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~~pour la Société Philharmonique~~

B. 43.



de Candolle prop.

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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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UNIVERSITY OF PENNSYLVANIA.

IN TWO VOLUMES.

VOL. I.

PHILADELPHIA :

**PUBLISHED BY M. CAREY AND SON,
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v. 1

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.

TO

ZACCHEUS COLLINS, Esq.,

A PATIENT AND SUCCESSFUL CULTIVATOR OF THAT SCIENCE,

THE INTERESTS OF WHICH

THIS LITTLE WORK IS DESIGNED TO PROMOTE;

THESE PAGES,

WITH ESTEEM FOR HIS TALENTS AND ATTAINMENTS,

ARE RESPECTFULLY INSCRIBED.

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PREFACE.

THIS little work is offered to the public, with a sincere wish that it may be found to facilitate the study of Botany in this city. During the Author's frequent excursions with his Botanical Class, into the neighbouring country, he has been very sensible of the want of a local Flora of this nature. His Prodrromus, which contained all the plants he had met with, at the period of its publication, was not only inconvenient from its size, but, a want of the localities of the plants enumerated, lessened its usefulness for the student. Besides, of that work, there remain but a few copies, the edition having been very small. The present work has been written entirely in English, the more easily to assist the tyro, and with a hope too, that it would be more likely to invite the attention of those to the study of botany, who might not be willing to encounter the laborious task of reading descriptions of plants in the Latin technical phraseology, always constrained, and never alluring, either from its elegance or purity. All the plants described in this Flora, with the exception of about twenty have been personally collected by the Author—and in all cases of doubt or difficulty, re-

Aug 7-1893

ABBREVIATIONS, &c.

<i>L.</i>	Linnæus.
<i>Mich.</i>	Mich. fl. Boreal. Am.
<i>Mich. f.</i>	Mich. the younger, Arbres, forest.
<i>Willd.</i>	Willdenow's Species Plantarum.
<i>Willd. enum.</i>	Willdenow's Enumeratio Plant, &c.
<i>Nutt.</i>	Nuttall, Gen. Am. Plants.
<i>Lam.</i>	Lamarck.
<i>Muhl.</i>	Muhlenberg's Catalogue, and when connected with grasses, his Descriptio Ubcrior, &c.
B.	is prefixed to the descriptions of the author.
h	designates trees and shrubs.

MONANDRIA.

CALLITRICHE.

CLASS I. MONANDRIA.

ORDER II. DIGYNIA.

1. CALLITRICHE, L. Gen. Pl. 17. (*Najades.*)

Calix inferior, 2-leaved. *Corolla* 0. *Seeds* 4, naked, compressed.

heterophylla. 1. *C.* upper leaves spatulate-obovate; lower ones linear, obtuse, and emarginated; occasionally all the leaves linear.

C. verna. Willd. sp. pl. 1. p. 28.

C. aquatica. Smith, Fl. Brit.

C. autumnalis. Willd. sp. pl. p. 29.

C. linearis. Pursh, Fl. Am. Sep. vol. i. p. 3.

A very varying plant, putting on at different seasons of the year, such amorphous appearances, that it has been described as distinct species by botanists, under the different synonyms above enumerated. Dr. James Edward Smith first noticed the identity of *C. verna* and *C. autumnalis*. I have adopted Pursh's specific name, as it sufficiently expresses the variations in the leaves; but his *C. linearis* is nothing more than one of the capricious states of this singular plant.

"The leaves of the calix are described by Desfontaines as being concave, and lunate, with the filament as long as the calix: in the American plant the stem is compressed, and bifistulous, for floating; the lower branches with narrower and often emarginated leaves, producing only male or female flowers, the central branches with retuse, spatulate oval, 3-nerved leaves, bearing those which are hermaphrodite, with the stamens much exerted." *Nuttall.*

In springs, rivulets, and brooks, where the water is clear—along the Schuylkill, in such places—on the bank-walk to the Woodlands most abundant—in Jersey along the course of the Delaware, and elsewhere. Annual. Flowers from May to July.

DIANDRIA.

LIGUSTRUM.
VERONICA.
LEPTANDRA.
HEMIANTHUS.
GRATIOLA.
LINDERNIA.
CATALPA.
JUSTICIA.
UTRICULARIA.
LYCOPUS.
CUNILA.
HEDEOMA.
MONARDA.
SALVIA.
COLLINSONIA.
CIRCÆA.
LEMNA.
CRYPTA.

CLASS II. DIANDRIA.

ORDER I. MONOGYNIA.

2. LIGUSTRUM. Gen. pl. 23. (*Jasmineæ.*)

Cor. 4-cleft; *berry* with 2-cells, 2-seeds in each cell.

vulgare.

1. *L.* leaves ovate-lanceolate, very entire sometimes blunt, sometimes a little pointed; pannicle with 3-divisions.

Icon. Eng. Bot. 764.

Privet. Prim. Print.

A shrub growing to the height of four or five feet. Leaves sometimes growing by threes. Berries black, persistent. Flowers in pannicles, white. Often met with in our neighbourhood; and sometimes in situations where it has every appearance of growing wild. It is, however, supposed to be introduced, though Dr. Muhlenburg has it in his catalogue as a native plant. In hedges, on the margins of fields and woods. On the high hills of the Wissahickon, near the mill on the Ridge road. July.

3. VERONICA, L. Gen. Pl. 32. (*Pediculares.*)

Cal. 4-parted. *Cor.* rotate, 4-lobed, unequal, the lower segment narrower. *Caps.* 2-celled, obcordate. *Seeds* few. *Nutt.*

• officinalis.

1. *V.* lateral spikes pedunculated, leaves opposite, obovate, or roundish, hairy; stem hairy and procumbent. *Willd.*

Icon. Engl. Bot. 765. Fl. Dan. 248. Woodville's Med. Bot.

The d'Europe. Male, or Common Speedwell.

Varies much in size. Very common every where near the city, in dry woods, and the high banks of roads and way-sides. Perennial. Flowers from May to August and later. It was formerly much esteemed as a medicine, and a large work was written on its virtues. It is now left out of works on *Materia Medica*, and perhaps justly.

2. *V. racemes* terminal, somewhat spiked; leaves *serpyllifolia*.
ovate, smooth, rarely crenate.
Icon. Fl. Dan. 492.

Pauls' Betony. Smooth Speedwell.

In similar places, among grass, with the preceding. Common. Perennial, creeping. Flowers pale blue with darker stripes. Blooms from May to August.

3. *V. racemes* lateral, leaves ovate, flat; stem *re-beccabunga*.
pent.
Icon. Engl. Bot. 655. Fl. Dan. 511.

Brooklime.

Leaves shining. Flowers beautiful blue. In clear springs and rivulets, running through meadows. Tolerably frequent. Perennial. June, July.

4. *V. racemes* lateral and alternate; pedicels drooping *scutellata*.
ing, leaves linear, sometimes entire, and at others serrated.
Icon. Engl. bot. 782. Fl. Dan. 209.

Scull-cap Speedwell. Narrow-leaved Marsh Speedwell.

In meadows with very moist bottom; along the margins of rivulets and brooks; on the borders of the Delaware, below the navy yard. Common. Perennial. July and later. (This species has been made a new genus, without good grounds.)

5. *V. flowers* solitary, leaves ovate, cut-serrate, *agrestis*.
shorter than the peduncles; stem procumbent;
seeds pitcher-shaped. Smith. Fl. Brit.

Germander; Field-Speedwell. Forget-me-not.

Flowers blue. Annual. Rare. In fields when found. May.

- peregrina. 6. *V.* flowers sessile ; leaves linear-lanceolate, dentate and sometimes very entire ; stem erect. *Willd. & Vahl.*
V. Caroliniana, Walt. fl. Car. p. 61.
V. Marilandica, Murr. Com. Goett. 1782. p. 11. t. 3.
V. Romana, Allionii, Trans. Lin. Soc. vol. i. p. 192.
V. Romana, Lin. Mantiss. 317.
V. Carnosula, Lam. illustr. 1. p. 47.
 Icon. Murr. l. c. Fl. Dan. 407.

Neck-weed. Knot-grass-leaved Speedwell.

An ordinary looking amorphous plant, found in and near dirty ditches, and in cultivated grounds. Common, particularly in the Neck. Flowers small, white, fugacious. Annual. May to August.

4. *LEPTANDRA*, Nuttall. Gen. Am. Pl. (*Antirrhineæ.*)

Cal. 5-parted, segments acuminate. *Cor.* tubular-campanulate, border 4-lobed, a little ringent, unequal, the lower lamina narrower. *Stamina* and at length the *pistillum* much exerted ; *filaments* below, and tube of the corolla pubescent. *Capsule* ovate, acuminate, 2-celled, many-seeded, opening at the summit ? *Nutt.*

- Virginica. 1. *L.* stem erect, angular. Leaves verticillate, lanceolate, serrate. Spikes somewhat terminal, long. *Veronica Virginica*, auctorum. Icon. Pluk, alm. t. 70. f. 2.

Virginian Speedwell. Tall Veronica.

This plant has been very judiciously, though boldly, separated from the genus *Veronica*, where it always had a forced alliance.

Stem from three to six feet high, angular. Leaves mostly in threes, fives and sixes ; always verticillate. Flowers white,

very numerous, on aggregated spikes. Somewhat rare, though plentiful where found. *Woodlands*, on the bluff of a hill bordering the Schuylkill; and in a shady wood near *Powelton*. Perennial. July and August.

5. *HEMIANTHUS*, Nuttall. (Journ. Acad. Nat. Sci. Ph. Vol. I. p. 119.) (*Lisimachia*.)

Cal. tubular, 4-toothed at the border, cleft on the under side. *Cor.* monopetalous bilabiate; tube gibbous, upper lip obsolete truncate, lower lip 3-parted, curved inwards in an arch, truncate. *Stam.* with bifid filaments, the lateral stipes bearing anthers. *Style.* bifid. *Cap.* 1-locular, 2-valved, many-seeded. *Seeds* shining, ovate. *Nutt.*

1. *H.* *Root* fibrous. *Stem* dichotomous, filiform, mieranthemoides. repent, crowded with leaves. *Leaves* sessile, sub-elliptic, or oblong-elliptic, entire, opposite, and ternate, obsoletely 3-nerved. *Nutt. abr.*

Herpestris micranthra Pursh?

Icon. Journ. Acad. Nat. Sci. Ph. Vol. I. t. 6. fig. 2.

A minute, creeping, sub-aquatic plant, detected July, 1817, first by Mr. Nuttall, and the succeeding day found plentifully by him and myself, on the low gravelly shores of the Delaware, at low tide, near Kensington. Grows in company with *Isoetes lacustris*, *Tillæa*. *Nutt.* *Limosella tenuifolia*. *Nutt.* *Crypta minima*, *Nutt.* *Eriocolon flavidulum*, and *Alisma subulata*. *Pursh.* Annual, flowers from the last of July to September.

6. *GRATIOLA* L. Gen. pl. 37. (*Scrophularia*.)

Cal. 5-parted, often bi-bracteate at the base. *Cor.* tubulose, resupinate, and sub-bilabiate; the upper lip, 2-lobed or emarginate; the lower 3-cleft and equal. *Filaments* 4,—2 fertile, the other 2, for the most part, sterile. *Stigma* 2-valved, many-seeded. *Dissepiment* contrary to the valves.

aurea,
Muhl.

1. *G.* leaves broad-linear, sessile, very entire 3-nerved, spotted on their upper sides ; peduncles opposite nearly as long as the leaves, destitute of abortive filaments. *Pursh.*

G. officinalis Mich. fl. am. 1. p. 6.

G. Caroliniensis Pers. ench. 1. p. 14.

Golden-Pert.

Flowers golden-yellow colour. Leaves yellow green. Plentiful in the ditches of Jersey, particularly on the way-sides of the road to Woodbury ; also in ditches near the swampy-woods about a quarter of a mile from the ferry-house opposite Gloucester point. It delights in sandy wet places, and dirty ditches. Perennial. August.

Virginica.

2. *G.* leaves obovate-lanceolate, attenuated at the base, dentated, nerved, smooth ; peduncles alternate, very short ; capsules pointed, longer than the calix. *Pursh.*

G. acuminata, Vahl. enum. pl. 1. p. 92. exclus. Syn. (*Pursh.*)

Virginian Hedge-hyssop.

Flowers whitish or rather oecroleucous. In pools, ditches, and slow-running streams ; common. Perennial. June, July.

8. LINDERNIA. (*Scrophulariæ.*)

Cal. 5-parted, nearly equal. *Cor.* tubulose, bi-labiate ; *upper* lip short, emarginate ; *lower* trifold, unequal. *Filaments* 4, the 2 longer forked, and sterile. *Stigma* bilamellate. *Capsule* 2-celled, 2-valved ; semiferous dissepiment parallel with the valves. *Nutt.*

attenuata.
Muhl.

1. leaves ovate, attenuated at the base.

A small plant very much branched, with short, ovate narrow-based leaves, and axillary, sessile purple flowers. Along the margins of dirty ditches in sandy soil, Jersey. Plentiful in such places, on or near the Woodbury road, about a mile or two from Camden. I have never found it on the west side of the Delaware. Annual. August.

8. CATALPA. Jussieu. (*Bignoniæ*.)

Cal. 2-parted. *Cor.* campanulate, tube ventricose, border 4-lobed, unequal. *Stam.* 2, fertile, filaments 8, sterile. *Stigma* bi-lamellate. *Caps.* siliquæform, long, cylindric, 2-valved; *Dissepiment* opposite to the valves. *Seed* membranaceously margined and tufted at the extremities. *Nutt.*

1. *C.* leaves cordate, flat.

cordifolia.

Bignonia Catalpa, Willd. sp. pl. 3. p. 289.

Catalpa syringæfolia, Sims in Bot. Mag. 1094, and Pursh. Fl. Am. Sep. Vol 1. p. 10.

C. bignonioides. Walt. fl. car. p. 64.

Icon. Schmidt, arb. t. 41. (Pursh.) Mich. fil. Arbres Forest.

Catalpa-tree. Catawba-tree. Shawnes-wood.

A beautiful and ornamental tree. It grows rapidly, and not only affords a fine shade by reason of its large leaves, but, when in flower, affords a magnificent object for the sight. The flowers are white, speckled with purple, yellow, and pale pink. Mr. Nuttall, seems to doubt whether this tree is really indigenous in the United States; though he says, on the authority of Gov. Harrison, that it exists in considerable quantities in the forests of the Wabash, Illinois Territory, where its wood is split for rails. It is therefore difficult to ascertain whether it has not been originally planted near the places where it is now so abundantly found, in the vicinity of this city. In gravelly and stoney soil, seeming, however, to shun lime-stone ground. On the banks of the Delaware, and Schuylkill, and elsewhere; common. July, August.

9. JUSTICIA, L. Gen. pl. 35. (*Acanthi*.)

Cal. 5-parted or 5-cleft, often with 3 bractes.

Tube of the *corolla* gibbous; border bilabiate; the upper lip emarginate, the lower trifid. *Filaments* 2, each with a single or double anther. *Stigma* 1. *Caps.* attenuated, below opening with an elastic spring from the

summit to the base. *Dissepiment* contrary, growing from the centre of each valve. *Seeds* few, lenticular. *Nutt.*

- pedunculosa*. 1. *I.* spikes axillary, flowers crowded; peduncles long, alternate; leaves lanceolate.
Dianthera Americana. Lin. syst. veg. 64.
D. ensiformis. Walt. fl. amer. 63.
Justicia linearifolia. Lam. illustr. 1. p. 41.
I. pedunculata. Persoon.
I. Americana. Muhl. Cat.
 Icon. Pluck. alm. t. 423. f. 5.

American Justicia.

An herbaceous ordinary looking plant, always found near water. Leaves opposite. Peduncles very long; flowers purple. Quite local, though tolerably abundant where I have found it, viz. on the shores of the Delaware above Kensington, where the tide overflows.

10. UTRICULARIA, L. Gen. pl. 41. (*Lisimachia*.)

Cal. 2-parted, the lower division often emarginate, rarely cleft. *Cor.* scarcely tubulose, irregularly bilabiate, *upper* lip erect, entire, or emarginate, staminiferous; *lower* larger, entire, 3-lobed, or crenate; *palate* more or less cordate, rather prominent on the inner side, *calcarate* at the base. *Filaments* of the stamina incurved; anthers connate. *Stigma* bilamellate. *Caps.* globular, 1-celled, many seeded (opening by a lateral foramen?) receptacle of the seed, central, unconnected. *Nutt.*

- vulgaris*. 2. *U.* nectary conical, the upper lip reflexed, as long as the palate, scape upright. *Vahl. and Willd.*

Icon. fl. Dan. 138.

Common Bladder-wort, or Hooded-milfoil.

An aquatic plant, with the flowers alone appearing above the surface of the water. Flowers large, yellow, with red veins. In pools and ditches where the water is stagnant, in Jersey. Very abundant near Woodbury; and on this side of the Delaware on the road to Gloucester point. Perennial. July.

1. *U. scape with vesicular leaves, divided and ca- ceratophylla.*
 pillary branched at their extremities. *Vahl. Mich.*
U. inflata. Walt. fl. car. p. 64.

Largest Bladder-wort. Horn-wort-leaved Hooded Milfoil.

This very singular plant, is described by Mr. Nuttall, as the largest American species. It is much larger in the southern states than here. Hitherto I have detected it in a single place, and though there extremely abundant, covering the surface of a large pool; it seldom attains a much greater size than No. 2. Readily identified by the four or six long, inflated, fimbriated leaves which proceed from the base of the scape, and support the plant on the surface of the water. Flowers yellow, and here, about the size of those of No. 2. In a stagnant pool, situated in a wood about half a quarter of a mile east of the few last houses of the south end of the village of Woodbury, Jersey. Perennial. July, August.

3. *U. nectary gibbous and keeled; the mouth of minor.*
 the corolla open. *Vahl. Willd.*
 Icon. fl. Dan. 128.

Flowers deep yellow, but smaller than those of No. 2. In shaded swamps, and similar places with *U. vulgaris*, in Jersey. Rare. I have never found it on the Pennsylvania side of the Delaware. Perennial. August.

4. *U. nectary gibbous; the segments of the corolla gibba.*
 roundish; scape one-flowered. *Willd.*

A small species, perhaps never exceeding one fourth the size of either of the preceding. Flowers smaller than in No. 3, and lighter yellow. In quagmire bogs; and in shallow stagnant pools. In the Neck, about a mile from the city, and no great distance from the Delaware. Very abundant near the spot where the *Cyamus flavicomus* grows. Often floating,

DIANDRIA, MONOGYNIA.

but I have, in the place just mentioned, found hundreds of specimens growing and flowering in the dry earth. Probably annual. July.

11. *LYCOPUS*, L. Gen. pl. 44. (*Labiatae*.)

Cal. tubular 5-cleft (or 5-toothed, acute or acuminate). *Cor.* tubular, 4-lobed, nearly equal; the upper segment broader and emarginate. *Stamina* distant. *Seeds* 4. retuse. *Nutt.*

Americanus, 1. *L.* lower leaves incised, upper ones lanceolate, serrate, calices somewhat spine-pointed. *Mich. Willd.*

L. Europæus, β . *Mich.*

L. Europæus, L.

L. vulgaris, Pers.

American water hore-hound.

A very common looking plant, of one or two feet height, with small white verticillated flowers. Near the rivers, creeks, and ponds of our neighbourhood, both on this and the Jersey side of the Delaware. Frequent. Perennial. July and August.

Virginicus. 2. *L.* leaves broad-lanceolate, serrate narrow and entire at the base; calices very short and without points. *Mich.*

β .
quercifolius, with leaves sinuate-pinnatifid.
Pursh.

Oak-leaved water hore-hound.

A smaller plant than No. 1. Sometimes altogether purple. Flowers white; leaves smooth. Both varieties grow in our neighbourhood, in company with No. 1. β . is scarce. I have found it in the low meadows of Jersey. Perennial. June.

12. *CUNILA*, L. Gen. pl. 46. (*Labiatae*.)

Cal. cylindrical, 10-striate, 5-toothed. *Cor.* ringent, with the upper lip erect, flat, and emarginate. *Stamens* 2-sterile. The 2-

fertile stamens with the style exserted nearly twice the length of the corolla. Stigma unequally bifid. *Seeds* 4. *Nutt.*

1. *C.* leaves ovate, serrate, sessile ; corymbs terminal, dichotomous. *Willd.*
Icon. Pluk. mant. t. 344. f. 1. (Pursh.)

Dittany. Mountain-Dittany.

A very beautiful plant, with purple flowers situated in terminal, and sometimes axillary corymbs. Leaves dotted. Common in all our dry hilly woods. The whole plant has a warm aromatic scent, and perhaps considerable medicinal powers as a *tisan*. Perennial. July, August.

13. *HEDEOMA*, *Pers. syn. 2. p. 131. (Labiata.)*

Cal. bilabiate, gibbous at the base, upper lip 3-toothed, lower 2 ; dentures all subulate.
Cor. ringent. *Stamina* 2-sterile. The 2-fertile stamens about the length of the corolla.
Nutt.

1. *H.* pubescent ; leaves oblong, serrate ; peduncles axillary and verticillate ; the lower lip of the calix bisetate ; the bristles ciliated. *Pers.*
Cunila pulegioides. Willd. sp. pl. 1. p. 122.

Pennyroyal.

A very common and well-known plant, universally esteemed for the peculiar, warm, aromatic, and grateful odour it possesses. Flowers pale-blue, small. Few indigenous plants are more commonly used for medicinal purposes, than pennyroyal. It deserves its reputation. Very frequent every where in fields, on dry hills, and by way-sides. Perennial. July.

14. *MONARDA*, *Gen. pl. 48. (Labiata.)*

Cal. 5-toothed, cylindric, striate. *Cor.* ringent, with a long cylindric tube, upper lip linear, nearly straight and entire, involving

the filaments; *lower lip* reflected, broader, 3-lobed, the middle lobe longer. *Nutt.*

fistulosa.

1. *M. hirsute* with scattered hairs; capilulums simple, proliferous, and leafy, exterior bracteas oblong, acute, somewhat smooth, calices long bearded, corolla hirsute, leaves ovate, acuminate, serrate; petioles long, ciliated; stem obtuse, angular, smooth. *Pursh.*

Icon. Mill. icon. t. 122. f. 2.

Hollow Mountain Mint.

Two feet high. Flowers pale-purplish, and sometimes nearly white. Quite local in habitat, though plentiful where I have found it. Abundant near Landsdown and Breck's island, on the Schuylkill. Also about five miles above the falls of Schuylkill. Perennial. July, September.

punctata.

2. *M. somewhat smooth*, flowers verticillate, bracteas lanceolate, nerved, cordate, longer than the whorl; leaves lanceolate-oblong, remote, serrate, smooth; stem obtuse, angular, white-villous. *Pursh.*

M. lutea. Mich. fl. am. 1. p. 16.

Icon. Pluk. Alm. t. 24. f. 1. Bot. rep. t. 546. (*Pursh.*)

About a foot high, and sometimes very much branched. Base of the upper leaves red. Flowers yellow, spotted with brown. On the borders of sandy fields, and the edges of dry sandy woods, in Jersey. Opposite South and Christian streets of this city, (Jersey side)—near the Delaware, abundant. Perennial. August.

15. *SALVIA.* Gen. pl. 50. (*Labiatae.*)

Cal. subcampanulate, striate, and 2-lipped, above 3-toothed, below bifid. *Cor.* tube widening at the faux, limb bilabiate, the *upper* lip arched and emarginate, the *lower* 3-lobed, the lateral segments narrower, the intermediate one larger and nearly round

(sometimes crenate). The 2 fertile filaments transversely pedicellate. *Nutt.*

1. *S.* radical leaves lyrate and toothed, galls of the ^{lyrate,} corolla very short; stem nearly without leaves, hairy backwards. *Vahl. Willd.*
Icon. Moris. hist. 3. s. 11. t. 13. f. 27. (Pursh).

Lyre-leaved Sage.

This plant, in favourable situations, is not destitute of beauty. It grows to the height of two feet, but is commonly one. Flowers blue. In meadows, fields, and the borders of fences, and hedge-rows, every where near the city. Abundant. Perennial. May.

16. COLLINSONIA. Gen. pl. 51. (*Labiatae.*)

Cal. bilabiate, above 3-toothed, below bifid.

Cor. much longer than the calix, somewhat funnel-formed, unequally 5-lobed; the *lower* lobe longer, lacerately fimbriate (or fringed). *Stamina* 2, sometimes 4. *Seeds* 4,—3 of them mostly abortive. *Nutt.*

1. *C.* leaves broad-cordate-ovate, smooth, calix ^{canadensis.} teeth short-subulate, pannicle compound, terminal.
Pursh.
Icon. Lin. hort. cliff. 14. t. 5. (Pursh).

Horse-weed. Knot-root. Rich-weed- Horse-balm.

A very beautiful plant in full bloom; from two to three, rarely four, feet tall. Flowers large, yellow, leaves below petiolated, above sessile. In rich soil, and generally in umbrageous and hilly woods; in the woods along the Schuylkill, particularly the west side, from the upper ferry to the falls, not rare. Also in the woods between Kingsess gardens (Bartram's) and Gray's ferry, frequent. Perennial. July, August.

17. *CIRCÆA*. Gen. pl. 31. (*Onagrea*.)

Cal. short, 2-parted. *Petals* 2. *Stigma* emarginate. *Caps.* ovate, hispid, 2-celled, not opening; cells 1-seeded. *Nutt.*

lufetianai
β.
canadensis.
Pursh.

1. *C.* stem erect, leaves ovate, denticulate, opake, somewhat smooth. *Vahl.*
Icon. Eng. bot. 1056? (*Pursh*).

Enchanter's Nightshade.

From one foot to eighteen inches high. Flowers small, reddish-white. Very common in damp shady woods, and particularly abundant along the Schuylkill, towards the falls. Perennial. July.

18. *LEMNA*. Gen. pl. 1400. (*Najades*.)

Cal. of one entire leaf. *Stamens* alternately developed, seated upon the ovarium at its base. *Style* cylindric, stigma funnel-form. *Capsule* 2 to 4-seeded. *Nutt.*

minor.

1. *L.* leaves elliptical, flat both sides, cohering at their base; roots rarely solitary. *Willd.*
Icon. Eng. bot. 1095.

Duck-weed. Duck-meat.

A little floating aquatic plant of a beautiful green colour, covering the surface of stagnant waters and ditches. Leaves the size of a large spangle, two or three cohering together at their base. Flowers very minute proceeding from a pouch-like marginal division of the lamellæ of the leaves. Very common; and always abundant where found. In a pool, three or four squares south of the Pennsylvania Hospital; and near Kensington, most abundant. Ducks greedily devour it—hence its name. Annual. June.

polyrhiza:

2. *L.* leaves elliptical flat, cohering at their base, roots bundled. *Willd.*
Icon. Vail. par. t. 20. f. 2. (*Pursh*).

Also called *Duck-weed*, and *Duck-meat*.

Somewhat larger than the preceding; and easily known by the greater size and number of its roots. Rather rare. Annual. July, August.

ORDER II. DIGYNIA.

19. *CRYPTA*, Nuttall. (Journ. Acad. Nat. Sci. Ph. Vol. I. p. 117.) (*Portulacæa*.)

Cal. two-leaved below. *Cor.* 2 or 3-petalled, closely lying over each other, closed. *Style* none; stigmas 2 or 3, very small, in the form of little points. *Caps.* 2 or 3-valved, 2 or 3-celled; the cells 4 or 5 seeded. *Seeds* nearly cylindrical, the point incurved, longitudinally marked with striæ, and transversely with dots. *Nutt.*

1. *C. succulent*; root fibrous. *Stem* dichotomous, decumbent, radicant, thick, cylindric. Branches assurgent. *Leaves* cuneate-oval, or obovate, opposite, sessile, entire, and lucid, one-nerved, bi-stipulate at their base; stipules membranaceous and acuminate. *Flowers* axillary, solitary, sessile, and alternate. *Calix* two-leaved, leaves oblong oval. *Nutt. abr.* *minima.*
Nutt.

Icon. Journ. Acad. Nat. Sci. Ph. Vol. I. t. 6. fig. 1.

Peplis Americana. Pursh. fl. Am. Sep. Vol. I. p. 238?

A very minute subaquatic succulent plant, three quarters of an inch high, with opposite entire and stipulated leaves. Flowers very minute; petals never appearing to expand. On

DIANDRIA, DIGYNIA.

the gravelly banks of the Delaware, subject to the overflowing of the tide, a little above Kensington, both on the Pennsylvania and Jersey shores. First discovered in July, 1817, by Mr. Nuttall; shortly after, found on the Pennsylvania side, by myself. Grows with *Hemianthus micranthemoides*, and the plants enumerated as accompanying that little aquatic herb. July.

TRIANDRIA.

FEDIA.
IRIS.
DILATRIS.
SISYRINCHIUM.
HETERANTHERA.
SCHOLLERA.
XYRIS.
RHYNCOSPHORA.
CYPERUS.
DULICHIMUM.
SCIRPUS.
MARISCUS.
TRICHOPHORUM.
ERIOPHORUM.
FUIRENA.
CENCHRUS.
MUHLENBERGIA.
TRICHODIUM.
LEERSIA.
AGROSTIS.
CINNA.
CALAMAGROSTIS.
ANTHOXANTHUM.
CRYPISIS.
PHLEUM.
ALOPECURUS.
PANICUM.

PENNISETUM.
DIGITARIA.
PASPALUM.
ARISTIDA.
STIPA.
ANDROPOGON.
AIRA.
HOLCUS.
POA.
BRIZA.
WINDSORIA.
DANTHONIA.
FESTUCA.
BROMUS.
DACTYLIS.
AVENA.
ARUNDO.
ELUSINE.
ANTHOPOGON.
ELYMUS.
LOLIUM.
MOLLUGO.
QUERIA.
LECHEA.
ERIOCOLON.
PROSERPINACA.

CLASS III. TRIANDRIA.

ORDER I. MONOGYNIA.

20. *FEDIA*, Gært. de fr. et sem. 2. p. 36. (*Dipsacæ.*)

Calix 3 or 4 toothed. *Corolla* tubular, 5-cleft.
Capsule crowned with the persistent calix, 3-celled; only one of the cells usually fertile.
Nutt.

radiata.

2. *F.* leaves spathulate-oblong, nearly entire; fruit pubescent, somewhat 4-sided, naked at the point.
Mich.

Valeriana locusta, radiata. Lin. sp. pl. 48.

Lambs' lettuce. Corn-sallad. Lettuce Valerian.

A beautiful plant when in flower, and without doubt indigenous to this neighbourhood. I suspected, when I first met with it, that it had escaped from the gardens, but have repeatedly since found it in situations where it evidently grew wild. Flowers light blue, sometimes white. This plant, in its young state, when only the radical leaves have appeared, constitutes the corn-sallad of our tables. It is cultivated in great abundance in all the kitchen gardens near the city, and is to be found plentifully in our markets, during nearly the whole year. Often met with in fields west of the Schuylkill, but most abundant between the upper-ferry bridge (near Lemon-hill) and Kingsess Gardens, along the course of the Schuylkill, and not far from its margins. In great profusion between Market street bridge and the upper-ferry, along the declivity of the high bank. Annual. June, July.

21. *IRIS*, Gen. pl. 97. (*Irides.*)

Corolla 6-parted, large; three of the lamina erect; the other 3 reflected, with or without a crest or beard on the inner side, and bear-

ing the stamina at their base. *Style* short ; *stigmata* 3, petaloid, oblong, large, usually arched. *Stamina* incumbent, covered by the stigmata. *Capsule* 3-celled, 3-valved, many-seeded. *Seeds* flat, triangular ; (in some species nearly round or spherical.) *Nutt.*

1. I. flowers beardless ; stem two-edged, many Virginica.
flowered, longer than the leaves ; leaves sword-shaped, interior segments of the stigma shorter, capsule oblong : with angular furrows. *Pursh.*
- I. hexagona, Walt. fl. car. 66.
Icon. bot. mag. 703. Jacquin ic. rar. 2. t. 223.
(*Pursh.*)

Virginian Iris. Common blue-flag, or fleur-de-luce.

A common and elegant plant, two feet high, well known to every person. Flowers purple, bottom of the outside petals yellow. Every where abundant on our river and creek-shores, in meadows, wet grounds, and the neighbourhood of water. Perennial. June.

2. I. flowers beardless, stem round, flexuose, of the versicolor.
length of the leaves ; leaves sword-shaped, interior segments of the stigma equal, capsule ovate ; angles obtuse. *Willd.*
Icon. bot. mag. 21. Dill. elth. t. 155. f. 187.
(*Pursh.*)

Resembling No. 1. at first sight. In similar situations, but rare. On the Delaware about four miles above the city. Perennial. June, July.

3. I. flowers beardless, stem solid, round, as long as prismatica,
the leaves ; leaves very narrow and long ; cap- Pursh.
sules long, in the form of a prism, narrowed at each end. *Pursh.*

Icon. bot. mag.

A very beautiful species, from 2 to 3 feet high, with pale purple flowers, first discovered and described by Pursh. Easily recognised by its long and very narrow leaves ; and in fruit,

by its prismatic capsule, which has given rise to the specific name. Quite local. Jersey. In a moist coppice, or shrubbery, on the margin of a sandy field, a quarter of a mile north of Kaighns' point, and about the same distance from the Delaware. Perennial. July.

22. *DILATRIS*, Pers. Gen. pl. 82. (*Irides*.)

Calix superior, petaloid, externally hirsute, deeply 6-parted, nearly equal, erect, and persistent. *Stamina* erect, a little unequal. *Style* declining; *stigma* minutely trifid. *Capsule* round, 3-celled, few-seeded; (3-6 in each cell.) *Nutt.*

Heritiera.

1. *D.* petals lanceolate, villose externally, pannicle corymbose, tomentose, leaves long, linear, naked. *Pursh.*

D. tinctoria.

D. Caroliniana Lam. illustr. 1. p. 127.

Anonymos tinctoria. Walt. fl. car. 68.

Heritiera Gmelini. Mich. fl. am. 1. p. 21.

Lachnanthes. Elliot.

con. Mich. fl. Am. 1. t. 4.

Red-root.

A downy, or woolly plant, about twelve inches high, with leaves like those of iris, and a terminal corymbose pannicle of flowers, petals downy outside, and yellow internally. Very rare, and confined to a single locality. Jersey. In a swampy meadow, near Cooper's creek, about a mile and an half from Cooper's ferry (opposite Market street). Root a delicate rose-pink; hence the common name. Perennial. July.

23. *SISYRINCHIUM*, Gen. pl. 101. (*Irides*.)

Calix petaloid, tube short, border divided like 6 flat petals. *Stamina*, for the most part, united below. *Capsule* roundish, triquetrous, pedicellate beyond the spathe; (laminæ in several species aristate.) *Nutt.*

1. *S.* leaves and scape simple, and somewhat bristly, *mucronatum*; spathe coloured; the odd valve ending in a long point. *Pers. ench.*

Sword-pointed Blue-eyed Grass.

From one to two feet high. Leaves long, bluish-green. Flowers delicate blue, smaller than in No. 2. In damp meadows of Jersey, common. Perennial. June, July.

2. *S.* scape simple, winged, spathes unequal. *Pers. anceps.*

S. gramineum, Lam. and Curtis.

S. Bermudiana, Mich.?

Icon. Bot. Mag. 464.

Two-edged Blue-eyed Grass.

A lower species than the preceding, having short leaves of a darker green colour. Flowers blue, larger than No. 1. In fields not unfrequent, particularly on the Woodlands. Perennial. July.

24. *HETERANTHERA*, Beauvois. Trans. Am. Philo. Soc. 4.
(*Narcissi.*)

Spathe 2 to 4 flowered. *Cor.* tubular; limb 6-parted, segments equal. *Stigma* tubular.

1. *H.* leaves somewhat roundish, kidney-form, *reniformis*, acute; spathe three or four flowered, smooth.

Leptanthus reniformis, Mich. fl. amer. 1. p. 25.

Heteranthera acuta, Beauvois, Willd. Vahl. and Pursh.

H. Peruviana, Pers.

H. Virginica, Pers.

Kidney-leaved Heteranthera.

An aquatic plant, with broad kidney-shaped floating leaves, and white stellate flowers. The leaves vary much in size, and are sometimes heart-shaped. The flowers are from two to four, and I have seen six, in number; and so very evanescent, that they are seldom seen; and the plant is generally supposed to flower but rarely. This, however, is not the case. I was of that opinion myself, till I watched by the side of a muddy stream, containing an abundance of the plant, from sun-rise till one o'clock. During this period hundreds of specimens opened

their flowers, which continued expanded during the noon-day heat, and then quickly closed. This singular plant is evidently augmenting its range in this vicinity. Within a few years past, it was located in two or three places; now it is plentifully found in numerous dirty shallow ponds, on clayey soil, on the Pennsylvania side of the Delaware, and I last summer detected it in profusion in Jersey. I am inclined to think it is not so circumscribed in its geographical range, as Mr. Nuttall says it is, for I have found it in small quantities in the state of Delaware, on the road from New Castle to Frenchtown, and also in Maryland, on the Baltimore road, about two miles from Wise's tavern, (23 miles from Baltimore). In the neighbourhood of Philadelphia, common; in the stagnant shallow waters, on yellow clayey soil, opposite to the entrance to the Woodlands, and close to the road, abundant; in ditches in the Neck, and on the road to Lemon-hill, frequent. In a ditch on the south side of the road from Market-street ferry to Cooper's creek, Jersey, and about three quarters of a mile from the ferry, in great profusion. Perennial. July, August.

25. SCHOLLERA. (*Narcissi.*)

Spathe 1-2 flowered. *Capsule* 1-locular.

gramineus.

1. *S.* stem slender, floating, dichotomous; leaves sessile, narrow-linear. *Mich.*

Leptanthus gramineus, Mich. fl. am. 1. p. 23.

Schollera graminifolia, Muhl. Cat.

Commelina dubia, Jacquin.

Anonymos aquatica graminifolia, Clayt. num. 814.

Icon. Mich. fl. am. t. 5. fig. 2.

Grass-leaved Schollera. *Yellow-flowered Channel-grass.* *Low-water Star.*

An aquatic submersed plant, looking like long grass, and generally mistaken for it, found every where in the greatest profusion, in the shallow water of the Schuylkill, but particularly abundant opposite to Belmont. It flowers at low-tide, or rather its flowers are expanded and visible at that time. They are of a beautiful yellow colour, and have a pleasing appearance when fully opened on the surface of the stream. I have collected many specimens of this plant, in company with Dr. Eberle, on the banks of the Conestogoe creek, near Lancaster, rooting and flowering in the earth. Perennial. Always in full flower about the 20th of July.

26. XYRIS, Gen. pl. 89. (*Gramineæ*.)

Flowers in an ovate-cylindric capitulum.—

Calix glumaceous, 3-valved, valves unequal, the outer coriaceous. *Corolla* 3-petalled, equal. *Stigma* trifid. *Capsule* 1-celled, 3-valved. *Seeds* very numerous, and minute.

Nutt.

1. X. heads closely imbricate; calix shorter than the bracteas, sparingly feathered; leaves long, sword-shaped, twisted. *Elliot.* *flexuosa*,
Muhl.

X. *Caroliniana*, Walt, Lam. and Poir.

X. *Jupicai*, Mich.

X. *anceps*, Pers.?

Waved-stemmed Xyris. Yellow-flowering Rush.

From ten inches to 2 feet high. Leaves linear, stem ancipital flexuose. Flowers yellow, in an imbricated terminal capitulum. In marshy meadows and wet places with sedge and other grass, common, particularly in Jersey. July.

27. RHYNCOSPHORA, Vahl, enum. pl. 2. p. 229. (*Cyperiodeæ*.)

Scales of the *calix* collected into a spike, the inferior ones empty. *Corolla* 0. *Style* persistent at base. Bristles at the base of the *Seed*.

1. R. Spikes in corymbose clusters; stem above, ^{alba} 3-angled; leaves linear channelled; bristles of the seed 10. *Ait. Kew.* 1. p. 127.

Schoenus albus, Mich. 1. p. 34.

White bog-rush.

From one to two feet high. Glumes whitish. In the bogs and marshy places of Jersey, every where very common. Perennial. July.

2. S. spikes clustered in corymbs, very distant, by ^{glomeratæ} pairs; stem obtuse-angled; leaves linear. *Vahl.*

Brown bog-rush.

This species, Mr. Elliot remarks, is obscure. In the neighbourhood of this city, it is one of our commonest inhabitants of bog-meadows, and the neighbourhood of ditches. From one to two feet high. Glumes of a chesnut-brown colour. Perennial. July and August.

28. CYPERUS, Gen. pl. 93. (*Cyperoidæ.*)

Spikelets compressed, distinct. *Calix* scales imbricated in two rows. *Corolla* 0. *Stigmata* mostly 3. *Seed* 1, naked. *Willd.* (*Stamina* 2 and 3. *Nutt.*)

minimus,
Thunberg.

1. *C. culm* capillary, spike solitary and in pairs; involucre one-leaved. *Thunb. prod.* 18.

This interesting plant was first discovered as an inhabitant of this country, about four years ago, in Monmouth county, Jersey, by Zaccheus Collins, Esq.

On the Pennsylvania and Jersey side of the Delaware, within three or four miles of this city. *Dr. Cleaver.*

flavescens.

2. *C. stem* obtusely 3-angled; umbels compound; spikelets crowded, lanceolate; glumes acute. *Elliot.*

C. culm triquetrous leafy. Culm leaves linear, acuminate, alternate, smooth, 2 or 3, umbel 3-leaved, simple, nearly 3 radiated. Involucrum 3 or 4 leaved, leaflets nearly alternate. Peduncles entirely simple, unequal and without bractes. Spikelets alternate 3 to 4, compressed, obtuse, 17-flowered, lanceolate, with a four-sided rachis. *Cal.* glumes 1-valved, obtuse, brown in the centre. *Stam.* 3, with persistent filaments. *Pistil.* bifid, red. *Seed* ovate, beardless, black, rough. *Muhl. Descrip. Uber. Gram. p.* 16.

Yellow Cyperus.

From 6 to 8 inches high. I have carefully compared the above species, with specimens in my possession*, labelled in

* From a portion of the Herbarium of the late Dr. Muhlenberg, which I purchased from his son.

the hand-writing of Willdenow and Schader, and it appears to me that there is a very considerable, if not specific distinction, between the European and American plants known by the name of *C. flavescens*. I have not, however, ventured to alter the specific name at present, but will leave it for future consideration. The European species is a much smaller plant, from an inch and an half to three inches high. The spikes are conglomerated; the spikelets ovate, not compressed. The form of the glumes likewise differs considerably. Sept.

3. *C. umbel* compound, rachis angular. Spikelets ^{bicolor.*} compressed, lanceolate, acute. Scales lanceolate, purple on the margin, obtuse. *Pistillum* long, bifid. *Seed* oval, ash coloured, *smooth*. *Involucrum* 3-leaved, much longer than the umbel. *Muhl. Descrip. Uber. gram. p. 17.*

This plant is described, as above, by Dr. Muhlenberg, as a "co-species." Spikes in a compound umbel. Spikelets lanceolate, reddish-purple and yellow. A larger species than No. 1. about ten inches or a foot high. In damp or wet places, on the borders of rivulets and springs, common. August.

4. *C. spikes* oblong loose; spikelets subulate, ex- ^{strigosus.} panding, a little remote; small involucrum generally wanting; partial umbels, with alternate rays. *Vahl. enum. pl. 2. p. 358.*

Mr. Elliot describes this species as attaining the height of three feet. In this neighbourhood I have never seen it beyond eighteen inches or two feet. Stem 3-sided, or angled. Leaves very long. Three or more of the leaves of the involucrum generally longer than the umbel. Very common on the margins of swamps and ditches, and not unfrequently in sandy corn-fields of Jersey, near meadow-ground. Perennial. August.

5. *C. culm* erect nearly naked, striated, smooth tri- ^{phymatodes,} quetrous. Radical leaves lanceolate, sheathing at ^{Muhl.} the base. *Umbel* simple or decompound. *Involucrum* 3-9 leaved, unequal, three leaves longer than the others, rough on the margin. Peduncles altogether unequal, compressed, spikelets two-rowed, linear, compound below, simple above, long 15-flowered, opposite, alternate, yellowish, with a linear bractea. *Calix* glume, 1-valved ob-

long, somewhat obtuse, green on the back, margin white, scarious, nerved. *Stam.* 3, with yellowish anthers. *Pistillum* trifid, white. *Seed* brown three-sided oblong, beardless. *Root* fibrous, terminating at the end in a globose tuber. *Muhl. Gram. Descrip. Uber. p.* 22.

C. repens, Elliot.

This beautiful species of cypress-grass, is, for the first time, described by Dr. Muhlenburg, in his "Descriptio Uberior Graminum." It grows to the height of three feet in this vicinity, but seldom exceeds two.

Whole plant glabrous; having only the margins of the involucre-leaves scabrous. Mr. Elliot is, I think, right, in his suspicion of the identity of his *C. repens* and the above species. A careful examination of the *C. plymatodes* of Muhlenberg (of specimens given me by the doctor), by Mr. Elliot's description, leaves no doubt in my mind, that the plants are the same. Whether the *C. tuberosus* of *Vahl.* as quoted by Pursh, is also identical with these two, I cannot say.

It delights in moist places. In the damp meadows, near rivulets, in Jersey, near Woodbury, and along the course of the Delaware, about five miles below Philadelphia. Not very frequent. Perennial. August.

- parviflorus.* 6. *C. culm* triquetrous nearly naked. Radical leaves linear-lanceolate, smooth, culm solitary. *Umbel* compound. *Involucrum* 3-leaved longer than the peduncles. Peduncles smooth, numerous (6—10) triquetrous. *Involucellum* three leaved, pedicels numerous, spikelets three, compressed, alternate, ovate, 8-flowered. *Calix* glumes ovate, acute, brown, nerved on the margins. *Stam.* 3, yellow. *Pistillum* trifid. *Seed* three-sided, white, beardless. *Root* creeping, terminating in tubers. *Spikelets* very often viviparous, and then cylindric, scales nerved, acuminate. *Muhl. Descrip. Uberior. Gram. p.* 19.

Readily distinguished by its small conglomerated pedunculated spikes, of a bay-colour. About one foot or eighteen inches high. Very rare. On the banks of Timber creek, Jersey, not more than a mile from the Woodbury road. Perennial. August, September.

autumnalis,
Mich.

7. *C. stem* round, naked, thick, pointed. Radical leaves broad and smooth. *Umbels* three-leaved, compound, terminal. *Involucrum* three-leaved,

short, folioles ovate, erect, nerved. Peduncles unequal, proliferous. Spikelets small, long-linear, many-flowered. *Calix* glumes lanceolate, brown. *Pistillum* trifid. Root fibrous. *Muhl. Descrip. Ueberior Gram.* p. 18.

Cyperus nodosus. Willd. ?

Cyperus juncoides, Lam. Illustr.

Cyperus complanatus, Willd. sp. pl. 1. p. 270.

Icon. Rott. gram. t. 17. f. 3. (Pursh.)

In similar places with the preceding, near this city, in Jersey. Mr. Nuttall; Dr. Stuve.

6. *C. capitulum*, somewhat globose, glomerated; *uncinatus*,
Pursh. spikelets linear about 8-flowered. Valves lanceolate, acuminate backward, involucre about two-leaved, very long. *Pursh.*

A very small plant flowering from an inch to two inches in height. On the gravelly banks of the Delaware, Jersey side. Mr. Nuttall. Biennial. June.

29. *DULICHIMUM*, Richard, Pers. ench. 1. p. 65. (*Cyperoides*.)

