. Peperidge.

Berries bluish-black. In swampy woods, particularly in Jersey. Rare. $\frac{1}{2}$. April.

2. N. leaves oval, very entire; petiole, middle ^{sylvatica.} nerve and margin, villous; feminine peduncles long, generally 2-flowered; nut short, obovate, obtuse, striated.—*Mich. f.*

N. villosa, Mich.

N. montana, Hortul.

Gum. Black Gum. Sour Gum. Swamp Horn-beam.

A fine tree, with indigo-blue berries. On the Woodlands. $\frac{1}{2}$. May.

375. ACNIDA. Gen. pl. 1521. (*Atriplices.*)

MASC. *Calix* 5-parted. *Corolla* none. FEM. *Calix* 3-parted. *Corolla* none. *Styles* none. *Stigmas* 3, sessile. *Capsule* 1-seeded.—*Nutt.*

1. A. leaves lanceolate; capsules somewhat even, ^{cannabina.} acute, angular.—*Willd.*

Smooth-fruited Acnida.

An ordinary looking plant, from a foot to eighteen inches high. On the marshy shores of the Schuylkill and Delaware, among the large autumnal plants; very common. Annual. July, August.

2. A. leaves oval-lanceolate; capsules obtuse, an ^{rusocarpa.} gled, rugose.—*Willd.*

Icon. Mich. fl. Am. 2. t. 50.

Rough-fruited Acnida.

From three to four feet high, and robust, having the habit of an *Amaranthus*. On the bank walk from Gray's ferry to Kingsess gardens, and on that from the Navy-yard to Gloucester point. Scarce. Annual. July, August.

376. HUMULUS. Gen. pl. 1523. (*Urticæ.*)

MASC. *Calix* 5-leaved. *Corolla* none. **FEM.** *Calix* 1-leaved, obliquely spreading, entire. *Corolla* none. *Styles* 2. *Seed* 1, within the leafy calix, (or strobilus.)—*Nutt.*

Eupulus. 1. H.

Hop.

Common Hop, so useful in the brewing of malt liquor, is unquestionably indiginous on the shores of the Schuylkill and Delaware, in thickets, and in other places in the vicinity. Perennial. August.

ORDER VI. HEXANDRIA.

377. SMILAX. Gen. pl. 1528. (*Asparagi.*)

MASC. *Calix* 6-leaved. *Corolla* none. *Anthers* adnate to the filaments. **FEM.** Flower similar to the male. *Style* minute. *Stigmas* 3. *Berry* 3-celled, superior; 1, 2, or 3-seeded.—*Nutt.*

rotundifolia. 1. S. somewhat prickly; leaves rotund-ovate, acuminate, very even, cordate, 5-nerved; berries spherical.—*Willd.* and *Pursh.*

Round-leaved Smilax. Green Briar.

Common in hedges and thickets. Leaves very large. No. 2, and this species form impenetrable thickets in many

places near Philadelphia. All the species are indiscriminately called Brambles. Perennial. June.

2. *S. prickly*; branches unarmed; leaves coriaceous, elliptical or elliptic-lanceolate, obtuse, recurved-acute, 3-nerved; umbels on very short peduncles.—*Willd.* and *Pursh.*

Icon. Catesby Car. 1. t. 15.

Deciduous Rough Bind-weed. Green Briar.

Climbing over bushes and shrubs in thickets—very common. Berries said to contain caoutchouc. Perennial. June.

3. *S. stem terete*, scandent; leaves subrotund-ovate, cordate, acuminate, 9-nerved; umbels on very long peduncles.—*Willd.* and *Pursh.*

S. pulverulenta, Mich.

Long-peduncled Smilax.

This species resembles No. 4, so closely as to be easily confounded with it. Peduncles longer. The flowers partake in a slight degree of the stercoraceous odour of those of No. 4. In the shady woods just above the falls of Schuylkill, not unfrequent. Perennial. June.

4. *S. stem angular*, erect, simple; leaves on long petioles, oval, 7-nerved; umbels on very long peduncles: peduncle compressed; berry depressed-globular.—*Willd.* and *Pursh.*

Icon. Pluk. alm. t. 225. f. 4.

Stinking Rough Bind-weed.

About two or four feet high. Flowers exhaling the smell of carrion, which attracts the carrion-flies. On the borders of fields and the edges of woods, above the falls of Schuylkill, west side, and elsewhere. Perennial. June.

5. *S. prickly*; leaves unarmed, ovate-lanceolate, cuspidate, sub-5-nerved, somewhat glaucous beneath; common peduncle longer than the petiole.—*Willd.* and *Pursh.*

S. glauca, Mich.

Sarsaparilla.

A climbing plant, in all swampy hedges of the neighbourhood; common. Possesses medicinal virtues. Perennial. June.

378. DIOSCOREA. Gen. pl. 1530. (*Asparagi.*)

MASC. *Calix* 6-parted. *Corolla* none. **FEM.** Flower as the male. *Styles* 3. *Capsule* 3-celled, triangular, compressed; cells 2-seeded. *Seeds* membranaceously margined.—*Nutt.*

glauc.

