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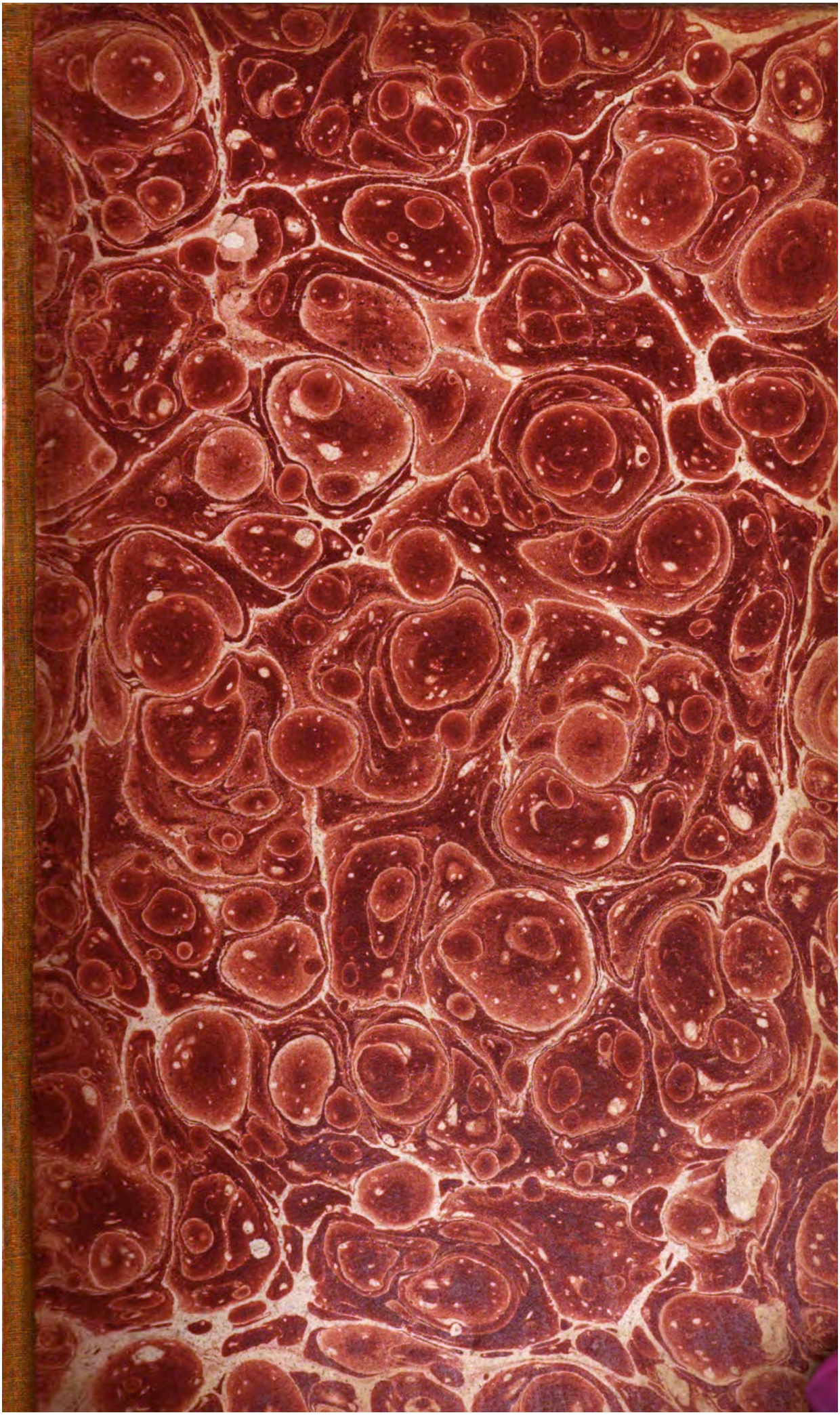

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS; PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

——"VIRESQUE ACQUIRIT EUNDO."——VIRG.

VOL. VIII.

LONDON:

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MDCCXCIX.

/.

AJUGA reptans.

Common Bugle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much shorter than the stamina.

SPEC. CHAR. Herb smooth. Stem solitary, throwing out creeping scyons.