Spikes somewhat racemose, axillary. *Spikelets* linear-lanceolate, rather compressed. *Calicine* scales subulate, almost distichally sheathing. *Style* very long, bifid. *Involucellate* setæ long and scabrous. *Seed* acuminate by the base of the style. *Nutt.*

1. *D.* stem columnar, with leaves pointing in three *spathaceus*. directions, spikelets expanding, subulate, in axillary racemes. *Elliot.*

Cyperus spathaceus, sp. pl. 1. p. 289.

Scirpus spathaceus, Mich. 1. p. 32.

Pleuranthus floribundus, Richard, (Pursh.)

Schoenus angustifolius, Vahl. enum. 2. p. 225. (Pursh.)

Icon. Pluk. alm. t. 301. f. 1.

Sheathed Dulichium.

TRIANDRIA, MONOGYNIA.

Stem a foot or eighteen inches high. Leaves linear lanceolate. On the margins of rivulets, meadow-drains, and ditches, in Jersey, common; rather more rare this side of the Delaware. Perennial. July, August.

30. *MARISCUS*. *Vahl. enum. pl. 2. p. 372. (Cyperoideæ.)*

Spikelets few-flowered, almost imbricately aggregated in roundish or subcylindric heads. — *Common calix* of the spikelets 2-valved, (3 to 6, or 8-flowered). Flowers 1 valved, sub-imbricate. *Style* trifid. *Seed* triquetrous. *Nutt.*

echinatus. 1. *M. culm* obtusely 3-angled, glabrous; umbels simple; heads globose; spikes linear-lanceolate, 8-flowered, expanding. *Elliot.*

Schoenus umbellatus, Jacquin. collect. 1. p. 113.

Kyllingia ovularis, Mich. fl. am. 1. p. 29.

Scirpus echinatus, L. and Muhl. Cat. and Decrip. Uber.

Icon. Pluk. alm. t. 91. f. 4. Jacq. ic. rar. 1. t. 10? (Pursh.)

Rough Spiked Mariscus.

From one to two feet high. In wet sandy fields, and on sandy road-sides, in Jersey, not rare. Perennial. July.

retrofractus. 2. *M. culm* obtusely 3-angled, pubescent; umbels simple; heads obovate; spikes subulate, 1-flowered, reflexed. *Elliot.*

Scirpus retrofractus, Willd. sp. pl. 1. p. 304.

Icon. Pluk. alm. t. 415. f. 4. (Pursh.)

About a foot high. In cultivated fields, common. Perennial. July.

glomeratus. 3. *M. spikes* cylindrical, imbricated backward, involucre many-leaved. *Vahl.*

Mariscus glomeratus, Bart. Prod. fl. Ph. p. 18. and Muhl. MS.

Scirpus cyperoides, Lin. Mant. 181.?

S. cyperiformis. Muhl. Cat. and descrip. Uber. Gram.

S. lupulinus, Sprengel.

Mariscus umbellatus. Pursh, fl. Am. Sep. vol. 1. p. 59. ?

Kyllingia umbellata. Lin. suppl. 105. ?

From 6 to 14 inches high. In the sandy roads, wastes, and fields of Jersey, common. On the high sandy hills below Gloucester point (Jersey side); common. In a stony field, two miles above the falls of the Schuylkill, west side, frequent.

31. *SCIRPUS*, Gen. pl. 94. (*Cyperoideæ*.)

Calix scales chaffy, imbricated on all sides in a spike. *Corolla* 0. *Style* filiform, unbearded, deciduous. *Seed* 1, naked, or surrounded with involucellate setæ or threads. *Nutt.*

1. *S. culm erect*, naked, compressed, cespitose. *capitatus*. Base of the sheath retuse, mucronated, whitish. Spike terminal, ovate, obtuse. *Cal.* glume ovate, obtuse, brown, margin white. *Stam.* 3, anthers white. *Pist.* bifid. Seed shining, oval, smooth. *Muhl.*

S. ovatus. Willd.

S. tuberculosus. Mich. ?

S. capitatus. Schreb. and Swartz.

S. ovatus. Bar. Prod. Fl. Ph. p. 17.

From a careful comparison of original specimens from Schreber, Willdenow, and Swartz, in my Herbarium, with our native plant, I have added the above synonyms. It varies in height, but is generally a foot tall. Perennial. Common in muddy ditches and shallow ponds, every where. August.

2. *S. culm acicular*, two inches high, four angled, *trichodes*, purple at the base, cespitose. Sheath truncate, *Muhl.* obtuse. Spike terminal, ovate, acute, 1, 4, 6 flowered; bractea one, obtuse. *Cal.* glume, somewhat obtuse, brown on the margin, keel green. *Stam.* 3, white. *Pist.* bifid. Seed triquetrous, white or yellowish, shorter than the bristles.

Bristles white, 4, a little longer than the seed.

Root fibrous. *Muhl.*

S. capillaceus, Mich.

S. pusillus. Vahl. and Pursh quoting him.

S. acicularis. Pursh.

Not S. capillaceus, Elliot, who quotes Michaux's plant, which this really is.

This little plant has the habit of *S. acicularis* of Europe, and a comparison of it with genuine specimens of the foreign plant, convince me that the two are very closely allied. In Jersey, surrounding the pool containing *Utricularia ceratophylla* (see page 11) in great profusion, forming a kind of grass-plot. In other similar places in Jersey also frequent. More rare on the Pennsylvania side of the Delaware. Annual? June.

tenuis,
Willd.

3. *S. culm* naked, four angled, with a purple sheath below. Sheath truncated, nearly pointed. Spike terminal elliptic, acute at both ends, bibracteate. Bracteas ovate, obtuse, black with white margins. *Cal.* scales 1-valved, resembling a bractea, black, obtuse, margin white. *Stam.* 3. *Pist.* trifid, white. Seed roundish, brown, rough, two or more bristles at the base. Root horizontal, creeping. *Muhl.*

S. quadrangulatus. Muhl. Cat. ed. 1st. ?

S. tenuis. ditto. ed. 2d.

S. quadrangulatus. Bart. Prod. Fl. Ph.

S. tenuis. Muhl. Descrip. Uber. Gram.

Mr. Elliot describes a plant under the name of *Scirpus quadrangulatus*, for which he quotes Michaux's name and description. The size of the plant, and the spikes, which he says are an inch, or more long, together with other characters, sufficiently prove that it is different from Willdenow's and Muhlenberg's *tenuis*. The latter used to consider Michaux's plant under the name quoted by Mr. Elliot, and the *tenuis* of Willd. as identical, and so published them in the first edition of his Catalogue. In the second ed. he retains the name *quadrangulatus*, and that of *tenuis* as a synonym disappears. This leaves some doubt of the plant designated in the second edition, by the name *quadrangulatus*; probably it is the same described by Mr. Elliot under that name. In the *Descriptio Uber. Gram.* however, the *S. tenuis* is described, and the *quadrangulatus* is left out. The plant described in that work, as the *tenuis*, as quoted above, is the same as the European

plant under that name ; for I have accurately compared Willdenow's specimens, both with the above description, and the plant which grows in this neighbourhood. In bogs, common. Perennial. May, June.

4. *S. culm triquetrous*, a span high, nearly naked, planifolius, Muhl. cespitose, leaves nearly radical alternate, linear, flat, kneeled, scabrous, the lower ones broad, short nerved pointed, the rest, three-nerved, equal in length to the stem. Spike terminal, ovate, acute, 6-flowered, bracteated ; bractea yellowish, ovate, spit-pointed, longer than the spike. *Cal.* glume, ovate, pointed, yellowish, keel green. *Pist.* bifid and trifid. Seed brown, triquetrous, bristles 3, as long as the seed. *Muhl.*

This very strongly characterised, and pretty species, is easily recognised by its three-sided culm, flat, broadish, compressed leaves, and bay-coloured terminal spikes. In Jersey, near Woodbury, on the margins of the woods, bordering the road, very rare. May.

5. *S. culm 5 feet high, terete naked, attenuated to-* laeustris. *wards the point (Muhl.) ; spikes oblong, scales glabrous, mucronate : styles trifid ; umbels decompound ; culm terete. Vahl.*
Icon. fl. Dan. t. 1142.

Tall bull-rush.

From 3 to 12 feet high, and very thick. Along the margins of the Delaware, both sides of the river, common. Perennial. July.

6. *S. culm 4 feet high, naked, round, equal above (in* acutus, Muhl. *thickness), not attenuated, full of spots ; the spots brown, oblong. Spikes sub-lateral, pedunculated, numerous, oblong, sub-umbelled. Peduncles compressed, unequal. Cal. glume brown, keeled, mucronated, pubens. Stam. 3. Pist. bifid. Seed obovate. Muhl.*

Very like No. 5. easily distinguished, however, by the spots and spikes. Grows with it. Rare. Perennial. June, July.

7. *S. culm accutely 3-angled, sides concave ; spikes* Americanus, Pers. *ovate, lateral, sessile ; seed acuminate. Elliot.*

Scirpus triqueter, Mich. and Muhl. Descrip.
Uber. Gram.

Three-sided Rush.

Easily known by its simple acutely 3-angled culm, and one two or three sessile conglomerated spikes. This and the preceding species are worked into bottoms for fancy, or what are called, rush-bottomed chairs. Grows with No. 5, frequent, July, August.

- autumnalis*. 8. *S. culm* compressed, 2-edged; spikelets lanceolate. *Elliot*.
S. mucronulatus, Mich 1. p. 31.

Autumnal Scirpus.

A very pretty species from 6 to 10 inches high, readily identified by its lanceolate deep brown spikelets. The numerous stems radiate from the root, in a beautiful manner. In sandy roads and fields, in Jersey, near Kaighn's point, abundant. Annual. ? August.

- capillaris*, L. 9. *S. culm* bristle-form, two inches, triquetrous, nearly naked, cespitose. Leaves sub-radical, alternate, bristly, sheathed at the base. Sheath hairy at the mouth. Spikes lateral near the point of the culm, 1—4, one sessile, the rest pedunculated, involucre 1—2 leaved. *Calix* glumes 1-valved, the lower ones awl-shaped, the rest obtuse, brown-purple, the keel green or white. *Stam.* 3. *Pistillum* trifid. Seed nearly triquetrous, white, beardless, somewhat rough, transversely nerved. Root fibrous, *Muhl*.

S. capillaceus, *Elliot*. ?

This plant, so accurately described above, has at first view the appearance of No. 2. It is also allied, as Dr. Muhlenberg remarks, to *Scirpus autumnalis*, and near to *Scirpus capillaris*, of Swartz. It inhabits different places from No. 2, being generally found in sandy roads and wastes, and never, or seldom, near water. Dr. Muhlenberg describes it as two inches high. Though generally it does not exceed that height, I have specimens in my herbarium six inches tall. Compared with Willdenow's specimens of the European plant in my possession, these do not, however, differ, except in size. Jersey, frequent, this side of the Delaware, rare. Annual. July.

10. *S. culm* exactly triquetrous, leafy at the base. ^{macrosta-}
 Leaves linear-lanceolate, nerved, keeled smooth, ^{chyos.}
 longer than the culm, sheathing at the base, trans- ^{Muhl.}
 versely nerved. Ligula none. Sheath smooth,
 striated. Involucrum long unequal, 3-leaved.
 Spikes sessile, and pedunculated, 6 or 12, scales
 ovate. *Muhl.*

S. maritimus β *macrostachyos*, Mich.

S. robustus, Pursh.

S. maritimus, Elliot.

From three to four feet high, stem acutely 3-angular. Spike-
 lets very large, and of a light brown, or what painters call sienna
 colour. This plant, is, as Pursh remarks, certainly specifi-
 cally distinct from *S. maritimus*. I have specimens in my
 herbarium of the latter plant, marked by Willdenow and Schra-
 der, and have accurately compared them with the American
 plant. On the marshy shores of the Delaware, about two
 miles below Gloucester point. Very scarce. Perennial.
 August.

11. *S. culm* three-sided, striate, three feet high leafy. ^{atrovirens,}
 Radical leaves lanceolate carinated long, those of ^{Willd.}
 the culm alternate lanceolate, carinated scabrous. ^{enum.}
 Sheath striate smooth transparent. Panicle ter-
 minal proliferous involucrate. Involucre 3-leaved,
 margin and carina, scabrous. Branches of the
 panicle or peduncles unequal, from 3 to 6, pedi-
 cels 12. Spikelets glomerated numerous (12)
 ovate acute reddish-brown. *Calix* glumes 1-
 valved imbricate ovate acute reddish-brown cari-
 nated, pubescent. *Stam.* 3. *Pistillum*, trifid.
 Seed triquetrous white very small, bristles short,
 4. *Muhl.*

From one to three feet high. In bogs near Woodbury,
 Jersey; and near the spot where *Cyamus flavicomus* grows
 in the Neck, this side of the river. Perennial. July, August.

12. *S. culm* naked, erect, a little channelled, cespitose, ^{debilis.}
 sheathing at the base. Spikes lateral, sessile, ovate,
 1—3—9, many flowered, without bractees. *Calix*
 glume ovate, obtuse, and acuminate, margin
 white, keel green. *Pistillum* bifid. Seed nearly
 triquetrous or obovate, shining black, rough or

dotted. Bristles 3—5, white, hispid a little longer than the seed. *Muhl.*

S. lupulinus, Smith.

Near to *S. triquetrum*, Swartz, (Muhl.)

The plant I have found in this neighbourhood is suggested by Mr. Collins to be a variety of *Scirpus debilis*; and on comparing it with the latter plant, a specimen of which I have received from that gentleman, it does really appear to be so. It is not, perhaps, the *S. debilis* of Pursh; or if so, it is imperfectly described by him; neither does it appear to be the plant intended by Mr. Elliot, under that name, referring to the *debilis*, Muhl's Cat. Dr. Muhlenberg seems to describe it, under his *debilis*; for his description extends evidently to two varieties, if not species. I have, however, for the present quoted his characters, and referred my plant to his name. In the same bog where *Furienia squarrosa*, and *Eriophorum polystachium* grow, Jersey. August.

32. *TRICOPHORUM*, Pers. ench. 1. p. 69. (*Cyperoideæ*.)

Spikelets ovate, imbricate on all sides, with scales. Bristles of the *seed* hairy, longer than the glumes, 6 in number.

cyperinum. 1. *T. culm* obtusely 3-angled, leafy; panicle supra-decompound, proliferous; spikelets generally by threes.

Eriophorum cyperinum, sp. pl. 1. p. 313.

Scirpus Eriophorum, Mich. 1. p. 33.

Scirpus thyrsiflorus, Willd.

Brown Cotton-grass.

From three to four feet high; sometimes five, easily distinguished when in fruit, by its large, loose, brown or fulvous cottony panicles. In bogs every where very common. Perennial. In July and August.

33. *ERIOPHORUM*, Gen. pl. 95. (*Cyperoideæ*.)

Glumes chaffy, imbricate on all sides. *Corolla* 0. *Seed* 1, surrounded with very long wool.

1. *E. culm terete*, leafy ; leaves flat ; spikes clustered, nearly sessile, shorter than the involucre. Virginicum.

Vahl.

Icon. Pluk. alm. t. 299. f. 4.

Virginian Cotton-grass.

Two feet high. Identified with facility, when in fruit, by its faint copper-coloured tufts of cotton. In boggy grounds, common. On the Woodlands, abundant. Perennial. July.

2. *E. culm leafy*, terete ; leaves triquetrous, channelled, spikes pedunculated, seeds ovate. angustifolium.
Roth.

Willd.

Icon. Eng Bot. 564.

Easily distinguished from No. 2. by its pedunculated spikes, and white cotton ; but extremely like *E. polystachium*, specimens of which I have, labelled by Willdenow. I erroneously supposed this plant, the polystachium β . of Michaux, and so called it in my Prodrum. Its triquetrous leaves, however, shew that it is the plant designated as *E. angustifolium*. In a deep spongy swamp or bog, surrounded with woods ; about a quarter of a mile south-east of Kaighn's point, Jersey. Rare. Perennial. May.

34. *FUIRENA*, Gen. pl. 90. (*Cyperoideæ*.)

Spikelets composed of mucronate scales imbricated on all sides. *Corolla* 0. *Seminal involucre* broad, chaff-like, scales cordate, (stipitate) often awned. *Stigmata* 2 and 3. (*Seed* triangular). *Nutt.*

1. *F. leaves narrow*, lanceolate, short ; heads many, squarrosa.
(5—6) clustered ; valve of the corolla cordate, ovate, with short awns. *Elliot.*

Rough-headed Fuirena.

A beautiful grass, also quite local, though abundant where found. Grows in the same spot specified as containing *Eriophorum angustifolium*. Perennial. ? July.

35. *CENCHRUS*, Gen. pl. 1574. (*Gramineæ*.)

Involucrum laciniate, echinate, 3—4 flowered.

Calix 2-valved, 2-flowered, 1 fertile the other sterile. *Style* bifid, (sometimes 2).

echinatus.

1. *C. culm ancipital*, leafy, branched. Leaves lanceolate, nerved, smooth. Sheath smooth. Spike lateral and terminal. *Involucrum*s alternate lanceolate echinate pubescent, villous internally. *Cal.* smooth 2-valved, 5-nerved, 1, 2, 3, flowered. *Cor.* glume 2-valved, longer than the calix. *Stam.* 3. Seed one round. Muhl.

Cenchrus tribuloides. Bart. Prod. Fl. Ph.

Cockspur-grass. Hedge-hog-grass.

There is some confusion between this species and *C. tribuloides* of Michaux. The plant just described, I have till lately mistaken for the *C. tribuloides*, and so called it in my *Prodromus*; but, having since compared it with the *C. echinatus* of Willdenow (a specimen of which I have in my herbarium, marked with his own hand); and having received a specimen of the *C. tribuloides*, from Mr. Nuttall, which he collected on the sea-shore, Cape May, I find that the plant growing in this neighbourhood is the *echinatus*, though the spike is neither so long nor so dense as in the European plant. The *C. tribuloides*, is, I suspect, confined altogether to the sea-coast. The most striking discrepancy of these two similar species, is the white pubescence on the margin of the sheath, and the dense white villous glumes, in the *C. tribuloides*, while the *C. echinatus* is destitute of both. The plant described by Mr. Elliot under the name of *tribuloides*, appears to be the same brought by Mr. Nuttall, from Cape May. I have already said this is not identical with the species growing so abundantly in the vicinity of this city, on the Jersey side of the Delaware, unless its maritime situation should create the villous pubescence, which from analogy we may admit to be probable. Close to Camden, not unfrequent. In the sandy road from Kaighn's point towards the Haddonfield road; and on the high sandy exposed banks of the Delaware, between Kaighn's point and the ferry-house, opposite to Gloucester point; abundant. Annual. August.

ORDER II. DIGYNIA.

36. MUHLENBERGIA, Schreber. Gen. pl. 103. (*Gramineæ.*)

Calix very minute, truncated, 2-valved, unequal. *Corolla* 2-valved, hairy at the base, exterior valve terminating in a slender awn. (Style 1?) *Nutt.*

1. *M. culm* compressed smooth branched, jointed, ^{diffusa.} joints smooth. Branches alternate spreading or erect. Leaves linear-lanceolate, smooth, keeled, dotted, transparent. Ligula obsoletely ciliated. Sheath striated, pubescent at the mouth. Panicle narrow divided thread-like, peduncles and pedicels rough. *Cal.* 1-valved, small, lateral, 1-flowered, persistent. *Cor.* 2-valved, one of the valves awned, the awn terminal, purplish rough, a little longer than the corolla. *Stam.* 3, anthers white, as long as the corolla. *Pist.* 2, styles white, stigmas feathery purplish. Seed oblong, acuminate. *Muhl.*

Dilepyrum minutiflorum, Mich.

Spreading Muhlenbergia.

In dry fields not uncommon. Near the Buck-Inn, on the Lancaster road, abundant. Perennial. July and August.

2. *M. culm* erect three feet high simple jointed, ^{erecta,} joints pubescent. Leaves lanceolate alternate nerved. Ligula short, serrated at the apex. Sheath decurrent, striated, smooth. Panicle narrow, simple. *Cal.* lateral, linear, 1-valved, minute. *Cor.* 2-valved, green, one valve 9-nerved, pubescent with a terminal awn, three times the length of the corolla; the other smaller bifid at the point, grooved on the back, carinate internally, awned at the base. *Stam.* 2, filaments white,

anthers white. *Pist.* 2, white, plumose. Nectary white 2-leaved gibbous. Seed oblong acuminate transparent. *Muhl.*
Dilepyrum aristosum, Mich.

Erect Muhlenbergia.

In the woods of Jersey, near Haddonfield and Woodbury, rare. Perennial. June

37. *TRICHODIUM*, Mich. fl. am. 1. p. 41. (*Gramineæ.*)

Calix 2-valved, valves equal acute, keel somewhat hispid. *Corolla* shorter 1-valved, awnless. *Stigmata* nearly sessile, a little hispid. *Muhl. Desc. Ub. Gr.*

- laxiflorum.* 1. T. culm erect; leaves and sheath scabrous; panicle diffused, with the branches trichotomous; flowers fasciculate, terminal. *Elliot.*
Cornucopia hyemalis, Walt. fl. car. 73.
Agrostis scabra, Willd. sp. pl. 1. p. 370.?
Agrostis laxa, Schreb. gram.
 Icon. Mich. fl. Amer. 1. t. 8.

Loose-flowered Hair-grass.

A very beautiful and delicate grass. In dry fields and grassy places, common. Perennial. May.

- scabrum.* 2. T. culm smooth a span or half-foot high, geniculate at the base, branched; the branches erect. Leaves linear-lanceolate, striate, scabrous on the margin, flat. Ligula white bifid acute. Sheath striate smooth. Panicle diffuse very much branched. Branches of the panicle verticillate, divaricate, pedicels near the calix thick, scabrous, flexuose. *Calix* 2-valved, valves unequal 1-flowered larger than the corolla. *Corolla* 1-valved, white awnless smooth, rarely awned. *Stam.* 3, anthers white. *Pist.* 2, white, stigmas hispid. Seed acuminate deciduous. *Muhl.*

Agrostris scabra. Willd.

This beautiful grass is very common on the margins of, and roads through woods, and flowers two months later than the preceding. All the specimens I have collected, are taller than described by Dr. Muhlenberg. Perennial. July to October.

38. *LEERSIA*, Swartz, Gen. pl. 105. (*Gramineæ.*)

Calix 0. *Corolla* 2-valved, closed: valves compressed, boat-shaped, without awns. (Stamens 1, 2, 3, and 6.) *Nutt.*

1. *L.* panicle loose, with scattered branches, small; *Virginian:* flowers appressed; monandrous, scabrous; the keel of the glumes sparingly ciliate. *Elliot.*

L. oryzoides, Swartz. 20.

Virginian Rice-grass. White-grass.

About two or three feet high, very slender. On borders of swampy woods and near shaded rivulets, in Jersey; also in the woods back of the Blue-bell Inn, Darby-road. Rare. Perennial. August.

2. *L.* culm 5 feet high jointed very scabrous, joints *oryzoides*, pubescent. Leaves lanceolate nerved ciliated scabrous. Ligula short retuse. Sheath striated, carina hispid backward. Panicle diffuse; branches of the panicle spreading, the lower ones in fours, the rest in pairs and solitary, inflated at the base, flexuose. Pedicels adpressed. *Cor.* glume bivalved compressed. *Stam.* 2 and 3 white. *Pist.* 2.

Cut-grass. Sickle-grass.

On the margins of ditches, field-drains, and rivulets, in Jersey and on this side of the Delaware. Not very common. Perennial. August.

TRIANDRIA, DIGYNIA.

39. AGROSTIS, Gen. pl. 111. (*Gramineæ.*)*Calix* 2-valved, 1-flowered, valves acute.*Corolla* 2-valved. *Stigmata* longitudinally hispid or plumose.

stricta.

- 1.
- A.*
- panicle long upright, corollas shorter than the calix.
- Willd.*

Upright bent-grass.

In meadows and on the borders of woods, not uncommon. Perennial. June.

Mexicana.

- 2.
- A.*
- panicle oblong compact, calices and corolla acuminate, nearly equal, awnless.
- Willd.*
-
- A. lateriflora*
- ? Mich.

Mexican Bent-grass.

Root creeping, jointed or soboliferous. One of my specimens of this grass was sent to me by Dr. Muhlenberg, under the above name, with *A. lateriflora*, Mich. as a synonym. In his *Descrip. Uber. Gr.* he seems not to be certain of this, and says "compare them." Pursh has both plants, with his mark v. v., and his particular remarks on the *A. lateriflora*, would seem to indicate a certainty in his opinion, of the difference of these plants. On the banks of the creeks in Jersey, and this side of the Delaware. Common. Perennial. September.

decumbens,
Gaudin,
&
Muhl.

- 3.
- A.*
- culm decumbent; panicle pyramidal; branches semi-verticillate, horizontally expanding: flowers crowded; corolla half the length of the calix.
- Elliot.*

Bastard Fiorin-grass.

In the damp fields and borders of woods and meadows near Woodbury, Jersey, not rare. Mistaken there for Fiorin-grass. Dr. Muhlenberg thinks this plant hardly different from the *A. stolonifera* of Thouin. Perennial. June, July.

alba.

- 4.
- A.*
- culm erect striate smooth, geniculate at the base, not stoloniferous, simple. Leaves linear-

lanceolate, nerved, scabrous. Ligula white acuminate, apex 4-fid. Sheath striate smooth. Panicle at length diffuse. Branches verticillate. *Cal.* 2-valved acute equal carinated, carina rough, green. *Cor.* 2-valved less than the calix, white, smooth at the base, valves unequal, awnless. *Stam.* 3, anthers yellow. *Muhl.*

A. alba, Schrader.

A. hispida, Willd.

Herds-grass.

Wild in woods, and also much cultivated. Dr. Muhlenberg hints that this species may be identical with *A. dispar*, Mich. and *A. alba*, and *vulgaris*, of the Hortus Kewensis.

5. *A. culm erect*; panicle finally diffuse purplish. *vulgaris*. Branches verticillate, and the little branches scabrous. *Cal.* 2-valved equal glabrous. *Cor.* 2-valved smaller than the calix. *Muhl.*

Red-top.

Very frequent in similar places with No. 4 in Jersey, and also in the Neck, this side of the river. Perennial. June.

6. *A. culm erect*, terete, jointed, joints smooth. *landestini*, *Muhl.* Leaves linear very long, nerved, stiff, somewhat rough on the margins, glaucous. Ligula none or small. Sheath long, hairy at the mouth. Panicle narrow terminal and lateral, hidden, and often somewhat spike-formed. Branches alternate, with the smaller ones smooth. *Cal.* 2-valved, valves white unequal, carinated smooth. *Cor.* 2-valved, twice the length of the calix.

Perhaps *Agrostis aspera*, Mich.

Varies in size from nine inches to two feet. In this vicinity it is of low stature, seldom exceeding nine or ten inches; but I have seen it on the borders of the Conestogoe creek, near Lancaster, two feet high. On the high gravelly banks or hills, near the canal road, and the Reservoir or Basin. Very rare. Perennial. September.

TRIANDRIA, DIGYNIA.

40. CINNA, L. (*Gramineæ.*)

Calix 2-valved, compressed, nearly equal.
Corolla linear, compressed, shortly stipitate,
 naked at the base, dorsal valve including the
 inner, with a small awn near the summit.
Stamen 1, *style* 1. Seed somewhat oblique.
Nutt.

arundinacea, 1. *C.* panicle large weak; leaves broad-linear smooth,
 one valve sub-awned below the apex, stem gla-
 brous. *Pursh.*

Agrostis Cinna, *Pursh.*

Reed-like Cinna.

Near the ferry-house opposite Gloucester point, and at the
 mouth of Timber creek, Jersey. Not common. Perennial.
 August.

41. CALAMAGROSTIS, Roth. (*Gramineæ.*)

Calix 2-valved, 1-flowered, valves acute or
 acuminate. *Corolla* 2-valved, mostly short-
 er than the calix, surrounded with a pubes-
 cence of long wool at the base, the dorsal
 valve with or without awn. *Nutt.*

colorata,
Sibthorp.

1. *C.* panicle oblong swelled compact, glume acumi-
 nated. *Pers. ench.*

Arundo colorata, Ait. Hort. Kew. 2. 1. p. 174. and
 Smith, Fl. Brit. 174.

Phalaris arundinacea, Lin.

Phalaris Americana, Elliot.

Icon. Engl. bot. 402.

Coloured Calamagrostis, or Reed-grass.

A beautiful grass, easily known by its long dense purplish-
 red panicles. On the bank walk from the Navy Yard to
 Gloucester point, frequent; also on the bank walk from Gray's
 ferry to Kingess gardens, in profusion. Sparingly elsewhere.

A beautiful variety with white, green and blue striped leaves, is cultivated in the gardens, and known by the names Ladies traces ; ribbon-grass, &c. On Mr. Pratt's grounds, at Lemon-hill, it is abundant, but I have never seen more than a slight approximation to these stripes, in the wild plant. Perennial. July, August.

2. *C. panicle oblong, calices one-flowered, lanceolate, cinnoides, carina rough pubescent, corolla awned at the back.*

Arundo cinnoides, Muhl.

A. canadensis, Mich. and Pursh.

A. confinis, Willd. enum.

Reed-like Calamagrostis.

In bogs and at river sides. From three to four feet high. Rather scarce. Near the spot I have particularised as the habitat of *Iris prismatica*. Perennial. August.

42. *ANTHOXANTHUM*, Gen. pl. 58. (*Gramineæ.*)

Calix 2-valved, 1-flowered. *Corolla* 2-valved ; valves unequal, acuminate, awned from near the base. *Stamina* 2. *Nutt.*

1. *A. spike oblong, ovate ; flowers on short peduncles, longer than awn. Sp. pl. odoratum, Icon. Fl. Dan. 666. Engl. bot. 647.*

Sweet-scented Vernal-grass. Sweet Anthox.

It is the fine odour of this grass, which gives to hay, its sweet scent. Naturalized. In meadows and grass-plots, common. Perennial. May.

43. *CRYPsis*, Lamarck.

Calix 2-valved, oblong, 1-flowered. *Corolla* 2-valved, longer than the calix. *Stamina* 2 or 3. (Spike surrounded at the base by the sheath of the leaf ; or the flowers collected into a leafy capitulum.) *Nutt.*

Virginica,
Nuttall.

C. spikes oblong, thick, and lobed, generally sheathed by the inflated vaginæ of 2 short leaves ; culm procumbent, geniculate, nodes numerous, approximating ; leaves involute, rigid, and pungent ; calix carinate, shorter than the corolla.

Leaves short, filiform subulate, rigid and divaricate, almost entirely smooth, and somewhat glaucous ; culm decumbent branched from the base ; spikes closely sheathed, axillary and terminal, about an inch long, sometimes oblong-ovate, lateral spikes often very short and roundish, rachis thick and angular at the base ; calix nearly equal, compressed carinate, acute, shorter than the corolla, ciliate on the carina (seen through a lens) ; corolla valves often rather unequal, inner valve somewhat obtuse, naked at the base ; style exserted, long. *Nutt.*

I first detected this plant growing in the streets of the suburbs, and vacant corner lots of this city, and gave specimens, in 1816, to Mr. Collins, and subsequently to Mr. Nuttall, who has described it as above. Since the year 1816, I have found it more abundantly in this neighbourhood, on the turnpike road-sides, and in the crevices of pavements and stony ways. It comes very near to *Criopsis aculeata*, of Europe, compared with specimens in my herbarium ; but the leaves are not pungent. It is, however, a distinct species, but is certainly not *Agrostis virginica* of Willd. and Pursh ; for the specimens in my possession of this latter plant, marked by Schrader, are not spiked ; but bear their flowers in a dense narrow panicle. Indeed it is entirely unlike the *A. virginica*, in every respect ; as Mr. Nuttall has acknowledged, on seeing my specimens, since the printing of his work, and, though the specific appellation *Virginica*, was added by Mr. Nuttall, under the impression that the plant in question, and *Agrostis Virginica*, were the same, I have not thought it expedient to change it. Probably introduced. Perennial. July, August.

44. PHLEUM, Gen. pl. 128. (*Gramineæ.*)

Calix 2-valved, 1-flowered, valves linear with a retuse point, prominently carinate, each terminating in a cusp (or short awn). *Corolla* included within the calix. *Nutt.*

pratense.

1. *P.* spike cylindrical, very long, ciliate ; stem erect. *Sp. pl.*

Icon. Host. Gram. 2. t. 31. (Pursh.)

Timothy-grass.

A well known and important grass, not a native, but now completely naturalized in this country. Every where among grass, particularly in meadows, quite common. Perennial. June, July.

45. *ALOPECURUS*, Gen pl. 102. (*Gramineæ*.)

Calix 2-valved, 1-flowered. *Corolla* 1-valved, awned from the base.

1. *A. culm erect*, glumes oval, obtuse, the awn subaristatus. scarcely exerted. *Mich.*

A foot high, leaves smooth, spike very long. On the margins of pools, in Jersey, near this city. Rare. Perennial.

46. *PANICUM*, Gen. pl. 107. (*Gramineæ*.)

Calix 3-valved, exterior valve often very small, 1-flowered, (mostly with the rudiments of a sessile, neutral or masculine floret.) *Corolla* (hermaphrodite) 2-valved, cartilaginous and persistent. *Nutt.*

1. *P. spikes alternate and verticillate by pairs*; spike-lets subdivided; glumes awned hispid; rachis five-angled. *Sp. Pl.*

P. hirtellum, Walt.

var. α muticum, valves of the calix without awns.

β. aristatum, just described.

Cocks'-foot Panicum.

A strong rough plant two feet high, with dark brown coloured panicles. In damp places, very common. Perennial. Flowers all summer.

2. *P. culm assurgent, geniculate, very glabrous*; panicle terminal and axillary, diffuse and expanding; sheaths of the leaves inflated. *Elliot.*

P. dicotomiflorum, Mich. ?

P. miliaceum, Walt.

Water-panic-grass.

Decumbent at the base. Always found near water. On the borders of the Schuylkill common. Annual. August.

rostratum,
Muhl.

3. *P. culm* compressed, sheathes hairy, ancipitous ; panicles racemose, pyramidal, with the flowers appressed ; branches frequently divaricate. *Elliot.*
P. anceps, Mich.

Two-edged panic-grass.

Two or three feet high. On the borders of ditches, and field drains, and other wet places, common. Perennial. August.

virgatum.

4. *P. culm* and leaves very glabrous ; panicle diffuse, very large ; glumes acuminate, smooth. *Elliot.*
P. coloratum, Walt.

A beautiful grass from three to six feet high. On the road from Kaighn's point to the Woodbury road (Jersey), along the fences ; also along the fences of fields, near Woodbury ; tolerably frequent. Perennial. August and later.

dichotomum.

5. *P. panicle* very simple few flowered ; glumes obovate, leaves linear lanceolate divaricate smooth, base and neck bearded, stem dichotomous. *Pursh.*

Under a foot high. In dry woods frequent, particularly in Jersey. July and August.

capillare.

6. *P. panicle* capillary very much branched, loose ; flowers small, all pedicellated, solitary oblong-oval acuminate, awnless. Leaves and sheathes very hairy. *Mich. Willd.*

Said by Pursh to vary in height from 3 inches to 5 feet. With us it seldom attains a greater stature than eighteen inches. In sandy fields, particularly in Jersey, quite frequent. Annual. June and July.

minor.

- β. *culm* smooth, half a foot high, nearly purple, jointed, joints white. Leaves linear-lanceolate pubescent and hairy. *Ligula* white, beard-form. Sheath

hairy, panicle erect. Inferior branches of the panicle opposite, the upper alternate. *Cal. Cor. Stam. Pist. Seed* as in the preceding. *Muhl.*

Very common; and rather more I think than a variety.

7. *P.* panicle with the lateral racemes simple; leaves latifolium. ovate-lanceolate, hairy at the throat. *Sp. pl.*

8. panicle few flowered enclosed in the sheath. *Willd.* clandestinum.

A foot high. In dry shady places, common. Perennial. All summer.

8. *P.* panicle expanding, few flowered; flowers very pauciflorum, large; leaves narrow lanceolate, ciliate at the Elliot. base; sheaths hairy. *Elliot.*

In wet places, not uncommon. Perennial. May.

9. *P.* culm half a foot high branched below, slender, verrucosum, geniculate, nodes smooth inflated. Leaves alter- Muhl. nate remote linear-lanceolate, spreading nerved, smooth. Sheath long striate, hairy or ciliate on the margin. *Ligula* scarcely any, beard form. Panicle terminal spreading. *Cal.* 3-valved, one more acute, two ovate acute equal very green *verrucose* (not pubescent) three nerved. *Cor.* equal. *Stam.* 3, anthers reddish-brown. *Pist.* 2, blackish. Seed white. *Muhl.*

In Jersey, about a mile from the river, opposite the city. Rare. August.

10. *P.* culm two feet high, erect smooth compressed, agrostoides. jointed, joints smooth. Leaves lanceolate alternate carinated smooth long. Sheath striate smooth. *Ligula* obsolete short. Panicles terminal and lateral, branched. *Cal.* 3-valved, base bristly, the third valve short acute, the rest equal acuminate three nerved, 1—2 flowered, smooth, finally purple. *Cor.* 2-valved, less than the calix. *Stam.* 3,

TRIANDRIA, DIGYNIA.

anthers black. *Pist.* 2, black purple. Seed ash-coloured and white, smooth. *Muhl.*

A tall purplish grass. Rare. In watery places. Near to the ferry house opposite Gloucester point, Jersey. Perennial. August.

angustifolium,
Elliot.

11. *P.* panicle few-flowered, expanding; leaves scattered, linear-lanceolate, glabrous underneath, sparingly ciliate. *Elliot.*

In dry places, Jersey, rare. June:

pauciflorum,
Elliot ?

12. *P.* panicle expanding, few-flowered, flowers very large; leaves narrow lanceolate, ciliate at base; sheaths hairy. *Elliot.*

Also in Jersey, but more common. Perennial. May.

ensifolium,
Bald.

13. *P.* plant small, glabrous, leaves ovate-lanceolate, very acute, expanding; panicle small, few-flowered; flowers somewhat ovate, pubescent. *Elliot.*

About 12 inches high. On the high gravelly hills, near to Lemon-hill (canal road), Schuylkill. Perennial. May.

multiflorum,
Elliot ?

14. *P.* culm erect, simple, glabrous; leaves broad, lanceolate, hairy at base; panicle much branched, expanding; flowers small, pubescent. *Elliot.*

About two feet high. Leaves long and broad. Rare. Jersey, in shaded places. Perennial. May, June.

strictum,
Pursh.

15. *P.* panicle solitary shorter than the terminal leaf; branches simple flexuose, glumes alternate pedunculate obovate, turgid; valves numerous striated acute, leaves linear upright gradually becoming very acute, striated and scabrous above, hairy underneath, with long hairy sheaths. *Pursh.*

About eight inches or a foot high. On the banks of the Delaware, opposite Philadelphia, not uncommon. Annual. July.

47. *Pennisetum*, Richard.

Involucrum composed of many setæ (or bristles.) *Calix* 2-valved, valves unequal, 2-flowered; one of the flowers hermaphrodite, the other masculine (or rarely neuter) both sessile. (Flowers spiked, polygamous.) *Nutt.*

1. *P.* spike cylindrical: involucels two-flowered, ^{glaucum.} hairy, fasciculate; seeds crossed by undulate wrinkles. *Sp. pl.*

Panicum glaucum, Willd.

Very common, flowering all summer. Annual.

2. *P.* spike terete sub-compound, undivided, ^{viride.} involucels bristly small, seed nerved. *Willd.*

Panicum viride, Willd.

Not common, and seems to be introduced. Annual. July.

3. *P.* spike verticillate, the little racemes in fours, ^{verticillatum.} involucels one-flowered two-bristled, culm diffuse. *Willd.*

Panicum verticillatum, Willd.

This species also seems to be introduced, common. Mr. Elliot has given *Panicum alopicuroideum*, of Walt., as a synonym to No. 1., and Pursh adds it to the present species, saying, he has seen it in the herbarium of Walter. Annual.

48. *Digitaria*, Haller, Richard.

Calix 2 or 3-valved, concave; exterior valve minute, or none, second variable, the innermost as long the corolla. *Corolla* 2-valved, oblong-ovate, terete, and awnless. *Style* very long. *Nectary* cleft. *Nutt.*

1. *D.* spikes expanding; spikelets 2-flowered; one ^{sanguinalis.} sessile; stem decumbent, creeping.

Panicum sanguinale, L.

Syntherisma præcox, Walt.

Paspalum sanguinale, Lam. Ency. 5. p. 33.

Icon. Curt. Lond. 4. t. 7.

Purple Crab-grass.

Very common every where in cultivated ground. Annual.
All summer.

filiformis,
Muhl.

2. *D.* culm erect, leaves somewhat glabrous; spikelets erect, 3-flowered; flowers all on footstalks; valves of the calix nearly equal. *Elliot*.

D. pilosa, Mich.?

Panicum filiforme, Herb. Lin. according to Smith; scarcely different from *Milium panicum*, Swartz, (Muhl.)

Paspalus filiformis, Flugge.

Syntherisma serotina, Walt.?

Panicum debile, Desfontaines.

Erect Digitaria.

A more delicate grass than the preceding; and more scarce. Annual. August, September.

49. *PASPALUM*, Gen. pl. 107. (*Gramineæ*.)

Calix 2-valved, equal, mostly orbicular. *Corolla* 2-valved, of the same figure and magnitude. *Stigma* plumose. *Nutt*.

setaceum,
Mich.

1. *P.* culm erect; leaves and sheaths villous; spikes generally solitary, flowers in 2 rows.

P. pubescens, Muhl. *Descrip. Ueberior Gram.*

P. dissectum, Walt.

Slender Paspalum:

A very slender and delicate grass, from 10 inches to a foot high. In Jersey, not uncommon. Annual. June, July.

2. *P. culm erect*; leaves short, very glabrous; ^{laeve,} spikes alternate; flowers 2-rowed, glabrous, ^{Mich.} large.

P. lentiferum, Lam. Ency. 5. p. 30.

P. membranaceum, Walt.

P. lentifer, Flugge.

Occurs about as frequently as the preceding. August.

ARISTIDA, Gen pl. 125. (*Gramineæ.*)

Calix 2-valved, 1-flowered. *Corolla* 1-valved, terminated by 3 awns.

1. *A. culm setaceous*, erect, somewhat dichotomous; ^{dichotoma.} calix longer than the corolla; the lateral awns very short, the intermediate longer, contorted. *Elliot.*

Branching, or forked Aristida.

A very ordinary looking grass, about a foot high, common on gravelly road-sides and stony commons. Frequent. On the Canal road to Lemon-hill, abundant. Mr. Nuttall says the larger contorted awn of this species, is hygrometric. Perennial. September.

50. STIPA, L. (*Gramineæ.*)

Calix 2-valved, 1-flowered. *Corolla* shorter than the calix, 2-valved; valves involute and truncate. *Awn* terminal, very long, deciduous, and contorted at the base. *Nutt.*

1. *S. leaves convolute-filiform*, panicle few-flowered: ^{bicolor,} branches simple, 1, 2-flowered, calices oblong ^{Vahl.} acuminate scarcely longer than the seed, corolla stipitated: stipe bearded. *Vahl.*

S. barbata. Mich. fl. Am. 1. p. 53. but not of Desfontaines.

S. Virginica, Pers. ench. 1. p. 99.

S. Avenacea, Walt. not of Linnæus.

S. Avenacea, Muhl. Descrip. Uber. Gram. Clayton, p. 15. No. 621. (Elliot.)

Two-coloured feather-grass.

A very singular and beautiful grass from two to three feet high. Along the borders and open parts of the woods on the road from Camden to Woodbury. Not unfrequent. Perennial. July, August.

51. **ANDROPOGON**, Gen. pl. 1566, (*Gramineæ*.)

Flowers in pairs, polygamous; the hermaphrodite sessile: the masculine or neutral flower, without awn and pedicellate.—**HERMAPHRODITE**. *Calix* 2-valved, 1 flowered. *Corolla* of 3-valves; the second valve smaller and awned, the third interior minute. *Stamina* 1 to 3. *Receptacle* or rachis mostly villous. *Involucrum*, a fasciculate vilus at the base of the flowers. (In many species the leaves are boat-shaped, or like tumid sheaths.) *Nutt.*

Avenaceus,
Mich.

1. **A.** leaves and sheaths smooth, panicle naked somewhat pyramidal-oblong many flowered, flowers rufous triandrous, one valve of the glume villous, awn very much contorted. *Mich.*

A. ciliatus, Elliot.

A. nutans, Muhl. but not of Elliot, nor **A. nutans** L.

Fringed beard-grass.

There appears to have been some confusion between this species, and the **A. nutans** of Lin.; and Dr. Muhlenberg considered them as identical. In his Descriptio Uberior Gram. he has **A. nutans**, with the **A. ciliatus** of Mr. Elliot, and the **A. avenaceum** of Michaux, as synonyms. But Mr. Elliot himself describes the **nutans**, as distinct from his **ciliatus**. In the grass intended above, which grows in profusion in Jersey, and in the neighbourhood of Lancaster, I have never seen

the panicle drooping, but *always erect*. The same thing has been observed by Mr. Nuttall respecting the plant in question, and he informs me he is well acquainted with the true *A. nutans*, which is entirely distinct from the *A. avenaceum* of Michaux. I have therefore, supported by his authority, together with the fact of Mr Elliot describing both plants, been induced to insert the above synonyms. In an excursion with the late Dr. Muhlenberg in the vicinity of Lancaster, I remember our collecting the same plant intended above, and his informing me at the time, that there was "some confusion respecting that plant and the *A. nutans*, but that he believed they were the same." I therefore made them synonymous in my Prodrômus. In dry fields in Jersey, particularly near Woodbury, abundant. Perennial. September.

2. *A. culm erect 3 feet high compressed below, purpurascens.*
 above nearly round, purplish, with smooth joints. Branches remotely alternate bearing spikes at the apex. Leaves lanceolate acuminate somewhat mucronate, glaucous, hairy at the base, scabrous on the margin. Sheaths nerved, hairy below, smooth above. *Ligula* retuse. Spikes simple, peduncles in pairs and by threes, upright, lateral and terminal. Rachis ciliated. *Cal.* hermap. 2-valved acute longer than the corolla, woolly at the base. *Cor.* hermap. 2-valved purplish smooth, or under a lens, ciliated on the margin, one valve emarginated awned. *Stam.* 3, anthers purplish or yellow. *Pist.* 2, purplish feathery. Seed purplish, oblong.
A. scoparius, Mich.

Purple beard-grass.

In arid soils both on the Pennsylvania and Jersey side of the Delaware, common. Perennial. August.

3. *A. culm 5 feet high semi-terete, erect smooth, furcatus, Muhl.*
 jointed; joints smooth. Branches alternate. Leaves lanceolate hairy at the base, margin scabrous. Sheaths hairy. *Ligula* bearded at the apex. Spikes terminal conjugate and digitate; peduncles solitary, rachis hairy. *Cal. hermaph.* glume 2-valved pubescent on the margin, lateral-

ly excavated. *Cor. hermaph.* glume 2-valved smooth, one valve awned. *Stam.* 3, anthers yellow and purple. *Pist.* 2 feathery. *Cal. masc.* glume 2-valved, equal, pedicel hairy. *Cor. masc.* 2-valved, awned. *Stam.* 3, yellow. *Pist.* 2, abortive. *Muhl.*

In similar places with No. 2. Perennial. August.

macrouros,
Mich.

4. *A.* panicle clustered ; spikes conjugate, clustered, the flowers in pairs ; sheaths of the leaves scabrous, the margins hairy. *Elliot.*
Cinna glomerata, Walt. p. 59.