1. **D.** leaves in four's, alternate, cordate, acuminate, glabrous, 9-nerved. **B.**

D. *glauca*, Muhl.

D. *quaternata*, Walt?

Smooth-leaved Yam-root.

A twining plant, found in thickets and hedges; not very common. Perennial. June.

villosa.

2. **D.** leaves alternate, opposite, and verticillated, cordate, acuminate, pubescent beneath, 9-nerved: lateral nerves simple.—*Willd.* and *Pursh.*

D. *quinata*, Walt.

D. *paniculata*, Mich.

Icon. Jacq. ic. t. 626. (*Pursh.*) Pluk. alm. t. 375. f. 5.

Villous-leaved Yam-root.

In similar places, and sometimes in fields; common. Perennial. June.

379. GLEDITSCHIA. Gen. pl. 1526. (*Leguminosæ.*)

HERMAPH. *Calix* 6 to 8 parted, deciduous, 3 or 4 of the exterior segments smaller. *Corolla* none. *Stamina* 5 or 6, rarely 8. *Legume* flatly compressed, 1, or many-seeded. **MASC.** *Calix* subturbinate, 5 to

8-parted, 3 to 5 of the segments interior.
Stamina 6 to 8, (rarely 5.) FEM.—*Nutt.*

1. *G. spines* stout, cross-branched; folioles linear-triangular-oblong; legumens very long, compressed.—
Willd. and Pursh.

G. meliloba, Walt.

G. spinosa, Marshall.

Icon. Duham, arb. 1. t. 195. (Pursh.) Mich.
 f. Arbr. forest. vol. 3. p. 164.

Sweet Locust. Honey Locust. Three-thorned Locust.

A large and handsome tree, found abundantly along roads in the Neck and elsewhere, in the vicinity of this city, but always, perhaps, originally planted in such places. $\frac{1}{2}$. July.

ORDER VIII. OCTANDRIA.

380. POPULUS. Gen. pl. 1531. (*Amentaceae.*)

MASC. *Ament* cylindrical.—*Calix* consisting of lacerated scales. *Corolla* turbinate, oblique, and entire. FEM. Flower as in the male. *Stigma* 4 or 6-lobed. *Capsule* 2 or 3-valved. *Seeds* beset with long wool.—
Nutt.

1. *P. leaves* subrotund-ovate, acute, unequally ^{grandidentata.} scolloped, with large teeth, glabrous, the younger ones villous; petioles compressed above.—*Willd. and Pursh.*

P. Canadensis, Mich.

Large Aspen. Poplar

Occasionally met with in the neighbouring woods. $\frac{1}{2}$. April.

381. DIOSPYROS. Gen. pl. 1598. (*Guaiacanae.*)

MASC. *Calix* 4 to 6-cleft. *Corolla* urceolate, 4 to 6-cleft. *Stamina* 8 to 16; filaments often producing 2 anthers. **FEM.** Flower as the male. *Stigmas* 4 or 5. *Berry* 8 to 12-seeded.—*Nutt.*

Virginiana.

1. *D.* leaves ovate-oblong, acuminate, glabrous, reticulate-veined; petioles pubescent; buds glabrous.—*Willd.* and *Pursh.*

Icon. Catesb. Car. 2. t. 76. Mich. f. Arbr. forest. 12.

Persimon-tree.

The fruit when ripe and touched by the frost is quite pleasant, but is very astringent and acerb, otherwise. On the borders of woods and in fields. On the Delaware between Kaighn's point and the next ferry below, near Woodbury; abundant. $\frac{1}{2}$. May.

382. UDORA. Nutt. Gen. Am. pl. vol. 2. p. 242.

(*Onagreae.*)

Spathe bifid.—**MASC.** *Calix* 3-parted. *Corolla* of 3 petals. *Stamina* 9, 3 of them interior. **FEM.** *Calix* 3-parted, tube very long. *Petals* 3. Sterile filaments 3. *Utricle* about 3-seeded. *Seeds* cylindrical.—*Nutt.*

Canadensis.

1. *U.* flowers triandrous, hermaphrodite; stigmas ligulate, reflexed, bifid; leaves ternate, linear, acute.—*Pursh.*

Udora Canadensis, Nutt.

Elodea Canadensis, Mich.

Serpicula verticillata, Muhl.

S. occidentalis, Pursh.

Hottonia serrata, Willd. Syn. 1. p. 171.

An aquatic plant, with very small deep-green leaves, and small white flowers. Abundant in ditches, on the low overflowed banks of the Delaware, Schuylkill, and Wissahickon. Perennial. July.

ORDER XI. POLYANDRIA.

383. MENISPERMUM. Gen. pl. 1544. (*Menisperma*.)

MASC. *Calix* subbibracteate, about 6-leaved, caducous. *Petals* 6 to 9, glandular, minute and retuse. *Stamina* 16, or 18 to 24. *Anthers* adnate to the filaments, 4-lobed, 2-celled. **FEM.** Flower as the male. *Germes* and styles 3 to 6. *Drupes* mostly solitary, 1-seeded. *Nut* lunate, compressed.—*Nutt.*

1. *M.* leaves peltate, cordate, subrotund-angular; Canadense. racemes compound.—*Willd.* and *Pursh.*

Moonseed.