SYN. Ajuga reptans. *Linn. Sp. Pl.* 785. *Hudſ.* 248. *With.* 517. *Relh.* 220. *Sibth.* 180. *Curt. Lond. faſc.* 2. *t.* 43.

Bugula. *Raii Syn.* 245.

COMMON in woods and moist pastures, flowering in May. Root perennial, with many strong fibres. Stem always solitary, erect, about a foot high, square, leafy, simple, but throwing out several procumbent roundish leafy scyons, which spread in all directions to a considerable extent, and take root here and there at the insertion of their leaves. By these scyons the plant now before us is known from A. *alpina*, t. 477, and every other species. Leaves opposite, ovate, scolloped, tapering downwards into broad foot-stalks. Flowers in thick set whorls, with purplish scolloped bracteæ. Calyx hairy. Corolla of a full blue streaked with white, sometimes entirely white, and more rarely flesh-coloured.

Linnæus justly describes the herbage as smooth, for so it generally appears; but in high dry situations the accurate Mr. Gough (so much more accurate without the sense of sight than most persons are who possess it) has remarked that the common Bugle becomes somewhat hairy, with a rounder stem and shorter scyons.

This plant had once the reputation of a vulnerary, and was applied both outwardly and inwardly; but modern surgery neglects it, having learned by experience the inefficacy of vulneraries in general. It is somewhat astringent, especially the root.

2.

AJUGA alpina.

Alpine Bugle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much shorter than the stamina.

SPEC. CHAR. Stem simple. Leaves almost smooth, irregularly toothed, all nearly of a size. Whorls not crowded, of many flowers.

SYN. Ajuga alpina. *Linn. Mant.* 80.

A. genevensis. *With.* 516. *Scholler Fl. Barb.* 135.

A. pyramidalis. *Hudf.* 248.

Bugula cærulea alpina. *Pluk. Phyt. t.* 18. *f.* 3. *Raii Syn.* 245.

WE have received a specimen of this plant from Durham by favour of Mr. Robson, and another gathered by Mr. Dawson Turner, in July 1795, on the summit of a mountain near Castleton, Derbyshire. There is no doubt of its being the A. *alpina* of Linnæus, as his description and numerous specimens prove; notwithstanding great variations to which it is liable in the upper leaves, which are sometimes quite entire, or slightly waved, at other times furnished with a few large deep indentations or lobes.

The root is perennial, with long fibres. Stems simple, erect, near a foot high, destitute of running scyons at the base, angular, slightly hairy, leafy; the pairs of leaves and the whorls are rather distant, by no means crowded into a pyramidal form as in A. *pyramidalis*, nor are the radical leaves (as in that species) 3 or 4 times as large as those on the stem, and very hairy; but, on the contrary, the lower leaves are but little larger than the others, and all very nearly smooth, veiny, unequally toothed. The bracteæ are sometimes quite entire, sometimes toothed; the uppermost only tinged with purple; whereas in A. *pyramidalis*, they are all reddish. Flowers from 10 to 20 in each whorl. Calyx chiefly hairy at the teeth. Flowers pale, streaked with deeper blue.—The real A. *genevensis* of Linnæus, in his herbarium, is very woolly, and more densely spiked than our plant, with leaves rather crenate than toothed. Yet we are by no means certain of its being more than a variety. Whether the *pyramidalis* be also a British plant, we have not yet satisfactorily determined.

3.

AJUGA pyramidalis.

Pyramidal Bugle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much shorter than the stamina.

SPEC. CHAR. Hairy. Whorls crowded into a pyramidal form, many-flowered. Radical leaves very large, obovate, crenate, obtuse.

SYN. Ajuga pyramidalis. *Linn. Sp. Pl.* 785. *Lightf.* 302. *With.* 516. *Hull.* 131. *Fl. Dan. t.* 185.

THE doubt expressed in *p.* 477 of this work, whether *A. pyramidalis* be really found in Britain as reported in the *Fl. Scotica*, is now removed by the fine wild specimens for which we are obliged to J. Brodie, Esq. of Brodie. They were gathered on Tore Aichaltie, a hill near Brahan castle, the seat of Lord Seaforth, by Mr. Wm. Gibb, his Lordship's gardener, being in full flower in May or June.