Cluster-flowered Beard-grass.

Three feet high. In the low damp grounds and boggy places of Jersey, every where common. Perennial. Sept.

disitiflorus,
Mich.

5. *A.* panicle slender, appressed ; spikes solitary, conjugate, as long as the sheath ; flowers by pairs ; the hermaphrodite awned ; with the awn straight, scabrous, caducous. *Elliot.*
A. Virginicus, L. and Muhl. Des. Ub.
Cinna lateralis, Gr. Walt.

Slender-spiked beard-grass. Common Broom-grass.
Indian-grass.

From two to three feet high. Every where in dry and poor soils very abundant. On the west bank of the Schuylkill, just above Market street bridge, frequent. Perennial. September.

52. AIRA, Gen. pl. 112. (*Gramineæ.*)

Calix shining, 2-valved, 2-flowered. *Corolla* awnless, or awned from the base, 2-valved. *Florets* without a third rudiment between them.

1. *A.* culm small cespitose. Leaves linear setaceous. præcox.
Sheath long smooth. Ligula white bifid. Panicle narrow; flowerets awned on the back. *Muhl.*
Icon. Fl. Dan. 383.

Early flowering Hair-grass.

From two to four inches high, seldom exceeding a span. In Jersey on sandy elevations not uncommon. Near Camden and Woodbury frequent. Perennial. May.

2. *A.* panicle expanding, trichotomous; peduncles flexuosa.
flexuous; awn geniculate; leaves setaceous;
culm nearly naked. *Sp. pl.*
Icon. Eng. Bot. 1519. Fl. Dan. 157.

Flexuose Hair-grass.

A very beautiful grass, about twelve or fourteen inches high, shining, when in flower, with a purple and pearly hue. On the shaded banks of Cooper's creek, in a right line from Arch street ferry. Perennial. June.

3. *A.* leaves flat; panicle contracted; flowers obtusata,
smooth, obtuse; the interior valve of the calix ob- Mich.
liquely truncate. *Elliot.*
A. truncata, *Muhl.*
Holcus striatus, L.?

Obtuse-flowered Hair-grass.

From fourteen inches to two feet high. Leaves long. In dry places on this and the Jersey side of the Delaware frequent. Perennial. June.

53. *HOLCUS*, Gen. pl. 1565. (*Gramineæ.*)

Calix 2-flowered, 2-valved (opaque and nervose).
Corolla smaller, 2-valved, the exterior valve awned. *Nectary* linear, 2-parted. *Stigma* nearly sessile. *Nutt.*

1. *H.* leaves lanceolate soft, woolly. Sheath woolly. lanatus.
Ligula white serrated. Panicle narrow. Branch-

es solitary and in threes, hairy and flexuous. *Calix* glumes 2-valved pallid, 2-flowered, the hermaphrodite flower sessile, the male pedicellated, valves ciliated three nerved dotted. *Cor. hermaphrodite* 2-valved glabrous awnless. *Stam.* 3. *Pist.* 2, feathery. *Cor. male* 2-valved aristated. *Muhl.*

White-Timothy. Salem-grass.

About twelve inches high. Whole plant soft and woolly, with the panicle often purple. Grows in moist meadows in Jersey, abundantly; the Pennsylvania side of the river more rare. It makes good fodder. Perennial. June.

54. PoA, Gen. pl. 114. (*Gramineæ.*)

Calix 2-valved, many-flowered. *Spikelets* more or less ovate, without awns, valves somewhat acute, discoloured, with scariosse margins. *Nutt.*

annua.

1. *P.* panicle diffuse; branches expanding at right angles; spikelets obtuse, 5-flowered; stem oblique compressed. *Sp. Pl.*

Icon. Host. gram. 2. t. 64. Lears. fl. hab. t. 6. f. 1. (Pursh.)

Annual Meadow-grass.

One of the commonest grasses every where; in grass plots abundant. Annual. Flowers from April till autumn.

compressa.

2. *P.* culm a foot high compressed, often oblique. Leaves linear, carinated, nerved, smooth, bluish. *Ligula* white, short ovate acute emarginate. Sheath smooth. Panicle coarctate nearly erect, glabrous. Branches of the panicle short in pairs; spikes terete, sessile, jointed at base. *Calix* 2-valved, 3—8 flowered. *Cor.* 2-valved, margin purplish, smooth and sub-villous at the base. *Muhl.*

Icon. Eng. Bot. 365.

Blue-grass. Wire-grass.

A well-known grass. It makes excellent hay. Root perennial and repent. Middle of June.

3. *P.* panicle fasciculated ; spikes very long, nearly sessile, many-flowered ; flowers oblong acute loose ; leaves short pubescent ; culm branched, creeping. *Mich.* ^{reptans, Mich.}

P. hypnoides, Lam. encycl. 5. p. 87.

Icon. Mich. t. 11. (excellent.)

Creeping Meadow-grass.

A most delicate and beautiful little grass, about a span high, with a dichotomous, creeping geniculate, assurgent culm, and subulate opposite leaves. Close to the margin of the Schuylkill, on the western shore, towards the falls, rare. July, and August.

4. *P.* panicle loose, expanding, capillary ; spike 3—5-flowered ; flowers pubescent ; leaves hairy ; culm very much branched. *Sp. pl.* ^{capillaris.}

P. angulata, Walt ?

Hair-panicled Meadow-grass.

Generally under a foot high, but varying in size exceedingly. One of the most common species. In fields. Annual. August.

5. *P.* culm a span high oblique and procumbent, jointed, somewhat angular. Leaves linear lanceolate, 5-nerved, hairy at the base. *Ligula* bearded. Sheath striate glabrous, hairy at the neck. Panicle erect, at length diffuse. Lower branches of the panicle aggregated 4—6, the upper ones solitary flexuous, with joints hairy at the base. *Calix* 2-valved, 4—6—8—12-flowered, purplish at the apex. *Cor.* 2-valved, the valves somewhat obtuse, inflated, purplish, smooth at the base. *Muhl.* ^{pilosa, Muhl.}

P. pectinacea, Mich.

Hairy Meadow-grass.

Easily recognised by its dingy purplish colour, and obliquely decumbent culms. Along sandy and gravelly way-sides, common both this, and the Jersey side of the Delaware. Annual. July, August.

- pratensis.* 6. *P.* panicle diffuse, spikes four-flowered, glumes lanceolate 6-nerved, *ligula* short obtuse. *Smith. Willd.*
Icon. Engl. Bot. t. 1073.

Common Spear-grass.

Introduced, and naturalized, being found every where in grassy fields. Perennial. June.

- trivialis.* 7. *P.* panicle diffuse, spikes 3-flowered, glumes lanceolate 5-nerved, *ligula* long. *Smith. Willd.*
Icon. Engl. Bot. t. 1072.

Rough-stemmed Spear-grass.

Also introduced and naturalized. In meadows and fields common with the preceding, and very like it; easily distinguished, however, by the *ligula*, which is short, truncate or obtuse in No. 6, and long, more inclining to acute in the present species. Perennial. June to August.

- viridis,*
Muhl. 8. *P.* leaves flat, linear, abruptly acute; panicle somewhat crowded; spikes ovate, acute, four-flowered. *Elliot.*
P. angustifolia, *Smith. ?*
P. pratensis, *Schrader.*

Green Meadow-grass. Green-grass.

About twelve or eighteen inches high, with leaves of a remarkably deep green colour. In meadows and grass plots, common. It affords good fodder. (*Muhl.*) Root perennial, creeping. May, June.

- nervata.* 9. *P.* culm 3 feet high, terete, striate, glabrous pointed. Leaves alternate amplexicaule horizontal, lanceolate smooth striate, carinate. *Ligula* short ovate. Sheath smooth, striate. Panicle terminal

branched, when young upright, further advanced, nutant. Branches of the panicle in pairs or threes ; the smaller branches scabrous. *Cal.* 2-valved acute less than the corolla, 5-flowered. *Cor.* 2-valved equal obtuse nervose smooth. *Stam.* 3 and 2, anthers red. *Pist.* 2. Seed ovate, brown, shining. *Muhl.*

P. striata, Mich.

In swamps and bogs, rare. In the spongy swamps near Kaighn's point, where *Fuirena Squarrosa* grows. Perennial. June.

10. *P.* root somewhat cespitose and perennial ; culm *cuspidata*. partly ancipital, about a foot high. Radical leaves erect, long, and narrow ; leaves on the culm generally 2, flat, oblong, lanceolate, scabrous only on the margin, the lower about an inch long, the upper just visible ; all erect and carinate, with a coarctate pungent point ; stipula truncate, lacerate, sometimes abruptly acuminate ; sheaths long, but a little shorter than the nodes. Panicle small, semiverticillate, alternate, horizontally spreading, terminating in an almost simple raceme ; branches capillary, mostly by twos or threes ; fasciculi 3 or 4. Spiculi crowded towards the extremities of the ramifications, cuneate-ovate, or lanceolate, before flowering somewhat acute, 3 or 4 flowered. Calix smooth, inner valve acute. Corolla ovate lanceolate, a little obtuse and scariose at the point, villous at the base, obsoletely 5-nerved, 3 of the lesser nerves ciliate pubescent below. Stamina exerted, tremulous, bifurcate at either extremity. Styles sessile, complicately plumose, white. *Nutt.*

P. autumnalis, Elliot.

P. flexuosa, Muhl. ?

A very early flowering grass, admirably described above. As I think the name *autumnalis* an inappropriate one, I have proposed that of *cuspidata*, from the spit-pointed, or pungent leaves. On the high rocks bordering the Schuylkill at Lemon-hill, and also on those a mile south of the falls, frequent. April.

tenuis,
Elliot.

11. *P.* panicle branching, expanding, capillary; spikes 3-flowered, glabrous, on long peduncles; leaves linear, very long. *Elliot.*

Slender Meadow-grass.

An exceedingly delicate and slender plant, well described by Mr. Elliot. About a foot high; not unfrequently of lower stature. In the shaded low woods of Jersey, common; this side of the river in similar places, less frequent. Perennial? August.

obtusa,
Muhl.

12. *P.* culm erect, smooth, jointed, striate. Leaves linear-lanceolate scabrous on the margin, nerved. Ligula white, bifid, retuse. Panicle crowded and narrow. Branches of the panicle 2-3, conferted. *Cal.* 2-valved, less than the corolla, 5-7-flowered with valves white at the apex *obtuse* or acute. *Cor.* 2-valved, exterior valve ovate obtuse 5-nerved smooth. *Stam.* often 2. Seed oblong and obovate. *Muhl.*

Not the *Poa obtusa* of Nuttall. Perhaps *Briza virens*, Walt.? but *certainly not* of L.

Blunt-flowered Meadow-grass.

In the same spongy swamp, near Kaighn's point, already particularly mentioned. Perennial. September.

Philadelphi-
ca.

13. *P.* panicle elongated, almost simply branched at the base, branches erect; spikelets compressed, oblong-ovate, obtuse, upon very short peduncles, 8 to 15-flowered; valves of the calix acute, nearly the length of the 3-nerved flowers, inner valve with one nerve, the outer with three; culm rather weak and compressed? leaves flat and smooth, stipula obsolete, softly bearded.

Culm simple, about 18 inches high; leaves few, rather long, flat, and smooth, a little asperate on the margin; panicle about 4 or 5 inches long, simply branched near the base, running out almost into a raceme above; flosculi closely imbricated, compressed; outer valve 3-nerved, truncate at the point; stamina 3, short; styles slender, simply pennate.

Briza virens ? Walter. Flor. Car. 79.

Closely allied to the *B. Eragrostis*, (*Poa megastachya*.) but readily distinguished by its unbranched weak, and compressed stem, the length of its leaves, which are not involute and rigid, the scattered few-flowered panicle, and particularly the obtuse points of the flower glumes, and lastly by the calix, in which the larger valve is 3-nerved, and consequently similar to the corolla, while the calix glumes of the *Poa megastachya* have each but a single nerve, a character which not only distinguishes it well from the present species, but also from the *P. Eragrostis*, in which the larger valve of the calix is also 3-nerved, similar to the corolla. *Nuttall*.

P. obtusa, Nutt.

I detected this plant in the neighbourhood of this city two years ago, and gave specimens to Mr. Nuttall, who has described it as above. I have changed his specific name, because it was previously given by *Muhl.* to No. 12. July.

56. BRIZA, Gen. pl. 115. (*Gramineæ*.)

Calix 2-valved, many-flowered. *Spikelets* distichous, valves ventricose, cordate, obtuse; interior valve minute. *Nutt.*

1. *B. culm* geniculate, jointed. Leaves lanceolate eragrostis: nerved alternate, scabrous on the margin, sometimes hairy. Ligula white, beard-form. Sheath striate, neck hairy. Panicle spreading. Lower branches of the panicle solitary, upper ones in pairs and threes, hairy in the axil. Spikelets ovate-lanceolate pedicellate. *Cal.* 2-valved, 12—20-flowered. *Cor.* 2-valved, valves striate transparent unequal; the interior less, pubescent. *Muhl.*

B. Canadensis of Mich. according to Swartz.

Poa megastachya.

Poa Caroliniana, Walt. ?

The spikelets of a leaden, or bluish-green colour. In Jersey very common in the sandy roads. Annual. July, August.

2. *B. culm* erect glabrous; leaves long, scabrous on Canadensis. the back. Spikelets ovate erect. *Cal.* 2-valved lanceolate less than the corolla 7-flowered unequal small. *Cor.* 2-valved the exterior ovate acute 5-

nerved glabrous, the interior orbicular, a little shorter and broader. *Muhl.*

Grows in the same place with *Fuirena Squarrosa*, near Kaighn's point. July.

57. WINDSORIA, Nuttall, Gen. Am. pl. vol. i. p. 70. (*Gramineæ.*)

Calix carinate, many-flowered, 2-valved; valves rather large, scariose, uninervial, acute or cuspidate. *Spikelets* thick; flowers closely incumbent, and distichally imbricated; nerves of the dorsal valve mucronate, with intermediate dentures, ciliate below: *inner valve* mostly naked, emarginate. *Styles* slender, with simply pectinated stigmas. *Seed* calciform, corrugate, impressed with a flat, central, oval hilum near its base. *Nutt.*

Poæformis. 1. *W.* spikelets mostly 5-flowered, exterior valve of the corolla ovate, convex, tricuspidate, with 2 intermediate teeth, inner valve with 2 setaceous points, smooth. *Nutt.*

Poa Sesleroides, Mich.

Poa quinquefida, Pursh.

Poa flava. L.

Poa subverticillata, Lamark?

Festuca purpurea, Schreber.

Red-top.

About two feet high, generally of a reddish purple, but I have collected specimens of a yellow colour, and some few nearly white. In barren woods and on the borders of cultivated fields, not uncommon. Perennial. August.

58. *DANTHONIA*, Decandolle. (*Gramineæ*.)

Calix 2-valved, many flowered, very large, equal to or exceeding the included spikelet. Exterior valve of the corolla concave, with the points emarginate, mucronate, awned, or unarmed and then trifid. *Nutt.*

1. *D.* leaves subulate, short, those of the root often *spicata*. hairy on the upper surface ; stipula obsolete, ciliate ; raceme simple, or subdivided near the base ; spikelets 4 to 9 ; calix longer than the spikelet ; flosculi 6 or 7. *Nutt.*

Avena spicata, L. not of Elliott.

From one to two feet high ; leaves 2 to 4 inches long. In dry coppices every where frequent. Perennial. April.

2. *D.* culm erect ; raceme compounded, branches 2 *sericea*, and 3-flowered ; spikelets 9 to 13, 8 and 9-flowered, somewhat shorter than the calix ; corolla valves very unequal, outer lanceolate, densely vil- *Nuttall.* lous on the margin, setosely bifid at the point, with a central contorted awn ; inner valve ciliate, much shorter. *Nutt.*

Avena spicata, Elliot.

Avena glumosa, Mich. ? and Muhl. ?

This beautiful species, first described by Mr. Nuttall, as an inhabitant of Carolina, was last summer found both by him, and myself, in Jersey within a mile or two of this city. Not common. July.

59. *FESTUCA*, Gen. pl. 119. (*Gramineæ*.)

Calix 2-valved, many-flowered. *Spikelets* compressed, distichal, acute at either extremity. Outer valve of the corolla entire, generally terminating in an awn. "Seed growing to the corolla. " *Schrader.*

tenella.

1. *F.* panicle simple, leaning one way ; spikelets generally 8-flowered, awned. *Sp. pl.*

Festuca octoflora, Walt.

F. bromoides, Mich.

An upright, simple-stemmed little grass, about nine or ten inches high, with the panicle leaning to one side. Near Camden in the sandy grass-lawns bordering the woods frequent ; and in the neighbourhood of Woodbury along all the roads running through dry sandy woods, abundant. When old it assumes a deep brown colour. Annual. May.

myurus.

2. *F.* panicle slender, appressed ; spikelets 4-flowered, awned, hairy ; flowers monandrous. *Elliot.*

F. quadriflora, Walt.

Hairy-flowered Festuca.

A small, slender grass, from $1\frac{1}{2}$ to 4 inches high, generally found growing with *Aira præcox*, in the sandy soils of Jersey. Not rare. Biennial. June.

nutans.

3. *F.* panicle long, loose, branches simple, spikelets adpressed, round-linear many-flowered, flosculi awnless striate, culm decumbent, leaves very glabrous. *Willd.*

Icon. Eng. bot. 1520.

River-Festuca.

In ditches and purling rivulets in Jersey, about ten miles south-east of this city, and somewhat east of Woodbury. Perennial. June.

elator.

4. *F.* panicle somewhat diffuse, nutant, very much branched, loose ; spikelets ovate-lanceolate acute, flosculi cylindric obsoletely nerved. *Smith.*

F. pratensis, Willd.

Icon. Engl. bot. 1593.

Tall Fescue-grass.

In meadows and moist low grounds, every where common. Yields fine fodder. Perennial. Beginning of July.

5. *F.* panicle with branches on one side, nodding, ^{nutans.} scabrous ; spikelets ovate, compressed, generally 6-flowered ; flowers acute, unawned ; leaves linear-lanceolate. *Willd.*

Nodding-Fescue-grass.

Two or three feet high. In woods common. Perennial. June.

6. *F.* culm triquetrous, or semi-terete, jointed, joints ^{brevifolia:} pubescent or hairy above, cespitose. Leaves short, distichal, lanceolate, striate, convolute at the apex. Sheath long striate. Panicle terminal flexuose, and concealed at the base. *Cal.* 2-valved, valves lanceolate nearly equal awnless, carinated, one serrated at the apex. *Cor.* white 2-valved ? hairy, one 3-nerved sub-bifid, the other hairy at the apex. *Stam.* 3. *Pist.* 2, blackish plumous. Seed oblong naked. Root long very slender. *Muhl.*

Short-leaved Fescue-grass.

Grows in and near water ; in Jersey not uncommon. Perennial. July.

60. *BROMUS*, Gen. pl. 120. (*Gramineæ.*)

Calix 2-valved, many-flowered. *Spikelets* oblong, distichal. Outer valves of the corolla often bifid at the point, and awned *below* the summit ; interior glume pectinately ciliate. *Nutt.*

1. *B.* panicle nodding ; spikelets ovate, compressed ; ^{secalinus.} glumes naked, distinct ; awns subulate, short, straight. *Sp. pl.*

Icon. Host. gram. 1. t. 12. (Pursh)

Cheat.

A well known grass, called as above, from its resemblance to rye. In rye-fields frequent, and in the neighbourhood of barns, on all the farms within ten miles of Philadelphia. Introduced. Annual. July.

- multiflorus. 2. *B.* panicle spreading ; peduncles nearly simple, spikelets ovate lanceolate compressed 15-flowered, flosculi sub-imbricated roundish. *Smith.*
B. secalinus. Leers. 36. t. 11. f. 2. Lightf. 1086.
 Linn. Fl. Suec. ed. 2. 96. var. 2. (Smith.)

Many-flowered Cheat.

Resembles the preceding in habit, very much ; and is, indeed, very nearly allied to it. Grows in similar places. Along the bank-walk from Gray's ferry to King'sess-gardens, frequent. Most probably introduced. Annual. June.

- purgans. 3. *B.* panicle nodding ; leaves naked ; sheaths vil-
 lous ; glumes hairy. *Sp. pl.*

Cathartic Broom-grass.

In neglected fields in Jersey, frequent. Perennial. August.

61. *DACTYLIS*, Gen. pl. 117. (*Gramineæ.*)

Calix 2-valved, many-flowered, compressed, one of the valves larger, and carinate, somewhat awned. *Corolla* 2-valved.—*Spikelets* aggregate and capitate. *Nutt.*

- glomerata. 1. *D.* panicle secund, clustered. *Sp. pl.*
 Icon. Host. gram. 2. t. 94. Schreb. gram. t. 8.
 f. 2. (Pursh.)

Orchard-grass.

A well-known grass by the above English name. Introduced, but now naturalized. In all fields, meadows, and woods common. Perennial. June.

62. AVENA, Gen. pl. 122. (*Gramineæ*.)

Calix 2-valved, 2, 3, or many-flowered. *Corolla*, exterior valve lanceolate, somewhat terete, furnished with a dorsal awn. Awn geniculate, and contorted. “*Seed* for the most part invested by the corolla.” *Schrader*. (Glumes of the calix membranaceous, resembling follicles.) *Nutt*.

1. *A. culm* 3 feet high, jointed, joints oblong smooth. *clatior*.
Leaves lanceolate. Branches of the panicle solitary and ternate divided. *Cal.* 2-flowered, 2-valved, valves unequal, with one flower awnless, the other awned. *Cor.* glume 2-valved, the awn bearded at the base. *Stam.* 3 with yellow anthers. *Pist.* 2 white plumose. *Muhl*.

Found frequently in cultivated fields, interspersed with grass and grain. Introduced with grass-seeds from Europe, but now naturalized. Perennial. June.

2. *A. culm* half a foot high jointed, joints smooth. *palustris*.
Leaves linear-lanceolate nerved smooth. Sheath striate smooth. *Ligula* small bearded. Panicle narrow ; branches unequal 4—6, 1-flowered and many-flowered smooth. *Cal.* 2-valved acute marginated 2-flowered, one flower sessile, the other pedicellated, the pedicel pubescent. *Cor.* 2-valved, acuminate in the sessile flowers ; the awn of the pedicellated flowers oblique at the apex. *Muhl*.

Aira pallens. *Muhl*.

A. Pennsylvanica. *Sprengel*.

This beautiful grass occurs with and without awns. The aristated variety is most common. In Jersey, in damp woods and moist low grounds, frequent. Also occurs on this side of the river, but less often. Perennial. May.

63. ARUNDO, Gen. pl. 124. (*Gramineæ.*)

Calix 2-valved, many-flowered. *Corolla* smooth, surrounded at the base by a long villous wool. *Nutt.*

cinnoides.

1. *A. culm terete* glabrous, erect, simple, 3 feet high. Leaves lanceolate, acuminate nerved, above hairy, smooth below. Sheaths nerved, backwardly pubescent. Panicle erect narrow green, branches in threes scabrous. *Cal.* glume 2-valved 1-flowered, valves sub-equal, acuminate, purplish, carinate at the apex. *Cor.* less than the calix 2-valved, purplish at the apex, carinate. *Muhl.*

A. Canadensis, Mich.

A. confinis, Willd.

Cinna-like Reed.

A very handsome large grass, with a parti-coloured long, heavy dense panicle. Near where *Iris prismatica* grows, Jersey. Rare. Perennial. August.

64. ELUSINE, Gært. Lamark. (*Gramineæ.*)

Spikes digitate.—Flowers awnless, disposed on one side of the rachis (or receptacle.) *Calix* carinate, many-flowered, dorsal valve larger, 5 to 9-nerved. *Corolla* 2-valved, awnless. (Flowers all hermaphrodite.) *Nutt.*

Indica.

1. *E. culm erect and procumbent*, compressed, jointed. Leaves alternate, lanceolate nerved hairy. *Ligula* white, short sub-serrate. Sheath striate smooth, hairy at the mouth. Spikes terminal 2—4, rarely solitary, *flosculi* secund. *Cal.* 2-valved, 2—6-flowered, valves ovate awnless, something smaller than the corolla. *Cor.* 2-valved compressed awnless. *Muhl.*

Cynosurus Indicus, L.

Crab-grass. Crop-grass. Yard-grass. Crow-foot-grass.

Very common every where on road-sides and even in the crevices of the bricks on our pavements in this city. Perennial. July.

65. *ANTHOPOGON*, Nuttall, Gen. Am. pl. 81. (*Gramineæ*.)

Flowers polygamous, irregularly alternating upon setaceous spikes disposed in a panicle. — *Calix* 2-valved, 2-flowered, one of the flowers in the form of an abortive pedicellate seta, valves rigid, subulate, and unequal, growing to the impressed angular rachis. *Corolla*, hermaphrodite, 2-valved, outer valve terminated by a long and straight awn. *Neutral* rudiment pedicellate, of one minute valve going out into an awn. *Seed* linear-oblong, internally marked with a longitudinal furrow. *Nutt.*

1. *A. culm* 18 inches to 2 feet high, decumbent at the base, upwards assurgent and erect, leafy with short and numerous articulations. Leaves short, ovate-lanceolate, very acute, smooth, flat. Panicle sub-verticillate; spikes or racemes numerous (20 to 30) simple, setaceous and very long; rachis angular, scabrous. Flowers interrupted, approximating towards the extremities, appressed to the rachis. *Cal.* 2-valved, 2-flowered, growing to the rachis. *Cor.* hermaphrodite, 2-valved. *Stam.* 3, exserted. *Styles* 2. Stigma plumose. *Seed* naked, linear-oblong. *Nutt.*

A. ambiguum, Mich.

A singular and pretty grass, for specimens of which I am indebted to Mr. Nuttall, not having met with it myself. In the woods of Jersey a mile or two from the Delaware. *Mr. Nuttall.* Perennial.

66. ELYMUS, Gen. pl. 128. (*Gramineæ.*)

Calices lateral, 2-valved, many-flowered, aggregated by pairs, in the manner of a 4-leaved involucre. *Corolla* 2-valved. *Nutt.*

- Virginicus. 1. *E.* spike erect, spikelets 3-flowered, awned, glabrous, by pairs; calix lanceolate, nerved, as long as the spikes. *Willd. enum.*
E. Carolinianus, Walt.

Virginian Rye-grass.

Three feet high. Between Market street bridge and the Woodlands, near the Schuylkill, frequent—elsewhere not so common. Perennial. July.

- hystrix. 2. *E. culm* erect; spikelets expanding, destitute of an involucre. *Sp. pl.*
Asprella hystrix, Willd.

A very handsome species of Rye-grass two or three feet high. On the shaded woody banks of the Schuylkill near Breck's Island, frequent. I have not found it elsewhere. Perennial. July.

- villosus. 3. *E. culm* erect four feet high terete jointed, the joints smooth. Leaves lanceolate smooth, scabrous on the margin. *Ligula* obsolete. Sheaths hirsute; strigose; the upper ones smooth. Spike sub-erect, rachis hairy, nutant at the apex. Spikelets somewhat spreading binate, 2—3-flowered. Involucre 4—6-leaved, leaflets linear two-nerved aristated hairy-ciliated, 4—6-flowered. *Cor.* 2-valved hairy in the margin, one-valve awned, the awn upright, longer than the involucre, hispid. *Stam.* 3. *Pist.* 2. *Muhl.*

A large species. On the rocky eminences near the Schuylkill, west side, between Market street bridge and the Woodlands. Rare. Perennial. July.

67. *LOLIUM*. Gen. pl. 38. (*Gramineæ*.)

Calix of one leaf, fixed to the rachis, many-flowered. *Flosculi* distichally imbricated. *Seed* coated by the corolla—spike simple. *Nutt.*

1. *L.* spike awnless, spikelets longer than the calix, perenne.
flosculi lanceolate. *Smith.*

Darnel.

Frequently occurring in grassy lanes and fields, probably introduced. Perennial. June.

MOLLUGO. Gen. pl. 139. (*Caryophilleæ*.)

Calix 5-leaved, coloured inside. *Corolla* 0.
Capsule 3-celled, 3-valved.

1. *M.* leaves verticillate, wedge-shaped, acute; verticillata.
stem somewhat divided, decumbent; peduncles
1-flowered—*Sp. Pl.*
Icon. Pluk. mant. t. 332. f. 5.

Carpet-weed. Indian Chickweed.

Quite appressed to the earth, sometimes in favourable situations covering a circle eighteen inches in diameter. It is generally smaller. In cultivated fields very common, particularly along the neglected borders of such places. Sometimes met with growing between the brick pavements of our streets where they are little used. Annual. From Spring till Autumn.

68. *QUERIA*, L. (*Caryophilleæ*.)

Calix connivent, 5-parted, segments oblong, apex subsaccate (or furnished with an arched callosity.) *Corolla* none. *Filaments* of the anthers distinct; intermediate, setæ none. *Stigma* subcapitate. *Capsule* utricular, not opening. *Seed* 1, subreniform. *Nutt.*

Canadensis. 1. *Q.* stem erect or spreading, dichotomous, much branched, retrorsely pubescent; leaves nearly glabrous, cuneate-oblong, acute; flowers erect, shorter than the stipules. Stamina 3, rarely 5; leaves (through a glass) sub-ciliate. *Nutt.*

Anychia dichotoma, Mich.

Icon. Ort. dec. t. 15. f. 2. (Pursh.)

An humble plant of mean appearance, every where common on the borders of woods, and by way-sides, in poor and limestone soil. In Jersey abundant. Along the turnpike roads running from this city, and sometimes among the stones, frequent. Annual. July—August.

capillacea,
Nutt.

2. *Q.* erect and glabrous, dichotomously and diffusely branched, branches capillary; leaves ovate, very smooth, attenuated towards the base, rather obtuse; flowers spreading, longer than the stipules. Stamina 3, rarely 5. *Nutt.*

A genuine and well marked species, hitherto confounded with the preceding. I have long noticed the specific difference between these two plants, and once called the attention of the late Dr. Muhlenberg to it. With his usual caution however he said "he wished to see further." I have observed them both in several parts of the United States, and found them always retaining the same character. No. 2. is very abundant on the high and woody hills near what is called Hand's pass, on the Lancaster road. It is also very common on the great hills between York and Baltimore, and there the other species is more rare. Both species are common in the vicinity of the city of Washington. In the neighbourhood of this city No. 1. is more frequent than No. 2, which however is far from being rare. In grassy woods, near and above the falls of Schuylkill. In the copses of the Neck; and in the woods back of the Blue-bell Inn, on the Darby road. Annual. July, August.

69. *ERIOCAULON*. Gen. pl. 132. (*Junci*.)

Common calix many-leaved, many flowered; *proper* calix superior of 2 or 3 leaves.—*Male* flowers central. *Corolla* monopetalous, cloven.—*Female* flowers marginal; corolla

of 2 petals. *Stigmas* 2 or 3. *Capsule* of 2 or 3 cells, cells 1-seeded. *Nutt.*

1. *E.* scapes aggregated, somewhat pubescent; leaves *flavidulum*. short, subulate ensiform, nerved; capitulum convex; involucre scales sub-orbiculate; flosculi scarcely papillous. *Mich.*

A diminutive and unhandsome plant, from one to two inches high, with inconspicuous flowers in blackish capituli. On the gravelly shores of the Schuylkill, opposite to Lemon-hill, to be observed only at low ebb-tide. On the gravelly shores of the Delaware below high water mark, above Kensington, in company with *Isoetes lacustris*, *Hemianthus micranthemoides*, *Crypta minima*, and *Alisma subulata*, abundant. Annual. July.

70. *LECHEA*, *Kalm.* Gen. pl. 142. (*Caryophyllæ.*)

Calix 3-leaved. *Petals* 3, linear. *Styles* 0, stigmata 3, plumose. *Capsule* 3-celled, 3-valved, with as many other interior valves. *Seeds* 1 in each cell. *Nutt.*

1. *L.* radical branches prostrated, villous; leaves *major*. lanceolate, mucronate, hairy; panicles small, flowers clustered; stem erect. *Elliot.*

L. major, *Mich.* Willd. and Muhl.

L. villosa, *Elliot.*

Larger Lechea.

About a foot or fifteen inches high. In Jersey, on the neglected borders of sandy cultivated fields, and by the sides of roads through sandy woods, abundant. Perennial. July, August.

2. *L.* smoothish, leaves linear-lanceolate acute (*cili-minor*. ated); panicle leafy; branches long every where bearing flowers; flowers shortly pedicellated; stem assurgent. *Willd and Pursh.*

L. minor, Willd. Mich. Muhl. Pursh.

Icon. Lam. illustr. t. 52, f. 1.

Lesser Lechea.

I know not whether this is the *L. minor* of Walter, which Mr. Elliot has made synonymous with the *L. racemulosa*, but on comparing my specimens with the Muhlenbergian Herbarium in the Philosophical Society, I find that it is the real minor of Muhl. and Willd.; and consequently of Mich. and others, though not of Linnæus. It is very nearly allied to the *L. racemulosa*, good specimens of which are contained in that herbarium. The chief discrepancy is in the racemous-like inflorescence of the latter plant. The character mentioned in the books, as discriminative, viz. the ciliated leaves, is fallacious, and ought to be left out of the specific description, for the ciliation is nearly as remarkable without a lens, in the *minor*, as in the *racemulosa*. Another difference between these two plants is the greater length, and more unequivocally linear leaves in the *racemulosa*, than in the *minor*, as I am informed by Mr. Collins, he has frequently seen in the former, growing in Virginia. The leaves, however, vary considerably, and the specimens of the *racemulosa* in the herbarium above mentioned, are in one or two instances, particularly in the young plant, oval-lanceolate, and in others, further advanced, very linear. I have never seen the *racemulosa* growing.

L. minor (above) is found on dry sandy or gravelly places, in Jersey, and on this side of the river. Common. Perennial. July.

PROSERPINACA. Gen. pl. 134. (*Hydrocharides*.)

Calix superior, 3-parted, persistent. *Corolla* 0.
Nut triquetrous, 3-celled. *Nutt*.

palustris.

1. *P. α* upper leaves linear-lanceolate, serrate; lower ones pinnatifid. *Willd*.

In a swampy wood back of Laundreth's gardens. Also in a pool west of the south end of Woodbury, New Jersey. Abundant. Perennial. ? July.

pectinata.

β leaves all pectinate. *Mich*.

This is hardly more than a variety I think, for I have observed a very gradual approach from one to the other. I have not observed the difference in the form of the seed noticed by Mr. Elliot; and in our plant, I doubt if it ever occurs; or if it does, whether it be constant.—In a pool near Woodbury, Jersey, and close to the spot just mentioned as the habitat of the preceding. Rare. *Perennial*. ? August.

ADDENDA.

(To be added to the genus No. 52. p. 57.)

No. 4. *Aira triflora*, Elliot.

panicle slender, erect ; valves of the calix acute ; the upper spikes 3-flowered ; leaves short, flat. *Elliot*.

Three-flowered Hair-grass.

About fourteen inches high. Grows with *Aira obtusata*, but more rare. In Jersey. Perennial. April, May.

Genus *Poa*, No. 54, page 58, the species No. 3. 5. 9. 12. 13. are to be referred to a section as follows :

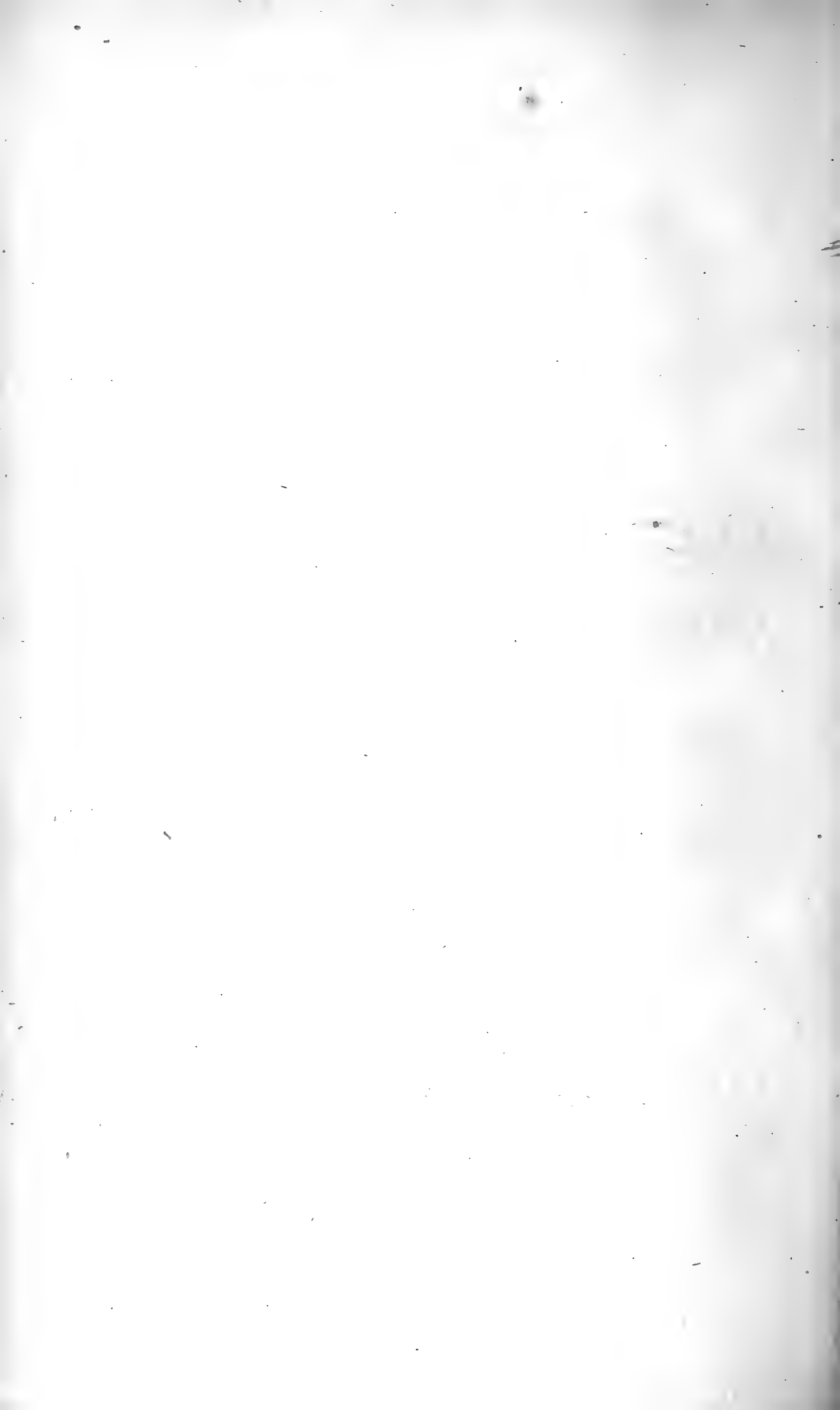
BRIZOMA. Spiculi erect, closely imbricated, flower glumes often angularly 3-nerved ; without a connecting villus ; valves short, ovate, obliquely pointed, (sometimes producing the appearance of marginal serratures), inner valve small, seeds more or less spherical. *Nutt.*

ERRATA.

Page 46. In the two last lines of the observation to *Crypsis Virginica*, omit the words "*probably introduced.*"

Page 43. Marginal note to No. 6, for *landestina* read *clandestina*.

Page 55. Add *Muhl.* to the specific description of No. 2.



TETRANDRIA.

CEPHALANTHUS.
DIPSACUS.
GALIUM.
SPERMACOCE.
HOUSTONIA.
MITCHELLA.
LUDWIGIA.
ISNARDIA.
CORNUS.
PLANTAGO.

ANDREWSIA.
OBOLARIA.
AMMANIA.
SYMPLOCARPUS.
HAMAMELIS.
ILEX.
TILLÆA.
POTAMOGETON.
CUSCUTA.

CLASS IV. TETRANDRIA.

ORDER I. MONOGYNIA.

72. CEPHALANTHUS, L. Gen. pl. 147. (*Rubiaceæ*.)

Common *calix* 0; *proper* superior, small and angular, 4-cleft. *Corolla* tubular, slender, 4-cleft. *Stamina* included; stigma globose. *Capsule* mostly bipartite, (2 to 4.) 2-celled, 2-seeded; cells semi-bivalve; exterior valve angular, indurated, interior flat and flexile. *Seed* solitary, sheathed at the apex with a suberose callus. *Receptacle* globose, hairy.—*Nutt.*

occidentalis. 1. C. leaves opposite and ternate.—*Willd.*
Icon. Pluk. alm. t. 77. f. 4.

American Button-wood. Globe-flowered Shrub.
Pond Dogwood.

Nothing is more common in swamps, on the borders of rivers, creeks, and ponds, than this shrub. The shores of the Delaware and Schuylkill abound with it. About 5 feet is commonest height, though it not unfrequently attains a greater stature. The inner bark is medicinal. July.

73. DIPSACUS, L. Gen. pl. 148. (*Dipsacæ*.)

Flowers collected into an ovate or roundish capitulum.—*Common calix* many-leaved, foliaceous, (involucrum); *proper* superior, of 1 leaf. *Corolla* 4-lobed. *Receptacle* paleaceous, chaff rigid, mostly longer than the flowers. *Pappus* cup-shaped.—*Nutt.*

1. *D.* leaves connate sinuate, chaff upright.

D. fullonum, &c. Lin.

sylvestris.

Icon. Jacq. fl. aust. 5. t. 403.

Wild Teasel.

About three or four feet high, having the appearance of a thistle. Near the entrance-gate to Lemon-hill, (Pratt's) also on the Lancaster turnpike road. Not common, and most probably introduced from Europe. I have however, seen it in great abundance all along the road from Philadelphia to Yorktown, (Penn.) and oftentimes in situations where it apparently grew wild. Biennial. July.

74. *GALIUM*, Gen. pl. 162. (*Rubiaceæ*.)

Calix 4-toothed. *Corolla* monopetalous, 4-cleft, flat. *Seeds* 2, nearly round.

* Species with smooth fruit.

1. *G.* stem procumbent, scabrous ; leaves generally by fours, oval, wedge-shaped at base ; corolla mostly trifid.—*Sp. pl.*

G. trifidum, L. Willd. and Walt.

G. Clatoni, Mich.

G. Aparine, Clayton ?

Aparine floribus albis, &c. Gron. Virg. 18.

Three-petaled Goose-grass, or Ladies' Bed-straw.

A common species inhabiting moist places. Perennial? Flowers white, very small. Blooms from early spring till midsummer.

2. *G.* stem diffuse, very much branched, prickly backwards ; stem leaves in sixes, those of the branches in fours, lanceolate, acuminate, prickly on the margin and nerve ; flower-bearing branches divaricate many-flowered, with short pedicels. —*Mich. and Pursh.*

asprellum,
Mich.

In wet meadows among bushes, in swamps, and on the borders of rivulets. Common. Perennial. July.

- tinctorium. 3. *G.* stems diffuse smoothish ; stem leaves in sixes, those of the branches in fours, linear, somewhat acute, very finely prickled on the margin and nerve ; peduncles terminal long and generally 3-flowered.—*Willd. and Pursh.*

Dyer's Goose-grass. Wild-madder.

Flowers white. In wet hedges and the borders of shady damp woods, also common. Along the course of the Schuylkill, and near the Buck-inn, on the Lancaster road, very abundant. Pursh says the North American Indians use this plant for dyeing their porcupine quills, their feathers and other ornaments, of a beautiful red colour. Perennial. July, August.

** Species with hirsute or rough fruit.

- Aparine. 4. *G.* stems weak, scabrous backward ; leaves about eight linear-lanceolate mucronate, hispid above, margin and carina prickly, flower branches the length of the leaves, about three-flowered, fruit hispid.—*Willd. and Pursh.*

Icon. Fl. Dan. 495. Engl. bot. 816.

Common Cleavers. Catch-weed. Goose-grass. Cleaver's Goose-grass.

Flowers white. In natural hedges and among bushes every where very frequent. It attains the height of four or five feet, when supported by bushes. Annual. May.

- circæzans, Mich. 5. *G.* stem erect, glabrous ; leaves by fours, ovate ; peduncles short, divaricate ; flowers alternate : fruit nodding.—*Elliot.*

G. brachiatum, Muhl.

G. boreale, Walt.

Is it *G. boreale* of Persoon ?

Cross-branched Goose-grass.

Easily distinguished from any of the preceding species. Flowers purplish—rarely white. In woods, and other shady places not uncommon. Perennial. June to August.

6. *G.* stems very much branched divaricate prickly backwards; leaves short, lanceolate mucronate smooth, margin and keel prickly, flower-branches divaricately ramifying; pedicels about two-flowered, fruit hispid.—*Pursh.* micranthum,
Pursh.

A small and delicate species, bearing a multitude of very minute white flowers. In swampy meadows among high grass, particularly on the borders of rivulets and field-drains, frequent. Perennial. July.

7. *G.* stems roughish; leaves in fours, oval, obtuse, without prickles, margin and nerves finely pubescent, marked with semi-transparent dots; flowers purple; fruit somewhat inclining to woolly. *Mich.* puncticul-
sum,
Mich.

G. pilosum, Muhl. not of Persoon.

G. punctatum, Pers.

G. purpureum, Walt., not of Pers. and Willd.

G. cruciata, No. 313. Clayton?

Hairy Goose-grass.

This species is recognised without difficulty by its purple flowers and its pubescence. In dry woods and copices, common. Perennial. July.

8. *G.* stems procumbent, smoothish; leaves in sixes, smooth and semi-membranaceous, mucronate, margin scarcely ciliated; fruit small, hispid. Pennsylvani-
ca,
Muhl.

G. triflorum, Mich.

A very common species. Flowers white. Along the edges of woods and thickets. Perennial. July.

75. SPERMACOCE. *L. Gen. pl.* 155. (*Rubiaceæ.*)

Calix 4-toothed. *Corolla* funnel-formed, 4-cleft. *Seeds* 2, each 2-toothed.

1. *S.* stem diffuse terete hirsute; leaves linear-lanceolate smoothish, margin and keel serrulate-scab- Diodina.

rous, stipules very long bristled ; flowers axillary sessile solitary alternate ; seeds hirsute.—*Mich. and Pursh.*

Icon. Smith's and Abbott's Insects of Georg. t. 38.

A very ordinary looking plant, growing every where abundantly in Maryland and Virginia, in arid wastes, and sandy roads, but extremely rare in this neighbourhood, and quite local. I have never found it near the city, except on the barren sandy grounds a short distance from the Woodlands, near the Darby-road. Even there it grows sparingly. Flowers small, white, with a rosaceous tinge. Annual. August and later.

76. HOUSTONIA. L. Gen. pl. 161. (*Rubiaceæ.*)

Calix 4-toothed. *Corolla* 1 petalled, funnel-form, 4-cleft. *Capsule* 2-celled ; many seeded.

cærulea.

1. H. stem erect slender dichotomous ; radical leaves spatulate, those of the stem ob-lanceolate, opposite, peduncles one-flowered, long.—*Willd. and Pursh.*

Icon. Bot. Mag. 370. Pluk. alm. t. 97. f. 9.

Sky-Blue Houstonia. Bluetts. Innocence.

This beautiful little species, is one of our earliest blooming spring flowers, and is universally known. It is extremely common by road sides, and in grassy fields and meadows ; frequently being in such profusion as to cover rods of ground. Pursh describes a blue and a white variety. The former only grows in this neighbourhood. Not so common in Jersey, as on the Pennsylvania side of the Delaware. Perennial. From early Spring till Autumn.