A climbing plant, with ordinary greenish-yellow flowers, and black berries. Possesses medicinal virtues. On the bank walk from Kaighn's point to the next ferry below, in thickets. On the banks of the Schuylkill near Breck's island; rare. Perennial. July.

ORDER XII. MONADELPHIA.

384. JUNIPERUS. Gen. pl. 1552. (*Coniferae*.)

MASC. *Ament* ovate. *Calix* consisting of scales. *Stamina* 3. **FEM.** *Calix* 3-parted. *Petals* 3? *Styles* 3. *Berry* 1 or 2-seeded, tubercular. *Seeds* nuciform.—*Nutt.*

- communis. 1. J. leaves in three's, spreading, mucronate, longer than the berry.—*Willd.*

Juniper-tree.

Common juniper grows abundant on the high banks of the Wissahickon. $\frac{1}{2}$. May.

- Virginiana. 2. J. leaves in three's, adnate at the base, the younger ones imbricated, the old ones spreading —*Willd.*

Icon. Mich. f. Arbr. forest. 3. p. 42. t. 5.

Red Cedar.

Red cedar also grows in profusion on the Wissahickon, and elsewhere in the neighbourhood. $\frac{1}{2}$. May.

CRYPTOGAMIA.

EQUISETUM.
LYCOPODIUM.
OPHIOGLOSSUM.
BOTRYCHIUM.
OSMUNDA.
POLYPODIUM.
ASPIDIUM.

ONOCLEA.
ASPLENIUM.
PTERIS.
WOODWARDIA.
ADIANTUM.
DICKSONIA.
ISOETES.

CLASS XXI.—CRYPTOGAMIA.

(FILICES.)

385. EQUISETUM. Gen. pl. 1614.

Floral receptacles peltate, many-angled, collected into a spike. *Indusium* corniculate. *Stamina* 4. *Style* none. *Seed* 1.—*Nutt.*

arvense.

1. *E.* barren stems simply branched; branches somewhat rough, four-angled; fructification simple; sheaths cylindrical, incised-dentate; teeth acute.—*Willd.*

Icon. Schk. filic. t. 167. (Pursh.)

Field Horse-tail.

In wet fields near water courses; common. Perennial. May.

sylvaticum.

2. *E.* barren and fruit-bearing stems doubly branched; branches roughish, deflexed, four-angled; branchlets sub-triquetrous.—*Willd. enum.* and *Willd.*

Icon. Schk. filic. t. 166. Fl. Dan. 1182.

Wood Horse-tail.

In sandy woods bordering the Delaware, several miles below Kaighn's point; rare. Perennial. April.

hyemale.

3. *E.* stems simple, erect, very rough, bearing spikes at the top; sheaths discoloured, base and apex sphacelate; teeth aristated, entirely caducous.—*Willd.*

Icon. Schk. filic. t. 172.

Rough Horse-tail. Scouring Rush. Scour-grass.

From two to three feet high. The cuticle of this species contains silex. Hence it is used in polishing pewter and

brass ware. On the sandy shores of the Delaware near thickets, between Kaighn's point and the ferry below. Not common. Perennial. July.

386. LYCOPODIUM. Gen. pl. 1615.

Capsules reniform, 1-celled, 2-valved, many-seeded. *Seeds* very minute, resembling powder.—*Nutt.*

1. *L.* stem erect, branches alternate, dichotomous; leaves 2-rowed, connate, spreading at the top, the superficial ones solitary and adpressed; peduncles quadrifid, four-spiked; spikes terete, cylindrical.—*Willd.*

Icon. Fl. Dan. 78. Dill. Musc. t. 59. f. 3.

Flat Club-moss.

In woods, especially in Jersey; common. Perennial. July.

2. *L.* stem erect, branches alternate, crowded, dichotomous, spreading; leaves scattered, six-rowed, linear-lanceolate, spreading; spikes solitary, terminal and sessile.—*Willd.*

L. obscurum, Sp. Pl. 1566.

Icon. Schk. filic. t. 164. Dill. Musc. t. 64. f. 12.

Ground Pine.

Very common in shady woods, where it creeps and covers a great space of ground. This and No. 1, are made into festoons to ornament looking glasses, pictures, &c. at Christmas. Most frequent in Jersey. Perennial. July.

3. *L.* stem repent, branched; branches subdivided, adscendent; leaves sparse, imbricated, linear-lanceolate, ciliate, piliferous; spikes solitary, sessile and terminal.—*Willd.*

Icon. Schk. filic. t. 165. Dill. Musc. t. 63. f. 11.

Running Club-moss.

A small species, quite local in this neighbourhood, but abundant where found. On the flat rocks near the Delaware, between Gray's ferry and Kingsess-gardens. Perennial. July.

- lucidulum. 4. **L.** leaves 8-rowed, linear-lanceolate, denticulated, acute, open-reflexed; stem adscendent, bifid.—*Willd.*
L. reflexum, Schk.
 Icon. Dill. Musc. t. 56. f. 2.

Shining Club-moss.