Root perennial, of many long fibres. Whole herb more or less hairy. Stem square, from 2 to 5 inches high. Leaves several, radical, on stalks, large, obovate, obtuse, slightly crenate, often reddish. Whorls several, crowded, of many flowers, accompanied by large, pale-purple, obtuse, notched *bracteæ*, giving the plant a very handsome appearance. The corolla is purple, variegated with darker streaks and a yellow palate.

This is probably the species which Dr. Burgess found, as mentioned by Lightfoot, and certainly the plant of Linnæus and *Fl. Danica* to which the latter refers; but the synonyms of Petiver and Rivinus belong to *A. alpina*.

Feb.y 1. 1804. Published by Ja.s Sowerby, London

4.

AJUGA Chamæpitys.

Ground Pine.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much ſhorter than the ſtamina.

SPEC. CHAR. Leaves three-cleft, linear, entire. Flowers ſeſſile, lateral, ſolitary. Stem diffuſe.

SYN. Teucrium Chamæpitys. *Linn. Sp. Pl.* 787. *Hudſ. Fl. An.* 247. *With. Bot. Arr.* 590. *Relh. Cant.* 220. *Dickſ. Dr. Plants*, 9.

Chamæpitys vulgaris. *Raii Syn.* 244.

Bugula foliis imis linearibus, caulinis tripartitis. *Hall. Hiſt. n.* 284.

COMMUNICATED by Mr. Edward Forſter, junior, and Mr. Jacob Rayer, from Purfleet in Eſſex, in April and May laſt. It abounds in ſandy fields in Kent and Surry, but is otherwiſe a ſcarce plant.

Root ſmall, branched, annual. Stems much branched, ſpreading, ſquare, often reddiſh. The firſt two or three leaves are entire; all the reſt deeply three-cleft. The whole herb hairy, viſcid, aromatic, and bitter. The corolla differs in ſtructure from the genuine ſpecies of Teucrium; for the upper lip, inſtead of being deeply divided and divaricated, with the ſtamina projecting between its lobes, is very ſhort and notched, exactly as it ought to be in Ajuga, to which genus, called by him Bugula, it is therefore referred by Haller. Owing no implicit obedience to any ſyſtem or laws but thoſe of truth and nature, as far as they are diſcernible, we adopt his alteration * becauſe we think it a good one. In ſupport of his opinion he quotes Guettard, who indeed ſays this plant is no Teucrium, but who would reſtore Tournefort's genus of Chamæpitys, only calling it Iva with Rivinus. Tournefort's reaſon for ſeparating Chamæpitys from Ajuga (his Bugula) is, that its flowers are ſolitary, whereas thoſe of Ajuga are verticillated; but this is a moſt trifling and unſcientific difference, and not ſtrictly conſtant. Guettard and La Marck (Encycl. 501) ſay, the true Ajugas are diſtinguiſhed from the Teucriums by not having the calyx ſwelled on one ſide as the fruit ripens. This however is not true, witneſs A. alpina and pyramidalis, nor would it ſignify if it were. It muſt be acknowledged indeed, that the habit of Chamæpitys is unlike that of the Ajugas of Linnæus; but his Teucrium Iva, which belongs to the ſame genus, is the connecting link between them, by its pubeſcence and the denticulation of its leaves approaching Ajuga alpina, which is moreover a bitter aromatic plant.

* As Prof. Schreber has done, *Plant. Vertic. Unilab.* 19.

V

5.

TEUCRIUM Scorodonia.

Wood Germander, or Wood Sage.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stam.* projecting above it.

SPEC. CHAR. Leaves heart-shaped, serrated, on footstalks. Stem erect. Flowers leaning to one side, in lateral and terminal clusters.

SYN. Teucrium Scorodonia. *Linn. Sp. Pl.* 789. *Sm. Fl. Brit.* 606. *Huds.* 248. *With.* 518. *Hull.* 130. *Relh.* 224. *Sibth.* 180. *Abbot.* 125. *Curt. Lond. fasc.* 5. *t.* 40.

Scorodonia, seu Salvia agrestis. *Raii Syn.* 245. *Ger. em.* 662.

VERY plentiful in dry heathy places, about banks and copses, where its pale yellow blossoms with their purple projecting stamina are to be seen in abundance in July and August.