77. MITCHELLA. L. Gen. pl. 174. (*Rubiaceæ.*)

Flowers by pairs upon the same germ, superior.—*Calix* 4-toothed. *Corolla* funnel-form, tube cylindric ; limb 4 parted, spreading

villous on the inner side. *Stamina* 4, scarcely exerted. *Stigma* 4-cleft. *Berry*, by the union of the 2 germs, didymous, 4-seeded. —*Nutt.*

1. M.

repens.

Creeping Mitchella. Partridge-berry. Chequer-berry.

A creeping, procumbent evergreen plant, much admired for its beautiful foliage, its fragrant white flowers and its scarlet berries. It is the only species of its genus known. Very common on the rocky banks of the Wissahickon, and in profusion on the high rocks bordering the Schuylkill, growing among ferns. It delights in shades, and is often found in the umbrageous woods of Jersey, covering spots of ground of several feet in extent. It is slightly diuretic, and is used in Jersey, in calculous affections. It is, however, medically worthless. Perennial. May, June.

78. LUDWIGIA. L. Gen. pl. 204 (*Onagrea*.)

Calix 4-parted, persistent, superior. *Corolla* 4-petalled, or 0. *Capsule* 4-sided, 4-celled, inferior, many-seeded.—*Nutt.*

1. L. erect, branched, smoothish; leaves alternate lanceolate white beneath; peduncles one-flowered axillary; capsules globose-four-sided: segments of the calix large, coloured, crowned.—*Mich.*

L. alternifolia, Willd.

Icon. Lam. Encycl. 3. p. 77.

About two and a half feet high. Flowers straw-yellow, and extremely caducous. In bushy swamps, Jersey, common. More rare this side of the river. Perennial. July.

79. ISNARDIA. L. (*Salicaria*.)

Calix campanulate, 4-cleft. *Petals* 0, or mi-

nute. *Capsule* surrounded by the base of the calix, 4-sided, 4-celled, many-seeded.
—*Nutt.*

palustris.

1. I.

Isnardia palustris, Willd.

Ludwigia nitida, Mich and Pursh.

L. apetala, Walt. fl. Car. 89.

L. repens, Swartz. fl. ind. occid. 1 p. 273. (Pursh.)

Icon. Lam. Encycl. 3. t. 77.

A common looking plant, floating in ditches occasionally, but most commonly found in half exhausted pools and trenches, and rarely creeping on wet ground. In such places in Jersey extremely common and abundant. More rare this side of the river. On the commons in muddy puddles near brick-kiln ponds. Flowers very small. Perennial. May to September.

80. CORNUS. *L.* Gen. pl. 194. (*Caprifolia*.)

Flowers sometimes aggregated in a 4-leaved involucre.—*Calix* 4-toothed. *Petals* 4, small, broader at the base. *Drupe* inferior, not crowned by the calix; nut 2-celled, 2-seeded.—*Nutt.*

florida.

1. *C.* a small tree; leaves ovate acuminate; involucre large, somewhat ob-cordate; berries ovate.
Willd.

Icon. Catesb. Car. t. 27. Bot. Mag. 526. Barton's Vegetable Materia Medica of the United States, Vol. 1. t. 3. Mich. f. N. Am. Sylv. t. 48.

Dogwood. Large-flowered Cornel.

Every one knows the Dogwood, so very common in all our woods, and of which it is one of the greatest ornaments. Very valuable for its medical virtues, which are tonic and antiseptic. See Barton's Veg. Mat. Med. U. S.—May.

2. *C.* branches spreading ; the smaller branches *sericea*. woolly ; leaves ovate acuminate with a reddish pubescence underneath ; cymes depressed woolly.

—*Willd and Pursh.*

C. lanuginosa, Mich.

C. alba, Walt.

C. cœrulea, Lam. Encycl.

C. amomum, Du Roi harb. 1. p. 165.

C. rubiginosa, Ehrh. Beitr. 4. p. 15.

C. ferruginea. Hort. par.

Icon. L' Herit. Corn. t. 3. Barton's Veg. Mat. Med. U. S. Vol. 1. t. 9.

Silky-leaved Dogwood. Blue-berried Cornel. Red-willow. Rose-willow. Swamp-Dogwood.

This beautiful species grows on the borders of creeks and rivers, and in swamps. Tolerably frequent. It is possessed of medical virtues, similar to the preceding species. (See Barton's Veg. Mat. Med. U. S.) $\frac{1}{2}$ seldom more than eight feet high. Berries sky-blue. June, July.

3. *C.* branches upright fastigiate, leaves ovate *acuminate*, smooth somewhat coloured, cymes *convex sub-paniculate*.—*L' Herit.*

C. fastigiata, Mich.

C. sanguinea, Walt.

C. Canadensis, Host. par. (Pursh.)

Icon. L' Herit. corn. t. 4.

From 5 to 10 feet high. Resembles the preceding very much. Berries and anthers blue. In similar places with No. 2. Very common. $\frac{1}{2}$ June.

4. *C.* branches recurved, small branches smooth ; *alba*. leaves ovate acute pubescent, hoary underneath, cymes naked, depressed. *L' Herit. Willd.*

C. stolonifera, Mich.

C. tartarica, Mill. dict. N. 7.

Icon. Schmidt arb. 2. t. 65.

About the same height as No. 3. In the deep swampy thickets near Woodbury, Jersey. Very rare. $\frac{1}{2}$ June.

80. PLANTAGO. Gen. pl. 186. (*Plantagines*.)

Calix 4-cleft. *Corolla* 4-cleft; border reflected. *Stamina* mostly exserted, very long. *Capsule* 2-celled, opening transversely.

major.

1. *P.* leaves ovate, somewhat smooth, and subdentate, with long petioles; scape round; flowers imbricated; seeds numerous. *Lam. Encycl. Willd. Smith.*

Icon. Engl. Bot. 1558. Fl. Dan. 461. Woodville's Med. Bot. t. 14.

Common great-Plantane, or Way bread.

Every person knows this very common weed, which abounds in pastures, fields, grass-plots, and grassy-road sides, resisting injuries, and blooming while subject to daily pressure from the footsteps of passengers. It was formerly highly esteemed as a medicine, and has a place in Woodville's Medical Botany, as a refrigerant and vulnerary. In this country it is still used as an external application, among the vulgar. The seeds, when ripe, are given to Canary birds, which are extremely fond of it. During their moulting, it is serviceable to them. Introduced from Europe, but now perfectly naturalized, being found every where in the settled parts of our country, among grass. Perennial. From May till Autumn.

lanceolata.

2. *P.* leaves lanceolate, villous, spike short cylindric, bracteas ovate, acuminate; scape angular with adpressed hairs.—*Pursh.*

P. lanceolata, Willd.

Ribwort.

As common as No. 1. in similar places, and very easily known by its long ribbed narrow leaves. *Pursh* hints that our plant is specifically distinct from the European *P. lanceolata*; and gives as a reason, that the specimens of these which he examined in the Herbarium of Mr. Lambert, of London, had the *bracteas oblong and acute*. This difference is scarcely sufficient to justify the separation of the American from the European plant. Perennial. June to August.

Since writing the above, I have received a specimen of *P. lanceolata*, from the Herbarium of Dr. Edward Barton, collected in Scotland. It is the very same as the American plant.

3. *P.* entirely covered with a whitish pubescence ; *Virginica*. leaves lanceolate-oval, subdenticulate, flowers remote, scape angular.—*Willd.*

Icon. Morris. Hist. 3. s. 8. t. 15. f. 8.

Virginian Plantane.

Easily recognised by its white pubescence. In barren fields of dry soil ; particularly in Jersey, common. It varies much in size, frequently flowering, in the sandy grass-roads of Jersey, when only an inch and a half high ; and not seldom attaining the height of twelve inches. Biennial. From May till autumn.

82. *ANDREWSIA*. Sprengel. [Anleitung zur Kenntniss der Gewächse. p. 474.] (*Gentianæ*.)

Calix 4-parted, appressed. *Corolla* subcampanulate, 4-parted ; segments somewhat erect. *Stigma* thick, glandulous, and partly bifid. *Capsule* 1-celled, 2-valved, many-seeded, surrounded by the persistent calix and corolla.—*Nutt.*

1. *A.* stem somewhat branched, peduncles opposite, *paniculata*. the lower ones branched ; segments of the corolla oval-acute, scarcely longer than the calix ; style very short.—*Pursh.*

Centaurella paniculata, Mich.

C. autumnalis, Pursh.

Centaureum autumnale, Pers. vol. 1. p. 137.

Sagina Virginica, Willd. tom. 1. p. 719.

Bartonia tenella, Muhl. and Willd. in act. soc. natur. cur. Berol. 4. v. 3.

Bartonia tenella, Pers. vol. 1. p. 141.

Bartonia paniculata, Muhl. Cat. p. 15.

Icon. Mich. Fl. Bor. Am. t. 12. f. 1.

Panicle-flowered Andrewsia.

This little plant has produced no little confusion among botanists, in their various descriptions of it, and the different names given to it, as enumerated above. Professor Sprengel,

in his late work (1817), *Anleitung zur Kenntniss der Gewächse*, of which I have been favoured with two volumes from the author, has boldly imposed the name *Andrewsia*, after Mr. Andrews, the well-known author of a beautiful work on the Roses; and I have, without hesitation, followed him, for this reason, among others, which doubtless actuated Sprengel in giving the new name, that *Centaurella*, as the diminutive termination of *Centaureum*, a genus already established, is in direct violation of the commonly received rules for botanical nomenclature: but a more cogent motive is, that the name *Bartonia*, formerly given by Dr. Muhlenburg, may be entirely disused, as applied to this plant. A splendid genus, first discovered by Mr. Nuttall on the borders of the Missouri, he has, with a very honourable sense of the genius, learning, and botanical attainments of the late Professor Barton, dedicated to him; in which name Mr. Pursh acquiesced, and published in his *Flora*.

Andrewsia paniculata is easily recognized by its nearly simple, upright, rigid yellowish stem, and inconspicuous whitish flowers. It grows among mosses, and particularly among sphagnum, in the cranberry-swamps of Jersey. It is not very frequent; and on the Pennsylvania side is more rare. It delights in shade, moisture, and retirement. Annual. September.

83. OBOLARIA. Gen. pl. 1044. (*Gentianæ*.)

Calix 0, or in the form of 2 bractes. *Corolla* campanulate, 4-cleft, segments entire, (the margin sometimes crenately torn.) *Stamina* equal, proceeding from the clefts of the corolla. *Stigma* emarginate. *Capsule* ovate, 1-celled, 2-valved, many-seeded; seeds minute.—*Nutt.*

Virginica. 1. *O.* stem simple; leaves oblong truncate, fleshy, purple underneath; flowers axillary solitary, sessile.—*Willd. and Pursh.*

Icon. Pluk. alm. t. 209. f. 6.

A very beautiful and interesting little plant, seldom attaining a greater height than three inches. Root branching. Leaves opposite, apple-green above, pale purple underneath, somewhat fleshy. Flowers collected by pairs or threes towards the top of the stem; they are of a skimmed-milk-white colour, and form, with the numerous conspicuous, purplish bractes, a delicate and pleasing contrast. The whole plant has the appearance of an artificial wax flower. Very rare. On the high banks of the Wissahickon, about three quarters of a mile

from the ridge-road, under the shade of *Abies Canadensis* and *Juniperus communis*, peeping above the fallen and dead leaves of those trees. On the hilly shaded banks on the east side of the Schuylkill, a short distance south of the falls. On the very high banks of the same river, west side, near some exposed rocks, above the falls a half quarter of a mile. Elsewhere I have never seen it. Like the rest of the *Gentianæ*, it is very bitter. Perennial? April and beginning of May, in common seasons.

84. AMMANIA. Gen. pl. 206. (*Salicariæ*.)

Calix 1-leaved, striate, 8-toothed, inferior.

Corolla of 4 petals, or none, inserted upon the calix. *Capsule* 4-celled, many-seeded.

Nutt.

1. A. stem procumbent; leaves lanceolate, narrow-^{humilis.} ed at the base into petioles; flowers solitary, opposite, sessile.—*Mich.*

A. ramosior, Walt. not of Willd.

A half-trailing subaquatic plant, with very small red flowers—stem reddish. Near a pool, about a mile over Cooper's creek, after passing the bridge. Rare. Annual. August, September.

85. SYMPLOCARPUS. Salisbury. (*Aroideæ*.)

Spatha ventricose-ovate, acuminate. *Spadix* roundish, covered with hermaphrodite flowers. *Calix* deeply 4-parted, persistent, segments cucullate, truncate, becoming thick and spongy. *Petals* 0. *Style* pyramidal, 4-sided; *stigma* simple, minute. *Seeds* solitary, immersed in the spongy receptacle.—*Nutt.*

1. S. leaves ovate-cordate, acuminate, veined, en-^{fetida.} tire; scape radical; spathe ovoid, cucullate, acuminate, depressed at the apex; bractæas spathulate, without veins, glaucous; spadix pedunculate, oblong-oval, truncate at the base. B.

TETRANDRIA, MONOGYNIA.

Pothos fœtida, Mich.

Dracontium fœtidum, L.

Icon. Barton's Veg. Mat. Med. U.S. vol. 1. t. 10.

Skunk-cabbage. Polecat-weed. Skunk weed.

Subaquatic. It flowers before the leaves appear, or at least when these are very young and convoluted. The spathe is beautifully speckled with red, purple, blue, green, and yellow. The whole plant smells strongly, like *assafœtida* or garlic, and is greatly esteemed for its antispasmodic virtues. (See Veg. Mat. Med. U. States.) In swamps, low meadow grounds, and on the borders of rivulets, delighting greatly in shade and moisture. Frequent. Perennial. April, May.

angustispa-
tha.

2. β S. spathe lanceolate, narrowly attenuated towards the apex, terminating at the base in a long peduncle; spadix globose. B.

Icon. Bart. Veg. Mat. Med. U.S. vol. 1. t. 11.

Narrow-spathed Skunk-cabbage.

The whole plant is more slender than the preceding, and the root smaller. The spathe is long, narrow, (from a half inch to an inch and a quarter wide) purple, entirely without specks or spots, and of a beautiful shining dark purple colour. The young convoluted leaves and stipules are deeply tinged with purple, and somewhat striped with the same colour. The spadix is half the size of that in No. 1, and of a light umber colour, and is supported by a very long peduncle, which is at the same time the peduncle of the spathe. The flowers are smaller than in No. 1. This plant possesses the same medicinal virtues as the preceding.

In the meadows a quarter or half a mile east of the botanic garden ground of the University of Pennsylvania. Rare. Perennial. April.

ORDER II. DIGYNIA.

86. HAMAMELIS. Gen. pl. 226 (*Berberides*.)

Calix 4-cleft, persistent, with 3 bractes. *Petals* 4, long and linear, with a short dilated

filament at the base of each. Filaments and anthers united; *anthers* 2-celled, each cell having a vertical valve. *Capsule* coriaceous, (nut) 2-celled, 2-lobed, 2-awned, apex 2-valved, valves cleft. *Seeds* 2, arillate.—*Nutt.*

1. *H.* leaves ovate, acutely dentated, cordate, with *Virginiae* the sinus small.—*Pursh.*

Icon. Catesby, car. 3. t. 2.

Witch-Hazle.

A small tree, from ten to fifteen feet high, characterised by the anomalous circumstance of flowering in the first winter month, and sometimes in October, while its leaves are yellow and falling. Flowers yellow. The *divining rods* formerly used by impostors, who pretended to find precious ores, were made of the twigs of this tree; and, in Virginia, I have been informed, the credulous vulgar are still imposed on by persons who pretend to find water by the indication of rods of this tree. Hence the name Witch-Hazel.

87. CUSCUTA, Gen. pl. 227. (*Convolvuli.*)

Calix 4-cleft. *Corolla* 1-petalled. *Capsule* 2-celled, circumcised.

1. *C.* flowers peduncled, umbelled, 5-cleft.—*Willd.* *Americana.*
Icon. Sloan. Hist. l. t. 128. f. 4.

Dodder. Love-Vine.

A twining, leafless parasitic plant, of a reddish-yellow colour, supporting itself by lateral roots on other plants. Flowers white, in dense clusters, and, closely examined, not destitute of beauty. In moist places, and along meadow runs and rivulets, common. Annual. July.

TETRANDRIA, TETRAGYNIA.

ORDER IV. TETRAGYNIA.

88. ILEX, Gen. pl. 232. (*Rhamni*.)

Calix minute, 4, 5-toothed. *Corolla* rotate, 4-parted. *Style* 0. *Stigmata* 4. *Berry* 4-seeded.

opaca.

1. I. leaves oval, with rigid, spreading, spinous teeth; fascicles of flowers lax, on compound peduncles; calices somewhat acute, smooth; fruit ovate.—*Mich.*

Icon. Mich. f. Arbres forest. t. 11.

A beautiful evergreen tree, bearing scarlet berries. In Jersey, near Haddonfield, rare. June.

89. TILLÆA, L. (*Sempervivæ*.)

Calix 3 or 4-parted. *Petals* 3 or 4, equal. *Capsules* 3 or 4, two or many-seeded. *Stamina* sometimes 8, 4 sterile.—*Nutt.*

simplex,
Nutt.

1. T. stem erect, simple; leaves connate, oblong-linear, somewhat acute; flowers alternate, sessile; petals erect, twice the length of the calix.—*Nutt.*

Stem generally simple, erect and terete, (two or three inches high) sometimes decumbent near the base, and sending out whitish radical fibres, tinged with red, similar to the proper root. *Leaves* connate, succulent, convex on the under side, fragile, very entire, and without visible nerves or veins (three or four lines long, and about a line wide). *Flowers* sessile, axillary, solitary, and alternate. *Calix* four-toothed, segments alternating with the petals, two of the exterior dentures somewhat larger and obtuse. *Petals* four, ovate, erect, and persistent, never apparently expanding, whitish and membranaceous, embracing the capsules with which they are almost exactly equal in length. *Stamina* four, fertile, alternating with the petals, a little shorter than the germs; *anthers* very small,

roundish ; four minute infertile filaments opposite the petals. *Styles* none. *Stigmata* four, like so many minute points. *Capsules* four, oblong, compressed, somewhat divergent at the points, six to eight seeded, opening internally and longitudinally, remaining connected at the base, so as to resemble a single capsule of four valves. *Seeds* oblong-cylindric, brownish, attached in two rows to the margins of each capsule.—*Nutt.* Journal Acad. Nat. Sc. Phil. vol. 1. p. 114.

This minute subaquatic plant was first discovered, as an inhabitant of this country, by Mr Nuttall, from whose accurate description I have copied the above account. In company with that gentleman, I subsequently found it, where he had detected it. It appears that it has more recently been found by Dr. Ives near Newhaven, who has erroneously referred it to the *T. connata* of South America, for it does not agree with the figure of that plant in the *Flora Peruviana*.—On the miry and gravelly shores of the Delaware, subject to the overflowing of the tide, just above Kensington, abundant. Annual. July to September.

90. POTAMOGETON, L. Gen. pl. 234. (*Najades*.)

Calix 4-leaved. *Corolla* 0. *Style* 0. *Seeds* 4.

Leaves sheathing ; those of the stem often attenuated, floral leaves mostly opposite ; flowers spiked, terminal, or axillary ; ramuli and spikes, having frequently 2 sheaths at the base. Nut 1-seeded, cochleate ; embryo erect, exalbuminous, curved, involute.—*Nutt.*

1. *P.* leaves swimming by long petioles, sublanceolate-oval, the first ones sometimes subcordate.—*Natans* β *Mich.* *Mx.*

In ponds, ditches, and slow-flowing waters. Flowers in terminal and rarely axillary spikes—small and green. Very abundant on the road to Gloucester Point. Perennial. June, July.

2. *P.* lower leaves very long, linear ; upper ones lanceolate, nerved coriaceous, all-petiolated.—*Wlld.* *fluitans*.

In similar places, but less common. Also on the road to Gloucester Point. Perennial. July.

- hybridum β 3. *P.* upper leaves petiolated, elliptical, attenuated
Gmel. & Mx. at both ends ; lower ones crowded, sessile, linear.
—Willd.

P. heterophyllum, Willd. and Pursh.

P. porcatum, Muhl.

Furrow-leaved Pond-weed.

Upper leaves an inch and a half long, lower ones linear. In dirty ditches, plashes, and pools. Very rare. I have only found it near Lemon-Hill, at low tide, on the Schuylkill. Perennial. June to August.

- diversifolium, Barton. 4. *P.* plant small, delicate : stem filiform, emersed ; leaves floating, elliptical, petiolated, half an inch long, six-nerved ; submersed leaves, sessile, filiform, long ; spikes numerous, small, depressed, in the axils of the leaves.—Barton, *Prod. Fl. Ph.*
Probably *P. setaceum* of Pursh.

Different-leaved Pond-weed.

This singular little species I first discovered in Jersey, near Woodbury, where it is abundant, in a pool. I subsequently detected it in a pond, where *Nuphar minima* grows, on the borders of the Schuylkill, a mile or two this side of the Falls. Hitherto these are the only places where I have seen it, and, as I have carefully searched almost every pond near Philadelphia for it, conclude it is rare. Perennial. July.

- perfoliatum. 6. *P.* leaves cordate-ovate amplexicaule, all submerged, spike terminal; flowers alternate.—Mich. and Willd.

Icon. fl. Dan. 196. Eng. Bot. 168.

Leaves transparent ; the whole plant submerged, the spike of flowers only floating —In ponds, rivulets, and rivers, frequent. At low tide, found abundantly on the muddy and gravelly banks of the Delaware and Schuylkill, on either side. Perennial.

7. *P.* leafy ; leaves sessile, narrow-linear, flat ; spikes *pauciflorum*. capitated, about 4-flowered.—*Pursh*.

P. gramineum, Mich. fl. Am. 1. p. 102.

Easily distinguished from the other species by its grass-like leaves. Looks like thick tufts of submersed grass. In a ditch on the Jersey side of the Delaware, near the river, and about opposite to Pine-street. Rare. I have found it no where else.

TRIANDRIA. To genus No. 26, p. 25, add the following species.

No. 2. *Xyris brevifolia* ; leaves ensiform, short ; calix shorter than the bracteas, slightly notched.

Grows in similar places with No. 1. In Jersey, in the bog containing *Eriophorum angustifolium*. Perennial. August.

N. B. *Panicum pauciflorum*, of Elliott, has been twice inserted, by mistake, viz. p. 49, No. 8, and p. 50, No. 12.

PENTANDRIA.

MYOSOTIS.
LITHOSPERMUM.
CYNOGLOSSUM.
PURSHIA.
HYDROPHYLLUM.
MENYANTHES.
LISIMACHIA.
ANAGALLIS.
CONVOLVULUS.
PHLOX.
POLEMONIUM.
SOLANUM.
PHYSALIS.
NICANDRA.
DATURA.
VERBASCUM.
SABBATIA.
AZALEA.
CAMPANULA.
TRIOSTEUM.
DROSERA.
VITIS.
CISSUS.
ITEA.
IMPATIENS.
VIOLA.
CLAYTONIA.
CEANOETHUS.
EUONYMUS.
CELASTRUS.
COMANDRA.
APOCYNUM.
GONOLOBUS.

ASCLEPIAS.
GENTIANA.
HEUCHERA.
ERYNGIUM.
PANAX.
HYDROCOTYLE.
SANICULA.
DAUCUS.
AMMI.
CONIUM.
HERACLEUM.
PASTINACA.
ANGELICA.
SIUM.
SISON.
OENANTHE.
CICUTA.
URASPERMUM.
CHÆROPHYLLUM.
SMYRNIUM.
THASPIUM.
ATRIPLEX.
CHENOPODIUM.
SALSOLA.
ULMUS.
CELTIS.
VIBURNUM.
SAMBUCUS.
RHUS.
STAPHYLEA.
SAROTHRA.
ARALIA.
LINUM.

CLASS V. PENTANDRIA.

ORDER I. MONOGYNIA.

91. MYOSOTIS. L. Gen. pl. 240. (*Borragineæ*.)

Calix 5-cleft. *Corolla* salver-formed, tube short, border flat, 5-lobed, lobes subemarginate; orifice closed with five convex, connivent, squamulæ (or small scales). *Stigma* 1. *Seed* smooth or scabrous.—*Nutt.*

- scorpioides. 1. *M.* seeds smooth, leaves elliptic-lanceolate; racemes without bracteas, many-flowered.—*Smith.*
M. palustris, Pursh.
 Icon. Fl. Dan. 583.

Mouse-ear Scorpion-grass.

A beautiful little plant, with small sky-blue flowers. The buds, just before opening, are of a pink hue, which, immediately after the flowers are opened, changes to blue. In all cold rivulets and field drains, common; sometimes in ditches. Perennial. May to September.

- arvensis. 2. *M.* seeds smooth; calices oval-acuminate, very hairy, longer than the tube of the corolla; stem very much branched; racemes in pairs; leaves ovate-lanceolate.—*Willd.*

Field Scorpion-grass.

Rarely exceeding ten inches in height, and all over very hairy. Flowers, small, white; I have never seen them blue, as Pursh describes them. In shady woods near Camden, Jersey; in the fields below the navy yard, not far from the Delaware; and in fields of the Neck, frequent. On the high rocks a mile or two south of the Falls of Schuylkill, east side of the river, occasionally met with. Annual. May.

3. *M. hairy*; seeds retrorsely aculeate; leaves ovate-lanceolate, acuminate; racemes divaricate.—*Willd. and Pursh.*

Virginian Scorpion-grass.

About two feet high. Leaves large, oval, and scabrous. Flowers very small, white. Fruit covered with prickles. Above the Falls of Schuylkill, west side, in the woods; very rare. Annual? July.

92. LITHOSPERMUM. Gen. pl. 244. (*Borraginæ.*)

Calix 5-parted. *Corolla* funnel-form, 5-lobed, orifice open, naked. *Stigma* bifid. *Seed* indurated, shining. (Stamina and style included within the corolla.)—*Nutt.*

1. *L. seed* rough; corolla scarcely longer than the arvensis. calix; leaves obtuse, without veins.—*Smith.*

Icon. Eng. Bot. t. 123. Fl. Dan. 456.

Field Gromwell.

A rough or hispid plant, with white flowers. Found in cultivated and neglected fields, but most abundant in the former. It injures the scythes and sickles of the reapers, by its siliceous cuticle. Introduced among grass seeds from Europe, but now naturalized. Annual. May till July.

2. *L. seeds* protuberantly ovate, shining, every latifolium. where deeply-pitted; leaves ovate-oblong, nerved.—*Mich.*

L. officinale, Muhl.

About two feet high. Very rare in this neighbourhood; I have only found it in shady woods several miles above the Falls of Schuylkill, and there sparingly. Flowers ochroleucous. Perennial. June.

93. CYNOGLOSSUM. Gen. pl. 243. (*Borraginæ.*)

Calix 5-parted. *Corolla* funnel-formed, 5-lobed, orifice closed by 5 connivent convex

processes. *Stigma* emarginate. *Seed* depressed, affixed to the style on the inner side.—*Nutt.*

- officinale. 1. *C.* covered with a very soft pubescence ; leaves broad-lanceolate, sessile ; racemes paniculated.—*Willd.*

Icon. Curt. Lond. 4. t. 16.

Officinal Houndstongue.

Two feet high. Flowers brownish-red. This plant is very rare in this neighbourhood, and seldom flowers where I have seen it. In Powelton woods, scarce. In the dry woods three miles above the Falls of Schuylkill, west side of the river, also scarce. The plant is said to destroy rats. Biennial. June, July.

amplexicaule.

2. *C.* very hirsute ; leaves oval-oblong, the upper ones amplexicaule, with a terminal, leafless, long, pedunculated corymb.—*Mich.*
C. foliis amplexicaulibus, Gron. Virg.
C. Virginicum, L.

Common Houndstongue.

From eighteen inches to two feet high, with a hispid stem and hairy rough leaves. Flowers blue and white. In the shady moist woods in the neighbourhood of Mantua ; and near the Falls of Schuylkill, west side of the river, frequent. Dries brown, when prepared for the herbarium, unless much care is taken. Perennial. May, June.

94. PURSHIA, Sprengel, [Anleitung zur Kenntniss der Gewächse, p. 450.] (*Borraginea.*)

Calix deeply 5-parted. *Corolla* somewhat tubular-campanulate ; orifice naked ; border ventricose, half 5-cleft, segments connivent, acute. *Anthers* sessile, included. *Style* much exserted, entire, acute.—*Nutt.*

1. *P. hispid* ; leaves oboval-lanceolate, acute, with ^{hispidæ.} papillaceous dots ; segments of the corolla subulate.—*Mich.*

Onosmodium hispidum, Mich.

Lithospermum Virginianum, Willd.

Hispid Purshia.

A rough, ugly, repulsive looking plant, covered with hairs and papillæ. In Jersey, opposite to Southwark, and not far from the Delaware, along the natural hedges bordering sandy fields. Named in honour of Mr. Frederick Pursh. Not very common. Perennial. July, August.

95. HYDROPHYLLUM, Gen. pl. 267. (*Borragineæ.*)

Calix 5-parted. *Corolla* campanulate, 5-cleft, with 5 longitudinal margined melliferous grooves on the inside. *Stamina* exserted, filaments bearded in the middle. *Stigma* bifid. *Capsule* globose, 1-celled, 2-valved, 1-seeded, 3 other seeds mostly abortive.—*Nutt.*

1. *H. glabrous* ; leaves pinnatifid and pinnate ; segments oval-lanceolate, with deep serratures ; clusters of flowers crowded.—*Pursh.*

Icon. Lamarck. illustr. t. 97. f. 1.

Virginian Water-leaf.

About one foot or eight inches high. Flowers ochroleucous, or white ; I have never seen them blue, as Pursh says they are. On the east side of the Schuylkill, a mile south of the Falls, on the declivity of a woody hill, abundant. Perennial. June.

96. MENYANTHES, Gen. pl. 299. (*Lisimachiæ.*)

Calix 5-parted. *Corolla* funnel-formed ; border spreading, 5-lobed, equal, densely vilious on the upper side. *Stigma* bifid. *Capsule* 1-celled, 2 valved ; a seminal receptacle attached to each valve.—*Nutt.*

trifoliata.

1. *M.* leaves ternate, alternate, with sheathing petioles.

Icon. Eng. Bot. 495. Fl. Dan. 541. Lamarck illustr. t. 100. f. 1. Woodville's Med. Bot. vol. 1. t. 2.

Three-leaved Buck or Bog-bean. Marsh-trefoil.

The only species of its genus, and a very elegant plant. It is not very common in any part of the United States. The leaves are of an apple-green, and the flowers rose red. It is possessed of strong medicinal virtues, being bitter and sudorific, and was formerly much esteemed. Woodville.

97. LISIMACHIA, Gen. pl. 269. (*Lisimachie*.)

Calix 5-cleft. *Corolla* rotate, 5-cleft. *Stigma*

1. *Capsule* 1-celled, globular, mucronate, 5 or 10-valved, few or many-seeded.—*Nutt.*

racemosa.

1. *L.* very smooth; leaves oval-lanceolate, opposite, dotted, raceme terminal, long, loose; segments of the corolla oblong-oval.—*Mich. and Pursh.*

L. racemosa, Lamarck.

L. vulgaris, Walt.

L. stricta, Hort. Kew.

L. bulbifera, Curt. Bot. Mag.

Icon. Bot. Mag. 104. Pluk. alm. t. 428. f. 4.

Cluster-flowered Loosestrife. Bulb-bearing Loosestrife.

A beautiful plant, from one to two feet high, bearing a profusion of fine yellow flowers, in a lax terminal raceme. It occasionally bears red ovate bulbs in the axils of the leaves and small branches. In boggy and low meadow grounds, and on the margins of streams of water, common. I have every year, for four successive years, found bulb-bearing specimens in the boggy grounds of the Woodlands. Mr. Collins informs me he has seen the bulbs of specimens from Jersey, near an inch long. Perennial. July.

quadrifolia.

2. *L.* leaves sessile, in fours and fives, acuminate, dotted; peduncles in fours, one-flowered; divisions of the corolla oval, entire.—*Willd. and Pursh.*

L. hirsuta, Mich.

L. punctata, Walt.

Icon. Pluk. alm. t. 428. f. 4. Lam. illustr. t. 101. f. 2.

From one to two feet high; stem very erect and simple, with whorls of leaves, each whorl generally consisting of four leaves, but often five, and rarely six. In dry woods, every where common. Perennial. June.

3. *L.* leaves opposite, linear-lanceolate, narrowed *angustifolia*, at each end, ciliated at the base; peduncles one-flowered, axillary; petals crenulate.—*Willd. in Nov. A. cf. Soc. Nat. Scrut. 3. p. 417.*

L. heterophylla, Mich.?

Under twelve inches high; stem simple and erect. Generally immersed one-third of its height in mud. Resembles *L. heterophyllum* very much. On the muddy margins of the Delaware, Jersey side, a mile or two below the city, very rare. Perennial. July, August.

4. *L.* subpubescent; leaves opposite, on long petioles, subcordate-oval; margin pubescent, petioles ciliated, pedicels in pairs, flowers nodding, divisions of the corolla roundish, acuminate, crenate.—*Mich. and Pursh.*

L. cordata, Muhl.

Icon. Walth. hort. t. 12. (Pursh.)

Heart-leaved Loosestrife.

A very elegant species, from eighteen inches to three feet tall. Stem erect, branched, branches opposite. Flowers on long peduncles, drooping. Found in shady damp places; often in moist woods, but most frequently near creeks and rivers. In the umbrageous woods of rich soil in a right line from Mantua to the Schuylkill, very abundant. Along the whole course of the Schuylkill, Delaware, and rivulets emptying into them, frequent. This species thrives in our gardens, and bears transplantation exceedingly well. Perennial. July.

98. ANAGALLIS, Gen. pl. 270. (*Lisimachia*.)

Calix 5-cleft. *Corolla* rotate, 5-lobed. *Stamina*, filaments hirsute. *Capsule* globular, opening hemispherically, many-seeded.—*Nutt.*

arvensis.

1. *A.* leaves undivided ; stem procumbent.—*Sp. pl.* Icon. Engl. Bot. 529. Fl. dan. 88.

Scarlet Pimpernel. Red Chickweed.

This little plant has obtained much notoriety among the vulgar, on account of the powers which have been preposterously ascribed to it, by some empirics, of curing hydrophobia. As a medicine it is worthless. Introduced originally from Europe, but now naturalized every where in the United States. In cultivated fields, particularly in all those in a right line from Southwark shot-tower to the Schuylkill, frequent. Annual. June.

99. CONVOLVULUS, Gen. pl. 287. (*Convolvuli*.)

Calix 5 parted. *Corolla* campanulate, plaited. *Stigmas* 2. *Capsule* 2 or 3-celled, cells 2-seeded.

Sepium.

1. *C.* twining ; leaves sagittate, very acute, obtuse or truncate behind, entire ; bractes acute, longer than the calix ; peduncle angled, much longer than the petiole.—*Brown.*

Calystegia Sepium, R. Brown.

Convolvulus repens, L. according to R. Brown.

C. repens, Mich.?

Icon. Eng. bot. 313. Fl. dan.

Large-flowered Bind-weed.

Flowers large, pale pink. In damp places, not unfrequent. On the bank walk of the Delaware, to Gloucester Point ; also on the bank walk of the Schuylkill between Gray's ferry and Kingess gardens ; and elsewhere. Perennial. All summer.

2. *C.* leaves cordate, entire or lobed, and panduriform ; calix smooth.—*Sp. Pl.*

Icon. Bart. Veg. Mat. Med. U. S. vol 1. t. 23.

Fiddle-leaved Bind weed. Mechoacana. Mecha-meck. Hog-potatoe. Wild potatoe-vine.

Trailing on the ground, or climbing fence posts and bushes. Flowers large, white, with red bottoms and red internally near the tube of the corolla. The root, which is very large, and two or three feet long, is possessed of cathartic properties. A decoction of it has also been used, with reputed good effect, in gravel. (See Veg. Mat. Med. U. S.) The leaves on the extremities of the stems are very small. In the sandy fields of Jersey, near the Delaware, and in the fields of stony and loose soil on the west side of the Schuylkill, a mile above the Falls, frequent. Perennial. August.

100. PHLOX. Gen. pl. 284. (*Polemonia.*)

Calix deeply 5-cleft, prismatic. *Corolla* salverform, border 5-lobed, flat ; lobes cuneate ; tube more or less curved. *Filaments* unequal. *Stigma* trifid. *Capsule* roundish-ovate, 3-celled, cells 1-seeded.—*Nutt.*

1. *P.* leaves oblong-lanceolate, glabrous, with the margins scabrous ; stem scabrous ; racemes corymbose ; teeth of the calix acute.—*Sp. Pl.*

Icon. Jacq. hort. t. 127. (Pursh.)

Spotted-stemmed Phlox. Spotted-stalked Lychnidea.

A handsome species, from one to two feet high. Stem green, speckled with brownish purple. Flowers peach-blossom red. In boggy and low meadow ground, in Jersey, and on this side of the river, frequent. It bears transplantation well, and is worthy of cultivation in gardens. Perennial. July. August.

2. *P.* leaves linear-lanceolate, very downy, with the margins revolute ; corymbs nearly fastigiate, bracteate ; teeth of the calix subulate, acute.—*Sp. Pl.*

PENTANDRIA, MONOGYNIA:

Hairy Lychnidea.

At Landsdown, near Breck's Island, Schuylkill. Rare. Perennial. May.

subulata.

3. *P. procumbent*, hirsute ; leaves subulate, ciliate ; corymbs few-flowered ; segments of the corolla cuneate, emarginate ; teeth of the calix subulate, hardly shorter than the tube of the corolla.—*Pursh.*

Icon. Bot. Mag. 411.

Ground Pink. Wild Pink.

A very beautiful species, now cultivated in gardens. Flowers purplish red, with a purple star in the centre. In the sandy dry woods of Jersey, abundant. Perennial. April. May.

101. POLEMONIUM. Gen. pl. 289. (*Polemonia.*)

Calix subcampanulate, 5-cleft. *Corolla* somewhat rotate, 5-lobed, tube short, closed at its base by 5 staminiferous valves or scales. *Stigma* trifid. *Capsule* 3-celled, superior.—*Nutt.*

reptans.

1. *P. leaves* pinnate, generally by sevens ; flowers terminal, nodding.—*Sp. Pl.*

Icon. Mill. ic. 2. t. 209. (*Pursh.*)

Creeping-rooted Jacob's-ladder.

This beautiful plant is often met with in the flowerpots of those who keep a few plants in their windows during the winter season. It is much valued, without being known to be a wild inhabitant of our neighbourhood. Flowers sky-blue. On the Wissahickon creek, near rivulets ; also close to the spot where *Chrysosplenium oppositifolium* grows. Rare. Perennial. April, May.

102. SOLANUM. Gen. pl. 337. (*Solanææ.*)

Calix 5-cleft, persistent. *Corolla* rotate, or campanulate, 5-lobed, plaited. *Anthers* partly united, emitting the pollen by two pores at the point. *Berry* 2-celled, many-seeded. —*Nutt.*

1. *S.* stem fruticose, scandent : leaves cordate, the ^{dulcamara.} upper ones auriculated or hastate ; clusters cymose.

Icon. Fl. Dan. 607. Eng. bot. 565. Woodville's Med. Bot. t. 33.

Dulcamara. Bitter-sweet. Woody Nightshade.

Very common in gardens, but also naturalized in a few vicinal localities. Flowers deep purple, with the tube of anthers forming a yellow centre ; berries red. *Dulcamara* has obtained a place in the dispensaries of Europe, for its medicinal virtues. It is much esteemed in cutaneous affections. In willow hedges on the road to Gloucester Point, and in hedges near Germantown and Frankford. Rare. Perennial. July.

2. *S.* stem without thorns, herbaceous ; leaves ovate, ^{nigrum,} toothed, angled ; racemes distichous, nodding. — ^{β Virginicum.}
Sp. Pl.

Icon. Dill. elth. t. 275. f. 256. (Pursh.)

Deadly Nightshade.

A very ugly plant, found growing near the gutters of the suburb streets, near rubbish, and in cultivated grounds. Common. Annual. All summer.

3. *S.* stem prickly, annual ; leaves hastate, angled, ^{Carolinense.} prickly on both sides ; racemes loose. — *Sp. Pl.*

Icon. Dill. elth. 269. f. 348. Jacq. ic. 2. t. 331. (Pursh.)

Horse-nettle.

About eighteen inches or two feet high. Flowers large, light blue. Fruit yellow. At the south bottom of the rocky bluff at Gray's ferry, tolerably abundant. In neglected fields near Gray's ferry and the Woodlands. Rare. Perennial. May, July.

103. *PHYSALIS*. Gen. pl. 336. (*Solaneæ*.)

Berry 2-celled, covered by the inflated calix.

Corolla campanulate-rotate; tube marked with five diaphanous concave impressions.

Stamina connivent.—*Nutt.*

obscura.

1. *P.* leaves somewhat cordate, orbiculate, acuminate, unequally dentate; stem herbaceous, divaricate, very much branched; branches angled.—*Mich.*

P. pubescens.

In sandy fields near Woodbury, Jersey. Rare. Corolla yellow, with purplish-livid spots. Perennial. July, August.

*Pennsylvani-
ca.*

2. *P.* leaves ovate, somewhat repand, obtuse, naked; stem herbaceous, branching; peduncles solitary, a little longer than the petioles.—*Willd. and Pursh.*
P. tomentosa, Walt.?

Pennsylvanian Winter-cherry.

A very ordinary-looking plant, growing among rubbish, on neglected way sides, and sometimes on the borders of cultivated fields. Common. Annual, July.

104. *NICANDRA*. Adanson. Juss. Gen. pl. 140. (*Solaneæ*.)

Calix 5-parted, with 5 angles, angles compressed, segments sagittate. *Corolla* campanulate. *Stamina* incurved. *Berry* 3 to 5-celled, covered by the calix.—*Nutt.*

1. *Nicandra*, Pers. syn. 1. p. 219.

physaloides.

Atropa physaloides, Willd.

Calydermos erosus, Fl. Peruv. 2 p. 44.

Icon. Fevil. peruv. t. 16.

From two to three feet high. Flowers blue. Occasionally found in Jersey, and near farms on the Delaware, Pennsylvania side; but always, I think, near old or neglected garden sites. It has the appearance, in some of these situations, of being a native, but is introduced, and is becoming, as it were, naturalized? Rare. Annual. July, August.

105. *DATURA*. Gen. pl. 332. (*Solanæe*.)

Corolla funnel-form, plaited. *Calix* tubular, angular, and deciduous, the base orbicular and persistent. *Capsule* 4-celled, 4-valved, smooth or spiny.

1. *D. pericarp spinous*, erect, ovate; leaves ovate, *Stramonium*. glabrous.—*Sp. Pl.*

Icon. Fl. Dan. 436. Eng. bot. 1288. Woodville's Med. bot. t. 124.

Jamestown weed. Thorn-apple. Stramonium.

A large, rank, repulsive weed, well known to every one as an inhabitant of wastes, neglected commons, and road sides. Flowers purple and white. It is also well known for its narcotic virtues, and is much used in medicine. Very common. Annual. All summer.

106. *VERBASCUM*. Gen. pl. 331. (*Solanæe*.)

Calix 5-parted. *Corolla* rotate, 5-lobed, unequal. *Stamina* declined, bearded. *Stigma* simple. *Capsule* 2-celled, valves inflected, many-seeded.—*Nutt.*

1. *V. leaves decurrent*, tomentose on both sides; *Thapsus*. stem simple.—*Sp. Pl.*

Icon. Eng. bot. 549. Fl. dan. 631.

Mullein.

As well known to every body as the Stramonium. Flowers yellow. On road sides and stony ways, very common, and seeming to prefer calcareous soil. Introduced from Europe. Biennial. All summer.

- Lychnitis. 2. V. leaves oblong, wedge-shaped, naked above ; stem angled, panicked.—*Smith*.
Icon. Fl. Dan. 586.

A very striking and elegant looking plant, when in full bloom in favourable situations, having a pyramidal form from the adpressed radical leaves to the summit of the stem, which is sometimes six feet high. Flowers pale, or straw-yellow. On the banks of the Wissahickon, and in grassy lanes in the vicinity of that creek, abundant. Elsewhere I have not found it. Pursh says it grows on the banks of the Delaware, near this city. Biennial. June, July.

- Blattaria. 3. V. leaves amplexicaule, oblong, glabrous.
 α alba. leaves denticulate ; flowers pedunculated, white.

White Moth-mullein.

- β lutea. leaves doubly serrate ; flowers sessile, bright yellow.
V. Claytoni, Mich.?

Yellow Moth-mullein.

From one foot to three feet high. A very beautiful plant. Common in cultivated fields, and by sides of fences. Biennial. June to August.

107. SABBATIA. Adanson. Para. Lond. t. 32. (*Gentianæ*.)

Calix 5 to 12-parted. *Corolla* rotate, 5 to 12-parted. *Stigmas* 2, spiral. *Anthers* at length revolute. *Capsule* 1-celled, 2-valved, many-seeded.—*Nutt*.

- angularis. 1. S. stem quadrangular, winged ; leaves cordate-ovate, amplexicaule ; flowers on long peduncles, corymbose. B.

Chironia angularis, Willd.

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 24.

Centaury. Centry.

This beautiful plant is much esteemed for its medicinal virtues, which are bitter, tonic, and stomachic. (See Veg. Mat. Med. U. S.) From nine to eighteen inches high. Flowers peach-blossom red above, pale, or nearly white underneath, with a pentangular yellow spot in the centre, and spiral yellow anthers. On the Woodlands, rare. In damp grounds, Jersey, near Woodbury, not frequent. Biennial? July.

108. AZALEA. Gen. pl. 277. (*Rhododendra.*)

Calix 5-parted. *Corolla* funnel-form, or campanulate, 5-cleft, unequal. *Stamina* declined, inserted upon the torus or receptacle. *Style* declined, *stigma* obtuse. *Capsule* 5-celled.—*Nutt.*

1. *A.* flowers rather naked; leaves lanceolate-oblong, nudiflora. pubescent, the nerves beneath bristly; corolla hairy; stamens much longer than the tube of the corolla.—*Willd.*

A. periclymenoides, Mich.

A. periclymena, Pers.

Wild Honey-suckle.

This very beautiful shrub is common in open woods, of rich soil, among underwood, and is frequent in Jersey along the margins of swamps and in boggy ground. In the early part of the season, it flowers before the leaves have appeared. Flowers red. $\frac{1}{2}$. April rarely—May.

2. *A.* leaves on the margin scabrous; corolla hairy, viscosa. glutinous; stamens scarcely longer than the corolla.—*Sp. Pl.*

A larger species, with white viscous fragrant flowers. From four to eight or nine feet high. Very common on the borders of damp woods in Jersey, and among underwood. Plentiful on the road to Woodbury. $\frac{1}{2}$. June, July.

109. CAMPANULA. Gen. pl. 889. (*Campanulaceæ*.)

Calix mostly 5-cleft. *Corolla* campanulate, the base closed with 5 staminiferous valves. *Stigma* 3 to 5-cleft. *Capsule* inferior, 3 or rarely 5-celled, opening by lateral pores.—*Nutt.*

- acuminata. 1. *C.* smoothish, erect; leaves ovate-lanceolate, ending in a long point, subserrate; spike fascicled, many flowered; corolla subrotate.—*Mich. and Pursh.*

Pointed-leaved Bellwort.

From two to three feet high. Flowers pale blue. Very rare. Close to the Schuylkill, east side, near the Falls, and south of them. Perennial. July, August.

- aparinoides. 2. *C.* weak; stem simple, angled; angles as well as margins and nerves of the leaves prickly backward; leaves linear-lanceolate, smooth above; peduncles few at the summit of the stem, flexuous, axillary one-flowered, filiform.—*Pursh.*

C. erinoides, L.

C. flexuosa, Mich.?

C. aspera, Donn.

A rough plant, with small pale blue flowers. Found growing along the margins of rivulets. Common. Annual. July.