In low damp or wet places, near springs in wet woods; not uncommon. On the Wissahickon; abundant. Perennial. July.

- apodum. 5. **L.** leaves two-rowed, subrotund, ovate, acute, flat, denticulate; stem branched, radicating at the base; spikes terminal, sessile and solitary.—*Willd.*
 Icon. Dill. Musc. t. 64. f. 3.

A small and pretty species, growing in damp shady woods. Perennial. July.

- alopecuroides. 6. **L.** stem repent, somewhat branched; branches simple, elongated, adscendent, one-spiked at top; leaves linear-subulate; base ciliate, dentate, spreading; spike sessile, leafy.—*Willd.*
 Icon. Schk. filic. t. 160. Dill. Musc. t. 62. f. 6.

Walking Fern.

In boggy grounds, common. Perennial. July.

387. OPHIOGLOSSUM. Gen. pl. 1621.

Capsules naked, 1-celled, connate in an articulated distichal spike, 2-valved, opening transversely.—*Nutt.*

- vulgatum. 1. **O.** spike cauline; frond ovate, obtuse; narrowly reticulated.—*Willd.*
 Icon. Schk. filic. t. 153. Fl. Dan. 147.

Common Adder's-tongue.

A singular and very rare species. I have only found it in the small woods immediately north of Powelton, and bordering the east edge of Mantua-road. Scarce there. Perennial. June.

388. BOTRYCHIUM. Swartz, Synop. Filic. 8.

Capsules subglobose adnate to the rachis of

the compound raceme, separate, naked, 4-celled, valves 2, connected behind, opening transversely.—*Nutt.*

1. **B.** scape below with one frond; frond sub-bi-obliquum, ternate; folioles oblong-lanceolate, serrulate, dilated at the base, unequally cordate: spikes bipinnate.—*Willd.*

Near a swamp on Cooper's creek, not far from the Bridge. Perennial. July.

2. **B.** scape below with one frond; frond three-dissectum, parted-bipinnatifid; segments linear, 2-cleft; 2-toothed at the apex.—*Willd.*

Icon. Schk. filic. t. 158. Pluk. amalth. t. 427.

f. 5.

On the edges of woods, on the Schuylkill and Wissahickon; and on the Botanic-garden ground of the University of Pennsylvania. Perennial. June.

3. **B.** hirsute; scape in the middle of the frond; Virginicum, frond subternate, 3-parted, bi-pinnatifid; folioles incised-pinnatifid; segments obtuse, sub-tridentate; spikes bi-pinnate, divaricate.—*Willd.* and *Pursh.*

Botrypus Virginicus, Mich.

Osmunda Virginica, Sp. Pl. 1579.

O. multifida, Gmel.

Icon. Schk. filic. t. 156.

Rattlesnake Fern.

A large and very elegant species, very common in all our fertile woods, delighting in shade and moisture. I have twice received this plant from Kentucky, with an assurance that it was an Indian remedy for the bite of the rattlesnake; hence the name above, and not as Pursh supposes, because the plant grows near the haunts of that reptile. The roots and stems taste like Ginseng, and the hot infusion of the whole plant is an agreeable-flavoured tea. Perennial. June.

389. OSMUNDA. Gen. pl. 1622.

Capsules subglobose, pedicellate, striate, semi-bivalvular and paniculated. *Indusium* none.—*Nutt.*

cinnamomea. 1. *O.* sterile frond pinnate; pinnæ pinnatifid; segments ovate-oblong, obtuse, very entire; stipe woolly, the fructifications bipinnate, woolly.—*Willd.*

Icon. Schk. filic. t. 146.

Cinnamon Fern. Tall Osmunda.

A large fern, with long ferruginous fructificatory spikes. In all low meadows, bogs, and in the borders of streams and ditches. Common. Perennial. June.

interrupta. 2. *O.* fronds pinnate, glabrous; pinnæ opposite, pinnatifid; segments oblong, acute, very entire; pinnæ somewhat intervening between the fructification.—*Willd.*

O. basilaris, Sprengel. Anlitung. 3. p. 160.

Icon. Schk. filic. t. 144.

Interrupted Osmunda.

Same size as the preceding, and found in similar places, and in woods. Easily known by the interrupted spikes of fructification. Common. Perennial. June, July.

spectabilis. 3. *O.* frond bi-pinnate; pinnulæ oblong, somewhat obtuse, narrowly serrulate, truncate, and unequal at the base, all alternate; panicle bipinnate, bearing fruit at the top of the frond.—*Willd.* and *Mich.*

O. regalis, β . Sp. Pl. 1521.

Icon. Pluk. alm. t. 184. f. 4.

Royal Osmunda. Flowering Fern.

Grows always in bogs, swamps and meadows. A very elegant fern, with brownish fruit proceeding from the top of the frond. Common. Perennial. July.

390. POLYPODIUM. Swartz, Synop. filic. 3.

Sori (or small clusters of capsules) roundish, scattered. *Indusium* none.—*Nutt.*

1. *P.* frond deeply pinnatifid; segments linear-lanceolate, obtuse, crenulate, near together, upper ones gradually smaller; *soræ* solitary; caudex paleaceous.—*Willd.*

Icon. Schk. filic. t. 11.