The roots are creeping and perennial. Stems erect, a foot or two in height, leafy, square, harsh and hairy; bearing 1 terminal and several lateral simple clusters, or spikes, of opposite flowers, all which lean one way, and have a pair of ovate bracteæ at the base of their partial stalks. Leaves on footstalks, opposite, heart-shaped, serrated or sharply crenate, rough, rugged, of a darkish green.

The whole plant is bitter, somewhat viscid, with a strong scent like hops, which, like them, has sometimes a narcotic effect. It has been recommended as a substitute for hops in making beer, and we believe is one of the most wholesome that can be used, being at least as harmless to the nerves as the plant whose place it is meant to supply, and superior to it in tonic qualities.

Jany 1 1806 Published by Jas Sowerby, London

6.

TEUCRIUM Scordium.

Water Germander.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stam.* projecting above it.

SPEC. CHAR. Leaves sessile, oblong, with tooth-like serratures. Flowers axillary, in pairs, on stalks. Stem procumbent.

SYN. Teucrium Scordium. *Linn. Sp. Pl.* 790. *Sm. Fl. Brit.* 606. *Hudf.* 247. *With.* 519. *Hull.* 130. *Relh.* 219. *Sibth.* 180. *Woodv. Med. Bot. t.* 57.
Scordium. *Raii Syn.* 246.

THE officinal *Scordium* has been supposed almost peculiar to the marshes of the Isle of Ely, where it grows in plenty. Mr. Relhan has however observed it in several situations nearer Cambridge, and from thence we received a wild specimen by favour of the Rev. J. Holme. It has moreover a place in the *Flora Oxoniensis*. We know of no other part of Britain that produces it.

The root is perennial and creeping. Stems spreading, or even prostrate, square, branched, leafy, hairy. Leaves numerous, opposite, sessile, elliptical or oblong, strongly serrated, veiny, a little downy. Flowers about 2 in the bosom of each leaf, on stalks, pale purple, smaller and less handsome than those of the Wall Germander, *t.* 680. Calyx downy, tubular, with 5 nearly equal teeth.

The whole herb is very bitter, with a strong disagreeable scent, somewhat approaching to garlick. It has been supposed useful to cure or to prevent pestilential diseases, as well as to remove obstructions, expel worms, and cleanse ulcers—a sort of key to all locks, now grown rusty and out of use.

7.

TEUCRIUM Chamædrys.

Wall Germander.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stamina* projecting above it.

SPEC. CHAR. Leaves on footstalks, somewhat ovate, deeply crenate or cut. Flowers axillary, three together, stalked. Stem round, hairy.

SYN. Teucrium Chamædrys. *Linn Sp. Pl.* 790. *Sm. Fl. Brit.* 607. *Hudſ.* 247. *With.* 518. *Sibth.* 179. *Abbot.* 125. *Woodv. Suppl. t.* 243.
Chamædrys vulgaris ſeu ſativa. *Raii Syn.* 231.

RAY obſerved this plant occaſionally in the borders of fields remote from buildings, and yet durſt not aſſert it to be indigenous. It ſeems to have been formerly much cultivated in gardens for medical uſe, being an approved deobſtruent and expectorant, and poſſibly eſcaped from thence; for it has certainly no where in England the appearance of a genuine native, though introduced into all our Floras. Its favourite ſituation is a ruined wall. Sherard found it plentifully on Winchelſea caſtle. It grows in profuſion on the inſide of the city wall between Magdalen and St. Auſtin's gates, Norwich, from whence our ſpecimens came, flowering in July and Auguſt.

Root creeping, perennial. Stem buſhy, nearly upright, 6 or 8 inches high, round, leafy, hairy. Branches and leaves oppoſite; the latter ovate, variouſly cut and crenate, tapering at the baſe into a foot-ſtalk, and clothed with a few hairs. Flowers axillary, about 3 on each ſide, and forming a leafy ſpike. Each ſtands on a ſimple ſhort ſtalk. Calyx campanulate, hairy. Corolla reddiſh-purple. Lower lip with a large round concave central lobe, and 2 ſmall ſharp lateral ones; what ſhould be the upper lip conſiſts of 2 other erect parallel very ſharp lateral lobes, between which the ſtamina and ſtyle project upwards, forming the ſtriking generic character of *Teucrium*. Seeds 4, naked. Whole herb very bitter.