- amplexicaulis. 3. *C.* stem simple, erect; leaves cordate, crenate, toothed, amplexicaule; flowers axillary, sessile, clustered.—*Willd.*

C. perfoliata, Sp. Pl., Walt. and Pursh.

Icon. Bar. rar. t. 1133. (*Pursh.*)

About a foot high. Flowers dark blue. Very common in all cultivated fields. Annual. May to August.

110. TRIOSTEUM. Gen. pl. 300. (*Caprifolia*.)

Calix 5-cleft, persistent, nearly the length of the corolla; segments linear, acute. *Corolla* tubulous, 5-lobed, subequal, base nectariferous, gibbous. *Stigma* somewhat 5-lobed, capitate. *Berry* 3-celled, 2-seeded, crowned with the calix.—*Nutt.* •

1. *T.* leaves connate, spathulate-lanceolate, acuminate; flowers sessile, verticillate.—*Sp. Pl.* *perfoliatum*.

T. mjus, Mich.

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 4.

Fever-wort. Red-flowered Fever root. Gentian. Bastard Ipecacuhana. Wild-coffee. Dr. Tinker's weed. False Ipecacuanha. White Gentian. Perfoliate Fever-root.

From two to three feet high—rarely four. Flowers crimson red, berries scarlet red. A very rare plant in this vicinity. In the woods of Lemon-hill, bordering the Schuylkill, and near the Lancaster turnpike road, close to the Columbus inn; in both localities by no means abundant. In Kingsess gardens, (cultivated) Perennial. June.

111. DROSERA. Gen. pl. 531. (*Capparides*.)

Calix 5-cleft, persistent. *Petals* 5. *Anthers* 2-lobed, growing to the filaments. *Germ* superior. *Style* 1. *Stigmas* 3 or 4 divergent, deeply bifid. *Capsule* 1-celled, 3 or 4-valved, many-seeded. *Seeds* attached to the middle of each valve.—*Nutt.*

1. *D.* scapes radicating, simple; leaves suborbicular, tapering at base; petioles long, hairy.—*Willd. and Pursh.* *rotundifolia*.

Icon. Fl. dan. 1028.

Round-leaved Sun-dew.

A very curious and beautiful little plant, about three or four inches high. Leaves radical, adpressed. Flowers white. Common in sphagnous and cranberry swamps in Jersey, and in bogs this side of the river. On and near the Woodlands, frequent. Annual? July, August.

- longifolia. 2. D. scapes radicating, simple; leaves spatulate, obovate; petioles long, naked.—*Willd. and Pursh.*
Icon. Eng. bot. 868.

Long-leaved Sun-dew.

Easily distinguished from No. 1 by its long leaves; in other respects very much resembling it. Also a singular and delicate plant. Flowers, as in the preceding, white. Not so common as No. 1, though frequent. In the spot I have particularized, page 37, as the habitat of *Eriophorum angustifolium*. Annual? July, August.

112. VITIS. Gen. pl. 396. (*Vites.*)

Calix minute, 5-toothed or entire. *Petals* 5, mostly cohering above, in the manner of a calyptrum, coming off at the base, and then deciduous. *Style* 0. *Stigma* capitate. *Berry* 5-seeded, superior, round, or rarely ovate. (Flowers mostly dioicous).—*Nutt.*

- Labrusca. 1. V. leaves broad-cordate, sublobate, angular, hoary, tomentose beneath; fertile racemes small; berries large.—*Mich. Willd.*
V. taurina, Walt.
Icon. Jacq. schoenbr. 426. (Pursh.)

Fox-grape.

Every body knows the fruit of this plant by the above English name. Berries crow-black, large. In thickets, common. 2. June, July.

- æstivalis. 2. V. leaves broad, cordate, 3 to 5-lobed; younger ones with a brown tomentum beneath; fertile racemes oblong; berries small.—*Mich. and Pursh.*

V. vulpina, Willd.

V. Labrusca, Walt.

V. intermedia, Muhl.

Icon. Jacq. schoenbr. 425.

Summer-grape.

The fruit of this species is brought to our market, and is highly esteemed. Berries indigo-blue, smaller than those of No. 1, and of a more pleasant flavour. In similar places. Common. $\frac{1}{2}$. May.

3. *V. leaves cordate, acuminate, cut-dentate, every cordifolia.* where smooth; racemes loose, many-flowered, berries small.—*Mich. and Pursh.*

V. incisa, Jacq. schoenbr. 427. (Pursh.)

V. vulpina, L. and Walt.

Icon. Jacq. l. c. (Pursh.)

Winter-grape. Chicken-grape.

Berries greenish, tartish to the taste, and come to perfection very late in the autumn: Not so common as No. 1 and No. 2. $\frac{1}{2}$. June, July.

4. *V. leaves unequally cut-dentate, shortly trifid; riparia.* petiole, margin, and nerves pubescent.—*Mich.*

V. odoratissima, Don. Cat. 66.

V. odoratissima, Muhl.?

Bermudian-grape.

Well known, in gardens, where it is cultivated, by the above English name, and much esteemed, on account of the delicious fragrance of its flowers. It grows wild in a thicket on the Woodbury road, Jersey, near the "causeway," three miles, or four, from Camden. $\frac{1}{2}$. May, June.

113. CISSUS. Gen. pl. 655. (*Vites.*)

Calix minute, 4 or 5 toothed. *Petals* 4 or 5, unconnected above, spreading, deciduous.

Germ surrounded with a glandulous disk.
Berry 2-celled, 2 to 4-seeded. (Stamina
 sometimes 4.)—*Nutt.*

Hederacea. 1. *C.* stem radicant, climbing; leaves digitate, by
 fives; panicles compound, opposite the leaves;
 nectary wanting?

Ampelopsis quinquefolia, Mich.

Hedera quinquefolia, L. Hort. Cliff.

Vitis Hederacea, Willd.

V. quinquefolia, Lamark and Smith.

Icon. Corn. Canad. t. 100. (Pursh.)

Common Creeper.

Nothing is better known than this *Creeper*. It covers whole
 sides of our houses creeping up to chimney tops, and forms
 a beautiful clothing for blank, or old stone walls. The va-
 riegated hues of its leaves, a month previous to defoliation,
 in the autumn, render the plant, at that time, strikingly
 beautiful. It grows wild along the fences bordering sandy
 fields, in Jersey, just opposite the city. On the rocks of the
 Wissahickon, and elsewhere. $\frac{1}{2}$. June.

114. ITEA. Gen. pl. 381. Mich. Gen. pl. 1. p. 156.
 (*Rhododendra.*)

Calix small, 5-cleft. *Petals* 5, linear, reflexly
 spreading, inserted upon the calix. *Stigma*
 capitate, 2-lobed. *Capsule* 2-celled, 2-valv-
 ed, many-seeded; the seeds attached to the
 inflected margins of the valves.—*Nutt.*

Virginica. 1. *I.* leaves oblong, serrated, spikes pubescent.—
Willd.

Icon. Duham. arb. 1. t. 126. (Pursh.)

A shrub, from four to eight feet high, with spikes of white
 flowers. On the borders of the damp shady woods on the road
 to Woodbury, and in the swampy thickets, a short distance
 from the ferry-house, opposite Gloucester Point, Jersey Not
 very frequent, though abundant in these places. $\frac{1}{2}$. June,
 July.

115. IMPATIENS. Gen. pl. 1365. (*Gerania*.)

Calix 2-leaved. *Corolla* 4-petalled, irregular; the two interior petals unequally bilobed; lepanthium (nectarium, L.) hooded, calcarate. *Anthers* at first cohering. *Capsule* superior, 5-valved, elastic.—*Nutt.*

1. *I.* peduncles solitary, 3 or 4-flowered; lepanthium (petaloid nectary) obtusely conic, dilated, shorter than the petals: spur recurved, very short; flower citron-yellow, sparingly punctate; leaf rhombic-ovate, mucronately toothed.—*Nutt.*

I. *Nolitangere*, Pursh.

Pale-flowered Touch-me-not.

On the margins of streams, and in shaded swampy thickets. More rare than No. 2. Annual. July, August.

2. *I.* peduncles solitary, 3 or 4 flowered; lepanthium acutely conic, longer than the petals; spur resupinate, emarginate, nearly as long as the galea; flower fulvous, crowded with spots; leaf rhombic-ovate, obtuse, mucronately toothed.—*Nutt.*

I. *biflora*, Willd. and Pursh.

I. *maculata*, Muhl.

Fulvous-flowered Touch-me-not.

In similar places. Much more common than the preceding, but very like it. Flowers brownish-yellow and spotted. This species, Mr. Nuttall says, is sometimes used for dyeing salmon-red. Annual. June.

116. VIOLA. Gen. pl. 1364. (*Cisti*.)

Calix 5-leaved, produced at the base. *Corolla* 5-petalled, irregular, the lower petal cornute

behind. *Anthers* connivent, cohering at the membranaceous apex. *Capsule* superior, 3-valved, 1-celled.—*Nutt.*

§ 1. stemless species.

pedata. 1. *V.* leaves pedate, 7-parted ; segments linear-lanceolate, entire.

V. digitata, Pursh.

A very fine species. Flowers large, indigo-blue. Along the edges of open woods, and the borders of cultivated fields, in Jersey; common. Flowers, in this, as most of the subsequent species of blue and purple, become nearly white in drying for the herbarium. Perennial. May.

palmata. 2. *V.* leaves cordate, palmate, 5-lobed, toothed, and undivided.—*Sp. Pl.*

V. heterophylla.

A polymorphous species, as respects its leaves: they are often quite cordate, and from this shape are variously dissected, so as, at times, to be quite palmate. Corolla blue. In rich woods, every where very common. Perennial. May, June.

sagittata. 3. *V.* leaves oblong, acute, cordate-sagittate, serrate, notched at the base ; flowers inverted.—*Sp. Pl.*

A rare species, which I have only met with in the borders of cultivated fields close to Woodbury, Jersey. Perennial. April, May.

β emarginata. Leaves similar to those of *V. sagittata*, almost triangularly cordate, or hastate, lacerately toothed near the base, and decurrent in a narrow margin on the petiole, always smooth beneath, often pubescent above ; scape longer than the leaf ; petals obovate, all emarginate or bi-dentate, the lowest cucullate, the three lower, and sometimes the two upper, pubescent ; segments of the calix glabrous, lanceolate, acute ; stigma rostrate, depressed ho-

horizontally, distinctly margined around. Flowers of a fine deep blue.—*Nutt.*

V. sagittata, β *emarginata*, *Nutt. Gen. Am. pl. p. 147.*

In sandy fields of Jersey, and on the banks of the Schuylkill, every where frequent. Perennial. May.

4. *V.* leaves ovate, subcordate, crenate, rather acute, ovata. often lacerately toothed at the base, equally, and, for the most part, conspicuously pubescent on either side, petiole margined; scape shorter than the leaves; segments of the calix subciliate; petals obovate, the two lateral ones bearded.—*Nutt.*

V. ovata, *Nutt. Gen. Am. pl. vol. 1. p. 148.*

V. primulifolia, *Pursh*, not of *L.*

A small species, frequently occurring on the high rocks bordering the Schuylkill, towards the falls, and in the sandy fields of Jersey. Corolla fine bright blue. Perennial. April, May.

5. *V.* smooth, leaves reniform-cordate, acute, sinu- cucullata. ously serrate, cucullate at the base; peduncle often as long as the leaf; lateral petals bearded.—*Nutt.*

This is the commonest species, being found every where, in meadow grounds, near rivulets, and other damp places. Flowers purplish-blue, white at the base of the petals. Perennial. April till June.

6. *V.* leaves roundish-cordate, crenate-serrate, ob- villosa. tuse, upper side almost hirsutely pubescent, under side smooth, peduncle about the length of the flowering leaves, petals oblong, the lateral and lowest one bearded.—Leaves rather thick, mostly incumbent on the ground, often purplish on the under side.—*Nutt.*

V. villosa, *Walt. and Elliot.*

V. sororia, *Willd. Hort. Berol. 1. t. 72.*

In dry woods on the Schuylkill and in Jersey, not rare. Perennial. May.

β cordifolia. 7: *V.* leaves small, cordate, acute, crenately serrate, flat with a very small sinus, hirsutely pubescent above, smooth beneath; scape always longer than the flowering leaves, segments of the calix smooth, short, rather obtuse, scarcely produced at the base; petals short, obovate,—the 2 lateral and the lower thinly bearded, multistriate.—Leaves thickish, almost of an equal length and breadth, elegantly cordate and subacute, mostly incumbent on the ground, about an inch long, and equally broad; stipules minute, subulate; segments of the calix short and narrow, somewhat oblong; petals rosaceous blue; capsule smooth, stigma small, rostrate and depressed, not margined all round.—*Nutt.*

V. villosa, β cordifolia, Nutt. Gen. Am. Pl. vol. 1. p. 148.

About three or four inches high. In dry woods on the banks of the Schuylkill, frequent. May.

rotundifolia. 8. *V.* leaves orbicular cordate, slightly toothed, glabrous; petioles pubescent; calix obtuse; flowers yellow.—*Mich.*

V. rotundifolia, Mich.

Not identical with Pursh's *V. clandestina*.

Plant small when in flower. Leaves large, thick and adpressed to the ground. Flowers pale yellow. This very rare species grows on the dark, shady, hilly borders of the Wissahickon creek, north side, not far from Germantown. It is found generally at the roots, and under the deep shade of *Abies Canadensis*, so abundant on that secluded and romantic part of the creek. Perennial. April.

blanda.

9. *V.* leaves nearly smooth, or slightly pubescent on the upper side, petiole and under side entirely glabrous, nerves pinnate, also smooth; flowers white, and odorous, segments of the calix linear-oblong, obtuse; stigma capitate, depressed, recurved, acutely margined around, petals all smooth.—*Nutt.*

This is the true *viola blanda*, and is one of the few wild species which are fragrant. In damp places on the Wissahickon, and in bogs in Jersey, in company with *V. lanceolata*, and *V. primulifolia*. Perennial. April, May.

10. *V. leaves* oblong, subcordate, crenate, obtuse, *primulifolia*. the base remarkably and abruptly decurrent on the petiole, so as to resemble the leaves of *Primula veris*; nerves pinnate, mid-rib on the upper side of the leaf with a few scattered hairs; petiole on the under side as well as the nerves on the same side, and the scape hairy; segments of the calix obtuse, the 2 lateral petals a little bearded, flowers odorous.—*Nutt.*

V. primulifolia, L., Pers., and Elliot, not of Pursh.

This species has generally been confounded with *V. lanceolata*, which it much resembles. The late professor Barton, I know, considered it the *lanceolata*, supposing that plant to vary in the shape of its leaves. I confess I always had doubts of the identity of the two, but followed others till fully convinced. Flowers white. Grows in damp places with No. 11. Abundant, particularly in Jersey. Perennial. May.

11. *V. leaves* perfectly smooth, acute and sub-lanceolata. serrate, gradually attenuated down the petiole; segments of the calix acute; petals all beardless; stigma recurved, distinctly rostrate, capitulum roundish almost without margin. Flowers inodorous.—*Nutt.*

Leaves strictly lanceolate, varying in length, from one and a half, to three inches, and never exceeding three-fourths of an inch in breadth. Very common in boggy ground in Jersey; on the low grounds bordering the Wissahickon, south side; and in similar places all along the course of the Schuylkill, appearing to delight in rich soil. Perennial. May.

§ 2. *Species having Stems.*

12. *V. nerves* of the leaves somewhat pubescent *strata*. on the under side, calix ciliate, nectary rather large, 2 lateral petals densely bearded; stigma

tubular, recurved, a little pubescent on the summit.—*Nutt.*

Flowers yellowish-white. In Jersey frequent; less often met with on the Pennsylvania side of the river. Perennial. May, June.

debilis.

13. *V.* stem decumbent, leaves reniform-cordate, serrulate or crenate, smooth on the under side, base cucullate; petiole short; stipules ovate-lanceolate, serrate-ciliate, peduncles very long; segments of the calix linear-lanceolate, acute, smooth; petals oblong, pale blue, the 2 lateral ones bearded; stigma small, tubular, recurved, rostrate, with scabrous papillæ on the summit.—*Nutt.*

V. debilis, Pursh.

V. canina, Walt.

Very like the preceding, with which it grows. Easily distinguished by the colour of the flowers. Found on the Wissahickon. Perennial. May.

pubescens.

14. *V.* leaves either very pubescent, or nearly smooth, subserrate; stipules ovate, mostly entire; style compressed, stigma roundish, almost spherical, with 2 lateral tufts of pubescence, and without rostrum. Fruit smooth.—*Nutt.*

V. Pennsylvanica, Mich.

β eriocarpon.

Fruit densely villous; stipules smaller.—*Nutt.*

Grows a foot high and sometimes more—often less. Flowers deep yellow. Very abundant on the woody high banks of the Schuylkill, west side, from the upper ferry all along for a mile or two above the falls. *β.* described by Mr. Nuttall, I have not noticed. It is he says equally abundant. Perennial. May, June.

bicolor.

15. *V.* stem simple, erect, acutely triquetrous. Radical leaves spatulate-oval, with a few denticulations, upper leaves spatulate-lanceolate, or ovate, smooth. Stipulas large, cristate-palmate, ciliate, deeply 7 to 9-lobed, segments linear-oblong, terminal one much larger. Pe-

duncle long, quadrangular. Calix divisions ovate-lanceolate, acuminate, ciliate. Petals much larger than the calix, oboval, rather flat, bluish-white, the 2 lateral ones, cristately bearded, the lower petal dilated, marked with 5 blue striæ, at the base a yellow spot. Style short, nearly central, articulated at the base; stigma turbinate-capitate, erostrate, slightly pubescent at the sides, foramen large. Capsule nearly round.—*Nutt.*

V. bicolor, Pursh.

V. bicolor, Hoffman, Fl. Germ. 2. p. 170?

V. arvensis, Elliot.

A very delicate little species much resembling *V. tricolor* of the gardens. On the grassy borders of cultivated fields bordering Cooper's creek, Jersey, not far from Market-street ferry and the Burlington road. Annual. April, and early in May.

16. *V. calix* nearly equal with the petals, naked, *concolor.* or not produced at the base, divergent; petals all emarginate and connivent, the lower one bilobed, and not produced behind into a spur or nectary; anthers connate; capsule large; seeds pale, subglobose. Stem erect, roundish; leaves erect, numerous, scattered, sessile, cuneate-lanceolate, acuminate, pubescent, irregularly toothed on the upper part, attenuated below so as to appear subpetiolate; nerves strong, irregular or alternate; stipules subulate; peduncles very short, about 3-flowered.—*Nutt.*

The habit of this plant is very dissimilar from all the preceding species. Mr. Nuttall intimates the probability of its being a distinct genus. About 12 inches high. In the woods bordering a rivulet on Mr. Fisher's seat, Schuylkill, above Lemon-hill; very rare. Flowers greenish white. Perennial. April, May.

117. CLAYTONIA. Gronovius. L. (*Portulacæ*.)

Calix biparted. *Petals* 5. *Stigma* trifid.

Capsule 1-celled, 3-valved, 3 to 5-seeded.
Seeds reniform.

- Virginica. 1. *C.* leaves linear-lanceolate; racemes solitary; leaves of the calix somewhat acute; petals obovate, retuse; root tuberous.—*Pursh.*

Corolla pale rose-red with darker red stripes internally. In moist meadows in the Neck and along the course of the Schuylkill, in great profusion. It delights in rich moist soil. Perennial. April, May.

118. CEANOTHUS. Gen. pl. 361. (*Rhamni.*)

Calix turbinate, 5-cleft. *Petals* 5 squamiform, with long claws. *Stigmata* 3. *Capsule* 3-angled, 3-celled, 3-seeded, tripartite, opening on the inner side.—*Nutt.*

- Americanus. 1. *C.* leaves ovate-acuminate, serrate, three-nerved, nerves and veins beneath pubescent; panicles axillary on long peduncles; pedicels corymbose.—*Willd.*

Icon. Duham. arb. 51. Schmidt, arb. 132. (*Pursh.*)

New-Jersey Tea. Red-root.

A small shrub seldom exceeding three feet in height. In dry woods and copses in Jersey and Pennsylvania, very common. The leaves were dried and used like tea, during the American revolution—hence the name. Flowers small, white. $\frac{1}{2}$. May, June.

119. EUONYMUS. L. Gen. pl. 1. p. 373. (*Rhamni.*)

Calix 5-parted, or 5 cleft, its base inside, covered with a flat peltate disk. *Petals* 5, spreading, inserted on the outside margin of the glandular disk. *Capsule* 5-angled, 5-celled, 5-valved, coloured, septiferous in

the centre; cells 1 or 2-seeded. *Seeds* calyptrate (or arillate?)—*Nutt.*

1. *E.* subsempervirent; stem sarmentose, often ^{Americanus.} radicant, acutely quadrangular; leaves sub-^{β sarmentosus.} sessile, opaque, ovate-lanceolate acute, obtusely serrate, serratures for the most part undulated; peduncles about 3-flowered; flowers 5-petalled; fruit scabrous.—Leaves somewhat shining, and remarkable for their opacity; fruit of the usual brilliant colours; theca bursting from the centre.—*Nutt.*

Creeping rooted Burning-bush, or Spindle-tree.

Seldom exceeding two feet in height, and always preserving the sarmentose habit. It is, I think, a distinct species. On the high shady banks of the Wissahickon. On the hills bordering the east side of the Schuylkill a mile or two south of the falls; and in a copse on the east side of the road leading from the Lancaster turnpike about two miles from the Schuylkill bridge, towards the falls, the copse perhaps two miles on the road after leaving the turnpike. In the latter place it is abundant. July.

120. CELASTRUS. Gen. pl. 372. (*Rhamni.*)

Calix 5-lobed. *Corolla* 5-petalled. *Stamina* situated around a 5-toothed glandulous disk. *Style* thick, perforate; *Stigmas* 3. *Capsule* (theca) 3-sided, 3-celled, 3-valved, valves septiferous in the centre; cells 1 or 2-seeded. *Seeds* semiarillate, arillus 4-cleft.—*Nutt.*

1. *C.* without thorns; leaves oblong, acuminate ^{scandens.} serrate, racemes terminal.—*Willd.*
Icon. Duham. arb. 95. Schmidt, arb. 140.—
(Pursh.)

Climbing Celastrus. Wax Work.

A climbing plant frequently reaching the tops of trees, twenty or thirty feet high. Flowers yellowish white, small. Berries a bright orange-red. Said to possess medicinal virtues. In hedges and among small trees and shrubs on rocky ground. Frequent near Mendenhall's tavern on the east bank of the Schuylkill, not far from the falls along the fences; and in the stony and hilly copices back of Powelton, abundant. $\frac{1}{2}$. May, June.

121. COMANDRA. Nuttall, Gen. Am. Pl. vol. 1, p. 157.
(*Santalaceæ*, R. Brown.)

Calix angular, tubular-campanulate, coalescing with an internal 5-toothed, glandulous disk. *Petals* 5, ovate, ingrafted upon the margin of the calix, persistent. *Anthers* attached to the petals by a tuft of filaments! *Germ* 3-seeded, immersed in the glandulous disk. *Capsule* valveless, 1-seeded, coated by the base of the calix.

Perennial, root ligneous, stem herbaceous; leaves simple, alternate, stipules none; radical gemmaceous scales numerous, persistent; flowers in a corymbulose terminal panicle.—*Nutt.*

umbellata.

1. C. stem round and erect, sending out 2 or 3 infertile branches below the panicle. Leaves approximating, erect, oblong-ovate, obtuse, smooth, reflected on the margin, and reticulately veined. Panicle short, ramuli axillary, corymbulose, corymbs about 5-flowered, with 4 involucrate bractes, uppermost peduncles fewer flowered. Calix uniting with the glandulous and nectariferous germinal disk: disk 5-toothed, obtuse. Petals 5, calycine, often 4 and 6, with the same number of stamina, ovate, acute, persistent, growing to the margin of the calix, white, internally villous (seen through a lens), before expansion parallel. Stamina seated at the base of the petals, alternating with the dentures of the glandulous disk; filaments subulate,

about half the length of the petals; anthers oval, 2-celled, connected at their summits to the petals near their base by a fascicle of yellow filaments—Style terete, simple; stigma round, entire; germ about 3-seeded, ovula, pendulous, attached to the apex of a filiform contractile funiculus arising from the base of the capsule. Capsule nearly globular, and angular, 1-seeded, not opening, thin and brittle, not osseous, coated by the base of the calix. Seed round, about the size of a small pea, consisting almost entirely of a large carnose and oily perisperm, embryo inverted, small, flat, nearly in the axis of the perisperm; radicle superior, thick and obtuse; cotyledons linear and acute.—*Nutt.*

Comandra umbellata, Nutt.

Thesium umbellatum, L., Willd., Pursh.

T. corymbulosum, Mich.

Bastard Toad-flax.

A small plant seldom above 10 inches in height. Very rare in this neighbourhood; I have only found it at the Woodlands along the banks of the Schuylkill. Flowers white. Perennial. June, July.

ORDER II. DIGYNIA.

122. APOCYNUM. Gen. pl. 426. (*Apocynæe.*)

Calix very small, 5-cleft, persistent. *Corolla* campanulate, half 5-cleft, lobes revolute, furnished at the base with 5 dentoid glands alternating with the stamina. *Anthers* connivent, sagittate “cohering to the stigma by the middle.” R. BROWN. *Style* obsolete; *stigma* thick and acute. *Follicles* long and linear. *Seed* comose.—*Nutt.*

androsæmifolium.

1. **A.** leaves ovate, glabrous; cymes terminal and lateral; tube of the corolla longer than the calix.—*Brown.*

Icon. Dod. mem. t. 50. (Pursh.)

Common Dog's-bane. Tutsan-leaved Dog's-bane.

From two to three feet high. Flowers pale red, and striped. On the borders of cultivated fields, frequent. Perennial. July.

Cannabinum.

2. **A.** stem upright, leaves oblong-oval, with hoary pubescence underneath; panicle pubescent; the limb of the corolla erect.—*Willd. and Pursh.*

A. Cannabinum, Mich. Willd. Pursh, not of Brown and Elliot.

A. pubescens, Brown, and Elliot following him.

Icon. Pluk. alm. t. 13. f. 1.

Indian Hemp.

Resembles No. 1. Easily distinguished, however, by the leaves and flowers, which are greenish-white, or yellowish-green, and smaller than those of No. 1. In similar places with the preceding. Perennial. June, July.

hypericifolium.

3. **A.** stem somewhat procumbent, leaves cordate-oblong; smooth, cymes shorter than the leaves. **B.**

A. Sibiricum. Jacq. hort. 3. t. 66. (Pursh.)

St. John's-Wort-leaved Dog's-bane.

This species has very much the aspect of hypericum, as regards its foliage. On the sandy low shores of the Delaware above Kensington, on the Pennsylvania side; and nearly opposite Gloucester point on the Jersey side. Rare. Perennial. July.

123. GONOLOBUS. Mich. Fl. Am. 1. p. 119. (*Apocynææ.*)

Corolla rotate, 5-parted. *Lepanthium* (or nectary) simple, cylindric, subcarnose, 5-lobed, depressed, exactly equal with the antheridium (antheroid cells) discoid, pen-

tangular, without alated lateral margins or terminal membranaceous cusps. *Pollinia* (masses of pollen) 5 pair, even, transverse. *Follicles* 2. *Seed* comose.—*Nutt.*

1. *G.* stem twining, hirsute; leaves ovate-cordate, obliquus, acute; corymbs axillary; segments of the corolla ovate acuminate.

Gonolobus obliquus, Muhl.

Cynanchum obliquum, L. *Sp. pl.* 1. p. 1256.

A twining plant with dark purple flowers, with linear spreading petals. On the banks of the Schuylkill from Lemon-hill to the falls. On the botanic garden-ground of the University of Pennsylvania. Not common. Perennial. June.

124. ASCLEPIAS. *Gen. pl.* 429. (*Apocynæa*.)

Calix small, 5 parted, persistent. *Corolla* rotate, mostly reflected. *Lepanthium* (nectary, L.) simple, 5-parted, segments ovate, cucullate, each producing from its base an internal subulate averted awn. *Antheridium* 5-parted, crustaceous, sessile, angles opening by 5 longitudinal chinks. *Follicles* 2, ventricose, acuminate, smooth or muricate. *Seed* comose.—*Nutt.*

1. *A.* stems simple, leaves lanceolate-oblong, Syriaca, acute tomentose beneath; umbels somewhat nutant, tomentose.—*Willd. and Pursh.*

A. Syriaca β. Mich.

A. Illinoensis, β *Syriacæ*, Pers.

Milk-weed. *Syrian Swallow-wort.* *Silk-weed.*
Wild-cotton.

The commonest species of this genus in this neighbourhood. From three to four feet high. On the banks of the Schuylkill, Delaware, and all our creeks, very frequent. Perennial. June.

2. *A.* stem erect, simple, leaves broad-ovate-oblong, phytolacceoides. acute, smooth, paler underneath; umbels com-

pound, lateral, solitary on large peduncles, nudent.—*Gron. virg.* and *Pursh.*

A. phytolaccoides, Lyon.

A. exaltata,
A. acuminiata, } *Muhl.*

Poke-leaved Milk-weed.

On the high and rocky banks of the Wissahickon. Very rare. I have not often found it flowering. Perennial.

- incarnata.* 3. *A.* stem erect, branched and tomentose, leaves lanceolate, subtomentose woolly, umbels numerous originating by pairs, horns exserted.—*Willd.*

Icon. Jacq. hort. t. 107.

Flesh-coloured Milk-weed.

About two or three feet high. In marshy meadows and on the banks of our waters, common. Perennial. June, July.

- pulchra.* 4. *A.* leaves lanceolate, pubescent underneath, sparingly so above; stem divided above; umbels erect in pairs. *B.*
A. incarnata, β *pulchra*, *Willd.*

This is usually set down as a variety of the preceding. I cannot however think it so. In similar places as Nos. 1 and 2, and 3. Perennial. July.

- amœna.* 5. *A.* leaf oblong-oval, with acute point, under side minutely pubescent, petiole very short; umbels terminal, erect; flowers purple: segments of the lepanthium ovate-oblong, entire, twice the length of the antheridium, central process flattened and gibbous, terminating in a subulated awn; margins of the antheridium triangularly produced.—*Nutt.*

About two feet high. Flowers fine purple. Very rare. In an umbrageous hilly wood on the west side of the Schuylkill, about four miles from Market-street bridge. Perennial. July.

- variegata.* 6. *A.* stem erect, simple, leaves ovate, petiolate, rugose, naked; umbels subsessile, pedicels tomentose.—*Willd.*
A. hybrida, *Mich.*

A. variegata, Walt. not of L.

Icon. Pluk. alm. t. 77. f. 1. Bot. Mag. 1182.

Variegated Milk-weed.

This beautiful species is easily recognised by its white and red flowers. From eighteen inches to two feet high. On the borders of woods and in open woods. Jersey, frequent. Not so often met with on the Pennsylvania side of the Delaware. Perennial. July.

7. **A. leaves amplexicaule**, oblong round-obtuse, *obtusifolia*.
undulate; umbel terminal on a long peduncle,
many-flowered, glabrous, horns exserted.—*Mich.*

A. purpurascens, Walt.

A species easily distinguished from its congeners, by the very long terminal peduncle, and blunt or rounded amplexicaule leaves, waved on the margin. Flowers large, purple. In sandy fields of Jersey, and in dry sandy woods, tolerably frequent, particularly a few miles south of Camden. Perennial. June, July.

8. **A. stem erect**, simple, smooth, leaves ovate-acute *quadrifolia*.
petiolated; in the middle of the stem the large
ones in fours; umbels two, terminal, loose-flowered,
pedicels filiform.—*Jacq.*

Under a foot high. Flowers white. On rocky ground bordering the Schuylkill above the falls, rare. Perennial. May.

9. **A. stem erect**, very simple, a little pubescent in *verticillata*.
lines; leaves very narrow-linear, upright, smooth,
generally verticillate, horns exserted.—*Mich.*

Icon. Pluk. mant. t. 336. f. 4. (Pursh.)

This very pretty species is readily distinguishable from all the others by its linear leaves. From fourteen inches to two feet high; flowers Naples-yellow and white. Very rare; I have only found it sparingly in a hedge, close to the spot already particularised as the habitat of *Iris prismatica*. Perennial. June, July.

10. **A. stem somewhat upright**, divaricate-branch- *tuberosa*.
ing, very hirsute, leaves scattered (crowded and
alternate) oblong-lanceolate, hirsute, umbels

corymbose-terminal.—*Willd.* and *Pursh.*

A. decumbens, Walt.

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 22.

Pleurisy-root. Butterfly-weed, &c. &c.

The most beautiful of all the American species. Flowers of a rich orange-red, and exceedingly brilliant. The root, as the above name implies, possesses medicinal virtues. As a medicine it has been much extolled. (See Veg. Mat. Med. U. S.) Perennial. June, July.

125. GENTIANA. Gen. pl. 450. (*Gentiana*.)

Calix half 5-cleft, or half 5-parted. *Corolla* tubulous at the base, campanulate, border 4 or 5-cleft; divisions ciliate or entire, spreading, erect or connivent, sometimes furnished with intermediate plaits. *Stamina* 4 or 5, distinct or connate. *Capsule* 2-valved, 1-celled; receptacles 2, longitudinal.—*Nutt.*

crinita.

1. *G. corolla* 4-cleft, segments fimbriate; leaves lanceolate, acute; stem erect, terete.—*Sp. Pl.*
G. fimbriata, Bot. Mag.

A beautiful plant about twelve inches high. Flowers bluish-purple, and elegantly fringed. In the woods bordering the road above the falls of Schuylkill, and about a quarter or half a mile from the river. Not common. I have met with it only there. Biennial. September, October.

Saponaria.

2. *G. stem* terete, smooth, leaves oblong-lanceolate, three-nerved, flowers sessile, fasciculated, terminal and axillary, corolla 5-fid, campanulate ventricose; divisions obtuse.—*Willd.*

G. fimbriata, Vahl. 3. p. 47.

G. Catesbæi, Walt.

Icon. Catesb. car. 1. t. 70. Bot. Mag. 1039.
Bot. Rep. 418.

Soapwort-Gentian.

A very beautiful plant, easily known by its fine Prussian blue flowers. The corolla is always closed. From twelve to

fifteen inches high. In boggy meadow grounds of Jersey, especially close to Woodbury, frequent. Perennial. August, September.

3. *G. stem* subangulate, somewhat scabrous, leaves *ochroleuca*. ovate-lanceolate, roughish, flowers sessile, fasciculated terminal, corolla 5-fid, campanulate ventricose; segments acute, interior folds simple acute.—*Willd and Pursh*.

G. saponaria, Walt.

G. villosa, Willd.

Icon. Pluk. alm. t. 186. f. 1.

Flowers outside yellowish-green, inside blue and purple striped. A very rare plant in this neighbourhood. I have only found it in hilly woods near the Chester-road, about ten miles from the city. Perennial. August.

126. HEUCHERA. Gen. pl. 447. (*Saxifragæ*.)

Calix 5-cleft. *Petals* 5, small. *Capsule* bi-rostrate, bilocular, many seeded.

1. *H. viscid* and pubescent; scapes naked, thyrsus *Americana*. elongated; radical leaves on long petioles, with rounded lobes.—*Pers*.

H. Cortusa, Mich.

H. viscida, Pursh.

Cortusa Americana, Herm.

Alum-root.

From fourteen inches to two and a half or three feet high, including the scape and panicle. Flowers small, with long exerted stamens and red anthers. The root is a powerful astringent. In woods and thickets, frequent. Perennial. May.

127. ERYNGIUM. Gen. pl. 456. (*Umbelliferae*.)

Flowers capitate. *Involucrum* many-leaved. Proper *calix* 5-parted, superior, persistent. *Corolla* 5-petals. *Receptacle* foliaceous,

segments acute or cuspidate. *Fruit* bipartite.—*Nutt.*

Virginianum. 1. *E.* tall; leaves very long, lanceolate-linear, serrate; those of the branches with many linear-divisions; involucre longer than the ovoid heads; chaff 3-5 fid, capituli paniculate.—*Lamarck* and *Delaroche*.

E. aquaticum β.—*Willd.* and *Mich.*

Icon. Delaroche eryng. t. 19. (*Pursh.*) *Pluk. alm.* t. 396. f. 3.

Two or three feet high; flower-heads sky-blue. Often prolific. Along the shores of the Delaware and Schuylkill, in situations where the tide reaches it. Common. Perennial. July, August.

128. PANAX. Gen. pl. 1604. (*Araliæ.*)

Flowers polygamous; umbel simple.—*Calix* 5-toothed. *Corolla* of 5 petals. *Berry* inferior, subcordate, 2, sometimes 3-seeded. *Calix* in the male flower entire.—*Nutt.*

quinquefolium.

1. *P.* root fusiform, leaves ternate and quinate, leaflets oval, acuminate petiolate serrate.—*Willd.*
Icon. Bot. Mag. 1333. *Fl. Peruv.*

Ginseng.

The root of this plant is the celebrated *Ginseng* of commerce. Plant about twelve inches high. Exceedingly rare. In the shady and hilly woods above the falls of Schuylkill, west side; and there scarce. Perennial. May.

trifolium.

2. *P.* root subrotund-bulbous; leaves thrice ternate and quinate; leaflets oblong-lanceolate, sessile, serrate.—*Willd.*
Icon. Bot. Mag. 1334.

A small delicate plant about six inches high, with small flowers. On the banks of the Wissahickon, near rivulets, frequent. Not often met with elsewhere. Flowers as in No. 1, white. Perennial. April, May.

129. HYDROCOTYLE. Gen. pl. 457. (*Umbelliferae*.)

Umbel simple.—*Calix* none. *Petals* entire, spreading. *Styles* short; stigmas capitate. *Fruit* suborbicular or reniform, laterally compressed. *Seed* tricostate, and flat, dorsal rib sometimes obsolete; commissure flat, linear, and immarginate. *Involucrum* various.—*Nutt.*

1. *H.* leaves reniform, slightly 7-lobed, crenate; *Americana.* umbels few-flowered, sessile.—*Lamark.*

American Penny-wort.

A small subaquatic plant with very thin and delicate leaves, which dry transparent when prepared for the herbarium. In swamps, boggy ground, and on the borders of our rivers, creeks and rivulets: common. Flowers very small, greenish-white. Perennial. June, July.

2. *H.* leaves peltate, crenate emarginate at the *umbellata.* base; umbels pedunculated, many-flowered, flowers pedicellated.

Umbelled Penny-wort.

About the same size as No. 1, and easily distinguished from it by its umbellated flowers. In similar places, frequent. Perennial. May, July.

130. SANICULA. Gen. pl. 458. (*Umbelliferae*.)

Umbel nearly simple, capitate.—*Calix* 5-parted. *Petals* and *stamina* inflected. *Fruit* muricated, with uncinatæ setæ. *Flowers* of the disk numerous, abortive.—*Nutt.*

1. *S.* leaves digitate, leaflets oblong, incised; *fer-* *Marilandica.* tile flowers sessile, generally by three's; sterile, on footstalks, numerous.—*Pursh.*

In woods, common. Perennial. June.

- Canadensis. 2. *S. radical* leaves compound, leaflets ovate.—
Willd.

A larger plant than No. 1, being often two and an half feet high. The fruit, which is a kind of burr, is much larger than that of No. 1. On the Wissahickon in woods, abundant. I have not met with it elsewhere. Perennial. June.

131. DAUCUS. Gen. pl. 466. (*Umbelliferae*.)

Fruit oblong, partly solid, ribs ciliated with hispid hairs or barbed bristles. *Involucrum* pinnatifid.—*Nutt.*

carota.

1. *D. seeds* hispid, petioles nerved beneath; segments of the leaf narrow, linear, acute.—*La-mark.*

Wild Carrot.

Well known to every body, as an inhabitant of grassy ways, neglected lanes, road sides, and the borders of cultivated fields. Flowers white, in large spreading umbels. This plant has a place, for its medicinal virtues, in Woodville's Medical Botany, and other works in the Materia Medica. Originally introduced from Europe, but now every where naturalized in the United States. Perennial. All summer.

132. AMMI. Gen. pl. 467. (*Umbelliferae*.)

Flowers radiated, all hermaphrodite. *Petals* cordately inflected. "Fruit oblong, corticate, angular, ridges 5, obtuse, intervals convex." SPRENGEL. *Involucrum* pinnatifid.—*Nutt.*

capillaceum.

1. *A. stem* branched; leaves all compoundly capillaceous, many cleft: involucre many cleft, shorter than the umbel; seeds smoothish.—
Pursh.

A. majus, Walt.

Bishop's-weed.

From a foot to fourteen inches high. Flowers white. Along the shores of the Delaware where the tide reaches, not unfrequent. Annual. June, July.

133. CONIUM. Gen. pl. 469. (*Umbelliferae*.)

Calix entire. *Petals* unequal, cordately inflected. *Fruit* ovate, gibbous. *Seeds* 5-ribbed, ribs at first crenate; intervals flat. *Involucell* on one side, mostly 3-leaved.—*Nutt.*

1. *C. seeds striate.*—*Willd.*

maculatum.

Icon. Jacq. austr. 156. (Pursh.)

Hemlock. Cicuta.

A well known narcotic medicinal plant, yielding the *Cicuta* of the pharmacopæias. Introduced, and sometimes, though rarely found in this neighbourhood, with the appearance of growing wild. Whole plant poisonous. Biennial. June.

134. HERACLEUM. Gen. pl. 477. (*Umbelliferae*.)

Calix nearly entire. *Petals* emarginately inflected, often of 2 forms. *Fruit* elliptic, dorsally compressed, flat, apex, emarginate, margin membranaceous. *Seed* with 3 striæ, “intervals maculate half way down,—commis sure flat, bimaculate.”—SPRENGEL.—*Involucrum* none.—*Nutt.*

1. *H. petioles and nerves of the leaves very vil-* *lanatum.*
lous on the under side; leaves trifoliate, folioles all petiolate, large subrotund-cordate, subpalmate-lobate, seeds orbicular.—*Mich.*

Cow Parsnip.

Perhaps the largest umbelliferous plant native of the United States, being often six or seven feet high. The umbels and

leaves are very large, and the whole plant exhales, when dry especially, a most delicious fragrance. In the woods back of the Blue-bell inn, on the Darby-road, and in those near the falls of Schuylkill, west side. It delights in rich and damp soil, Rare. Perennial. July.

135. PASTINACA. Gen. pl. 494. (*Umbelliferae*.)

Fruit oval, apex emarginate, flatly (and dorsally) compressed, margined, ridges (on each seed, 5, obsolete, intervals striate, commissure also bistriate. *Involucrum* universal and partial, none.—*Sprengel*.

sativa.

1. *P.* leaves simply pinnate.—*Willd*.

Wild Parsnip.

From three to four feet high. Flowers yellow, in large umbels. In a cultivated state, the rank smell and taste of this plant disappear, when the root is eaten, as is well known, at our tables, under the name of *parsnip*. Introduced, but now naturalized. On the borders of cultivated fields, common. Perennial. June, July.

136. ANGELICA. Gen. pl. 479. (*Umbelliferae*.)

Fruit elliptic, compressed, somewhat solid, and corticate, ridges 3, dorsal acute, intervals grooved, margin alated. *Involucrum* universal none.—*Sprengel*.

triquinata.

1. *A.* petiole three-parted, divisions primate, 5-leaved, folioles cut dentate; the terminating odd one sessile rhomboid, lateral ones decursive.—*Mich*.

A. hirsuta, Muhl.

Wild Angelica.

About three feet high. Flowers white. In woods common. Perennial. June.

137. SIUM. Gen. pl. 480. (*Umbelliferae*.)

Calix obsolete. *Petals* cordately inflected.
Fruit sub-obovate, laterally compressed,
 and striate.

1. *S.* leaves pinnate, leaflets oblong-lanceolate, *latifolium*.
 equally serrate.—*Smith*.

From three to four feet high. Stem hollow. Flowers white.
 Very common on the marshy shores of the Delaware and
 Schuylkill, and other waters in our neighbourhood. Perennial.
 July, August.

2. *S.* leaves pinnate, folioles long, sub-lanceolate-*linear*.
 linear, remotely serrate, involucre few leaved,
 involucels linear, many-leaved, umbel shortly
 radiated.—*Mich*.

S. suave, Walt.

S. longifolium, Pursh ?

Along the shores of the Delaware and Schuylkill, and on
 the borders of ditches and rivulets, not uncommon. Peren-
 nial. July.

138. MYRRHIS. Mich. (*Umbelliferae*.)

Fruit sublinear, solid and angular, ridges a
 little acute, apex attenuated or crowned
 with the style. Universal involucre
 none.—*Sprengel*.

1. *S.* leaves ternate, folioles ovate-acute, some-*Canadensis*.
 what incised; peduncles in pairs, fruit oblong.—
Pers.

Myrrhis Canadensis, Riv. pentapet. 54 Sprengel,
 Plant. Umb. Prod. p. 28.

Sison Canadense, L., Willd., Pursh, &c.

Chærophyllum Canadense, Pers.

Canadian Honey-wort. Chervil.

About eighteen inches or two feet high. In shady woods.
 very common. Perennial. July.

139. *ŒNANTHE*. Gen. pl. 484. (*Umbelliferae*.)

Fruit ovate-oblong, corticate, solid, apex denticulate, crowned with the persistent style, ridges (or striæ) (on each seed) 3 or 5 obtuse. Universal involucre scarcely any.—*Sprengel*.

rigidius.

1. *Œ.* leaves all pseudo-pinnate; leaflets sessile, oblong-lanceolate, entire or incisely toothed; involucre none; styles peltately dilated at the base, extremely short; fruit subelliptic. **Obs.** Stem erect, rigid, terete, even, striate, and fistulous. Leaflets 4 or 5 pair, all sessile, circumscribed by a whitish and somewhat scabrous margin. Involucell about 8-leaved, subulate. Calix 5-toothed, acute. Petals cordately inflected; many of the central sessile flowers sterile. Styles persistent, peltately dilated at the base, scarcely a line in length, divaricate, obtuse or rather truncate, and distinctly grooved on the upper side. Fruit elliptic-ovate, dorsally compressed, flat, (as in *Pastinaca sativa*.) Seeds rather large, with a suberose prominent subalated margin continued inwards so as to cover the seed, slenderly striated on the back; striæ 5.—*Nutt.*

Sium rigidius, Willd., Mich., Pursh, &c.

Sison marginatum, Mich?

About three feet high. The leaves are often entire; sometimes deeply and remotely toothed. In swampy ground bordering the Delaware and Schuylkill, common.

ambigua.

2. *Œ.* stem even, with few leaves; leaves all pseudo-pinnate, leaflets three to five pair; narrow-linear, long and entire, all sessile and acute, under side glaucous; involucre 2 or 3-leaved; umbels terminal, nearly solitary. **Obs.** Root perennial, tuberous? Stem tall, smooth, striate, fistulous and cylindric. Leaves distant, with

small sheaths, only about 4 or 5 on the whole stem; leaflets 5 or 6 inches long, and about 2 lines wide, thickish, perfectly entire, or now and then, but rarely, bifid, circumscribed by a white and somewhat scabrous margin. Umbel rather small, with elongated rays. Umbellets roundish, with sessile abortive flowers, involu-cell many-leaved, filiform-subulate. Calix distinct, 5-toothed. Petals cordately-inflected. Styles very short, peltately dilated at the base. Fruit smooth, flat, and subelliptic.—*Nutt.*

Oenanthe ambigua, Nutt. Gen. Am. pl. vol. 1. p. 189.