Common Polypody.

On rocks in the neighbourhood, and in woods; common. Perennial. July.

2. *P.* fronds deeply pinnatifid; segments lanceolate, obtuse, very entire, near together, upper ones gradually smaller; *soræ* solitary; caudex naked.—*Willd.*

Icon. Petiv. filic. t. 7. f. 9. Plum. Amer. t. 36. filic. t. 77. (Pursh.)

Virginia Polypody.

Resembles the preceding very much, and grows with it. It is perhaps no more than a variety. Perennial. July.

3. *P.* fronds bipinnate, somewhat smooth; pinnæ two, deflexed below; segments lanceolate, obtuse, ciliated—of the lower pinnæ incised-crenate, of the upper very entire, lower ones adnate-decurrent; *soræ* minute, solitary.—*Willd.*

Icon. Pluk. alm. t. 284. f. 2. Schk. filic. t. 20. b.

In damp shady woods, among other ferns; rare. Perennial. July.

391. ASPIDIUM. Swartz, Synop. filic. 3.

NEPHRODIUM, Mich.

Sori roundish, scattered. *Indusium* umbilicate or opening on one side.—*Nutt.*

acrostichoides.

1. *A.* fronds pinnate; pinnæ lanceolate, falcate, acute, ciliate-serrated; upper base mucronate-auriculated, lower fructificant and smaller; stipe and rachis paleaceous; soræ solitary, at length, confluent.—*Willd.*

A. auriculatum, Schk.

Nephrodium acrostichoides, Mich.

Terminal Shield Fern.

On the rocks in the vicinity of our waters, common; also in woods. Perennial. June.

marginale.

2. *A.* fronds bi-pinnate; pinnulæ oblong, obtuse, decurrent, crenate, the folds deepest at the base; soræ marginal; stipe paleaceous.—*Willd.*

Polypodium marginale, Sp. Pl. 1522.

Nephrodium marginale, Mich.

Icon. Schk. filic. t. 45. b.

Marginal Shield-fern.

In shady woods, particularly on rocks. Perennial. July.

intermedium.

3. *A.* fronds bi-pinnate; pinnulæ linear, pinnatifid-incised; segments sub-mucronate, serrated at the apex; stipe paleaceous.—*Willd.*

Large Shield-fern.

A large and well-marked species. In the woods of Jersey, among other ferns—more rare west of the Delaware. Perennial. July.

noveboracense.

4. *A.* fronds pinnate; pinnæ linear-lanceolate, pinnatifid; segments oblong, somewhat obtuse, nearly entire, ciliated; soræ marginal; stipe even.—*Willd.* and *Pursh.*

- A. thelypteroides*, Swartz.
Nephrodium thelypteroides, Mich.
Polypodium noveboracense, Sp. Pl. 1552.
 Icon. Schk. filic. t. 46.

New York Shield-fern.

On the Wissahickon and Schuylkill. Not common. Perennial. July.

5. *A.* fronds bi-pinnate; pinnulæ linear-lanceolate, incised, and serrated; serratures 2 or 3-toothed, terminal, more acute; sori oblong, lunate.—*Willd.*

Nephrodium asplenoides, Mich.

Polypodium Pennsylvanica, Muhl. in Litt.

Asplenium Athyrium, Sprengel, Anleitung, 3. p. 113.

Icon. Schuk. filic. t. 78.

Dark or Spleen-wort Shield-fern.

In similar places with the preceding species. Not uncommon. Perennial. July.

5. *A.* fronds bi-pinnate, oblong-lanceolate; pinnulæ opposite, oblong, obtuse, serrated, lower ones pinnatifid; rachis bulbiferous; sori subrotund.—*Willd.*

Polypodium bulbiferum, Sp. Pl. 1553.

Nephrodium bulbiferum, Mich.

Icon. Schk. filic. t. 57.

Bulb-bearing Spleen-wort.

Varies in size very much. In shady woods, particularly on rocks. Rare. Perennial. July.

392. ONOCLEA. Willd. in Mag. Ges. naturf. fr. z. berol. 1809. p. 160.

Capsules densely covering the back of the

frond. *Indusia* squamiform, connate in the form of berries and not expanded.—*Nutt.*

sensibilis.

1. *O.* barren frond pinnate; pinnæ lanceolate, acute, incised, dentate, upper ones co-adunate, the fruit-bearing ones bi-pinnate; pinnulæ recurved, globular, glabrous; rachis glabrous.—*Willd.*
Icon. Schk. filic. t. 102. Pluk. Mant. t. 404. f. 2.

Sensitive Fern.

In meadows, the borders of fields, open woods, and thickets; very common. Slightly sensitive. Perennial. July.

393. ASPLENIUM. Swartz. Synop. filic. p. 4.

Sori linear, transversal, scattered. *Indusia* arising from the lateral veins, and opening towards the rib.—*Nutt.*

rhizophyl-
lum.

1. *A.* fronds lanceolate, stipitate, sub-crenate; base auriculate-cordate, top very long, linear-filiform, radicant.—*Willd.*
Icon. Pluk. alm. t. 105. f. 3.