Lin.d 1 mos. Published by J. Sowerby

8.

NEPETA Cataria.

Nep, or Cat-mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cor.* with the middle segment of its lower lip crenate: orifice with a reflexed margin. *Stamina* approaching each other.

SPEC. CHAR. Flowers spiked; the whorls slightly pedunculated. Leaves on foot-stalks, heart-shaped, dentato-serrated.

SYN. Nepeta Cataria. *Linn. Sp. Pl.* 796. *Hudſ. Fl. An.* 249. *With. Bot. Arr.* 593. *Relh. Cant.* 221. N. major vulgaris. *Raii Syn.* 237.

FOUND about hedges and road-sides, in a chalky or gravelly soil, in various parts of England, though seldom very plentifully. It is not unfrequent throughout Norfolk and Suffolk, flowering about the latter part of summer, and thriving well though covered with dust, like Ballota nigra.

The root is perennial, long, and thready, of a blackish colour externally. Stems several, two or three feet high, square, clothed with heart-shaped petiolated leaves, which are grossly, and more or less acutely, serrated. Every part, except the corolla, is invested with a soft, short, velvet-like downiness. The calyx is marked with strong green prominent ribs. That represented at the bottom of our plate is accidentally reversed, the shorter teeth being (in nature) the lowermost. The corolla is white or purplish, its lower lip elegantly sprinkled with crimson or purple dots. Its crenated central lobe marks the genus decidedly.

Every part of this herb exhales, when bruised, a pungent aromatic smell, somewhat like penny-royal, with which it is supposed to agree in virtues. Cats delight in this scent almost as much as in the powdered root of Valeriana officinalis. Wherever they meet with the Nepeta, they entirely destroy it, by chewing the young branches, and rolling themselves upon the plant as long as any smell is left.

9.

VERBENA officinalis.

Common Vervain.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cor.* funnel-shaped, nearly equal, curved. *Cal.* with 5 teeth, one of them shorter than the rest. *Stam.* 2 or 4. *Seeds* 2 or 4, enclosed in a thin tunic.

SPEC. CHAR. Stamina four. Spikes slender, panicled. Leaves deeply cut. Stem mostly solitary.

SYN. Verbena officinalis. *Linn. Sp. Pl.* 29. *Sm. Fl. Brit.* 609. *Hudf.* 249. *With.* 520. *Hull.* 6. *Relh.* 221. *Sibth.* 181. *Abbot.* 127. *Curt. Lond. fasc.* 1. *t.* 41. *Woodv. Suppl. t.* 218.

V. vulgaris. *Raii Syn.* 236.

NOT unfrequent by road sides, in dry sunny pastures, and waste places about villages, flowering in July.

Root perennial, branching, woody. From each of its summits rises a solitary stem, curved at the base, about a foot high, square, leafy, rough with little prickles, panicled at the top with several opposite slender spikes of flowers. Leaves opposite, deeply cut and jagged. Flowers small, sessile, each accompanied by a little bractea. Calyx rough, tubular. Corolla of a very pale lilac hue, its tube enclosing the four short curved stamina. Seeds when young enfolded in one common skin or tunic, which is almost obliterated as they ripen, and then each appears marked with excavated dots at its upper part.

Although many species of *Verbena* have but 2 stamina, yet the majority having 4, 2 of which are longer than the others, the genus surely comes most naturally into the class *Didynamia*, among plants to which it is closely allied.

The root of this plant worn by a string round the neck is an old superstitious medicine for Scrophulous disorders, and its use has been revived by an empiric in our days, very properly exposed by Mr. Curtis in his *Flora Londinensis*.

July 1. 1800 Published by J. Sowerby London

MENTHA ſylveſtris.

Horſe Mint.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* five-cleft. *Cor.* nearly regular, four-cleft; its broadeſt ſegment notched. *Stamina* erect, diſtant.

SPEC. CHAR. Spikes ſhaggy, ſcarcely interrupted. Leaves acute, with deep-toothed ſerratures, chiefly downy beneath. Bracteæ awl-ſhaped.