Sium tenuifolium, Pursh.

This plant has been found by Mr. Collins, in the marshes of Jersey, attaining the height of 8 feet. On the marshy banks of the Delaware, near Philadelphia; Mr. Nuttall. According to a specimen in the Muhlenbergian herbarium, this is the *sium tenuifolium* of Pursh.

140. *CICUTA*. Gen. pl. 486. (*Umbelliferae*.)

Fruit corticate, roundish, and laterally compressed; commissure oblong-elliptic, flat. *Seed* gibbously convex, scored with 5 converging obtuse ridges, and 4 intermediate tuberculate grooves.—*Nutt.*

1. *C. serratures* of the leaves mucronate; petioles *maculata*. membranaceous, 2 lobed at the summit.—*Pers.*

This plant varies occasionally with broad-ovate or ovale folioles. About three or four feet high, and possessed of a remarkable sweetish aromatic warm taste and smell. In damp places, as the borders of ditches, rivulets, creeks and rivers, very common. Perennial? July, August.

2. *C. leaves* various; in bulbiferous stems *biter-bulbifera*. nate and very thin, in bulbiferous and umbel-liferous stems simply ternate, leaflets thicker, upon shorter peduncles, linear sub lanceolate,

lacerately serrate; umbel terminal, solitary, lateral branchlets bulbiferous.—*Nutt.*

A small and singular plant, resembling *Ammi capillaceum*. On the shores of the Delaware, near the city; Mr. Nuttall. Perennial. July.

141. URASPERMUM. Nutt. Gen. Am. pl. vol. 1. p. 192.
(*Umbelliferae*.)

Fruit sublinear, solid, acutely angular, caudate, and without striæ; angles subsulcate, hispid; commissure sulcate; receptacular axis semibifid; style subulate, persistent, terminating the fruit. Universal involucre none.—*Nutt.*

Claytoni.

1. U. stems about a foot high, striated, always more or less pubescent, but at first of a hoary whiteness. Leaves only about 2 on each stem; ternate, with the subdivisions from 3 to 5-leaved; terminal leaflets rhomboidal, acute, lateral ones more irregular and oblong, sometimes subpinnatifidly lobed, but generally incisely toothed, dentures mostly obtuse with a small point. Umbels axillary and terminal, rays about 5. Involucre wanting, or of 1 or 2 small leaves. Umbellets small, exterior hermaphrodite flowers about 5, males about 10, all pedunculate, peduncles of the male-flowers capillary; involucre 5-leaved, linear-lanceolate, acuminate, soon after flowering deflected. Styles filiform, as long as the germ, erect and divaricate, with inconspicuous stigmas. Germ distinctly villous towards the base. No vestige of a calix. Fruit linear-lanceolate, black and shining, subulate, but without rostrum. Seed caudate, (an inch in length, including the cauda, which is about 3 lines long) acutely quadrangular, without either ribs or striæ; intervals flat and even, cuticle

minutely punctate, cauda, and more sparingly the angles of the seed aculeately hispid.—*Nutt.*

Scandix Claytoni, Mich.

Scandix dulcis, Muhl.

About two feet high. Fruit near three quarters of an inch long, and almost black. On the shaded banks of the Schuylkill, west side, just opposite Breck's island. A rare plant, which I have found no where else than in the spot just mentioned, and there it is plentiful. "The root has a very agreeable scent and sweet taste." Pursh. Perennial. June, July.

142. CHÆROPHYLLUM. Gen. pl. 490. (*Umbelliferae*.)

Fruit oblong-linear, terete, ecostate, glabrous, commissure sulcate.—*Sprengel*.

1. *C.* young stems, and particularly the sheaths of procumbens, the leaves hairy. Umbels opposite the leaves, naked, 3-rayed. Umbellets about 5-flowered; involucre short, about 5-leaved, ovate, erect. Flowers all fertile; petals oblong-oval, entire, scarcely inflected. Styles very minute. Seeds linear-oblong, 3 or 4 lines long, brownish, even, very smooth and distinctly lined; striæ 5, intervals angularly elevated.—*Nutt.*

Scandix procumbens, Willd.

Procumbent Chervil.

Whole plant very slender and delicate, and under twelve inches in height. Flowers white, very small; fruit more than a quarter of an inch long. Not frequent. On the banks of the Schuylkill, west side, just above Market-street bridge, and on the same side, a little below the bridge. It delights in shady moist situations. Annual. May.

143. SMYNIUM. Gen. pl. 495. (*Umbelliferae*.)

Fruit roundish and solid, somewhat laterally compressed, angularly ribbed. *Seed* (blackish), gibbously convex, marked with 3 angular elevations.—*Nutt.*

integerrimum.

1. *S.* leaves doubly ternate, very entire; leaflets entire, somewhat glaucous.—*Sp. Pl.*

From one foot to eighteen inches high. Flowers yellow. A very rare species in this vicinity. On the north side of a rivulet running from a mill which stands on the road from the upper ferry towards the falls, and about a mile and a half from the ferry bridge. The rivulet empties into the Schuylkill, near Landsdown. I have never found this plant in any other locality, and even there it is scarce. Perennial. May, June.

trifoliatum.

2. *S.* radical leaves suborbiculate-cordate, crenate, stem-leaves petiolate trifoliate, upper ones 3-parted, umbel with short radii.—*Walt.*

Thapsia trifoliata, L.

Cnidium trifoliatum, Cusson.

Smyrnium cordatum, Walt., Pursh, &c.

About fourteen inches high. Flowers yellow. In the fields near the Schuylkill on the way to the "Woodlands"—and similar situations elsewhere, frequent. Perennial. June, July.

144. THASPIUM. Nutt. Gen. Am. pl. vol. 1. p. 196. (*Umbelliferae*.)

Fruit subelliptic. *Seed* convex with 5 alated ridges, alæ subequal; intervals grooved. *Involucre* none. *Involucell* about 3-leaved, unilateral?—*Nutt.*

atropurpureum.

1. *T.* leaves serrate, radical often subcordate, uppermost ternate, middle leaflet conspicuously petiolate, leaflets ovate-acute; flowers dark purple. Radical leaves mostly entire, upon long peduncles; involucell 3-leaved, unilateral, often wanting. Calix 5-toothed, obvious. Petals oblong acuminate, involute, at first greenish. Styles filiform, divaricate, long as the fruit. Fruit small elliptic, with ten whitish alated ridges. Leaves often elegantly maculated with angular paler coloured blotches.—*Nutt.*

Smyrnium atropurpureum, Pursh.

S. trifoliatum, β *atropurpureum*, Bart. Prod. Fl. Ph. p. 38.

Resembles *Smyrnum trifoliatum* in habit and foliage; and it has been supposed heretofore to be a mere variety of it. The flowers are, in the plant under consideration, dark purple. On the high rocks bordering the Schuylkill, east side, near the falls; and in fields with *Smyrnum trifoliatum*; not uncommon. Perennial. June.

2. *T.* lower leaves subtrifoliate, upper biternate; *barbinode*.

leaflets cuneate-ovate, acute or acuminate, unequally and incisely serrate, entire towards the base; umbels dichotomous and terminal; involucre subulate, unilateral, 3-leaved; fruit elliptic, 7 of the ridges alternately broader. Root perennial. Stem three feet high, dichotomous, angular, and grooved, smooth, excepting a minute pubescence at the nodes, common in this and other genera. Leaves smooth, floral ones subopposite, all upon longish petioles, a little scabrous and whitish on the margin, serratures deep, large, unequal, and acute, commencing usually a little below the middle of the leaflet (leaflets 10 to 15 lines long.) Peduncles of the umbels rather short. Involucrum none. Umbels about 20-flowered, more than half of them abortive. Calix distinct, 5-toothed. Petals deep yellow, acuminate, obliquely involute. Styles persistent, filiform, erect, about twice the length of the petals, with distinct but small stigmas. Fruit nearly as large as that of the parsnip, elliptic in the outline. Seeds elliptic, convex, one of them with 2 broader alated lateral ridges, and the other with one dorsal alated ridge, margins alated, connivent, intervening elevations much lower. Seeds aromatic, and highly camphorated.—*Nutt.*

Ligusticum? *barbinode*, Mich.

Smyrnum barbinode, Muhl.

About two feet high. Joints of the stem bearded. Flowers yellow. On the high rocky banks of the Wissahickon, and the shady banks of the Schuylkill, near the falls; not common. Perennial. May, June.

145. ATRIPLEX. Gen. pl. 1577. (*Atriplices.*)

Flowers polygamous.—*Calix* 5-parted. *Corolla* none. *Style* bifid. *Feminine* flower; calix 2-parted, compressed. *Seed* vertical.

patula.

1. A. stem herbaceous, erect, leaves triangular-hastate. B.
A. hastata, Curtis.

Spreading, or Halbert-leaved Orache.

An ugly weed, found growing sparingly in wastes and among rubbish, in the Northern Liberties, and in some of the neglected public squares of the city. Also on the banks of the Delaware, Jersey side, nearly opposite Gloucester point. Not common. Introduced, but now naturalized in the vicinity of habitations. Annual. August.

146. CHENOPODIUM. Gen. pl. 435. (*Atriplices.*)

Calix 5-parted, with 5 angles. *Corolla* none. *Style* bifid, (rarely trifid.) *Seed* 1, lenticular, horizontal, covered by the closing calix.—*Nutt.*

album.

1. C. leaves rhomboid-ovate, crose, entire at the base, the upper oblong, entire; seeds smooth.—*Smith.*
C. lanceolatum, Willd.
Icon. Eng. Bot. 722.

Lambs'-quarter.

This weed in its young state is eaten at our tables. It attains the height of five or six feet. In wastes, on dunghills, near rubbish, and in gardens, every where very common. Annual. All summer.

viride.

This variety grows with the preceding, and is distinguished by the shape of its leaves, and their darker-green colour. When the plant is old, it looks more like *album*. Annual. Also all summer.

2. *C.* leaves ovate, unequally toothed, acute, shining; racemes corymbose, naked; stem branching, expanded.—*Sp. Pl.*

Also a common weed, every where found growing on roadsides, in neglected fields, lanes and commons, and in gardens. Annual. All summer.

3. *C.* leaves cordate, angularly-toothed, acuminate; racemes very much branched, subcymose, divaricating without leaves.—*Smith.*

Icon. Curt. Lond. 4. t. 23.

This very tall species, frequently attains a height of six feet. In the borders of neglected fields and near the rejectments of gardens, scarce. Annual. July, August.

4. *C.* leaves oblong, sinuate; racemes naked, many parted.—*Sp. Pl.*

This species is vulgarly called *Feather-geranium*. The whole plant is possessed of a strong, penetrating and not disagreeable odour. Occasionally found near the gutters of the streets of Southwark, where it has escaped from gardens. I have also met with it in the Northern Liberties and in Germantown. Annual. July, August.

5. *C.* leaves lanceolate, toothed; racemes simple, leafy.—*Sp. Pl.*

One of the commonest weeds, every where to be found. It grows in large bushes together. This is the plant which Mr. Pursh has mistaken for *C. anthelminticum*, and which he says grows plentifully in the streets of Philadelphia. It has indeed a strong resemblance to the real *C. anthelminticum*, and was mistaken for that plant by the late Professor Barton. It possesses a peculiar odour, but not so strongly pungent and disagreeable as that of the true *anthelminticum*. In the streets of Philadelphia very abundant. Annual. All summer.

6. *C.* leaves oblong-lanceolate, sinuate and dentate, rugose; racemes naked; style 1, 3 cleft.—*Elliot.*

anthelminticum.

Jerusalem Oak.

A plant very remarkable for its peculiar smell, which is strong, subtle and persistent. It is a powerful anthelmintic,

and yields what is known in domestic practice, under the name of *worm-seed oil*. A very rare plant in this neighbourhood. I have once or twice met with it in the Northern Liberties near fences; and in the vicinity of the Buck inn, on the Lancaster road. Perennial. June, August.

All the species of chenopodium, are probably introduced; but Mr. Elliot thinks this species a native.

147. SALSOLA. Gen. pl. 437. (*Atriplices*.)

Calix 5-parted, with a capsular base. *Corolla* none. *Style* bifid. *Seed* 1, horizontal, cochleate, covered by the connivent calix. (Fruiting calix in many species surrounded by a membranaceous dorsal margin.—*Nutt*.

Kali.
β *Caroliniana*.

1. *S.* herbaceous decumbent, glabrous; leaves dilated, subulate, spiny; calix when in fruit flattened, winged.—*Pers. and Mich*.

Salt-wort.

A spinous prickly plant, of diffuse decumbent habit. Near Camden; Mr. Collins. I have found it plentifully on the sandy shores of Jersey, close to the Delaware, and immediately opposite to Gloucester point. Annual. July, August.

148. ULMUS. Gen. pl. 443. (*Amentaceæ*.)

Calix campanulate, 4 or 5-cleft. *Corolla* none. *Samara* compressed, encompassed by a membranaceous alated border. (*Stamina* sometimes 4 and also 8.)—*Nutt*.

Americana.

1. *U.* branches smooth, recurved; serratures of the leaves hooked, acuminate; flowers pedicellate; fruit fimbriate.—*Mich*.

Icon. Mich. Arb. forest. vol. 3. p. 269. t. 4.

American Elm. White Elm.

A large tree, well known by the above English name. On the margins of creeks and rivers in our neighbourhood. April.

2. *U.* leaves oval-oblong, with a very long acumination, pubescent on both sides; buds tomentose, with a thick tawny wool; flowers sessile.
—*Pers. and Mich.*

U. rubra, Mich. Arb. forest. 3. p. 278. t. 6.

U. campestris, Walt.?

Slippery Elm. Red Elm.

The inner bark of this tree contains a fine mucilage, useful in various complaints. In the woods, near Darby. March, April.

149. *CELTIS*. Gen. pl. 1591. (*Amentaceæ*.)

Polygamous.—*Calix* 5-parted. *Corolla* none. *Styles* thickish, divaricate. *Drupe* 1-seeded. *Masculine* flowers (inferior) calix 6-parted, with 6 stamina.—*Nutt.*

1. *C.* leaves ovate, acuminate, equally serrate, unequal at base, scabrous on the upper surface, hairy on the under; fruit solitary.—*Pursh.*

Icon. Mich. Arb. forest. 3. p. 225. t. 8.

Sugar-berry Tree. American Nettle Tree.

In Jersey, not far from the Delaware, and opposite this city. April, May.

ORDER III. TRIGYNIA.

150. *VIBURNUM*. Gen. pl. 503. (*Caprifolia*.)

Calix small, 5-parted, superior. *Corolla* small, campanulate, 5-cleft. *Berry* or *drupe* 1-seeded.—*Nutt.*

1. *V.* leaves obovate, nearly round and oval, brous, sharply serrate; petioles winged.—*Sp. Pl.*

Icon. Pluk. alm. t. 46. f. 2.

Black Haw. Plumb-leaved Mealy-tree.

A very large shrub. Flowers as in all the following species, white. Berries, indigo blue. In natural hedges and thickets near water courses, every where common. $\frac{1}{2}$. May.

- pyrifolium. 2. *V.* smooth; leaves ovate, subacute subserrate, petioles smooth, fruit ovate-oblong, cymes subpedunculate.—*Lamark.*

Pear-leaved Mealy-tree.

Larger than No. 1, and very like it. In swamps near Woodbury, Jersey, scarce. $\frac{1}{2}$. May, June.

- nudum. 3. *V.* leaves oval, somewhat rugose, with the margins revolute, obscurely crenulate.—*Sp. Pl.*
Icon. Mill. ic. 274. (Pursh.)

Naked-cymed Mealy-tree.

A smaller shrub than either of the preceding. Berries black. In the swamps near Woodbury, Jersey, and on the swampy ground near Kaighn's Point; not very common. I have never found it on the Pennsylvania side of the Delaware. $\frac{1}{2}$. May, June.

- dentatum. 4. *V.* leaves ovate, with large serratures, plaited; fruit nearly globose.—*Pers.*
Icon. Jacq. hort. t. 36. (Pursh.)

Arrow-wood. Tooth-leaved Mealy-tree.

Berries dark blue. On the banks of all our rivers and creeks, and in damp woods, common. $\frac{1}{2}$. June.

- acerifolium. 5. *V.* branches and petioles hairy and without glands, leaves sub-cordate-ovate or three lobed, acuminate narrowly-serrate, pubescent underneath, cymes in long peduncles.—*Willd.*
Icon. Vent. hort. cels. t. 72. (Pursh.)

Maple-leaved Mealy-tree.

Berries black. Grows with No. 4, common. $\frac{1}{2}$. May, June.

151. SAMBUCUS. Gen. pl. 505. (*Caprifolia*.)

Calix small, 5-cleft. *Corolla* somewhat urceolate, 5-lobed. *Berry* roundish, 3-seeded.—*Nutt.*

1. *S. stipules* wanting; cymes 5-parted; leaves *Canadensis*, generally bipinnate; leaflets oblong-oval, shining; glabrous; stem shrubby.—*Pers.*
Icon. Schmidt, arb. 142. (Pursh.)

Elder.

Well known to every body by the above English name. Berries dark purple—often eaten, but not generally grateful, nor much esteemed. In swamps and along ditches, very common. $\frac{1}{2}$. June, July.

152. RHUS. Gen. pl. 502. (*Terebintaceæ*.)

Calix 5-parted. *Petals* 5. *Berry* small, with 1 nuciform seed.

1. *R. leaves* pinnate; leaflets lanceolate, acuminate, acutely serrate, villous underneath.—*typhinum*.
Sp. Pl.
Icon. Duham. 2. t. 47. (Pursh.)

Stag-horn-Shumach.

From four to eight feet high. Flowers greenish. Berries rich velvety reddish-purple, in large dense clusters. Common at the borders of copses and fields; also in thickets. $\frac{1}{2}$. July.

2. *R. leaves* pinnate, lanceolate, serrate, glabrous on both surfaces; flowers all fertile.—*glabrum*.
Sp. Pl.

Smooth Shumach. -

Berries red. Not so common as No. 1, but grows in similar places. Both species are handsome shrubs, particularly in fruit. $\frac{1}{2}$. July, August.

Vernix.

3. *R.* very glabrous; leaflets oval, abruptly acuminate, entire, panicle diffuse; flowers dioicous.—*Pursh.*

Icon. Dill. elth. t. 292. f. 377. Pluk. alm. t. 145. f. 1.

Poison Shumach. Swamp Shumach. Poisonous Elder.

A very poisonous arborescent species, known well by the above names, and its effects on those who go within the sphere of its influence. In deep swampy thickets in Jersey, not uncommon. In the swamp near Kaign's point, abundant. Berries white. $\frac{1}{2}$. July.

Toxicodendron.

4. *R.* stem erect, weak; leaves sinuate, lobed and entire, tomentose underneath; flowers dioicous.—*Elliott.*

Variety, β . *quercifolium*, Mich.

Poison Oak.

From two to five or seven feet high. Likewise well known as a poison. Berries white. In woods, fields, and especially along fences among green-briar and bramble, common. $\frac{1}{2}$. June, July.

radicans.

5. *R.* leaves ternate; leaflets petiolate, ovate, glabrous, generally entire; stem radicant; flowers dioicous.—*Elliot.*

R. toxicodendron, var. α . Mich.

Poison Vine.

No plant is more generally known than this. It is extremely poisonous. Berries white. Grows with No. 3, and particularly common along fences. Nos. 1, 2, 3, and 5, are possessed of medicinal virtues. $\frac{1}{2}$. June, July.

153. STAPHYLEA. Gen. pl. 507. (*Rhamni*.)

Calix 5-parted, coloured. *Petals* 5, inserted upon the margin of a pentangular glandulous disk. *Capsules* 2 or 3; inflated, growing together. *Nuts* about 2, globose with a cicatrice.—*Nutt.*

1. *S.* leaves trifoliate; racemes pendulus, petals trifoliata. below ciliated, fruit ovate.—*Willd.*

Icon. Schmidt, arb. 81. (*Pursh.*)

Bladder-Nut.

A large shrub, with pendulus white flowers, and very large inflated seed-vessels. On the rocks above the building called the factory, on the west side of the Schuylkill above the falls. Also on the Wissahickon. Mr. Nuttall. May, June.

154. SAROTHRA. Lamark. (*Caryophilleæ*.)

Calix 5-parted, connivent. *Petals* 5, linear-oblong. *Capsule* oblong, acute, coloured, 1-celled, 3-valved, margin of the valves seminiferous.—*Nutt.*

1. *S.*

hypericoides.

Sarothra hypericoides, Nutt. Gen. Am. pl. vol. 1. p. 204.

Sarothra gentianoides, Willd.

Hypericum Sarothra, Mich.

H. nudicaule, Walt.

Icon. Pluk. mant. t. 342. f. 2. (*Pursh.*)

Ground Pine.

A small plant with numerous clustered branches and yellow flowers; from four to eight inches high. Leaves very minute, like stipules. It has the habit of *Hypericum*. Stamina from 5 to 6. In exposed situations on sterile soil; generally on roadsides; not uncommon. Annual. June, July.

ORDER V. PENTAGYNIA.

155. ARALIA. Gen. pl. 525. (*Araliæ*.)

Umbelliferous.—*Calix* 5-toothed, superior.
Petals 5. *Berry* 5-celled, 5-seeded.—
Umbels involucellate.—*Nutt.*

- nudicaulis. 1. *A.* nearly stemless, bearing one leaf; leaf triquinate; leaflets oblong-oval; scape naked, shorter than the leaf; umbels few.—*Pursh.*
 Icon. Pluk. alm. t. 238. f. 5.

Naked-stemmed Sarsaparilla. Wild Sarsaparilla.

About a foot or two feet high. Flowers white. Possesses medicinal properties. On shaded hilly woods, bordering the Schuylkill, not very common. Perennial. May.

- racemosa. 2. *A.* stem herbaceous, smooth; leaves compound, glabrous; peduncles axillary, branching, bearing umbels.—*Sp. Pl.*
 Icon. Cold. Canad. t. 75. (Pursh.)

Berry-bearing Aralia. Spikenard. Wild Liquorice.

This plant is well known to the Jersey country people, who bring the root and berries to market for sale. It is medicinal, and much esteemed. In rocky and very shady situations near Woodbury, Jersey, scarce. Perennial. July, August.

- spinosa. 3. *A.* arborescent; stem and leaves prickly; panicle much branched, umbels racemose.—*Pers.*
 Icon. Schmidt, arb. 102 & 103. (Pursh.)

Thorny Aralia. Shot-bush. Pigeon-weed. Angelica-tree.

Flowers white. Easily recognised by its thorny stems and branches. It is common in gardens where it sometimes attains a great size, as at Lemon-hill. It grows wild in a stony thicket not far from Mantua-village. Also possessed of medicinal virtues. $\frac{1}{2}$. August.

156. LINUM. Gen. pl. 528. (*Caryophyllæ*.)

Calix 5-parted, persistent. *Petals* 5, unguiculate. *Capsule* superior, 10-valved, 10-celled. *Seed* solitary. (Filaments of the stamina united at the base.)—*Nutt.*

1. *L.* leaves of the calix acute ; panicle terminal, *Virginicum*. with the flowers remotely alternate ; leaves linear-lanceolate, those near the root ovate.—*Pursh.*

Virginian Flax.

A delicate plant, with small yellow flowers. From twelve to twenty-four inches high. Grows on the borders of woods, and I have often found it in bogs. It is abundant on the lower edge of Powelton. Annual. July, August.

ADDENDA.

TETRANDRIA. To genus No. 78, page 85, add the following species:

2. *Ludwigia hirsuta*; erect, branched, hirsute; leaves alternate, oblong, sessile, every where hirsute, peduncles one-flowered, axillary, capsules globose-tetragonous, crowned, base bi-bracteate.—*Lamark*.

L. pilosa, Walt.

In Jersey, a mile from the Delaware, opposite South-street; Mr. Collins. Perennial. July, August.

PENTANDRIA. To genus No. 99, page 106, add the following species:

4. *Convolvulus stans*; erect, tomentose, leaves oblong-lanceolate, acuminate-cordate; obtuse behind, peduncles one-flowered, bractes ovate-acute, segments of the calix lanceolate, stem flower-bearing below.—*Pursh*.

Calystegia tomentosa, Pursh.

Convolvulus stans, Mich.

About eight inches high. Flowers white. In Jersey, east of Haddonfield; Mr. Collins. Perennial. June, July.

HEXANDRIA.

TRADESCANTIA.
CAULOPHYLLUM.
PRINOS.
ALLIUM.
HYPOXIS.
PONTEDERIA.
ALETRIS.
HEMEROCALLIS.
ORNITHOGALUM.
LILIUM.
ERYTHRONIUM.
UVULARIA.
SMILACINA.

POLYGONATUM.
ORONTIUM.
JUNCUS.
FLCERKEA.
MELANTHIUM.
VERATRUM.
HELONIAS.
SCHEUCHZERIA.
GYROMIA.
TRILLIUM.
RUMEX.
SAURURUS.
ALISMA.

CLASS VI.—HEXANDRIA.

ORDER I. MONOGYNIA.

157. TRADESCANTIA. Gen. pl. 543. (*Junci.*)

Calix 3-leaved. *Petals* 3. *Filaments* vil-
lous. *Capsule* 3-celled, few-seeded.

Virginica.

1. *T. erect*, leaves lanceolate, long, smooth ; flow-
ers sessile, umbels crowded, pubescent—*Willd.*
Icon. Bot. Mag. 105.

Virginian Spider-wort.

A superb plant with ultramarine-blue flowers and orange coloured anthers. Worthy of cultivation in all our gardens. In many it has already obtained a footing. On the sandy shores of the Delaware, Jersey side, near a thicket about four miles below Philadelphia. Perennial. May, June.

158. CAULOPHYLLUM. Mich. Fl. Bor. 1. p. 204. (*Berberides.*)

Calix 3 to 6-leaved, leaves small, unequal, and caducous. *Petals* 6, unguiculate, opposite the calix. *Lepanthia* 6, seated upon the claws of the petals, carneous, subreniform, margin glutinous. *Anthers* growing to the filaments, cells opening by so many vertical elastic valves. *Drupe* stipitate, by abortion 1-seeded.—*Nutt.*

thalictroides.

1. *C. very* glabrous ; leaves supra-decompound, folioles oval, lower ones petiolate and lobed, the terminal one three-lobed.—*Mich.*

Leontice thalictroides, Willd.

Icon. Mich. Fl. Boreal. Am. t. 21.

Co-hosh.

About two feet high. Berries blue. Said to possess medicinal virtues. Very rare. I have only found it at the foot of a hilly fertile wood, on the west side of the Schuylkill, just above the falls, and there it is scarce. Perennial. May.

159. PRINOS. Gen. pl. 594. (*Rhamni*.)

Calix small, 6-cleft. *Corolla* monopetalous, subrotate, 6-parted. *Berry* 6-seeded; seeds nuciform.—*Nutt.*

1. *P.* leaves deciduous, oval, serrate-acuminate, *verticillatus*, pubescent underneath; fascicles of male flowers axillary, in the form of umbels; female crowded, all 6-parted.—*Willd.*

P. Gronovii, Mich.

P. padifolius, Willd. enum. 394.

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 17.

Winter-berry. Black-alder.

A shrub about five or eight feet high. Flowers small, greenish-white. Berries fine carmine-red, and shining. In wet thickets on rich soil, and in swamps, very common. The bark is medicinal. (See Veg. Mat. Med. U. S.) $\frac{1}{2}$. June, July.

2. *P.* leaves oval, acuminate at each end; male *ambiguus*, pedicels one-flowered, crowded at the lower branches; female solitary.—*Mich.*

Resembles the preceding. It is questionable whether this is the same plant intended by Pursh, under the name of *ambiguus*, with which he has made the *Cassine Caroliniana* of Walt., synonymous; but it fits Michaux's description well. It is also the *ambiguus* of Muhlenberg, according to specimens in his herbarium, which I have lately examined. In a swamp near Kaighn's Point, Jersey. Flowers white. $\frac{1}{2}$. July.

160. ALLIUM. Gen. pl. 557. (*Asphodeli*.)

Corolla 6-parted, spreading. *Spatha* many-flowered. *Umbel* crowded. *Capsule* supe-

rior, 3-celled, 3-valved, many-seeded.—*Nutt.*

vineale.

1. *A.* stem round-leaved, bulbiferous; stamens tricuspidated.—*Willd.*
Icon. Lob. ic. 156. (Pursh.)

Wild Garlic.

A common and pestiferous weed, originally introduced, being now, unfortunately, naturalized. It has obtained such a footing in pastures, that it is impossible to extirpate it; and the cows there eating it with grass, causes the butter to get the loathsome taste of the plant. This garlic butter is extremely unwholesome, producing painful eructations, and disordering the stomach. Perennial. June, July.

Canadense.

2. *A.* scape naked, terete; leaves linear; head bearing bulbs.—*Sp. Pl.*

In neglected fields and open woods. Perennial. June.

161. HYPOXIS. Gen. pl. 565. (*Narcissi.*)

Spatha 2-valved. *Corolla* superior, 6-parted, persistent. *Capsule* elongated, narrower at the base, 3-celled, many-seeded. *Seeds* roundish, naked.—*Nutt.*

erecta.

1. *H.* hairy; scape generally 4-flowered, shorter than the linear-subulate leaves; peduncles twice as long as the flower.—*Sp. Pl.*
H. Carolinensis, Mich.
H. graminea, Pursh.

Yellow Bethlehem-star.

Leaves very long and grass-like. Flowers yellow. Varies in size from three inches to a foot. In sandy grass-plots, in fields and in woods, common, especially in Jersey. Perennial. June, July.

162. PONTEDERIA. Gen. pl. 545. (*Narcissi*.)

Corolla inferior, 6-cleft, bilabiate; under side of the tube perforated with 3 longitudinal foramina, lower part persistent, calicine. *Stamina* unequally inserted, 3 of them upon the summit of the tube. *Utriculus* muricate, 1-seeded.—*Nutt.*

1. P. leaves oblong-cordate, obtuse; spike crowded, many-flowered; segments of the corolla oblong.—*Willd. and Pursh.*

Icon. Pluk. mant. t. 349. f. ult. Bot. Mag. 1156.

Heart-leaved Pontederia. Pickerel-weed. Wampee.

A very beautiful plant, two, or two and a half feet high, with a single heart-shaped leaf, and fine Prussian-blue flowers in a crowded spike. On the marshy shores of the Delaware, Schuylkill, and smaller streams emptying into them, growing with splatterdocks, very common and very abundant. Perennial. July.

There is a smaller variety with long, narrow hastate or triangular leaves, growing along the borders of the Delaware below the navy-yard, that appears to fit Pursh's description of *P. angustifolia*, which he collected in the mountain-lakes; and I really think it is the plant intended by that author, under the name just mentioned. I have collected many specimens, but in none is the difference in the breadth of the corolla segments observable. I therefore consider it a mere variety. The plant I allude to, is distinct from Muhlenberg's *P. lancifolia*, of which I have examined specimens in the Muhl. Herb. Mr. Elliot seems inclined to the opinion that even that is but a variety of *P. cordata*. I should not think so from Muhlenberg's specimens.

163. ALETRIS. Gen. pl. 579. Mich. Fl. Am. 1. p. 189.
(*Asphodeli*.)

Corolla tubulous, ovate, summit 6-cleft, rugose, persistent. *Stamina* inserted upon the margin of the orifice. *Style* triquetrous, tripartite. *Capsule* semisuperior, 3-celled, many-seeded.—*Nutt.*

farinosa.

1. *A.* flowers pedicellate, oblong, tubular; the decaying corolla nearly smooth.—*Sp. Pl.*

A. alba, Mich. and Pursh.

Icon. Pluk. alm. t. 437. f. 2. Bot. Mag. 1418.

Star-grass. Colic-root.

Leaves radical, adpressed; of a dry texture and a very yellowish-green colour, often white in old plants. Scape two or three feet long, with a spike of white flowers, appearing to be covered with a farinaceous powder. It is said to be medicinal. In woods and on hills, very common. Perennial. June, July.

164. HEMEROCALLIS. L. (*Narcissi.*)

Corolla campanulate; tube cylindric. *Stamina* declinate. *Stigma* rather small, simple, and partly villous.—*Nutt.*

fulva.

1. *H.* leaves broad, linear, carinate, petals flat and acute, nerves of the petals undivided.—*Willd.*

Copper-flowered Day Lily. Brown Lily.

An introduced plant, which is becoming naturalized in many parts of the United States. On the Schuylkill near Lemon-hill it is common, close to the waters' edge. And in a secluded thicket on the same river, nearly in a right line from Belmont, growing with *Hydrangia frutescens*. In both of these sites it has every appearance of growing wild. Flowers of an orange-brown colour. Perennial. July.

165. ORNITHOGALUM. Gen pl. 566. (*Asphodeli.*)

Corolla of 6 petals, erect, persistent, above the middle, spreading. *Filaments* dilated at the base or subulate. *Capsule* superior, roundish, 3-celled. *Seeds* roundish, naked.—*Nutt.*

umbellatum.

1. *O.* corymb few-flowered, peduncles longer than the bractes, filaments subulate.—*Willd.*

Icon. Jacq. austr. 4. t. 343.

Star of Bethlehem.

This plant is naturalized in our meadows, where it is exceedingly troublesome to the farmers. Flowers white. Perennial. May.

166. LILIUM. Gen. pl. 558. (*Liliaceæ*.)

Corolla 6-petalled, campanulate; petals mostly reflected, marked with a longitudinal nectariferous line. *Stamina* shorter than the style. *Stigma* undivided. *Capsule* superior, valves connected by cancellate hairs. *Seeds* flat.—*Nutt.*

1. *L.* leaves verticillate, lanceolate-linear, stem ^{Philadelphicum.} sub-2-flowered, corolla erect, campanulate, spreading, petals lanceolate-unguiculate.—*Willd.* and *Pursh.*
Icon. Mill. ic. t. 165. f. 1. Bot. Mag. 519.

Philadelphia Lily.

A very elegant plant, easily known from the other species by the claws of the petals. Flowers red-orange. In woods on the Wissahickon, and on the botanic-garden-ground of the University of Pennsylvania. Rare. Perennial. July.

2. *L.* leaves remote, verticillate, lanceolate, three- ^{Canadense.} nerved, hirsute underneath by the nerves; peduncles terminal, long, for the most part in three's; corolla drooping, turbinate-campanulate, recurved-spreading; segments lanceolate.—*Willd.* and *Pursh.*
Icon. Catesb. Car. 3. t. 11.

Flowers yellowish-orange. A fine plant, two or three feet high. On the marshy shores of the Delaware, from the navy-yard to Gloucester-point, frequent. Perennial. July.

3. *L.* leaves glabrous, lower ones verticillate, the ^{superium.} rest scattered; flowers reflected, in a pyramidal raceme; corolla revolute.—*Sp. Pl.*
Icon. Trew. chret. 2. t. 11. Bot. Mag. 936.

Superb Lily.

This magnificent plant may be ranked among the finest vegetable productions of our country. It frequently attains the height of six or seven feet; supporting a profusion of elegant deep-scarlet flowers. On the marshy shores of the Delaware, on both sides of the river, and in bogs in Jersey, not uncommon. Perennial. July, August.

167. ERYTHRONIUM. Gen. pl. 562. (*Liliaceæ.*)

Corolla subcampanulate, petals 6, reflected, the 3 interior usually furnished with a callos denture on each side near the base, and a nectariferous pore. *Capsule* superior, roundish, or elliptic, substipitate. *Seeds* ovate?—*Nutt.*

Americanum. 1. *E. petals* lanceolate, dilated at the base, somewhat obtuse, germ subglobose, leaves lanceolate.—*Pursh.*

E. Americanum, Muhl. & Ker. in Bot. Mag. 1113.

E. lanceolatum, Pursh.

E. dens canis, Mich.

E. longifolium, Poir.

American Dog's-tooth Violet.

A very pretty little plant, with yellow flowers and leaves generally spotted with brown. In rich and damp woods, and on the borders of small streams in rich soil, very common. Root bulbous. Perennial. May.

168. UVULARIA. Gen. pl. 560. Mich. Fl. Amer. 1. p. 198. (*Liliaceæ.*)

Corolla inferior, 6-petalled, erect; claws of the petals each furnished with a nectariferous cavity. *Filaments* very short, growing to the anthers. *Stigmata* reflected. *Capsule* 3-angled, 3-celled, 3-valved; valves septiferous in the middle. *Seeds* many, subglobose, arillate at the hilum.—*Nutt.*

1. *U. leaves perfoliate, elliptic, obtuse; corolla campanulate-tubercled within; anthers awned.—*
Smith, exotic. Bot. & Willd.

U. perfoliata minor, Mich.

Icon. Smith, l. c. t. 49. (Pursh.)

Perfoliate Bell-wort.

A delicate plant, about twelve inches high, with pale straw-yellow drooping flowers. In shady and moist woods of rich soil, and on the borders of bogs in Jersey, common. Perennial. May.

2. *U. leaves sessile, lanceolate-oval, glaucous underneath; capsule ovate, on a footstalk.—Pers.*

Icon. Smith exot. bot. 1. p. 101. t. 52. Bot. Mag. 1402.

Sessile-leaved Bell-wort.

Flowers in this species very like those of No. 1. The whole plant indeed resembles that species; but may be easily distinguished by the sessile leaves. In similar places with the preceding, but not so common. Perennial. May.

169. SMILACINA. Desfontaines in Ann. mus. hist. nat. 9. p. 51.
(*Asparagi.*)

Corolla inferior, 6-parted, spreading. *Filaments* divergent, attached to the base of the laciniaë. *Berry* globose, 3-celled.

1. *S. stem two-leaved, leaves cordate, oblong-sessile, every where very smooth, raceme simple and terminal, flowers tetrandrous.—Pursh.*

Maianthemum Canadense, Des. Ann. du Mus. vol. 9. p. 49.

Convallaria bifolia, Mich., not L.

Icon. Pluk. alm. t. 434. f. 4.

Two-leaved Convallary.

A small and delicate plant, seldom exceeding four inches in height. Flowers small, white. Berries red. In shady woods.

On the banks of the Wissahickon, under the shade of *Abies Canadensis*, and in a boggy wood, a mile south of Laundreth's garden. Not common. I have rarely met with it in Jersey. Perennial. May.

- racemosa.* 2. S. stem leafy; leaves alternate, sessile, oblong-oval, acuminate, nerved, pubescent; flowers in terminal racemose panicles.—*Pursh.*
Convallaria racemosa, L., Walt., Mich.
 Pluk. alm. t. 311. f. 2. Bot. Mag. 899.

Cluster-flowered Convallary.

From one foot to eighteen inches high. Flowers in a large terminal racemose panicle, and of a yellowish-white colour. Berries scarlet-red. On the borders of cultivated fields and thickets, and in woods; common. Perennial. June, July.

170. POLYGONATUM. Desfont. Ann. des. Mus. vol. 9. p. 48.
 (*Asparagi.*)

Corolla inferior, 6-cleft, cylindric. *Filaments* inserted on the upper part of the tube.
Berry 3-celled; cells 2-seeded.

- multiflorum.* 1. P. stem terete; leaves alternate, amplexicaule, oblong-oval; peduncles axillary, many-flowered.—*Pursh.*
Convallaria multiflora, Willd.
 Icon. Fl. Dan. 152. Engl. Bot. t. 272.

Many-flowered Solomon's Seal. Wild Asparagus.

About two or three feet high; stem round, drooping or curved so as to form a bow. Flowers hanging down under the leaves; yellowish-white. Berries dark blue. The turiones, or young shoots of this species, are eaten as *Asparagus*. In woods, among rocks; very common. Perennial. June, July.

171. ORONTIUM. Gen. pl. 587. (*Aroidæ.*)

Spadix cylindric, covered with florets. *Corolla* about 6-petalled, naked. *Style* and stigma scarcely any. *Utriculus* 1-seeded.—*Nutt.*

1. *O.* leaves lanceolate-ovate, scape cylindric, *aquaticum*,
spiked.—*Willd.*

Icon. Fl. Dan. 803. Engl. Bot. 339.

Golden-club.

Leaves of a fine blue glaucous-green. Scape white, about ten or twelve inches long, supporting a dense spike of golden-yellow flowers, which have a very peculiar animal odour. On the marshy shores of the Delaware and Schuylkill, every where in profusion. In all the ditches of the neighbourhood, also abundant. Perennial. April, May.

172. ACORUS. Gen. pl. 586. (*Aroideæ*.)

Spadix cylindric, covered with florets. *Corolla* 6-petalled, naked. *Style* none; *stigma* a mere prominent point. *Capsule* 3-celled, 3-seeded.—*Nutt.*

1. *A.* scape mucronate, very long, leafy.—*Willd.* *Calamus.*

Icon. Engl. Bot. 356. Woodville's Med. Bot. t. 173.

Sweet Flag. Calamus.

This plant is well known by its fine warm aromatic root, which is medicinal, and too much neglected in practice. In overflowed ponds, and in ditches; every where common. Perennial. July, August.

173. JUNCUS. Gen. pl. 590. (*Junci*.)

Calix inferior, 6-parted, equal, persistent.
Corolla none. *Stigmata* 3. *Capsule* 1-celled, 3-valved. *Seeds* numerous.—*Nutt.*

1. *J.* stem naked, upright; panicle lateral effused; *effusus*
flowers oblong.—*Sp. Pl.*

Icon. Host. gram. 3. t. 88. (Pursh.)

Soft-rush. Small Bull-rush.

Grows in large bunches together. In low meadow grounds; particularly in the Neck; very common. Also on the borders of creeks and ditches. Perennial. June, July.

- tenuis. 2. *J.* stem leafy, simple, terete; leaves channelled; corymb terminal, dichotomous, shorter than the bracteas; capsule oblong, obtuse, shorter than the petals.—*Pers.*
J. tenuis, Rostk. junc. 21. t. 1. f. 3. (Pursh.)
J. bicornis, Mich. & Pursh.

Slender Rush.

In wet fields and meadows, and on the margins of plashes, common. Perennial. July.

- bufonius. 3. *J.* stem dichotomous; leaves angled; flowers solitary, sessile.—*Sp. Pl.*
 Icon. Fl. Dan. 1098. Engl. Bot. 802.

A small species. In wet grassy places. Rare. Perennial. July.

- conglomeratus. 4. *J.* stem naked, upright, panicle lateral-conglobate; capsule retuse, flowers triandrous.—*Smith.*
 Icon. Host. gram. 3. t. 88. Leers. fl. herb. t. 13. f. 1. (Pursh.)

Resembles No. 1, but easily distinguished from it by the conglobate panicle. In the fens of Jersey, near Woodbury; rare. Perennial. June, July.

- echinatus. 5. *J.* heads few, globose, large, nearly sessile, many-flowered; interior leaves of the calix smallest; leaves terete, with knot-like joints.—*Elliot.*

J. echinatus, Muhl.

J. polycephalos, Mich.

J. polycephalos, β *tenuifolius*, Pursh.

Icon. Pluk. alm. t. 92. f. 9.

Rough-headed Rush.

Grows in moist soils, and in low meadows. Not unfrequent. Perennial. June.

- campestris. 6. *J.* leaves flat, hairy; spikes pedunculated-ovate, half-drooping, intermediate sessile, calicine fo-

lioles mucronate; longer than the obtuse capsule.—*Willd.*

Icon. Engl. bot. 672.

Field-Rush.

From eight inches to a foot high. In fields and neglected grassy places; common. Perennial. April, May.

174. FLCKEREA. Willdenow. (*Portulacæ*?)

Calix 3-leaved. *Corolla* of 3 petals, shorter than the calix. *Style* bifid. *Pericarp* none. *Seeds* 2 or 3, membranaceously coated, superior.—*Nutt.*

1. *F.* stem terete. Leaves somewhat succulent, ^{palustris.} alternate, pseudopinnate; segments mostly 5, narrow, oblong-lanceolate, simple, ultimate divisions confluent at the base, lateral ones 2 or 3-lobed, somewhat obtuse, di or trichotomously and numerously nerved, (when held to the light;) petiole long, semicylindric, channelled. Peduncles axillary, at first short, but gradually elongated nearly to 2 inches. *Calix* 3-parted, segments ovate, acute, thickish and green. Petals 3, white alternating with the calix, and much smaller, oblong, somewhat obtuse, and persistent, pubescent at the base (seen through a lens,) inserted upon the calix. *Stamina* 6, minute, irregularly disposed, arising from the base of the calix; filaments capillary, alternately articulated upon 3 glands near their base; anthers roundish. *Style* 1, inserted between the fruit, and unconnected with it in every direction, apex bifid, stigmas 2, small, roundish. Fruit within the persistent calix, consisting of 2, and rarely 3, roundish, naked, but membranaceously coated seeds; integument papilloso rugose.—*Nutt.*

F. proserpinacoides, Willd. & Muhl.
Nectris pinnata, Pursh?

On the banks of the Schuylkill, west side, just opposite to Breck's Island. Rare. Perennial. July, August.

ORDER III. TRIGYNIA.

175. MELANTHIUM. Gen. pl. 618. (*Junci*.)

Polygamous.—*Calix* none. *Corolla* rotate, 6-parted: segments unguiculate, biglandulous at the base, claws staminiferous. *Capsule* exserted, subovate, apex partly trifid, 3-celled. *Seeds* many, membranaceously alated.—*Nutt.*

Virginicum. 1. *M. panicle* pyramidal; petals oval, somewhat hastate, flat; flowers generally fertile.—*Pursh.*
Helonias Virginica, Bot. Mag. 985.

Leaves somewhat like those of flag. Scapes two or three feet high, supporting a pyramidal loose panicle of greenish-white flowers. In low and boggy ground. In a boggy thicket in the angle between the Lancaster turnpike, and the new turnpike, near the Woodlands. Also on the lower edge of Powelton, not far from the road leading from Market-street bridge, to the next bridge above. Rare. Perennial. June, July.

176. VERATRUM. Gen. pl. 1564. (*Junci*.)

Polygamous.—*Corolla* 6-parted, spreading, segments sessile and without glands. *Stamina* inserted upon the receptacle. *Capsules* 3 united, many-seeded.—*Nutt.*

viride.

1. *V. leaves* broad, oval, plaited; racemes panicled; segments of the corolla oblong-oval, acute.—*Mich.*
V. album, Mich.

Green-flowered Hellebore. Swamp-poke. Indian-poke.

A very fine plant, from three to six feet high, with very large broad root-leaves. Flowers greenish. The root is medicinal. It is also said to be useful in destroying cockroaches, and is brought to our market and sold for that purpose. A rare plant in this neighbourhood. On the high woody hills above the falls of Schuylkill, west side, near a rivulet. It is said, by the market people, to grow in Jersey, near this city, but I have not found it in any other locality than the one mentioned. Perennial. July.

177. HELONIAS. Gen. pl. 622. Mich. Fl. Am. 1. p. 211.
(*Junci.*)

Corolla 6-parted, spreading; segments sessile and without glands. **Styles** 3, distinct. **Capsule** 3-celled, 3-horned, cells few-seeded, (seeds 1 or 2.)—*Nutt.*

1. *H.* scape leafy, raceme spiked, nutant, pedicels ^{dioica}. very short, subbracteate, filaments longer than the corolla, petals linear, leaves oblong-lanceolate.—*Pursh.*

Helonias dioica, Pursh.

H. pumila, Jacq. ic. rar. 2. t. 453. (*Pursh.*)

H. lutea, Ait.—and Kerr. in Bot. Mag.

Veratrum luteum L., Willd., and Muhl.

Melanthium dioicum, Walt.

M. densum, Lamark.

Devils-bit. Drooping Star-wort. Blazing-star.