Leaf-rooting Spleen-wort.

A singular species, rooting at the elongated ends of the leaf. On the rocks of the Wissahickon and Schuylkill. Perennial. July.

♀ pinnatifidum.

fronds lanceolate, stipitate, pinnatifid, point attenuated, roundish, ovate. *B.*

A very distinct variety, but not, I think, a species, for I have found pinnatifid and lanceolate leaves together on No. 1. *β.* I have only found on the rocks close to the Schuylkill, east side, a mile south of the falls. July.

ebenum.

2. *A.* fronds pinnate, pinnæ sessile, lanceolate, serrulate, cordate at the base, auriculated above.—*Willd.*

A. polypodoides, Swartz.

A. trichomanoides, Mich.

Acrostichum platyneuron, Sp. Pl. 1527, excluding the synonym.

Icon. Schk. filic. t. 73. Pluk. alm. t. 287. f. 2. et t. 89. f. 8.

Ebony Spleen-wort.

A beautiful species, from six to twelve inches high, stem deep shining black. On the rocks bordering the Schuylkill, in rich shady woods, and on the grassy borders of copses; common. Perennial. July.

3. **A. fronds pinnate**; pinnæ subrotund, obtuse, ^{melanocaulon.} crenate, cuneate at the base; stipe discoloured.

—Willd. enum.

A. trichomanes, Mich.

A small and beautiful species, with a very polished black stem. With No. 2, common. Perennial. July.

4. **A. fronds bi-pinnate** at the base, simply pinnate at the top; pinnulæ rhomboid-oblong, obtuse; apex obtuse, denticulate.—Willd. ^{Ruta muraria.}

Icon. Schk. filic. t. 80. b. Fl. Dan. 190.

A very small species, from one to three inches high. Exceedingly rare, and scarce when found. In the crevices of the highest rocks on the Wissahickon. Perennial. July.

394. PTERIS. Gen. pl. 1626.

Sori continuous, linear, marginal. *Indusium* from the inflected margin of the frond, opening inwards.—Nutt.

1. **P. frond pinnate, three-parted, barren**; branch- ^{aquilina.} es bi-pinnate; pinnæ linear-lanceolate, obtuse, pinnatifid-dentate; fructificatory ones pinnate;

pinnulæ pinnatifid; segments somewhat acute, all ciliated.—*Willd.* and *Pursh.*

Icon. Schk. filic. t. 95, 96. b.

Common Brake.

A large and handsome fern. Baron Humboldt says the inhabitants of Parma and Gomera make a kind of bread of the roots, which are large. On the edges of fields, in woods, and on dry soils, very common and abundant, especially in Jersey. Perennial. August.

395. WOODWARDIA. Smith. act. taur. 5. p. 411. t. 9. f. 5.

Sori oblong, distinct, straight, parallel with the ribs of the frond on either side. *Indusia* superficial, arched, opening inwards.—*Nutt.*

Onocleoides. 1. *W.* barren fronds pinnatifid; segments lanceolate, repand, very slenderly serrulate, fruit-bearing ones pinnate; pinnæ linear, very entire, acute.—*Willd.*

W. angustifolia, Smith, act. taur.

W. floridana, Schk.

Onoclea nodulosa, Mich. and Swartz.

Acrostichum areolatum, Sp. Pl. 1526.

Osmunda Caroliniana, Walt.

Icon. Schk. filic. p. 103. t. 111.

Grows in swamps, Jersey; not uncommon. Perennial.

396. ADIANTUM. Gen. pl. 1633.

Sori oblong or roundish. *Indusia* membranaceous, arising from the margin of the frond and opening inwards.—*Nutt.*

pedatum. 1. *A.* frond pedate, branches pinnate; pinnæ dimediate, oblong, lineate, upper margin incised; sterile segments dentated; fertile ones very entire; sori linear; stipe glabrous.—*Willd.*

Icon. Schk. filic. t. 115. Pluk. alm. t. 124. f. 2.

Maiden-hair. Mow-hair.

With the exception of *Botrychium Virginicum*, this is the most elegant fern in our neighbourhood. From one to two feet high. Stem dark, smooth, and shining. In rich shady woods; very common. Possesses medicinal virtues? Perennial. July.

397. DICKSONIA. L'Herit. sert. angl. 30.

Sori punctiform, marginal, subrotund, distinct. *Indusium* double, alternate, superficial, exterior gaping, the other marginal gaping within.—*Nutt.*

1. *D.* fronds bi-pinnate; pinnulæ oblong-lanceolate, pinnatifid, upper margin of the segments incised-dentate; rachis somewhat hairy.—*Willd.*

D. pubescens, Schk.

Polypodium pilosiusculum, Muhl. in litt.

Hairy Dicksonia. Small-fruited Dicksonia.

From twelve to fifteen inches high. In shady woods, and particularly on rocks; common. Perennial. July.