SYN. Mentha ſylveſtris. *Linn. Sp. Pl.* 804. *Sm. Fl. Brit.* 609. *Tr. of Linn. Soc. v.* 5. 179. *Hudſ.* 250. *With.* 521. *Hull.* 125. *Relh.* 222.

M. villoſa prima. *Sole Menth.* 3. *t.* 1.

Menthaſtrum ſpicatum, folio longiore candicante. *Raii Syn.* 234.

NOT unfrequent in waſte ground and watery places, flowering in Auguſt. The Rev. Mr. Relhan ſent it from Cambridgeſhire.

The root is perennial and creeping, as in the whole genus. Stems 2 to 4 feet high, erect, ſquare, ſhaggy with hairs pointing downwards. Leaves ſeſſile, or nearly ſo, of an oblong, lanceolate, ſomewhat ovate form, ſharply and deeply ſerrated, hoary above, ſhaggy with ſoft white hairs beneath. Spikes terminal, panicled, ſharpiſh, compoſed of numerous denſe whorls, with very little ſpace between even the lowermoſt; each whorl accompanied by a pair of tapering projecting awl-ſhaped bracteæ, the loweſt of which are dilated at the baſe. The whole inflorescence is ſhaggy and hoary. Hairs on the flower-ſtalks bent cloſely downwards. Calyx ſmall, hairy all over, with tapering teeth. Corolla twice as long as the calyx, hairy, of a pale lilac colour. Stamina generally ſhorter than the corolla. The whole herb has a peculiar ſtrong mint-like ſmell.

M. *villoſa ſecunda* of Mr. Sole differs only in having more ovate leaves, and the M. *rotundifolia* of the ſame obſerving author appears to us not to be ſpecifically diſtinct. Its leaves are very broad and elliptical. For the true M. *rotundifolia* of Linnæus ſee our *t.* 446. Doody found in Kent a very downy ſweet-ſcented variety of *ſylveſtris*; mentioned in *Raii Syn. ed.* 2. 341.

MENTHA rotundifolia.
Round-leaved Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes oblong. Leaves sessile, roundish, rugged, shaggy, sharply crenate. Bracteæ lanceolate. Stamina longer than the corolla.

SYN. Mentha rotundifolia. *Linn. Sp. Pl.* 805. *Hudſ.* 251. *With.* 522.

Menthaſtrum folio rugoſo rotundiore ſpontaneum, flore ſpicato, odore gravi. *Raii Syn.* 234.

WITH cautious ſteps we enter upon the Engliſh mints; which have hitherto been very imperfectly underſtood, and we ſhall therefore be more ſparing than uſual in our quotations of Britiſh authors. We have long been in expectation that the ſubject would have been taken up profeſſedly by ſome able practical obſerver. The world ſtill looks to the ingenious Mr. Sole of Bath, and it is hoped his obſervations on this difficult genus will not be long withheld. A complete ſet of ſpecimens, named by himſelf, and compared by us with the Linnæan herbarium, have been of great uſe; as well as others collected by the pupils of Ray and Dillenius, communicated by Sir Joſeph Banks. We ſhall therefore, by theſe authorities, and our own practical and repeated inveſtigations, try to eſtabliſh each ſpecies ſtep by ſtep, as every one that is ſo eſtabliſhed leſſens the difficulty with the remainder.

The *Mentha* now before us is very near, if not the ſame, to what Linnæus intended for *criſpa* in the firſt edition of Species Plantarum, but is not that of the ſecond edition and all other authors, which has never yet been found in Britain. Ours is alſo *M. Spicata* γ of that firſt edition.

With us it is rather rare; growing in waſte ground, generally where there is moiſture; and flowering in Auguſt and September. This ſpecimen was gathered by the Rev. Mr. Forby, on the edge of an old moat at Shingham, Norfolk. We have the ſame collected in Eſſex, by J. Walford, Eſq. In gardens it is often found variegated.