A very handsome dioicous plant. The drooping spike of white flowers on the male plant is extremely beautiful. The flowers of the female plant are not so pretty. Root bulbous-like and præmorse. It is said to possess anthelmintic properties. On the bluff bordering the Schuylkill, Woodlands; in the shady woods north of Powelton; and in shady woods on the Wissahickon. Not very frequent. Perennial. July.

2. *H.* leaves linear, very long; scape leafy; capsule shortened, divaricate; seeds ovate.—*Pers.* ^{erythrosperma.}

H. erythrosperma, Mich.

H. læta, Ait.

Melanthium lætum, Willd.

M. Muscætoxicum, Walt.

M. phalangioides, Lamark.

Anthericum subtrigynum, Jacq. ic. rar. 2. t. 419.
(Pursh.)

Channelled-leaved Helonias.

A very handsome plant, with white flowers. In a swampy thicket west of McMahón's garden; rare. Perennial. June, July.

178. SCHEUCHZERIA. Gen. pl. 615. (*Junci*.)

Calix 6-parted. *Corolla* none. *Anthers* linear. *Stigmas* sessile, lateral. *Capsules* inflated, distinct, mostly 2-seeded. *Seeds* smooth, cylindric-ovate, with a longitudinal carinate suture, (black.)—*Nutt.*

pálottás.

1. *S.* leaves of the infertile shoots near 18 inches long, very narrow and linear. Roots loaded with persistent vestigiæ; raceme 5 to 7-flowered, lowest peduncles longest and subtended by sheathing leaves, which diminish upwards into short bractes. Capsules 3, oval, inflated, with compressed margins. Seeds almost uniformly 2 in each capsule, as large as those of garden balsam (*Impatiens chinensis*) black and shining, integument coriaceous; épisperm white and membranaceous. Nucleus greenish, consisting of an ovate cylindric and homogenous somarhize, marked at its inferior extremity (or contiguous to the umbilicus) with an almost imperceptibly minute gemmule, in the form of a diaphanous point.—*Nutt.*

About eight or ten inches high, with large bundled decayed leaves at the roots. Leaves variegated, occasionally, like tortoise-shell. In Cranberry swamps, Jersey, not far from the city. Rare.

179. GYROMIA. Nuttall. Gen. Am. pl. vol. 1. p. 238.

(*Asparagi*.)

Corolla 6-parted, revolute. *Calix* none. *Filaments* and anthers distinct. *Styles* none; stigmas 3, filiform and divaricate, united at the base. *Berry* 3-celled, cells, 5 or 6-seeded. *Seeds* compressed, 3-sided.—*Nutt.*

1. *G.* stem simple, erect; leaves verticillated; ^{Virginica.} flowers terminal, aggregate.

Indian Cucumber.

A very elegant plant, from one to two feet high. Root an oblong white tuber; stem terete, shining, covered with a white flocculent coat. Flowers straw-yellow with revolute petals. Berries dark-purple. In moist shady woods, and in thickets bordering rivulets; very common. Perennial. May, June.

180. TRILLIUM. Gen. pl. 620. (*Asparagi*.)

Calix 3-leaved, spreading. *Corolla* of 3 petals. *Filaments* and terminal anthers adnate, opening on the inner side. *Styles* none. *Stigmas* 3, distinct, or approximate. *Berry* 3-celled, cells many-seeded.—*Nutt.*

1. *T.* peduncle recurved; petals lanceolate-acuminate, flat, reflected, as long as the calix; leaves dilated, rhomboidal abruptly acuminate, on short petioles.—*Pursh.*

Icon. Bot. Mag. 954.

Drooping three-leaved Nightshade.

Near two feet high. In the woods above the falls of Schuylkill, scarce. In a shady wood near a rivulet, a little west of Mantua-village, abundant. I have not seen it elsewhere. Petals white. Berries purple. Perennial. May.

181. RUMEX. Gen pl 613. (*Polygonæ.*)

Calix 6-parted, persistent, the 3 interior divisions petaloid, connivent. *Seed* 1, 3-sided, superior, naked. *Stigmata* multifid.—*Nutt.*

crispus.

1. *R.* valves entire, each bearing a grain; leaves lanceolate-undulate, acute.—*Sp. Pl.*
Icon. Curt. Lond. 2. t. 20.

Curled Dock.

Like the rest of the species, an ordinary looking plant with inconspicuous flowers. Introduced from Europe, but now every where naturalized. In fields, pastures, and wastes, common. Perennial. July.

acutus.

2. *R.* hermaphrodite; valves dentate, radical leaves cordate-obtuse, stem roughish.—*Willd.*
Icon. Engl. Bot. 1999.

Common Dock.

In similar places with the preceding; also in gardens, a very common and troublesome weed. Introduced, but naturalized. Perennial. June, July.

acetocella.

3. *R.* flowers dioicous; leaves lanceolate-hastate.—*Sp. Pl.*
Icon. Engl. Bot. 1574.

Sheep's Sorrel.

About ten inches high, bearing reddish flowers. The leaves have an acid and not disagreeable taste. In dry fields, and on gravelly way-sides, every where in the greatest profusion, frequently giving a red appearance to whole fields. Perennial. June till August.

ORDER IV. TETRAGYNIA.

182. SAURURUS. Gen. pl. 632. (*Najades*.)

Flowers in an ament, or crowded spike, scales 1-flowered. **Corolla** none. **Filaments** and anthers adnate. **Capsules** 4, each 1 or rarely 2-seeded, not opening.—*Nutt.*

1. *S. stem leafy, many-spiked, leaves sagittate-cordate.*—*Willd.*

Anonymos aquatica, Walt.

Mattuschkea aquatica, Gmel.

Icon. Pluk. alm. t. 117. f. 3 & 4.

Nodding Lizard's-tail. Water-lilies.

A subaquatic, branching and leafy plant, with drooping spikes of white sweet-scented flowers. On the margins of ditches, creeks and rivers, in situations generally where the water reaches it; common. Perennial. August, September.

ORDER VI. POLYGYNIA.

183. ALISMA. Gen. pl. 625. (*Junci*.)

Calix 3-leaved. **Petals** 3. **Capsules** many, 1-seeded, not opening.

1. *A. leaves oval-cordate, very obtuse, 9-nerved; flowers in verticillate panicles; fruit obtusely 3-angled.*—*Pursh.*
- A. trivialis*, Pursh.

Water Plantane.

This plant varies much in size, frequently flowering when only six or eight inches high, and often attains an elevation of two feet. In ditches, plashes and rivulets, common. Perennial. July.

OCTANDRIA.

RHEXIA.

ŒNOTHERA.

GAURA.

EPILOBIUM,

OXYCOCCOS.

ACER.

CHRYSOSPLENIUM.

POLYGONUM.

CLASS VIII.—OCTANDRIA.

ORDER I. MONOGYNIA.

184. RHEXIA. Gen. pl. 636. (*Melastomæ.*)

Calix urceolate, 4 to 5-cleft. *Petals* 4, oblique, inserted upon the calix. *Anthers* declinate. *Capsule* setigerous, 4-celled, included in the ventricose calix. *Receptacles* subulate. *Seeds* numerous. (Stamina sometimes 10.)—*Nutt.*

Mariana.

1. *R.* stem reddish, very hirsute; leaves hirsute-subpetiolate, oval-lanceolate, or lanceolate-linear, with a long, tubulous, smoothish calix.—*Mich.* and *Pursh.*

Icon. Pluk. mant. t. 428. f. 1. Lam. illustr. 283. f. 1.

A handsome plant, from one to two feet high. Flowers pale rose-red. In the fens of Jersey, common. Perennial. July, August.

Virginica.

2. *R.* stem winged-angular, covered with a few scattered hairs; leaves sessile, oval-lanceolate, the little teeth bristled and distinctly ciliate-serate, sparingly hirsute, or sprinkled with hair.—*Mich.*

Icon. Bot. Mag. 968. Pluk. alm. t. 202. f. 8. Lam. illustr. t. 283. f. 2.

Resembles No. 1, very much, but is a much more elegant plant, and has somewhat larger and deeper rose-red flowers, with bright orange-yellow anthers. Both these species might be readily cultivated in our gardens, by introducing a little bog earth with them, and culture would doubtless render them still more elegant. In similar places with No. 1, in Jersey, very common; and in marshy low ground west of the Delaware, not unfrequent. No. 1, appears to be limited to Jersey. Perennial. July, August.

185. ŒNOTHERA. Gen. pl. 637. (*Onagrace*.)

Calix tubulous; 4-cleft, segments deflected, deciduous. *Petals* 4, inserted upon the calix. *Stigma* 4-cleft. *Capsule* 4-celled, 4-valved, inferior. *Seeds* naked, affixed to a central 4-sided receptacle.—*Nutt.*

1. Œ. stem villous, scabrous, leaves ovate-lanceolate, flat; flowers terminal, subspicate-sessile, with the stamens shorter than the corolla.—*Willd.*

Œnothera mollissima, Walt. ?
Icon. Fl. Dan. 446.

Evening Tree-primrose.

This elegant ornament of our field-hedges, is cultivated sometimes in our gardens, where its flowers acquire a much finer yellow colour, and becomes larger. They are generally of a pale yellow, and open in the evening, just as the sun leaves the horizon. This opening is effected by a very sudden retraction of the calix leaves, which are forcibly thrown against the peduncles, and an immediate expansion of the petals. The flowers continue thus expanded till the sun is about an hour or two high, when they are partially closed, and again open at evening. The flowers are very numerous, and I am not certain that the same one opens a second time; perhaps not. I have cultivated the plant in my garden, and in that state the same flower was but once expanded, and then faded. Mr. Pursh has noticed an appearance of phosphoric light emanating from the flowers of this evening primrose, during very dark nights. The plant is about three or four feet high. On the borders of cultivated fields, and in natural hedges, very common. Also, occasionally, in thickets, along water courses. In the latter situation the leaves often become diseased, when they assume a whitish appearance. Biennial. August.

2. Œ. smoothish, leaves lanceolate, subdentate, *fruticosa*. acute; capsules pedicellate, oblong-clavate, angled.—*Willd.*

Icon. Bot. Mag. 332.

Shrubby Œnothera, or Tree-primrose. Sun-drops.

A very handsome species, with much darker yellow flowers than those of No. 1. From two to three feet high. The flowers of this species, likewise, open at evening, and become partially closed when the sun appears. In shady damp woods, and on the borders of rivulets, ditches and other waters; common. Perennial. July.

β. ambigua. More or less pilose; stem simple; leaves lanceolate, or ovate-lanceolate, acute, subdenticulate, petals obcordate, longer than broad; points of the calix very short; capsule sessile, always smooth, oblong, and 4-winged; raceme naked below.—*Nutt.*

Generally confounded with No. 2, but very distinct. The stem is simple and slender, and the flowers much smaller than in that species. Grows in dry fields exposed to the sun, and on high exposed banks bordering Cooper's creek, Jersey. On the Woodlands, not unfrequent. Perennial. August.

sinuata.

3. *Œ.* stem diffuse, softly pubescent; leaves oval-oblong, toothed-sinuata; flowers axillary, villos; capsules prismatic.—*Willd. and Pursh.*

Œnothera biennis, Walt.?

Icon. Murray Com. Gœtt. 5. t. 9. Pluk. alm. t. 203. f. 3.

Scollop-leaved Œnothera.

A semi-procumbent species, not as handsome as the generality of *Œnotheras*. It varies very much in size; often being in flower when only an inch and a half high. In this state the leaves are entire, or nearly so; and has been mistaken by Pursh for a different species. It is his *Œ. minima*. Generally a foot high, but sometimes more. In sandy fields of Jersey, every where very abundant. Annual. June, July.

186. GAURA. Gen. pl. 638. (*Onagrea*.)

Calix 4-cleft, tubular. *Corolla* of 4 petals, ascending towards the upper side. *Nut* quadrangular, 1 to 4-seeded.—*Nutt.*

1. *G.* leaves lanceolate, dentate ; spikes crowded ; ^{biennis.}
fruit nearly round, slightly 4-angled, pubescent.
—*Pursh.*

Icon. Bot. Mag. 589.

From three to four feet high. In thickets on the bank walk along the Delaware to Gloucester point, Jersey side of the river. In thickets just below Market-street bridge, west side of the river, near a little stream which empties into the Schuylkill. Rare. Biennial. July, August.

187. *EPILOBIUM*. Gen. pl. 639. (*Onagrace.*)

Calix 4-cleft, tubulous. *Corolla* of 4 petals.
Capsule oblong inferior. *Seeds* comose.

1. stem somewhat 4-angled by prominent lines ; ^{tetragonuin.}
leaves opposite, the upper ones alternate ; lanceolate-serrate.—*Pursh.*

Icon. Fl. Dan. 1029.

E. coloratum, Muhl?

Angle-stemmed Willow-herb.

Plant very much branched, about fourteen inches or two feet high. Flowers small, blossom-red. In low boggy grounds and thickets near water, not uncommon. Leaves often coloured, and occasionally quite red. Perennial. July.

2. *E.* subcanescently pubescent ; root squamose, ^{lineare.}
bulbous ; stem terete, branching above ; stem leaves opposite, those of the branches alternate, linear and entire, revolute on the margin ; flowers pedunculate ; petals bifid ; stamina unequal ; stigma clavate undivided.—*Nutt.*

E. lineare, Muhl.

E. oliganthum, Mich.

E. rosmarinifolium, Pursh.

E. squamatum, Nutt.

Linear-leaved Willow-herb.

From one foot to eighteen inches high ; easily known by its linear leaves. Flowers small, terminal, few in number, pale red

or blossom colour. In boggy grounds and low meadows, common. On the Woodlands, and the lower or east end of Powelton; abundant. Perennial. July.

188. OXYCOCCOS. Persoon. Syn. 1. p. 419. (*Ericæ*.)

Calix superior, 4-toothed. *Corolla* 4-parted; segments sublinear, revolute. *Filaments* connivent. *Anthers* tubulose, semibifid. *Berry* many-seeded.—*Nutt*.

macrocarpus. 1. *O. repent*; stems assurgent; leaves oblong, very entire, (distantly subserrulate, *Nutt*.) flatish, obtuse, glabrous, white underneath; pedicels elongated; segments of the corolla lanceolate.—*Pers.* and *Pursh*.

Vaccinium macrocarpon.—*Willd.* Sp. Pl. 2. p. 355.
V. oxycoccus, β *oblongifolius*, Mich.

Icon. Wang. Amer. t. 30. f. 67. (*Pursh*.) Pluk. alm. t. 326. f. 6.

Cranberry.

It is the fruit of this plant which is known so well to every person under the name of cranberries. Flowers white. Berries large, bright-shining scarlet or carmine-red. In swamps of Jersey, very abundant; hence the places where the plant grows are called Cranberry-swamps. In a swamp already so often mentioned, half a mile south-east of Kaighn's-point, Jersey, very abundant. Perennial. May.

189. ACER. Gen. pl. 1590. (*Acera*.)

Flowers mostly polygamous.—*Calix* about 5-cleft. *Petals* 5, or none. *Samaræ* 2, sometimes 3, alated, united at the base, by abortion 1-seeded.—*Nutt*.

rûbrum.

1. *A.* leaves generally 5-lobed, acute, serrate, glaucous underneath; flowers in umbels, erect; germs glabrous.—*Sp. Pl.*

A. Carolinianum, Walt?

Icon. Mich. Arbr. forest. vol. 2. p. 210. t. 14.

Swamp Maple. Red Maple. Scarlet Maple.

A common-sized tree with red flowers and seeds; common. April, May.

2. A. leaves palmate, 5-lobed, acuminate-serrate, *dasyneuron*, pubescent underneath, and glaucous almost to whiteness; flowers in clustered umbels; germs tomentose.—*Sp. Pl.*

A. *eriocarpum*, Mich. f.

A. *tomentosum*, Hort. paris.

Icon. Mich. Arb. forest. vol. 2. p. 205. t. 13.

Silver-leaved Maple. White Maple. Soft Maple.

A large tree with greenish-yellow flowers and seeds. On the banks of the Schuylkill, and elsewhere; common. April, May.

3. A. leaves pinnate and ternate, unequally serrate; flowers dioicous—*Sp. Pl.*

Icon. Mich. Arbr. forest. vol. 2. p. 247. t. 18.

Box Elder. Ash-leaved Maple.

A very large tree, not so common as No. 1, and No. 2. On the Schuylkill, near the falls, east side, and elsewhere. May, June.

ORDER II. DIGYNIA.

190. CHRYSOSPLENIUM. Gen. pl. 763. (*Saxifragæ*.)

Calix superior, 4 or 5 cleft, coloured. *Corolla* none. *Capsule* birostrate, 1-celled, many-seeded.

1. C. leaves opposite, subrotund, narrowed at the base into a petiole, very smooth, crenate.—*Willd.*

Icon. Fl. Dan. 365. Engl. Bot. 490.

Opposite-leaved Golden Saxifrage.

A subaquatic plant with very inconspicuous flowers. Very rare in this neighbourhood. I have only found it in a rivulet

on the west side of the bridge, close to the mill which I have particularly mentioned under the head of *Smyrnium integririmum*, p. 146. Perennial. May.

ORDER III. TRIGYNIA.

191. POLYGONUM. Gen. pl. 677. (*Polygoneæ*.)

Calix 5-parted, petaloid, persistent. *Seed* 1, superior, 3-sided, covered by the connivent calix. (The number of the stamina and styles uncertain.)—*Nutt.*

§ 1. *Flowers axillary.*

aviculare. 1. *P.* flowers octandrous, trigynous; leaves lanceolate, rough on the margin, nerves remote; stem procumbent, herbaceous.—*Willd.*

α angustifolium. leaves small, lanceolate-oblong.—*Mich.*
P. aviculare, Muhl.

Common Knot-grass.

β latifolium. leaves broad, oval-obtuse, like the leaves of box.—*Mich.*
P. erectum, Muhl. and Willd.

Upright Knot-grass.

On road sides, in wastes, among rubbish, and in gardens; every where very common. Annual. All summer.

γ linifolium. 2. *P.* very much branched; stems and branches angular-flexuose; leaves linear, channelled, short above, somewhat subulate; all very upright, rigid, submucronate, sessile; flowers axillary, remote, alternate, solitary. *Bart. Prod.*
Fl. Ph. p. 48.
P. tenue, Mich?
P. barbatum, Walt?

Flax-leaved Polygonum.

About six or eight inches high. Flowers small, white or pale-blossom-red. In dry sandy fields of Jersey, and on the sandy commons near Camden; common. In a sandy field a mile or two above the falls of Schuylkill, west side; frequent. Annual. July.

§ 2. *Flowers spiked and terminal.*

3. *P. flowers pentandrous, digynous, unequal; Virginianum.*
leaves broad-oval; spike very long, virgate,
flowers remote.

P. rostratum, Muhl.

P. bistorta, Walt?

From eighteen inches to two feet high. Flowers small, white, inconspicuous. Seed rostrate. In shady woods not unfrequent. In the woods of Powelton, abundant. Perennial. June, July.

4. *P. flowers crowded, octandrous, with the style 2-cleft; peduncles hispid; stipules glabrous; leaves lanceolate, a little hairy.—Sp. Pl.* *Pennsylvanicum.*

Pennsylvania Knot-weed.

Flowers large, rose-coloured. Plant from one to two feet high. In cultivated fields and on the borders of ditches; common. Annual. From midsummer till autumn.

5. *P. flowers octandrous, semi-trigynous, leaves lanceolate, smooth; ochreæ loose, smooth, ciliate at the apex, spotted; spikes filiform, weak, subnutant; bractes somewhat remote, alternate.—Mich.* *punctatum.*

P. punctatum, Elliot.

P. hydropiperoides, Pursh, not Mich.

P. hydropiper, Mich.

P. persicaria, Walt?

Water-pepper Knot-weed.

Grows with No. 4, and No. 6. Perennial. All summer.

6. *P. flowers hexandrous, semi-digynous, spikes ovate-oblong, erect, peduncles smooth; leaves* *Persicaria.*

lanceolate, ochreæ smoothish, ciliated at the apex.—*Willd.*

Icon. Fl. Dan. 702. Engl. Bot. 756.

Ladies' Thumb.

Easily known from the other species by the blackish or brown-lunate, or heart-shaped spots in the centre of the leaves. In ditches and overflowed places, very common: Annual. July, August.

- barbatum.* 7. *P.* flowers hexandrous, trigynous, spikes vergate, ochreæ truncate, bristles-ciliate; leaves oblong-acute, smoothish.—*Willd.*
P. barbatum, Willd.

Bearded Knot-weed.

Slender and delicate, about eighteen inches or two feet high. Flowers white or pale-red. Along ditches and in moist meadows; common. July.

- Orientele.* 8. *P.* flowers heptandrous, digynous; leaves ovate; stem erect; stipules hairy, hypocateriform.—*Sp. Pl.*
 Icon. Bot. Mag. 213. Mill. ic. 201.

Tall Persicaria.

A very large and elegant species, frequently attaining a height of six or seven feet; when the leaves become very large. Flowers carmine-red. Introduced, but perfectly naturalized. In wastes, among rubbish, and near garden enclosures, very common. Annual. July, August.

- coccineum.* 9. *P.* flowers pentandrous, semi-digynous, spike cylindric, ochreæ truncate, smooth, leaves ovate.—*Willd.*

Scarlet or aquatic Knot-weed.

About a foot or eighteen inches high. Flowers deep crimson-red or scarlet. A handsome species. On the muddy shores of the Delaware, Jersey side, between the city and Kaighn's point; very rare. Perennial. July, August.

§ 3. *Spike paniculate.*

10. *P.* flowers octandrous, trigynous, spikes paniculate, filiform, flowers solitary, pedunculate; bractes imbricate-truncate; leaves linear, ochreae sheathing-truncate, stem herbaceous.—*Willd.* articulatum.

Jointed-leaved Knot-weed.

A handsome species, about a foot high. Flowers rose-coloured mixed with white. In sandy fields of Jersey, within ten miles of Philadelphia; Mr. Collins. I have not found it; my specimens were brought me by Mr. Theophilus Beesley of Salem, from that neighbourhood. Annual. July, August.

§ 4. *Leaves incised, or cordate at the base.*

11. *P.* flowers in heads, octandrous, with the style 3-cleft; stem retrorsely aculeate; leaves sagittate.—*Mich.* sagittatum.

Icon. Pluk. Mant. t. 389. f. 5.

Arrow-leaved Tear-thumb.

A weak, decumbent plant, with angular stems, prickly backward. Flowers white, or very pale rose-colour. In all swamps and bogs, and on the margins of meadow-drains, very common. Annual. June to August.

12. *P.* flowers distinct, hexandrous, with the style 2-cleft; spikes few flowered; stem retrorsely aculeate; leaves hastate.—*Mich.* arifolium.

Icon. Pluk. amalth. t. 398. f. 3. (Pursh.)

Halbert-leaved Tear-thumb.

A larger and rougher plant than No. 11. Easily known by its triangular-hastate leaves. Stems red, rigidly prickly backward, and tear the hands of those who meddle with the plant. Grows in similar places with No. 11. Annual. July, August.

13. *P.* flowers octandrous, with the styles 3-cleft; leaves oblong-cordate; stem angled, roughened; calix of the mature fruit without wings.—*Mich.* Convolvulus.

Icon. Fl. Dan. 744.

Bind-weed Polygonum. Black-bind-weed. Climbing Buckwheat.

A climbing species, with heart-shaped leaves and white flowers. In hedges, and along fences bordering cultivated fields. Introduced, but naturalized. Not uncommon. Annual. July, August.

scandens.

14. P. flowers octandrous, trigynous; leaves broad-cordate; stipules truncate, naked; stem twining, glabrous; calix of the mature fruit winged.—*Mich.*

Icon. Pluk. alm. t. 177. f. 7.

American climbing Buckwheat.

Also a scandent species, resembling No. 13, but easily distinguished from it by attending to the different shape of the leaves above mentioned, and by the fruit. In similar places. Frequent. Perennial. July, August.

ENNEANDRIA.

LAURUS.

CLASS IX.—ENNEANDRIA.

ORDER I. MONOGYNIA.

192. LAURUS. Gen. pl. 688. (*Lauri.*)

Calix mostly 6-parted. *Nectarium* consisting of 3, bisetose glands, surrounding the germ. *Filaments* 12, 6 interior, 3 of them sterile and glanduliferous. *Berry* 1-seeded. (Stamina variable in number. Flowers often dioicous.)—*Nutt.*

Benzoin.

1. *L.* leaves ovate-lanceolate, pubescent underneath; flowers in clustered umbels; buds and pedicels glabrous.—*Sp. Pl.*

L. pseudo-Benzoin, Mich.

Icon. Bart. Veg. Mat. Med. U. S. vol. 2.

Spice-wood. Spice-berry. Wild Allspice. Fever Bush.

A fine large shrub, with yellow flowers and scarlet berries. The branches, stems and berries, are very aromatic. Possesses medicinal virtues. In low, open woods, and on the borders of streams, every where very common. $\frac{1}{2}$. March, April.

Sassafras

2. *L.* leaves entire and lobate.—*Willd.*

Icon. Mich. Arb. forest. vol. 3. p. 173. t. 1.

Sassafras Tree.

A fine tree, bearing yellow flowers and blue berries. It often appears only a shrub. On the borders of fields, common. Possesses medicinal properties. April, May.

DECANDRIA.

GAULTHERIA.
VACCINIUM.
ANDROMEDA.
KALMIA.
EPIGÆA.
HYPOPITHYS.
MONOTROPA.
PYROLA.
CHIMAPHILA.
CLETHRA.
CASSIA.
BAPTISIA.
CERCIS.
HYDRANGEA.
SAXIFRAGA.

MITELLA.
SAPONARIA.
DIANTHUS.
SCLERANTHUS.
CUCUBALUS.
SILENE.
STELLARIA.
ARENARIA.
SPERGULA.
CERASTIUM.
AGROSTEMMA.
OXALIS.
PENTHORUM.
SEDUM.
PHYTOLACCA.

CLASS X.—DECANDRIA.

ORDER I. MONOGYNIA.

193. GAULTHERIA. Gen. pl. 749. (*Ericæ.*)

Calix 5-cleft, or 5-toothed, bibracteate at the base. *Corolla* ovate, border partly 5-cleft, revolute. *Filaments* of the stamina hirsute; *Torus* or receptacle 10-toothed. *Capsule* superior, 5-celled, invested by the calix which becomes a berry.—*Nutt.*

- procumbens. 1. *G.* stem procumbent, branches erect, naked below, above crowded with leaves; leaves obovate-acute at the base; very slightly ciliate-dentate; flowers few, terminal, nodding.—*Willd.*
Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 15.

Mountain-tea. Tea-berry. Partridge-berry. Winter-green, &c.

A small creeping-rooted shrubby plant, with evergreen foliage. Flowers white; berry-like fruit, scarlet, esculent and agreeably flavoured. A decoction of the leaves affords a pleasant tea, which is stimulant and anodyne. (See Veg. Mat. Med. U. S.) In the pine-barrens and dry sandy woods of Jersey, common. On the banks of the Wissahickon, abundant. $\frac{1}{2}$. May.

194. VACCINIUM. Gen. pl. 658. (*Ericæ.*)

Calix superior, 4 or 5-toothed. *Corolla* urceolate or campanulate, 4 or 5-cleft; border reflected. *Filaments* inserted upon the germ. *Berry* 4 or 5-celled, many-seeded. (Stamina sometimes 8.)—*Nutt.*

1. *V. leaves* oval, lanceolate, nearly acute, entire, ^{stamineum.} glaucous underneath; flowers solitary, axillary, nodding; anthers exserted, awned.—*Sp. Pl.*
Icon. Pluk. alm. t. 339. f. 3.

A very handsome species, with very numerous white flowers. Stamens much longer than the corolla. On the borders of woods in Jersey, in hedges, and on the margins of dry thickets, not uncommon. Fruit whitish, not esculent. $\frac{1}{2}$. May, June.

2. *V. branches, leaves and racemes* somewhat hispid; sprinkled with resinous particles; leaves obovate-oblong, acute at the base, mucronate, very entire, racemes bracteate, pedicels short, axillary subsolitary, bibracteate in the middle, corollas campanulate, laciniae round, anthers included.—*Bot. Mag.* 1106. *Bot. Rep.* 112.
V. dumosum, Muhl. and Pursh.
V. frondosum, Mich., not L.
V. hirtellum, Ait. Kew. ed. 2. v. 2. p. 357.

Low or bushy Whortle-berry.

A small shrub seldom more than two feet high, found in all the dry sandy woods of Jersey in such profusion, that they are rendered almost impassable by it. Flowers large and white; berries black, globose, and surrounded with the persistent calix. The fruit is brought in great quantities to our market, and hawked about our streets, under the name of huckleberries. $\frac{1}{2}$. June, July.

3. *V. leaves* ovate-oblong, somewhat obtuse, ^{frondosum.} mucronate, very entire, smooth, glaucous beneath, abundantly sprinkled with resinous particles; racemes loose, bracteate, pedicels long, filiform, bracteolate, bractes linear, corolla ovate-campanulate, laciniae acute, anthers included.—*Willd. and Pursh.*
V. frondosum, L., not Mich.
V. glaucum, Mich.
Icon. Bot. Repos. 140.

Blue-tangles. Blue-huckle-berries.

About three or four feet high. Flowers small, white, nearly round. Berries covered with a bluish or glaucous coat; esculent and agreeable, and brought in profusion to our markets. They do not keep long after being plucked, and are liable to have worms or the larvæ of insects in them. In open woods of Jersey, also very common. ½. May, June.

resinosum.

4. *V.* leaves slenderly petiolate, oblong-oval, and generally obtuse, muticate, very entire, sprinkled with resinous particles underneath; racemes lateral, leaning one way, pedicels short, subbracteolate, corollas ovate-conic, pentagonal.—*Willd. and Pursh.*

Andromeda baccata, Wagh. am. (Pursh.)

Clammy Whortle-berry. Black Whortle-berry.

This species varies in the colour of the corolla, being yellowish, red and greenish, occasionally. The most prevailing colour is red. Berries black, esculent. From three to four feet high, with the flowers appearing, generally, when the leaves are very small. Very common in Jersey and Pennsylvania, in underwood and among wild shrubbery, in exposed situations. ½. April, May.

corymbosum.

5. *V.* flower-bearing branches nearly leafless; leaves oblong-oval, acute at each end. Mucronate, nearly entire; the younger ones every where pubescent, sub-tomentose beneath; the old ones glabrous above, the veins and nerves beneath, pubescent; racemes short, sessile, scaly-bracteate; corollas cylindric-ovate; calices erect; style subexserted.—*Willd. and Pursh.*

V. amœnum, Ait.

V. disomorphum, Mich.

V. album, Lamark.

Swamp Whortle-berry. Bilberry. Blue-berry.

A large shrub, from five to eight feet high. Flowers white. Berries black. Commonly known, and vended by hucksters, under the name of swamp-huckle-berries. Grows in swamps and boggy ground, Jersey. Common. ½. June.

6. *V.* branches angular, greenish; leaves sessile, ^{tenellum.} ovate-lanceolate, mucronate, serrulate, shining all over; fascicles crowded with flowers, subterminal, sessile; corollas ovate.—*Willd.* and *Pursh.*
V. Pennsylvanicum, Lamark and Mich.

Sugar Huckle-berries.

A low shrub, with pale-red flowers. Berries black, and very sweet; by which circumstance they can be readily recognized among the huckle-berries brought to market for sale. Near Woodbury, Jersey; rare. $\frac{1}{2}$. May.

195. ANDROMEDA. Gen. pl. 747. (*Ericæ.*)

Calix 5-parted, minute, inferior. *Corolla* more or less ovate, or subcylindric, smooth; border 5-cleft, reflected. *Capsule* 5-celled, 5-valved; valves producing dissepiments from the middle, margins naked.—*Nutt.*

1. *A.* leaves lanceolate-oblong, somewhat obtuse, ^{caliculata.} obsoletely serrulate, subrevolute, scaly-punctate, ferruginous beneath; raceme terminal, leafy, leaning one way; pedicels short, solitary, axillary; calices acute, bibracteate at the base; bractes broad-ovate, acuminate; corollas oblong-cylindric.—*Willd.*
 Icon. Pallas. Fl. ros. 2. p. 53. t. 71. f. 1. (*Pursh.*)

Evergreen or Box-leaved Andromeda.

A shrub, three or four feet high. Flowers white. Leaves towards the extremities of the branches, becoming gradually smaller. In the spongy-swamp, a little south-east of Kaighn's point, Jersey. I have not met with it elsewhere. In that locality it is abundant. $\frac{1}{2}$. April, May.

2. *A.* leaves oval, subacute at each end, very en- ^{mariana.} tire, smooth, subcoriaceous, paler underneath;

flower-bearing branches nearly without leaves, peduncles fasciculate, corollas ovate-cylindric, calices leafy, anthers muticate, capsule conical.—*Willd.*

Icon. Pluk. Mant. t. 448. (Pursh.)

Oval-leaved Andromeda.

A very elegant shrub, bearing a profusion of pure white cylindric flowers. Possesses medicinal virtues. In Jersey, in underwood, and on the borders of woods and dry swamps; and in similar places on the west of the Delaware; common. $\frac{1}{2}$. May to August.

racemosa.

3. *A.* leaves lanceolate, acute, serrulate, glabrous on the upper, pubescent on the under surface; racemes terminal, leaning one way, simple or branched; corolla oblong-ovate; anthers 4-awned.—*Mich.*

A. racemosa, L.

A. paniculata, Walt.

A. Catesbæi, Sp. Pl.?

Sweet-scented Andromeda. Red-bud.

A very elegant shrub, from three to five feet high, with its fine, lateral racème of white flowers beautifully disposed. On the borders of damp woods, particularly on the road to Woodbury, Jersey; frequent. $\frac{1}{2}$. June, July.

paniculata.

4. *A.* pubescent; leaves obovate-lanceolate, acute, nearly entire; flower-bearing branches terminal, paniculate, somewhat naked; glomerulæ subpedunculate, corollas subglobose, pubescent, anthers obtuse muticate.—*Willd.* and *Pursh.*

A. paniculata, Mich., not L.

A. globulifera, Hortul.

A. racemosa, Lamark.

A very common and ordinary looking shrub, from three to five feet high. Flowers numerous, very small, white, globular. The globular pericarp is persistent, and often remaining on the plant during the second season. In swampy and low

ground, among shrubbery, every where very common. $\frac{1}{2}$.
June, July.

196. KALMIA. Gen. pl. 743. (*Rhododendron*.)

Calix 5-parted. *Corolla* salverform; border on the under side producing 10 cornute protuberances, and as many cavities in which the anthers are concealed. *Capsule* 5-celled, many-seeded, dissepiments marginal.—*Nutt.*

1. K. leaves on long foot-stalks, scattered and by *latifolia*.
three's, oval, coriaceous, smooth on each side;
corymbs terminal, viscid and pubescent.—*Mich.*

Laurel. Calico-tree or bush. American Laurel.
Ivy-bush.

This magnificent shrub is certainly one of the finest ornaments of our woods. In the woods of Jersey, where it seems to attain its greatest perfection, it is often ten or thirteen feet high; and when in full flower, is truly admirable. Common every where in woods, and among shrubbery. Possesses medicinal properties. Flowers peach-blossom-red. $\frac{1}{2}$. May, June.

- 2 K. branches ancipital, leaves opposite, subses- *glauc.*
sile, oblong, smooth, glaucous beneath, margins
revolute; corymbs terminal, bracteate, pedun-
cles and calices very smooth.—*Ait. and Pursh.*
Obs. branches terete, branchlets mostly trique-
trous with the leaves ternate: leaves petiolate,
subovate-oblong obtuse, nearly flat, scattered
and ternate, every where smooth, glaucous on
the under side, at length dependent; corymbs
terminal, compound; corymbulets racemose,
ternate; flowers subfastigate, peduncle with 3
bractes at the base, disposed in 2 contrary se-
ries, pulverulently and viscidly pubescent as
well as the calix; segment of the calix ovate
acute; flower salverform, margin crenately

lobed; anthers opening by 2 oblique truncate pores; stigma truncate entire.—*Nutt.*

K. polifolia, Wagh. (Pursh.)

Icon. Bot. Mag, 177. Ait. Kew. 2. t. 8.

Glaucous-leaved or Small Laurel.

A shrub, flowering at a height of twelve inches to two feet. Flowers fine deep-red, half the size of those of No. 1, and very handsome. Very common among shrubbery in Jersey. $\frac{1}{2}$. May, June.

197. EPIGÆA. Gen. pl. 748. (*Ericæ*.)

Calix large, 5-parted, tribracteate at the base. *Corolla* salverform, border 5-parted, spreading; tube internally villous. *Capsule* 5-celled; *Receptacle* 5-parted.—*Nutt.*

repens.

1. *E. branches*, petioles, and nerves very hirsute; leaves cordate-ovate, very entire; corollas cylindric.—*Willd.* and *Pursh.*

Icon. Bot. Rep. 102.

Creeping Epigæa. Creeping Ground Laurel.

A procumbent, creeping, evergreen shrub, bearing very fragrant white or pale blossom-red flowers. In shady and hilly woods, every where frequent. Often concealed under decayed leaves. $\frac{1}{2}$. April, May.

198. HYPOPITHYS. Dillenius. (*Monotropeæ*. Nutt.)

Calix 3 to 5-parted. *Corolla* pseudo-polypetalous, persistent; segments 4 or 5, each with a cucullate nectariferous base. *Anthers* small, horizontal, 1-celled, at length opening flat. *Stigma* orbicular, with a bearded margin. *Capsule* 5-celled, 5-valved. *Seeds* very numerous, minute, subulate.—*Nutt.*

1. H. scape bearing flowers in a spike; bractes lanuginosa. and flowers hairy on all sides.—*Mich.*

Hypopithys lanuginosa, Nutt.

Monotropa lanuginosa, Mich., Pursh, &c.

M. hypopithys, Walt.

Fellow or Woolly Birds-nest.

Parasitic on the roots of trees, in shady woods, particularly of Jersey, ten inches high. Whole plant of a yellowish-brown colour. Rare. Perennial. June, July.

199. MONOTROPA. Gen. pl. 737. (*Monotropææ*. Nutt.)

Calix none. *Corolla* pseudo-polypetalous, persistent; segments 5, each with a cucullate, nectariferous base. *Anthers* reniform, horizontal, 1-celled, emitting the pollen near the middle, by 2 transverse foramina. *Stigma* orbicular, naked. *Capsule* 5-celled, 5-valved. *Seeds* very numerous, minute, subulate.—*Nutt.*

1. *M.* scape short, thick, 1-flowered; scales ap-^{uniflora.} proximate; flower-drooping.—*Pursh.*

Icon. Pluk. alm. t. 209. f. 2. Catesb. car. 1. t. 36.

About six or seven inches high, stems growing in clustered bunches together, each stem supporting a single flower. Whole plant pure white, resembling wax. In similar places with hypopithys, but more common. Perennial. May, June.

200. PYROLA. Gen. pl. 572. (*Ericæ*.)

Calix 5-cleft or 5-parted. *Petals* 5, deciduous. *Style* exserted. *Capsule* 5-celled, opening at the angles near the base, margins of the valves connected by an intricate tomentum; (septa medial, coalescing with the receptacular axis; lobes of the recep-

tacle simple. *Seeds* very numerous and minute, samaroid.)—*Nutt.*

- rotundifolia.* 1. *P.* leaves roundish, or dilated oval, obsoletely crenulate, partly coriaceous and lucid, petiole conspicuously margined, about the length of the lamina; scape many-flowered; bractes ovate, acute; calix 5-parted, segments oblong-ovate, reflected at the points; petals longer than the stamina.—*Nutt.*

Icon. Fl. Dan. 110. Engl. Bot. 213.

Round-leaved Winter-green.

The largest species of this genus, about eight or ten inches high. A very pretty plant, with white fragrant flowers. In shady woods of rich loose soil, among decayed leaves, every where very common. Perennial. June, July.

- elliptica.* 2. *P.* leaves membranaceous, oblong-oval and obtuse, or elliptic-ovate, plicately serrulate and acute, lamina always much longer than the petiole; scape naked or furnished with a single scale; bractes linear and subulate; calix 5-toothed, points subulate, reflected.—*Nutt.*

Pyrola elliptica, Nutt.

This species I have long observed in this neighbourhood. It is very like the common *rotundifolia*, but discrepant enough, and sufficiently constant in its character, to constitute a permanent species. Grows with the preceding. Perennial. June, July.

- chlorantha.* 3. *P.* stamens sub-ascendent, pistil declined, style somewhat thick, the divisions of the calix affixed; scape nearly naked, racemes many-flowered.—*Swartz.* Scape generally convolute; leaves small, thick, subcoriaceous, orbicular, generally emarginate at the apex; petioles simple, pistil declined.—*Bart. Prod. Fl. Ph. p. 50.*
P. chlorantha, Swartz, in Stockholm Trans. 1810, p. 190. t. 5.

P. convoluta, Bart. Prod. Fl. Phi. p. 50.

P. asarifolia, Mich.

P. rotundifolia, β *nummularia*, Muhl. Cat. 2d ed.

Icon. Swartz, Trans. Stockholm, 1810.

Resembles No. 1, but easily distinguished from it by its pale greenish-yellow flowers, and small thick leaves. In the woods of Jersey, every where common, growing with No. 1, and No. 2. This species I first described in my Prodrômus under the specific name *convoluta*. I have however thought best to assume the specific appellation given to the same plant by Swartz, who has found it in the woods of Sweden. I had not seen the Stockholm Transactions, at the time I published the Prodrômus, else I should have availed myself of the better name *chlorantha*, from the colour of the flowers. Perennial. June, July.

201. CHIMAPHILA, Pursh. Fl. Am. vol. 1. p. 300. (*Ericæ*.)

Calix 5-toothed. *Petals* 5. *Style* very short, immersed in the germ; *Stigma* annulate, orbicular, with a 5-lobed disk. *Filaments* stipitate; stipe discoid, ciliate. *Capsule* 5-celled, opening from the summit, margins unconnected.—*Nutt.*

1. *C.* leaves cuneate-lanceolate, acute at the base, *umbellata*. serrate, of one colour; scape corymbiferous, filaments smooth.—*Pursh.*

C. corymbosa, Pursh.

Pyrola umbellata, L., Willd., Mich., &c.

Icon. Bart. Veg. Mat. Med. U. S. vol. i. t. 1.
Bot. Mag. 778.

Pippsissewa. Winter-green.

Anelegant evergreen plant, about eight inches high. Flowers fragrant, greenish-white, delicately tinged with rose-colour at the inside of the petals. Stigma green, viscid—anthers purple. Leaves a deep shining green. It is well known under the name of *Pippsissewa*, and is brought to our markets in abundance for sale. It is in much repute as a medicine, and is powerfully diuretic. (See Veg. Mat. Med. U. S.) In the woods of Jersey, in great profusion; and in woods west of the Delaware, also common. Perennial. July.

maculata.

2. *C.* leaves lanceolate, round at the base, remotely serrate, marked with a longitudinal discoloured fascia; scape 2—3-flowered, filaments woolly. —*Pursh.*

Pyrola maculata, L.

Icon. Bot. Mag. 897.—Pluk. mant. t. 349. f.

4. (*Pursh.*)

Spotted-leaved Pippissisewa. Poison Pippissisewa.

Also a very elegant and fragrant evergreen plant, resembling No. 1, exceedingly, but readily distinguished by the white broad lines in the leaves. Grows with No. 1; very common. Perennial. July.

202. CLETHRA. Gen. pl. 751. (*Ericæ.*)

Calix 5-parted, persistent. *Petals* 5. *Style* persistent; *Stigma* short and trifid. *Capsule* 3-celled, 3-valved, enclosed by the calix.—*Nutt.*

alnifolia.

1. *C.* leaves cuneate-obovate acute, deeply serrated above, every where smooth and of a uniform colour; racemes spiked, simple, bracteate, hoary-tomentose.—*Willd.*

C. alnifolia denudata, Ait.

Icon. Catesb. Car. 1. t. 66.

Alder-leaved Clethra. Fragrant Clethra.

This fine shrub should be cultivated in gardens. The foliage is handsome, and the long spikes of white flowers which are numerous, exhale a spicy fragrance, which adds much value to the plant. About three or five feet high. In the boggy grounds and swamps of Jersey, very common and abundant. $\frac{1}{2}$. July, August.

203. CASSIA. Gen. pl. 700. (*Leguminosæ.*)

Calix 5-leaved. *Petals* 5, subequal. Three upper anthers sterile, the 3 lowest rostrate,

upon longer and incurved filaments. *Legume* membranaceous, 2-valved.—*Nutt.*

1. *C.* nearly glabrous; leaves in 8-pair, lanceo-^{Marilandica.}late-oblong, mucronate, nearly equal; gland on the petiole obovate; racemes axillary, and paniculate-terminal; legumens linear, curved, smooth.—*Willd.* and *Pursh.*

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 12.

Wild Senna. American Senna.

A very elegant plant, from three to four feet high, bearing a profusion of orange-coloured flowers. The dried leaves and foliicles are equal, in medicinal virtue, to the common senna of the shops. (See Veg. Mat. Med. U. S.) In sandy wet ground, near the borders of all our rivers and creeks; very abundant. Perennial. July, August.

2. *C.* nearly smooth; leaves in many pairs, linear, gland of the petiole subpedicellate; flowers nearly in pairs; pedicels long, two petals, spotted; legumens pubescent.—*Willd.* and *Pursh.* <sup>Chamæchris-
ta.</sup>

Icon. Bot. Mag. 107.

Dwarf Cassia. Partridge. Acoumack-pea.

A very superb species, from one foot to eighteen inches high. Flowers twice as large as those of No. 1, and deep-yellow. On the borders of cultivated grounds, not uncommon. Near a copse in the Neck, half a mile from Federal and Second streets, in great profusion, and very large. Annual. July, August.

3. *C.* spreading; leaves in many pairs, linear, gland of the petiole pedicellate; peduncles clustered, few-flowered above the axills, flowers pentandrous; stamens equal.—*Willd.* and *Elliot.* ^{nictitans.}

Icon. Pluk. alm. t. 314. f. 5.

Wild Sensitive-plant.

A smaller species than No. 2, with very small flowers. Out of flower and fruit they may be mistaken for each other. Flowers yellow. The leaves are somewhat sensitive. On sandy and barren road sides, and on the borders of sandy fields; very common. Annual. June to August.

204. BAPTISIA. Ventenat. R. Brown. (*Leguminosæ.*)

Calix half 4 or 5-cleft, bilabiate. *Corolla* papilionaceous, petals nearly equal in length; *vexillum* laterally reflected. *Stamina* deciduous. *Legume* ventricose, pedicellate, many-seeded.—BROWN. Hort. Kew. 3. p. 5.

tinctoria.

1. *B.* very glabrous, and much branched, small-leaved; leaves ternate, subsessile, folioles cuneate-obovate, round-obtuse; stipules obsolete, oblong-acute, much shorter than the petiole; racemes spiked, terminal; legumes ovate, on long footstalks.—Willd. and Pursh.

Sophora tinctoria, Sp. Pl. 534.

Podalyria tinctoria, Mich., Lamark, and Willd. Icon. Bot. Mag. 1099.

Wild Indigo.

About two or three feet high, very bushy or much branched. Leaves, stem and branches of a blueish-green. Flowers fine yellow, very numerous. Possesses medicinal properties. On hills, in dry woods, on the borders of thickets, and in fields; very common. The whole plant is apt to dry black when prepared for the herbarium. Perennial. July, August.

205. CERCIS. Gen. pl. 696. (*Leguminosæ.*)

Calix 5-toothed, the lower part gibbous. *Corolla* papilionaceous, lateral petals or wings larger than the *vexillum*; carina dipetalous. *Legume* compressed. “Semi-

niferous suture margined. *Seeds* obovate."—BROWN.