398. ISOETES. Gen. pl. 1620.

Capsule membranaceous, not gaping; frond immersed at the base, 1-locular. *Seed* angular, inserted into the numerous filiform receptacles.—*Nutt.*

1. *I.* frond subulate, semi-terete.—*Willd.*

Icon. Schk. filic. t. 173. Fl. Dan. 191. Dill. mus. t. 80. f. 1.

lacustris,

From one to two inches high. In a boggy wood south of Laundreth's Gardens, and on the overflowed shores of the Delaware, above Kensington; very abundant. Perennial. July.

ADDENDA.

TRIANDRIA, DIGYNIA.

To genus *Aristida*, No. 50. p. 53. vol. 1, add the following species :

No. 2. *Aristida stricta*; stems and leaves very upright; raceme long; spike contracted; awns longer than the glume; leaves convolute, filiform, smooth.—*Mich.*

Perennial. June. Within the limits of this work; Mr. Collins.

No. 3. *Aristida oligantha*; culm upright, very much branched; leaves convolute-filiform; flowers distant, solitary; awn long-divaricating.—*Mich.*

A. adscendscionis, Walt.

Perennial. June. Also within the limits of this work. B.

TETRANDRIA, MONOGYNIA.

To the genus *Plantago*, No. 80. vol. 1. p. 88, add the following species :

4. *Plantago hybrida*; leaves subulate-linear, entire, rigidly acute, shorter than the scape, not woolly at the base; scape terete, slender, slightly pubescent; spike long and slender, cylindrical, rather loose; spikelets below, remote; bractes acute. B.

Plantago maritima, Bart. Prod. Fl. Ph.

Root annual. Plant from two to three inches high, leaves very numerous, about one inch long in mature specimens, often not exceeding half an inch, destitute of any thing like wooliness at the base. Scape slender, longer than the leaves, round and slightly pubescent under a lens. Spike cylindrical, not exceeding one-eighth of an inch in diameter, from half an inch to two inches long, and of a green and sienna colour, not deep brown or blackish, as in the European and American specimens of *P. maritima*. Scapes nearly as numerous as the leaves. This species, which is decidedly distinct from the *P. maritima*, I found four years ago, in the exsiccated canal on the road to Lemon-hill, close to the high gravel banks. I there found it two years in succession, and on transplanting it into my gar-

den it produced seeds which came up the succeeding spring. The mature specimens preserved the characters of the plant as given above. I have before me a specimen of *Plantago maritima*, collected in Scotland by Dr. Edward Barton, and a specimen of the same species collected in New England, which I received from Mr. R. Griffiths, jr. These two plants differ from each other some little, but as the *P. maritima* is said to be a polymorphous species, the discrepancy is not of much account. But from both the plant I have called *hybrida* above, is strikingly and specifically distinct. Mr. Collins informs me he has found specimens of the *hybrida*, in the same locality I have identified above. Flowers in April, May.

PENTANDRIA.

To *Menyanthes trifoliata*, 104. vol. 1, add the following locality :

In a bog half a mile south-east of Kaighn's point, Jersey; abundant. Perennial.

To *viola concolor*, p. 125. vol. 1, add the following synonyms :

Viola stricta.

Ionia stricta, Persoon.

To *Triosteum perfoliatum*, p. 115. vol. 1, add the following additional locality :

"On the bank walk from Kaighn's point to the ferry below, and in a field near it; tolerably abundant." I have there found it this month; June, 1818.

To *Vitis*, p. 116. vol. 1, add No. 5. *Vitis Blandi*.

Blands' Grape.

In Jersey, near the city; Mr. Collins.

OCTANDRIA, DIGYNIA.

To genus *Acer*, No. 189. p. 184. vol. 1, add the following species :

No. 4. *Acer saccharinum*; leaves palmate-5 lobed, subcordate at the base, acuminate, sinu-

ate-dentate, glaucous beneath; peduncles corymbose, nutant.—*Willd.* and *Pursh.*

Icon. Mich. f. Arb. forest. vol. 1.

Sugar Maple.

$\frac{1}{2}$. April, May. In the woods above the falls of Schuylkill, west side.

Page 186. vol. 1, before the synonyms of *Polygonum linifolium*, add:

Polygonum linifolium, Muhl.

ICOSANDRIA, PENTAGYNIA.

Rubus page 233. vol. 1. No. 6. *Rubus flagellaris*, add the following additional locality:

In Jersey between Kaighn's point and the ferry below; abundant. June, 1818.

POLYANDRIA.

To *Caltha palustris*, p. 22. vol. 2, add the following additional locality:

On Cooper's creek and elsewhere common; Mr. Collins.

DIDYNAMIA, GYMNOSPERMIA.

To genus *Mentha*, No. 265. vol. 2. p. 30, add the following species:

No. 2. *Mentha gracilis*; erect, somewhat smooth; leaves lanceolate, ovate, subsessile; spike slender; whorls very small, interrupted; stamens not exerted.—*Mich.* and *Pursh.*

M. gracilis.

M. tenuis, Pursh.

M. viridis, Walt.

In wet places, and near springs and rivulets; Mr. Collins.

To genus *Scutellaria*, No. 278. page 38. vol. 2, add the following species :

No. 6. *Scutellaria parviflora*.

N. B. Before the genus *Phryma*, vol. 2. p. 40. insert

ORDER II. ANGIOSPERMIA.