The root is perennial and creeping, as uſual in this genus. Stems 2 or 3 feet high, erect, ſquare, hairy or ſhaggy, the hairs pointing more or leſs downwards. Leaves roundiſh, ſomewhat heart-ſhaped, rugged, ſtrongly and ſharply crenate, or rather ſerrated, the teeth and points of the ſmall upper ones being often very taper. The under ſide is ſhaggy, not hoary, and all the veins are fringed as it were with cloſe hairs. Spikes ſeveral, terminal, erect, ſharpiſh, not very denſely whorled; the bracteæ lanceolate, hairy, ſharp, and projecting. Flowers reddiſh. Calyx-teeth broad at the baſe. Stamina always much longer than the corolla; which circumſtance, though occaſionally variable, as the Rev. Mr. Bryant and Mr. Pitchford long ago obſerved, is not totally to be overlooked in mints. In general, indeed, when the plant increaſes much by root, the ſtamina are ſhort and abortive, as in the orange lily.

MENTHA viridis.

Spear Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft, its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes interrupted. Leaves sessile, lanceolate, acute, naked. Bracteas bristle-shaped, somewhat hairy as well as the calyx-teeth. Flowerstalks very smooth.

SYN. Mentha viridis. *Linn. Sp. Pl.* 804. *Sm. Fl. Brit.* 612. *Tr. of Linn. Soc. v.* 5. 185. *Huds.* 250. *With.* 521. *Hull. ed.* 2. 171. *Woodv. t.* 170. *Sole Menth.* 11. *t.* 5.

M. angustifolia spicata glabra, folio rugosiore, odore graviore. *Raii Syn.* 233.

SPEAR-MINT of the gardens was observed to be truly wild in various parts of England by Mr. Hudson and Mr. Sole. Our specimen was the produce of a root sent by the latter. The separate leaf and flower came from a more common broader-leaved variety, which is intended in Ray's Synopsis above quoted, where other varieties, with broader and more rugged leaves, a somewhat stronger, less aromatic scent, and hairy calyx-teeth, (the γ and δ of *Fl. Brit.*) are mentioned. This spiked species is always known, under all its variations in other respects, by the perfect nakedness, roundness and polish of its flowerstalks. The base of the calyx, too, though glandular, is not hairy. Even its teeth are naked in what makes our principal figure, which is the real *viridis* of the above authors. The whole plant is usually almost smooth. Leaves sessile, acute, sharply serrated. Flowers in long, taper, interrupted or whorled spikes, with taper-pointed bracteas, which, like the calyx and stem, often assume a dark-purple hue. Corolla light purple, smooth. The flavour of the whole is warm and aromatic, less grateful perhaps than peppermint, but more approved for salads and sauces.—The herb is perennial, flowering in August and September.

Jones 1.2.3 published by Jas. Lowry Lond.

MENTHA piperita.

Pepper Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* five-cleft. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes blunt, interrupted below. Leaves on foot-stalks, somewhat ovate, smoothish. Calyx very smooth at the base.

SYN. Mentha piperita. *Sm. Fl. Brit.* 613. *Tr. of Linn. Soc. v.* 5. 189. *Hudf.* 251. *With.* 523, *var.* 2. *Woodv. Med. Bot. t.* 169.

M. piperita officinalis. *Sole Menth.* 15. *t.* 7.

β. M. spicis brevioribus et habitioribus, foliis Menthæ fuscæ, sapore fervido Piperis. *Raii Syn.* 234. *t.* 10. *f.* 2.

M. piperita vulgaris. *Sole Menth.* 19. *t.* 8.

γ. M. piperita sylvestris. *Sole Menth.* 53. *t.* 24.

THIS, the true garden Pepper Mint, is now and then met with on the shores of brooks indubitably wild, as at Bonsall dale near Matlock, though more frequently the outcast of gardens. Dr. Eales, its original discoverer, found it in Hertfordshire in Ray's time, and on his recommendation it appears to have come into general use as a cordial and stomachick. Mr. Relhan sent it from Hanxton, Cambridgeshire, flowering in September. It is quite different from the M. *piperita* of Linnæus and other northern botanists, except in flavour; that being merely a variety of *hirsuta*, I retain the name of *piperita* for our old original species.

The stem is upright, branched, a little hairy with recurved hairs, often purplish. Leaves all on foot-stalks, dark-green, ovate, sharpish, serrated, smoothish above, more or less hairy beneath, never downy nor shaggy. Spike terminal, bluntish, interrupted, the lowest whorl remote, stalked, now and then spiked. Bracteæ lanceolate, fringed. Flower-stalks either quite smooth, or a little hairy upwards. Calyx slender, furrowed, dotted, always quite smooth at the base, the teeth dark-purple and fringed. Corolla purplish. Stamina shorter than the segments.