1. *C.* leaves nearly round, cordate, acuminate, *Canadensis*. villous at the axills of the nerves; legumes on short footstalks.—*Mich.*

Icon. Schmidt, Arb. 21. Mill. ic. 2. (Pursh.)

Red-bud. Sallad-tree. Judas-tree.

A very superb tree, when in bloom, which takes place before the leaves appear. Flowers very numerous, of a crimson-red. Children are fond of eating them. I have often observed hundreds of the common humble-bees lying dead under these trees while in flower. Perhaps the flower contains something pernicious to them. On the banks of all our waters, and along the borders of small woods; very common. $\frac{1}{2}$. May.

ORDER II. DIGYNIA.

206. HYDRANGÆA. Gen. pl. 760. (*Saxifragæ*.)

Calix superior, 5-toothed minute. *Petals* 5.

Capsule mostly 2-celled, striate, opening betwixt the persistent styles by a terminal foramen. *Seeds* many, longitudinally striate.—*Nutt.*

1. *H.* leaves oblong-ovate, obtuse at base, acuminate, dentate, smooth beneath; cymes naked.—*Pursh.*

H. arborescens, Willd.

Icon. Bot. Mag. 437.

Common Wild Hydrangea.

A shrub, about five or six feet high, with white flowers. On the banks of the Schuylkill, west side, in a secluded shady thicket bordering a rivulet. This spot may be readily found, being not far above Breck's island. Rare. $\frac{1}{2}$. July, August.

207. SAXIFRAGA. Gen. pl. 764. (*Saxifragæ*.)

Calix 5-parted, persistent. *Petals* 5. *Cap-
sule* 1-celled, many-seeded, opening be-
twixt the persistent styles.—*Nutt.*

Virginia.

1. *S.* all over finely pubescent; leaves oval, ob-
tuse, crenate, decurrent into the petiole; stem
nearly without leaves, paniculate; branches di-
chotomous; flowers subsessile.—*Mich.* and
Pursh.

S. Virginiensis, *Mich.* and *Pursh.*

S. vernalis, and *S. nivalis*, *Muhl.*

S. pilosa, *Herb. Banks*, (*Pursh.*)

Icon. Pluk. alm. t. 222. f. 5.

Early Saxifrage.

After the *Draba verna*, this is the earliest blooming plant of spring, frequently appearing in flower, on exposed rocks bordering the Schuylkill, while the snow is yet on the ground. It varies much in height, often flowering when two inches high, and frequently later in the season, when near a foot tall. On rocks and dry exposed hills every where, common. Sometimes at the roots of trees in dry woods, particularly in Jersey. Perennial. Last of March, till June.

Pennsylvania.
ca.

2. *S.* pubescent; leaves oblong-lanceolate, acute at each end, obsolete denticulate; stem naked, panicle oblong, branches above having fascicles of flowers.—*Willd.*

Icon. Dill. elth. t. 253. t. 328.

Large Saxifrage.

A large inelegant species, near three feet high. Radical leaves very large and thick. Flowers greenish. Near rivulets, in the woods above the falls of Schuylkill, west side. Rare.

208. MITELLA: Gen. pl. 766. (*Saxifragæ*.)

Calix 5-cleft, persistent. *Petals* 5, pinnatifid, inserted upon the calix. *Capsule* 1-

celled, subsemibivalve; valves equal.—
Nutt.

1. *M.* leaves sub-lobate-acute, angled, dentate; ^{diphylla.}
stem erect above, two-leaved, leaves opposite.—
Willd. and *Pursh.*

Icon. Rob. ic. 80. Schkuhr. hand. 1. t. 120.
Lam. illustr. t. 373. f. 1. (*Pursh.*)

*Two-leaved Bishop's-cap. American Bastard-
sanicle.*

A very delicate plant, about one foot high, with white flowers. On the low banks of the Wissabickon, near springs and rivulets. Rare. Perennial. May.

209. SAPONARIA. Gen. pl. 769. (*Caryophyllæ.*)

Calix tubulous 5-toothed, naked at the base.
Petals 5; unguiculate. *Capsule* 1-celled.—*Nutt.*

1. *S.* calices cylindric, leaves ovate-lanceolate.— *officinalis.*
Willd.

Icon. Fl. Dan. 543. Engl. Bot. 1060.

Officinal Soap-wort. Bruise-wort. Bouncing-Bet.

A well known plant in gardens with white flowers, that have great tendency to a duplication of petals. Among rubbish, in wastes, and near habitations and neglected outhouses, all through the country; very common. In the streets of Camden, and on the road to Woodbury, in the sand. Introduced, but naturalized. Perennial. July.

210. DIANTHUS. Gen. pl. 770. (*Caryophyllæ.*)

Calix cylindric, coriaceous, 5-toothed, the base surrounded by 4 to 8 scales. *Petals* 5, unguiculate. *Capsule* cylindric, 1-celled, bursting at the summit.—*Nutt.*

Armeria.

1. *D.* flowers aggregated and fasciculate; calicine scales lanceolate, villous, as long as the tube.—*Willd.*

Icon. Fl. Dan. 230. Engl. Bot. 317.

Wild Pink.

Along the margins of sandy fields of Jersey, near Kaighn's point, and Cooper's ferry. Flowers deep-red. This plant appears in these localities to be quite at home; and Dr. Bigelow has found it on the rocky hills in Roxbury and Salem. Yet it is not improbable that it was originally introduced from Europe. Annual. July.

211. SCLERANTHUS. Gen. pl. 767. (*Portulacæ.*)

Calix 1-leaved, border 5-cleft. *Stamina* inserted upon the calix. *Corolla* none. *Seeds* 1 or 2 included in the calix.—*Nutt.*

annuus.

1. *S.* calix of the ripe fruit with sharp spreading teeth; stems spreading.—*Smith.*

Icon. Fl. Dan. 504. Engl. Bot. 351.

Knawel. German Knot-grass.

A procumbent blue-green little plant, with flowers so inconspicuous as to escape observation without close attention. In the sandy cultivated fields of Jersey, very common; near the grave yard on the Schuylkill, close to Market-street bridge, sparingly. Annual. May to July.

ORDER III. TRIGYNIA.

212. CUCUBALUS. Gen. pl. 771. (*Caryophylleæ.*)

Calix inflated or campanulate, 5-toothed, *Petals* 5, unguiculate, naked, or partly crowned at the orifice. *Capsule* 3-celled.—*Nutt.*

1. *C. pubescent*, erect; leaves verticillate in four's, ^{stellatus.} oval-lanceolate, long, acuminate.—*Willd.* and *Pursh.*

Silene stellata, Ait.

Icon. Bot. Mag. 1107.

Four-leaved Campion.

A tall, weak, slender and handsome plant, with verticillated leaves and fringed white flowers. In shady thickets and in woods, among under-shrubbery; common. Perennial. July August.

213. SILENE. Gen. pl. 772. (*Caryophyllæe.*)

Calix cylindric or conic. *Petals* 5, unguiculate, generally crowned at the orifice. *Capsule* three-celled.—*Nutt.*

1. *S. clammy*-pubescent; leaves cuneate, those of the stem lanceolate; partial stems few-flowered; petals slightly emarginate, subcrenate.—*Mich.* ^{Pennsylvania.}

S. Virginica, Willd.?

S. Caroliniana, Walt.

Pennsylvania Catchfly. Wild Pink.

A small semi-procumbent plant, with pale rose-coloured flowers. Upper part of the stems, peduncle, and tube of the corolla very viscid, so as to catch and retain little insects, dirt, &c.; hence the name catchfly. In the sandy woods and borders of sandy fields of Jersey, every where common. Perennial. May, June.

2. *S. decumbent* (?) whole plant viscid-pubescent; ^{Virginica.} leaves oblong, margin roughish; panicle dichotomous, petals bifid, the organs exerted.—*Mich.*
S. Catesbæi, Walt. and Willd., *perhaps* of Muhl?
 Icon. Catesby. Car. 2. t. 4. Pluk. alm. t. 203. f. 1.

Crimson or tall Catchfly.

A fine plant, about eighteen inches or two feet high, with beautiful crimson flowers. I have specimens given me by the late professor Barton, who shewed Mr. Collins the only loca-

lity where he found this scarce plant. In a shady moist wood, not far from Rouse's lane, in the Neck; Mr. Collins. Perennial. June.

- Antirrhina. 3. *S.* leaves lanceolate-subciliate, peduncles trifid, petals emarginate, calices ovate.—*Willd.*
Icon. Dill. elth. t. 313. f. 403. (Pursh.)

Snapdragon Catchfly.

About fourteen or eighteen inches high. Capsules inflated, and the upper part of the stem and small branches covered at intervals of about an inch or two, with a coat of brown viscid gummy substance, which looks like tar. This is a constant character of the plant, as I have seen in Maryland and Virginia. I was there informed that the chimney birds used fragments of the plant containing this clammy glue, in building their nests. I know nothing of the reputed fact. Flowers open early in the morning. On the sandy woods of Jersey, and in similar places west side of the Schuylkill, above the falls. Rare. Annual. June.

214. STELLARIA. Gen. pl. 773. (*Caryophylleæ*.)

Calix 5-leaved, spreading. *Petals* 5, bipartite. *Capsule* ovate, 1-celled, many-seeded, summit 6-toothed.—*Nutt.*

- pubera. 1. *S.* pubescent; leaves sessile, ovate-ciliate, pedicels erect, petals longer than the calix—*Mich.*

Oval-leaved Star-wort.

Flowers as in all the species, white. On the woody hills bordering the Schuylkill, every where common. Perennial. May.

- media. 2. *S.* leaves ovate, smooth, stems procumbent, with an alternate lateral hairy line.—*Smith.*
Alsine media, Sp. Pl.
Icon. Engl. Bot. 573. Fl. Dan. 438 & 525.

Common Chickweed.

Every person knows Chickweed, and it would be difficult to say where it does not grow. It flowers during nearly all the year. The number of stamina varies from three to five or ten. Annual.

3. *S.* leaves linear-lanceolate, entire; panicle ter-^{graminea.}
 minal, spreading; calix three nerved, about
 equal to the petals.—*Smith.*
S. graminea, Smith and Withering.
S. longifolia, Muhl.
S. arvensis, Hoffinan.
S. Dilleniana, Mœnch.

*Grass-leaved or Long-leaved Star-wort, or Stich-
 wort.*

From one foot to fourteen inches high, stem slender and weak. In meadows among grass, common. On the banks of the Schuylkill, west side, just below Market-street bridge, abundant. Annual? June.

4. *S.* stem diffuse, procumbent, very much branch-^{uliginosa.}
 ed; leaves lanceolate, ciliated and narrower at
 the base, peduncles ternate, lateral, the inter-
 mediate one-flowered, lateral, dichotomous, few-
 flowered.—*Roth. Germ. I. 191. II. 489.*
S. uliginosa, Schreb. and Roth.
S. Alsine, Hoffman, Willd., Pers., and Muhl.

Bog Star-wort or Stichwort. Fountain Chickweed.

A small procumbent species, with flowers about the size of those of No. 2. In wet ground near springs, and on the wet borders of rivulets and meadow-drains; not unfrequent. June.

215. ARENARIA. Gen. pl. 774. (*Caryophylleæ.*)

Calix 5-leaved, spreading. *Petals* 5, entire.
Capsule 1-celled, many-seeded.—*Nutt.*

1. *A.* stem dichotomous, diffuse; leaves ovate-^{serpyllifolia.}
 acute, subciliate; calices acute, substriate, petals
 shorter than the calix.—*Willd.* and *Pursh.*
Icon. Fl. Dan. 977.

Thyme-leaved Sand-wort.

A small branching species, with little white flowers. Every where common in sandy soil. Annual. From May till autumn.

ORDER V. PENTAGYNIA.

216. SPERGULA. Gen. pl. 798. (*Caryophyllææ*.)

Calix 5-leaved. *Petals* 5, entire. *Capsule* ovate, 1-celled, 5-valved.

arvensis.

1. S. leaves filiform, verticillate; panicle dichotomous, stalks of the fruit reflexed; seeds reniform, angular, rough.---*Smith*.

Icon. Fl. Dan. 1033. Engl. Bot. 1535.

Corn Spurrey.

About eight or ten inches high. In sandy fields and roads of Jersey; very scarce. Annual. June, July.

saginoides.

2. S. leaves opposite, subulate, naked; peduncles solitary, very long, smooth.—*Smith*.

Icon. Engl. Bot. 2105.

Pearl-wort Spurrey.

A very small plant, seldom exceeding three inches in height, and often flowering when only three quarters or an inch high. In sandy grass-plots of Jersey, not unfrequent, though from its minuteness, easily overlooked. Annual. June, July.

217. CERASTIUM. Gen. pl. 797. (*Caryophyllææ*.)

Calix 5-leaved. *Petals* 5, bifid or emarginate; *Capsule* 1-celled, bursting at the summit, 10-toothed.

vulgatum.

1. C. hirsute, viscid, cespitose; leaves ovate; pe-

tals oblong, nearly equal to the calix; flowers longer than the peduncle.—*Willd.* and *Smith.*

Icon. Engl. Bot. 789.

Common or broad-leaved Mouse-ear Chickweed.

In fields and in grassy banks; frequent. Annual. April, June.

2. *C. hirsute*, viscous, diffuse; leaves lanceolate-oblong, a little obtuse, petals obovate, hardly longer than the calix, flowers shorter than the peduncle.—*Willd.* and *Pursh.*

Icon. Engl. Bot. 790.

Narrow-leaved or Clammy mouse-ear Chickweed.

In cultivated fields and pastures, common. Annual. All summer.

3. *C. hirsute*, viscid; leaves ovate-oblong, acute, petals shorter than the calix, emarginate; peduncles longer than the calix, flowers pentandrous.—*Willd.*

Icon. Engl. Bot. 1630.

Least mouse-ear Chickweed.

A small species, frequent on the grassy commons of Jersey. Annual. May, June.

4. *C. softly pubescent* and viscid, erect; leaves elongated, distant, linear-oblong, acute; petals oblong, bifid at the point, longer than the calix; peduncles at length much longer than the flowers, at first shorter.—*Obs.* stems nearly simple and erect, several from the same root, often a foot high, remarkably viscid above. Radical leaves spatulate, all rather acute, cauline subamplexicaule, linear-oblong, sub lanceolate, plaited at the point, often 2 inches long, and only 3 lines broad. Flowers terminal, subpanicu-

late; petals linear-oblong. Stamina 10, 5 alternately longer. Styles 5, short. Capsule double the length of the calix, 10-toothed, oblong-cylindric, teeth acuminate.—*Nutt.*

C. longepedunculatum, Muhl.

C. glutinosum, Nutt. Gen. Am. Pl. vol. 1. p. 291.

Clammy, or long peduncled Mouse-ear Chickweed.

This and No. 6, are perhaps the only indigenous species. In cultivated fields, every where very common. Annual. May.

arvense.

6. *C. pubescent*, cespitose; leaves linear-lanceolate, obtuse, ciliated at the base; petals obcordate, twice the length of the calix; calicine folioles obtuse.—*Willd.* and *Pursh.*

Icon. Fl. Dan. 628. Engl. Bot. 93.

Large-flowered Mouse-ear Chickweed.

A pretty species. Flowers large, and in this, (as in all the preceding,) white. On the banks of the Schuylkill and Delaware, principally on and among rocks and hills. Perennial. May to July.

218. AGROSTEMMA. Gen. pl. 795. (*Caryophylleæ.*)

Calix 1-leaved, tubulous; coriaceous, summit 5-cleft. *Petals* 5, unguiculate; limb obtuse, and undivided. *Capsule* 1-celled, with a 5-toothed opening.—*Nutt.*

Githago.

1. *A. hirsute*; calix longer than the corolla, petals entire, naked.—*Willd.*

Icon. Fl. Dan. 576. Engl. Bot. 741.

Githago segetum, Desfontaines.

Cockle.

This well known plant, with handsome purple flowers, is very common among grain in corn-fields. It often appears wild, along the borders of cultivated fields. Annual. June, July.

219. OXALIS. Gen. pl. 794. (*Gerania*.)

Calix 5-leaved, persistent. *Petals* 5, partly connected at the claws. *Stamina* unequal, connected at the base, 5 of them alternately shorter. *Capsule* pentangular, 5-celled, bursting at the angles. *Seeds* covered by an elastic arillus.—*Nutt.*

1. *O.* stemless; scape umbelliferous, pedicels sub-violacea, pubescent, flowers nutant, leaves ternate, obcordate, smooth; segments of the calix callous at the apex, styles shorter than the external stamens.—*Willd.* and *Pursh.*

Icon. Pluk. alm. t. 102. f. 4.

Violet Wood-sorrel.

A very beautiful and delicate plant, with reddish-purple flowers. It sometimes blooms a second time in autumn, when the scape appears without leaves. In shady woods, at the roots of trees, and on the sides of rich hills. Rare. Perennial. May.

2. *O.* whole plant pubescent; stem branched, dif-corniculata, fused, or procumbent; radicant, peduncle subumbellate, shorter than the petiole; leaves ternate, obcordate, styles the length of the interior stamens.—*Willd.*

O. pusilla, Salisb.

Icon. Salisb. in. Act. Soc. Linn. Lond. 2. t. 23. f. 5.

Yellow-sorrel. Common-sorrel.

Found every where on the borders of cultivated fields, and well known under the above name. Flowers yellow. Annual. All summer.

3. *O.* stem erect, branched, peduncle umbelliferous, shorter than the petiole; leaves ternate, obcordate, corollas obtuse, styles the length of the interior stamens.—*Willd.*

O. ambigua, Salisb. in Act. Soc. Linn. Lond. 2. t. 23. f. 4.

O. corniculata, Fl. Dan. t. 873.

Icon. Jacq. oxal. t. 4. (Pursh.)

Likewise known by the name of sorrel. In similar places with No. 2, which it resembles very much. Perennial. June, July.

220. PENTHORUM. Gen. pl. 790. (*Sempervivæ*.)

Calix 5 to 10 cleft. *Petals* 5 or wanting. *Capsule* with 5 cusps, and 5 cells, cells dividing transversely, many-seeded; seeds minute.—*Nutt*.

Sedoides.

1. *P.* stem branched, angular; leaves lanceolate, subsessile, unequally deeply serrate; spikes terminal, paniculate, alternate and cymose; seeds scrobiform.—*Willd.* and *Pursh*.

Icon. Act. Ups. 1744. t. 2.

American Penthorum.

About twelve inches high; flowers pale-yellow. In ditches and swamps, or boggy-ground, common. Perennial. June, July.

221. SEDUM. Gen. pl. 789. (*Sempervivæ*.)

Calix 5-cleft. *Petals* 5. Five nectariferous scales at the base of the germ. *Capsules* 5, superior, many-seeded; opening internally.—*Nutt*.

ternatum.

1. *S.* small, repent; leaves flat, rotund-spathulate, ternate; cymes sub-3-spiked, flowers sessile, octandrous.—*Mich*.

S. saxatilis, floribus albis, &c. Clayt. Virg. 891.

S. Amerianum, Herb. Banks.

Three-leaved Stone-crop.

A small succulent plant, with white flowers, appearing to grow wild in the woods, back of Gray's ferry gardens. Perennial. May, June.

ORDER VI. DECAGYNIA.

222. PHYTOLACCA. Gen. pl. 800. (*Polygonæ*.)

Calix 5-leaved, petaloid. *Berry* superior, 10-celled, 10-seeded.

1. P. leaves ovate, acute at each end; flowers de-decandra. candrous decagynous.—*Willd.*
Icon. Pluk. alm. t. 225. f. 3.

Poke. Poke-weed.

A well-known, large, rank herbaceous plant, with white flowers. Berries deep blackish-purple. Possesses medicinal virtues. The young shoots are eaten as asparagus, but when too old are apt to affect the stomach seriously. On the borders of fields, and in wastes. Perennial. June, July.

ICOSANDRIA.

PRUNUS.
LYTHRUM.
CUPHEA.
AGRIMONIA.
CRATÆGUS.
ARONIA.
PYRUS.
SPIRÆA.
GILLENIA.
ROSA.
RUBUS.
GEUM.
POTENTILLA.
FRAGARIA.

CLASS XI.—ICOSANDRIA.

ORDER I. MONOGYNIA.

223. PRUNUS. Gen. pl. 849. (*Rosaceæ*.)

Calix inferior, 5-cleft, deciduous. *Petals* 5.
Style terminal. *Drupe* even, nut with a
 somewhat prominent suture.—*Nutt.*

Virginiana. 1. *P.* flowers racemous; racemes erect, elongated,
 leaves deciduous, oval-oblong, acuminate, un-
 equally doubly-toothed, every where smooth,
 petioles nearly four-glandulous.—*Willd.* and
Pursh.

P. rubra, Ait.

Cerasus Virginiana, Mich. f. Arb. forest.

Icon. Willd. arb. t. 5. f. 1. (*Pursh.*) Mich. Abres.
 forest. vol. 3. p. 151. t. 6.

Wild Cherry-tree. Choke Cherry.

This very elegant tree is much valued for its handsome
 wood, which is useful for ornamental furniture; and for its
 medicinal properties, which are tonic. Flowers numerous,
 white. Berries crow-black. In Jersey, and on the west side of
 the Delaware; frequent. April, May.

serotina. 2. *P.* flowers racemous; racemes loose, leaves
 deciduous, simply serrate, lower serratures sub-
 glandulous, middle rib bearded towards the
 base.—*Willd.*

P. serotina, Willd. Sp. Pl. 2. p. 986., not *P. serotina*,
 of Roth. catalect. 1. p. 58.

P. Virginiana, Mill. dict.

Icon. Willd. arb. t. 5. f. 2. Wagh. amer. t. 14.
 f. 33.

Wild Cherry.

This species resembles the preceding exceedingly, and by Michaux f. is considered the same, for he has only figured the *Prunus* (*Cerasus*) *Virginiana*. The bearded pubescence near the middle rib of the leaves underneath, is a good discriminating mark. With No. 1, in moist places, and near waters, common. Flowers white, berries red. June.

3. *P. leaves oval-oblong, acuminate, membranaceous, glabrous; flowers subcorymbose; fruit red.—Mich. f.*

Cerasus borealis, Mich. f. Arb. forest.

Prunus Pennsylvanica, Muhl.?

Icon. Mich. f. Arb. forest. vol. 3. p. 159. t. 8.

Small Cherry. Red Cherry. Choke Cherry.

A small and very handsome tree when in flower. Flowers white, berries red, somewhat astringent. Branches beset with rough thorns. On the borders of Cooper's Creek, Jersey, abundant. On the bank walk from the Navy yard to Gloucester point. May.

224. LYTHRUM. Gen. pl. 825. (*Salicarie.*)

Calix 6 to 12-toothed, tubular. *Petals* 6, equal, inserted upon the calix. *Capsule* superior, 2 to 4-celled, many-seeded. (*Stamina* 2, 6, 8, 10, and in some species 12.)
—*Nutt.*

1. *L. pubescent; leaves opposite, lanceolate, petiolate; flowers axillary, corymbose, subverticillate, crowded, decandrous; fruit globose.—Willd. and Pursh.*

Decodon aquaticum, Gmel. Syst. 677.

Anonymos aquatica, Walt.

Whorled Loosestrife. Grass-Polley.

A very fine plant, from two to four feet high. Flowers purple. In a boggy piece of ground close to the deep swamp in the vicinity of Kaighn's point, Jersey, abundant. On the Wisahickon; scarce. Perennial. July, August.

225. CUPHEA. Brown. Jacq. hort. 2. p. 83. (*Salicariæ*.)

Calix ventricose, tubular, 6 to 12-toothed, unequal. *Petals* 6, generally unequal, inserted upon the calix. *Capsule* with the calix bursting longitudinally, 1-celled. *Seeds* few, lenticular, imbricated.—*Nutt.*

viscosissima. 1. *C. viscosa*; leaves opposite, petiolate, ovate-oblong, flowers 12-androus, lateral, solitary, very shortly pedunculated.—*Willd. Sp. pl.* 2. p. 870. and *Pursh.*

Balsamona Pinto, Vandell. fasc. t. 3. (Pursh.)

Lythrum Cuphea, L. supp. 249.

L. petiolatum, Willd. *Sp. Pl.* 2. p. 867.

Icon. Jacqu. hort. 2. t. 177.

Clammy Cuphea.

From ten to fifteen inches high. Flowers deep purple. Petioles reddish-brown. Whole plant viscous, and covered in the autumn by the pappus of Syngenesious plants, which is wafted by the winds in contact with the viscous matter of the plant and there retained. This plant covers whole fields near Lancaster. Near this city it is very rare. On the margins of the roads through the woods, west of Belmont. Annual. September.

ORDER II. DIGYNIA.

226. AGRIMONIA. Gen. pl. 830. (*Rosacæ*.)

Calix inferior, 5-toothed, caliculate, externally setigerous about the middle; setæ uncinatæ. *Petals* 5, inserted upon the calix. *Seeds* 2, inclosed in the base of the calix.—*Nutt.*

1. *A. hirsute*; leaves interruptedly pinnate, the odd one petiolate, folioles obovate, narrowly cut-dentate, smoothish; spikes virgate, flowers subsessile, petals twice the length of the calix; fruit ob-conic, divaricate-hispid, nearly smooth at the base.—*Willd.* and *Pursh.* *Eupatoria.*
α hirsuta.

Icon. Fl. Dan. 580. Curt. Lond. 32.

Hairy Agrimony.

Whole plant smooth.

β glabra.

Smooth Agrimony.

From eighteen inches to two feet high. Flowers very small, yellow. The two varieties constantly appear. On the edges of woods and along the fences of fields, and grassy enclosures, very common. Perennial. June, July.

2. *A. hirsute*; leaves interruptedly pinnate, the odd one sessile, most of the leaves linear-lanceolate, cut-serrate; spikes virgate, flowers very shortly pedicellate, petals half the length of the calix; fruit subrotund, divaricate-hispid.—*Willd.* *parviflora.*

Small-flowered or Spotted Agrimony.

Resembles No. 1, var. *β*, very much. Flowers very small, yellow. Grows in similar places. Perennial. June, July.

227. CRATÆGUS. Gen. pl. 854. (*Rosaceæ.*)

Calix 5-cleft. *Petals* 5. *Styles* 1 to 5. Fruit a farinaceous berry, or small apple producing 2 to 5 bony seeds, or nuts.—*Nutt.*

1. *C. thorny*; leaves obovate, cuneiform, subsessile, shining, coriaceous; corymbs compound, calicine folioles lanceolate, subserrate, flowers digynous.—*Willd.* *crus galli.*

C. hyemalis, Walt.

C. lucida, Ehrh.

Icon. Trew. ic. rar. 2. t. 17.

Cocks-spur Hawthorn.

A fine large shrub, remarkable for its deep-green shining foliage. Flowers white. Berries small, red. Thorns very large and strong. In natural hedges, Jersey, opposite Southwark, and not far from the Delaware. Not common. $\frac{1}{2}$. April, May.

- Oxycantha. 2. *C.* leaves obtuse, subtrifid, serrate, smooth; flowers digynous, peduncles and calices nearly smooth, calicine segments lanceolate, acute. —*Willd.*

Common Quickset.

Introduced, but frequently found in hedges, and on the borders of fields, apparently naturalized. Flowers white. $\frac{1}{2}$ May.

- spathulata? 3. *C.* leaves subcuneate-oval, serrate, shortly petiolate, pubescent; branchlets conspicuously pubescent; flowers nearly solitary, calices villose. *Bart. Prod. Fl. Ph.*

A scarce species, found occasionally in thickets in Jersey, and along the banks of the Schuylkill. Flowers white. $\frac{1}{2}$ May.

- coccinea. 4. spinose; leaves cordate-ovate, cut-angular-smooth, sharply serrate, petioles and calices pubescent, glandular, petals orbicular, flowers 5-gynous. —*Willd.* and *Pursh.*

Mespilus æstivalis, Walt.

Icon. Pluk. alm. t. 46. f. 4.

A very fine shrub, from four to seven feet high. Flowers white. Berries large, scarlet. In similar places with the preceding, but rare. $\frac{1}{2}$. April.

ORDER IV. PENTAGYNIA.

228. ARONIA. Persoon. (*Rosaceæ*.)

Calix 5-toothed. *Petals* 5. *Berry* inferior 5 to 10-celled; cells 1 or 2-seeded. *Seeds* cartilaginous.—*Nutt.*

1. *A.* thornless; leaves obovate-oblong, acute, *arbutifolia*. crenate-dentate, tomentose beneath; the rachis glandulous above, flowers corymbose; calices tomentose.—*Willd.* and *Pursh.*

Cratægus pyrifolia, Lamark.

Mespilus arbutifolia, Sp. Pl. 685.

M. arbutifolia, var. α *erythrocarpa*, Mich.

M. pumila, Schmidt. Arb. 88. (*Pursh.*)

Pyrus arbutifolia, α *Willd.*

P. arbutifolia: *erythrocarpa*, Muhl.

Aronia pyrifolia, Pers.

Icon. Mill. ic. 109. (*Pursh.*)

Arbutus-leaved Aronia. Red-fruited Medlar, or Swamp-service.

This fine little shrub is very ornamental to the swamps and bogs of Jersey, in which it is so common. It is about three feet high. Flowers white. Berries red. $\frac{1}{2}$. May.

2. *A.* thornless; leaves obovate-oblong, acuminate, serrate, glabrous below; rachis glandulous above; flowers corymbose; calices glabrous.—*Willd. enum.*

Cratægus arbutifolia, Lamark.

Mespilus arbutifolia, Schmidt. arb. 86.

M. arbutifolia, β . *melanocarpa*, Mich.

Pyrus arbutifolia: *melanocarpa*, Muhl.

Aronia arbutifolia, Pers.

Black-fruited Medlar, or Swamp-service.

A shrub, from eighteen inches to two feet high, resembling No. 1, very closely; easily distinguished, however, by the under side of the leaves being glabrous, and the fruit black, in the present species. Berries about the size of the largest whortle-berries, and quite black. In the bogs and swampy thickets of Jersey, every where common. h_2 . May.

arborea.

3. A. without thorns; leaves oblong-elliptic, cuspidate, the old ones smooth; flowers racemose, petals linear-lanceolate, germs pubescent, calicine segments smooth.—*Willd.*

Cratægus racemosa, Lamark.

Mespilus Canadensis, Sp. Pl. 685.

M. Canadensis, β *cordata*, Mich. Fl. Am.

M. arborea, Mich. f. Arb. forest.

Pyrus Botryapium, Willd.

Aronia Botryapium, Pers.

Icon. Mich. f. Arb. forest. vol. 3. p. 68.

June-berry. Snowy-medlar. Wild Pear-tree.
Wild-service.

This is an elegant, small tree, which ornaments the banks of our rivers and creeks, swampy woods and thickets, by its profusion of snow-white flowers, in the month of April, and beginning of May. The young leaves are folded and downy on the under side. When old, they become smooth underneath. Berries black. April.

229. PYRUS. Gen. pl. 858. (*Rosaceæ*.)

Calix 5-cleft. *Petals* 5. *Apple* large and carnose, inferior, 5-celled, many-seeded.

coronaria.

1. P. leaves broad-oval, round at the base, nearly angular, serrate, smooth, peduncles corymbose.—*Willd.* and *Pursh.*

Malus coronaria, Mich. f. Arb. forest.

Common Crab-apple. Sweet-scented Crab-tree.

This magnificent tree, equally interesting for its elegant and fragrant flowers, and the fine fruit it yields for preserving, may be ranked foremost among the trees of America. On the borders of woods, and in fields. Flowers rose-red; very numerous. May.

230. SPIRÆA. Gen. pl. 862. (*Rosaceæ*.)

Calix spreading 5-cleft, inferior. *Petals* 5, equal, roundish. *Stamina* numerous exerted. *Capsules* 3 to 12, internally bivalve, each 1 to 3-seeded.—*Nutt.*

1. *S. leaves lanceolate, narrowly serrate, gla-alba.*
brous; racemes terminal, compound, paniculate; flowers 5-gynous.—*Willd.*

S. alba, Ehrh. and Muhl.

S. salicifolia, Willd.

Icon. Mill. ic. t. 257. f. 2.

A fine shrub, about four feet high, often cultivated in gardens. It grows wild, in thickets on the shores of the Delaware, Jersey side, on the bank walk from Kaighn's point to the next ferry below. It is abundant in that locality, but I have not found it elsewhere. $\frac{1}{2}$. June, July.

2. *S. leaves ovate, lobate, duplicate-toothed or opulifolia.*
crenate, glabrous; corymbs terminal, crowded with flowers; flowers trigynous, capsules inflated.—*Willd.* and *Pursh.*

Icon. Schmidt. Arb. 32. Rob. ic. 134. Comm. hort. 1. t. 87. (*Pursh.*)

Nine-bark.

This very elegant shrub, about six feet high, is familiarly known to most persons by the above common name, or by that of seven-bark, from the number of lamellæ of the bark, from the cortex to the liber. Flowers white, numerous. Capsules bright crimson-red, which renders the shrub exceedingly ornamental in fruit, as it certainly is in flower. It richly merits cultivation in gardens. On the banks of the Delaware, very abundant; also near swampy thickets bordering the ri-

ver, Jersey side especially, frequent. It is also found on the banks of the Schuylkill. $\frac{1}{2}$. June, July.

231. GILLENIA. Mœnch. (*Rosaceæ*.)

Calix subcampanulate, border 5-toothed. *Corolla* partly unequal. *Petals* 5, lanceolate, attenuated, coarctate at the claws. *Stamina* fewer, included. *Styles* 5, contiguous; stigmas capitate. *Capsule* 5-celled; cells 2-seeded.—*Nutt.*

trifoliata.

1. *G.* leaves ternate, lanceolate, serrate, nearly equal; stipules linear, entire; flowers terminal, loosely paniculated, 5-gynous; calix tubulose-campanulate.—*Willd.*

Spiræa trifoliata, Willd., Mich., Muhl., &c.

Icon. Bart. Veg. Mat. Med. U. S. vol. 1. t. 5.
Bot. Mag. 489.

Indian Physic.

About two or three feet high. This fine plant is very interesting on account of its medicinal virtues, which are actively emetic. (See Veg. Mat. Med. U. S.) Flowers white, or rarely tinged with peach-blossom-red. Flower-buds rose-coloured. In shady woods and thickets near streams, west of the Delaware, common. Perennial. June, July.

232. ROSA. Gen. pl. 863. (*Rosaceæ*.)

Calix urceolate, carnose, contracted at the orifice, border 5-cleft. *Petals* 5. *Seeds* many, hispid, attached to the inside of the calix.—*Nutt.*

parviflora.

1. *R.* germs depressed-globose, and peduncles hispid; petioles pubescent, subaculeate; stem glabrous, stipular prickles upright; folioles elliptic-lanceolate, simply serrate, glabrous; flowers sub-paired.—*Willd.* and *Pursh.*

R. Carolina, Du. Roi. harb. 2. p. 335. and Mich.

R. Pennsylvanica, Wagh. Amer. p. 113. (*Pursh.*)

R. humilis, Marshall, Arb. 285.

Small Wild-rose.

A very pretty little species, found commonly along the fences of fields, and edges of woods and thickets, and in and about neglected stone quarries. Seems to delight in a dry soil. About fourteen inches, or two feet high. Flowers pale rose-red. $\frac{1}{2}$. June, July.

2. *R. germs* globose, and peduncles hispid; petioles hairy, subaculeate; stem glabrous, stipular-prickles near an inch long; folioles (5-7) oblong-lanceolate, acute, narrowly serrate, glaucous beneath; flowers corymbose.—*Willd.* and *Pursh.*

R. corymbosa, Ehrh. and Mubl.

R. Virginiana, Du Roi. *harbk.* 2. p. 353. (*Pursh.*)

R. Pennsylvanica, Mich.

R. Carolina, *Pursh.*

Icon. Andrews's roses. Miss Lawr. roses, 3. 24. 36. 54. 66. 68. (*Pursh.*)

Swamp-rose.

A very elegant and tall species, frequently attaining a height of six feet. Flowers deep-red. In the swampy thickets bordering the Delaware, particularly the Jersey side, four or five miles below the city. $\frac{1}{2}$. July, August.

3. *R. germs* ovate, and peduncles hispid; petioles and stem prickly; prickles recurved; folioles ovate, glandulous, hairy beneath.—*Ait.*, *Kew.*, and *Willd. arb.*

R. suaveolens, *Pursh.*

R. Eglantheria, Du Roi. and Mill. Dict.

R. suavifolia, Lightfoot.

R. Eglantheria Americana, Andrews's roses.

Icon. Andrews's roses.

Sweet-briar.

No shrub is better known, or more universally admired and valued, than this. The spicy fragrance of the leaves is grateful to every person, and there are few gardens without a shrub

or two of Sweet-briar. Found wild, occasionally, along fences. Flowers small. $\frac{1}{2}$. May, June.

233. RUBUS. Gen pl. 864. (*Rosaceæ*.)

Calix 5-cleft inferior. *Petals* 5. *Berry* compound; acini 1-seeded.

villosus.

1. *R. pubescent*, hispid and prickly; leaves 3-5 digitate, folioles ovate-oblong, acuminate, serrate, every where pubescent; stems and petioles prickly, calix short, acuminate, raceme loose, pedicels solitary.—*Willd.* and *Pursh*.

Common Blackberry-bush.

This well known species affords a fine flavoured fruit. The plant itself, and the fruit are equally medicinal. In dry soil forming extensive thickets, every where. In neglected fields, frequent. $\frac{1}{2}$. June, July.

strigosus.

2. *R. without* thorns, stiffly hispid; folioles 3 or pinnate-quinate, oval, obtuse at the base, acuminate, lineate and covered with a white tomentum underneath; calices acuminate, flowers at the ends of the branches, axillary and solitary, peduncles and calices hispid.—*Mich*.

R. Pennsylvanica, Lamark.

Red-fruited Raspberry.

The fruit of this shrub, is well known under the name of wild red raspberries. It is very pleasant and much esteemed. In Jersey, near Woodbury, not common. $\frac{1}{2}$. June, July.

cuneifolius.

3. *R. branches*, petioles and peduncles tomentose, sparingly set with recurved prickles; leaves 3—5 digitate, folioles cuneate, obovate, unequally dentate above, plaited, margin very entire and revolute, tomentose underneath; racemes terminal, paniculate, pedicels divaricate, and nearly naked.—*Pursh*.

R. parvifolius, Walt. and Muhl.

Small-leaved Blackberry.

About three feet high, well described above. Berries not unpleasant when mature. Along field-fences in Jersey, and forming little thickets in sandy neglected fields or commons; not unfrequent. $\frac{1}{2}$. June, July.

4. *R. branches and petioles glaucous and prick-* *occidentalis*,
ly; leaves ternate, oval, acuminate, sublobate,
duplicate-serrate, white-tomentose underneath;
petioles terete, prickly recurved, racemes ter-
minal.—*Willd. and Pursh.*

Icon. Dill. elth. t. 247. f. 319. (Pursh.)

Black-raspberry. Thimble-berry.

A very handsome species, about three or four feet high. Leaves light green above, white underneath. Stem very smooth and glaucous. In retired thickets with other species of *Rubus*, not unfrequent. The fruit which is known by the name of wild black-raspberry, is very sweet and delicious. It is brought abundantly to the Philadelphia market from the neighbouring country. $\frac{1}{2}$. May, June.

5. *R. sarmentose-procumbent; petioles and pe-* *procumbens*.
duncles prickly and recurvedly hispid, stipules
subulate; leaves ternate and quinate, oblong-
oval, acute, unequally serrate, subpubescent,
pedicels solitary, elongated, petals obovate three
times the length of the calix.—*Mich. and Pursh.*

R. procumbens, Muhl.

R. trivialis, Mich., Willd., &c.

Dewberry.

Easily recognized from other species, by its procumbent and sarmentose habit. Fruit very large, oblong, and deliciously flavoured. It is quite medicinal. (See Veg. Mat. Med. U. S.) In old and neglected fields, very common. $\frac{1}{2}$.

6. *R. sarmentose-procumbent; stem terete, and flagellaris*.
petioles recurvedly-prickly; leaves ternate, gla-
brous, unequally serrate, the intermediate one
ovate and cuneate at base, the lateral ones
rhomboid.—*Willd. enum. and Pursh.*

R. trivialis, Ait. Kew. ed. 2. t. 3. p. 269.

A pretty procumbent species, with reddish, long, weak stems; small glabrous shining leaves; and small white pretty flowers, with fugacious petals. Berries imperfectly matured, but few of the acini becoming ripe, but those that do, are not bad tasted. It creeps over a large space of ground in a thicket about a quarter of a mile north-east of Kaighn's point, Jersey, and close to the spot I have particularized, as the habitat of *Asclepias verticillata*. I have found it no where else. $\frac{1}{2}$. June, July.

odoratus.

7. **R.** without prickles, erect, clammy-hispid; leaves simple, acute, 3—5 lobed, corymbs terminal, divaricate, calices with appendices, petals suborbiculate.—*Willd.*

Icon. Bot. Mag. 323.

Sweet-scented Rubus. Rose-flowering Raspberry.

This superb shrub is highly esteemed and cultivated in gardens. It does not resemble either of the preceding species. Flowers large, deep rose-red. Leaves large. The shrub is from four to five or six feet high. On the high woody banks of the Wissahickon, not far from Germantown. $\frac{1}{2}$. June, July.

234. GEUM. Gen. pl. 867. (*Rosaceæ*.)

Calix 10-cleft, inferior, segments alternately smaller. **Petals** 5. **Seeds** awned, awn naked or bearded, mostly geniculate.—*Nutt.*

Virginianum. 1. **G.** pubescent; radical and lower stem-leaves ternate, upper ones lanceolate, stipules ovate, nearly entire, flowers erect, petals shorter than the calix.—*Willd.* and *Pursh.*

Icon. Murr. in Com. Gætt. 5. p. 32.

Virginian Bennet, or Avena.

About two feet high. Flowers white, small. In copses of the Neck, and elsewhere; and also in thickets and among shrubbery; common. Perennial. July, August.

2. *G.* pubescent; radical leaves pinnate, stem-^{album.} leaves ternate, upper ones simple and trifid, lower stipules incised, flowers erect, petals length of the calix.—*Willd. enum.* and *Pursh.*

G. Canadense, Jacq.

G. Carolinianum, Walt.

White Bennet.

Same size as No. 1, which it resembles. Grows in similar places; also common. Perennial. July, August.

3. *G.* very hirsute; leaves all pinnate, folioles ^{agrimonoides?} subequal, cut-dentate, stipules ovate, subentire; flowers erect, calicine segments subequal; petals oval, the length of the calix.—*Pursh.*

G. agrimonoides, Pursh.

G. hirsutum, Muhl.?

G. laciniatum, Murr. in Com. Gøett.?

I have found a large species of *Geum* on the banks of the Delaware, Jersey side, about three miles below Philadelphia, which appears to fit the above description. It is very hirsute, but the flowers are yellow. For the present I have referred it as above. Perennial. July.

235. POTENTILLA. Gen. pl. 866. (*Rosaceæ*.)

Calix 10-cleft, inferior, spreading, 5 of the segments alternately smaller. *Petals* 5. *Seeds* mostly rugose, roundish, naked, attached to a small juiceless receptacle.—*Nutt.*

1. *P.* erect, branched, pubescent; stipules oval-dentate; leaves ternate, rhombic-lanceolate, cut-dentate; branches dichotomous, pedicels short, axillary, solitary; petals shorter than the calix. *Willd.* and *Pursh.*

Icon. Fl. Dan. 171.

ERRATA.

Page 6, first line of observation to No. 6, for *amorphous*, read *polymorphous*.

7, under the head of *Hemianthus*, for *Herpestris*, read *Herpestis*. In the last line but one of the observation to the same head, for *Eriocolon*, read *Eriocaulon*. In third line from bottom of same observation, for *tenuifolium*, read *tenuifolium*.

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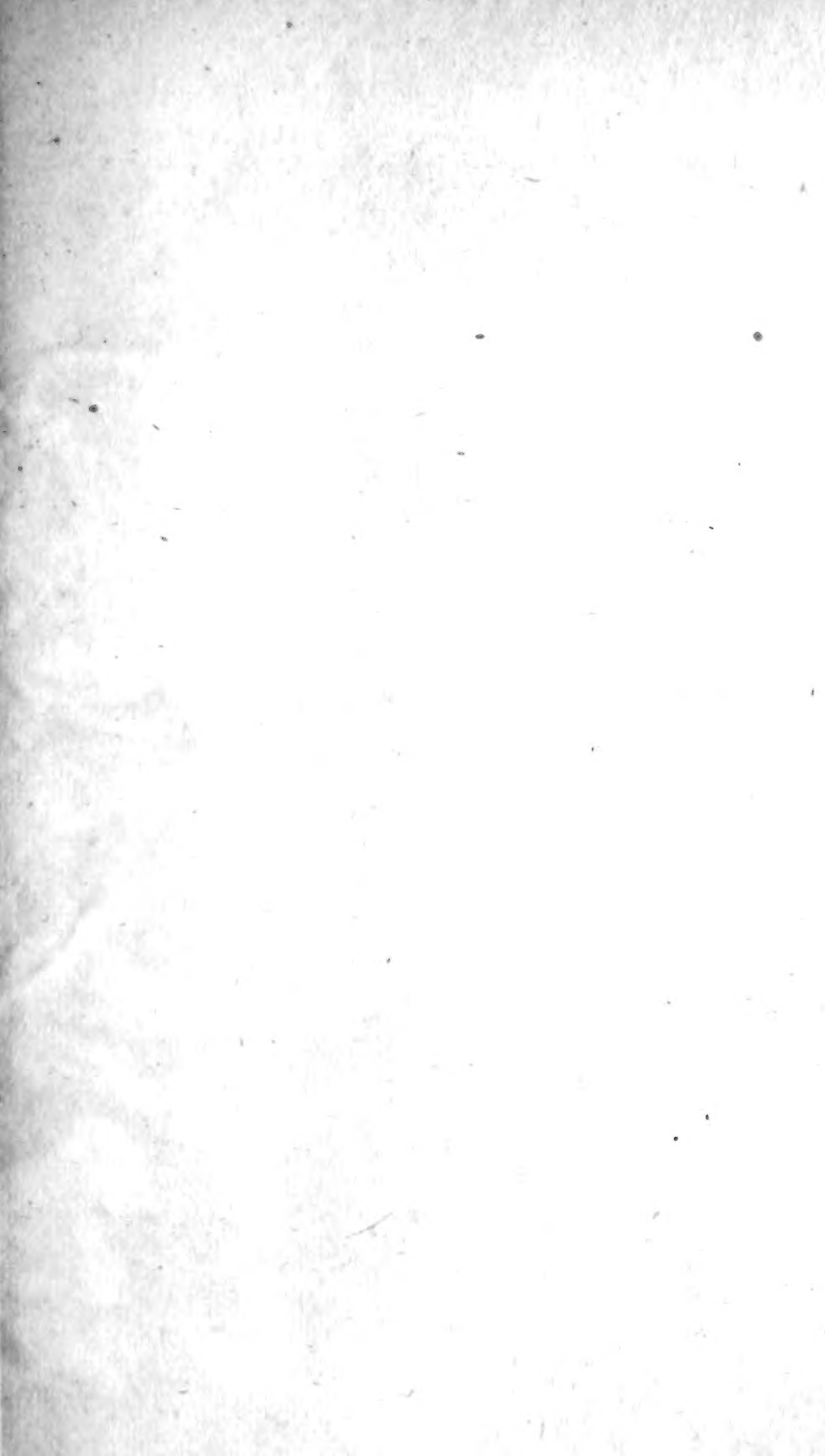
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