DIDYNAMIA, ANGIOSPERMIA.

399. BUCHNERA. Gen. pl. 1035.

Calix 5-toothed. Tube of the *corolla* slender, border 5-cleft, nearly equal; lobes cordate. *Capsule* 2-celled.—*Nutt.*

1. B. stem simple; leaves lanceolate, subdentate, Americana. rough, three-nerved; spikes remote-flowered.—*Willd.* and *Pursh.*

This plant dries quite black. I have found it very common and abundant in Maryland, along the edges of dry sandy woods; but have never met with it in this neighbourhood. In sandy grounds, Jersey; Mr. Collins.

400. SCHWALBEA. Gen. pl. 1001.

Calix ventricose, tubular, obliquely 4-cleft; upper segment shortest, the lower large and emarginate or bidentate. *Corolla* bilabiate, upper lip entire, arched, the lower 3-lobed. *Capsule* ovate-subterete, 2-celled, 2-valved; dissepiment produced by the inflected margin of the valves, and parallel

with the longitudinal receptacle. *Seeds* numerous, imbricated, linear and alated.
—*Nutt.*

- Americana.* 1. *S.* simple, pubescent; leaves lanceolate; raceme terminal; flowers alternate.—*Willd.* and *Pursh.*
Icon. Lam. Illustr. 520. Pluk. Mant. t. 348. f. 2.

In Jersey, within ten miles of this city; Mr. Collins.

To the genus *Orobanche*, No. 293. vol. 2. p. 49, add the following species, which is not an uncommon plant in our neighbourhood, but has been inadvertently left out in my manuscript.

- No. 2. *Orobanche uniflora*: scape naked, one-flowered; calix without bractes; corolla recurved.—*Willd.* and *Pursh.*
Icon. Pluk. Mant. t. 348. f. 3.

One-flowered Orobanche.

A very singular and handsome parasitic plant, growing in bunches of several stems together. Whole plant of a snow white hue, and resembles an artificial wax flower. In fertile woods. Perennial. June, July.

TETRADYNAMIA, SILIQULOSA.

The following common plant has been inadvertently omitted in its proper place:

401. *Cardamine Pennsylvanica*; glabrous, branched; leaves pinnate; folioles nearly roundish, oblong, obtuse, angular-dentate; siliques narrow, erect.—*Willd.* and *Pursh.*

Pennsylvania Water Cress.

From six inches to a foot high. Flowers white, small. Whole plant peperish. In low meadow-grounds, and near rivulets and springs; common. Perennial. May.

DIADELPHIA, DECANDRIA.

To genus *Lathyrus*, No. 314. vol. 2. page 72, add the following species:

No. 2. *Lathyrus venosus*; stem naked, four-angled; stipules semi-sagittate, ovate, acuminate; folioles very numerous, nearly alternate, ovate, obtuse, mucronate, veined; peduncles shorter than the leaf, 5-10 flowered.—*Willd.* and *Pursh.*

Flowers purple. Perennial. July. Within the limits of this work; Mr. Collins.

To *Andromeda paniculata* add the following synonym:

Andromeda ligustrina, Muhl. Cat. 2d ed.
Vaccinium ligustrinum, L.

SYNGENESIA, ÆQUALIS.

To genus *Cnicus*, No. 306. p. 94. vol. 2, add the following species:

5. *Cnicus arvensis*; leaves sessile, pinnatifid, somewhat smooth, ciliate, very spinous; stem paniculate; calices ovate, mucronate; scales broad-lanceolate, adpressed, woolly on the margin.—*Pursh.*

Carduus arvensis, Smith.

Serratula arvensis, Willd.

Icon. Fl. Dan. 644. Engl. Bot. 975.

Canada Thistle.

Flowers purple, smaller than those of Nos. 1, 2, 3 or 4. Since printing the foregoing pages I have been directed for this plant by Mr. Collins to the neighbourhood of the forge at the corner of Vine-street and the Ridge-road, where I found it abundant. Mr. C. has found it elsewhere. Perennial. July.

—
GYNANDRIA.

To *Cypripedium humile*, page 145. vol. 2, add to the English name, '*Noah's Ark*.'

—
The following plants, I am informed by Mr. Collins, have been found in this neighbourhood:
viz.

Aster rigidus.

Agrostis sobolifera, (flat rock-bridge, Schuykill.)

Chara glabra.

Chara foliosa.

Erigeron strigosus.

No. 402. *Elephantopus Carolinianus*.

Rudbeckia fulgida.

No. 403. *Scleria paucifolia*.

Scleria triglomerata.

No. 404. *Uniola gracilis*, (Jersey.)

No. 405. *Viscum purpureum*, Muhl.

—
N. B. *Cyperus minimus*, for which I quoted Dr. Clever, on the authority of Mr. Nuttall, has not, the Doctor informs me, been found by him within the limits of this book.

—
Rhododendron maximum, or Great Mountain Laurel, I have found in the woods near Gray's ferry, where it appears to be wild. July, 1818.

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N. B. The words of the Index in *Italics* are synonymous genera, and are only to be found under other generic terms.

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