Variety β has merely shorter rounder spikes and leaves, and is more commonly found wild; γ has heart-shaped smoother leaves, and a less grateful flavour.

14.

MENTHA odorata.

Bergamot Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes capitate, very blunt. Leaves on foot-stalks, heartshaped, naked on both sides. Calyx and flower-stalks perfectly smooth.

SYN. Mentha odorata. *Sole Menth.* 21. *t.* 9. *Sm. Fl. Brit.* 615. *Tr. of L. Soc. v.* 5. 192. *Hull.* 127.

WITH no small pleasure we received from the Rev. Mr. Abbot, in September last, specimens of this Mint, which he considers as undoubtedly wild in a ditch near Bedford. We know of no other situation, except (according to Mr. Sole) in Cheshire and North Wales, where it is known to grow.

In general form this species resembles *M. hirsuta* in its least hairy state, but it differs from that plant in having rather more heart-shaped leaves, a strong and fragrant smell like that of Bergamot, or *Monarda didyma*, and above all in being in every part perfectly destitute of hairiness. The smoothness of its flower-stalks and calyx, so constant in every soil and situation (as we have carefully observed) sufficiently distinguishes it from the *hirsuta*, and indeed the form of the calyx is less like the calyx of *hirsuta* than of *piperita*, a species in other respects abundantly different from this.

M. odorata has long been known to gardeners by the name of Orange or Bergamot Mint. Mr. Sole first published it as an English plant. The herb often assumes a purple colour. The corolla is handsome, and more of a reddish hue than in most Mints. Miller intended this plant under the name of *rubra*, but has fabricated his description from another species, as is fully explained in *Tr. of L. Soc. v.* 5. 188.

Published by J. Sowerby London.

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15.

MENTHA hirſuta.

Hairy Water-Mint.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadeſt ſegment notched. *Stamina* erect, diſtant.

SPEC. CHAR. Flowers in denſe compound terminal heads. Leaves on ſhort foot-ſtalks, ovate, ſerrated, hairy. Stamina longer than the corolla.

SYN. Mentha hirſuta. *Linn. Mant.* 81. *With.* 522. *Hudſ. ed.* 1. 223.
M. aquatica β et γ *Hudſ.* 252.
Siſymbrium hirſutum. *Raii Syn.* 233.

VERY common in clear ditches, rivulets, and other watery places, growing ſometimes among large graſſes and reeds, ſometimes by itſelf, flowering in Auguſt.

Roots long, branched, creeping under water, perennial. Stem ſquare, branched, very generally purpliſh, rough with deflexed hairs, which are ſcattered all over it, not ranged along the edges; there is however a denſe tuft of ſimilar hairs, between the inſertions of the foot-ſtalks, which are erect, and the hairs on the foot-ſtalks and leaves alſo point upwards or forwards. The degree of hairineſs throughout the whole plant varies extremely. Branches oppoſite. Leaves on ſhortiſh foot-ſtalks, ſometimes almoſt ſeſſile, ſpreading, ovate, frequently approaching to elliptical, pointed, ſerrated from a little above the baſe to near the tip, paler and moſt hairy beneath, eſpecially about the nerves. Flowers lilac-coloured, numerous, in a large round terminal head, which, when accurately obſerved, is found to be divided into three parts, and is accompanied (at a greater or leſs diſtance below it) by a pair, rarely more, of ſmaller axillary heads. Flower-ſtalks and calyx very hairy. Stamina generally longer than the corolla.

When out of the water it grows much ſmaller, more purple, with a ſimple head of flowers, which ſeems to be Hudſon's variety γ, though not very well drawn by Dillenius in Ray's Synopſis, *tab.* 10. *f.* 1.

Hudſon has conſidered this as the ſame ſpecies (poſſibly juſtly) with the *Mentha aquatica ſeu Siſymbrium* of John Bauhin, and Ray's Synopſis p. 233, which we believe to be the M. *piperita* of Linnæus, and which is deſcribed in Sir Joſ. Banks's manuſcripts by the name of M. *Siſymbrium.* The M. *aquatica* of Linnæus ſeems different from both the above, but we have not yet ſufficiently inveſtigated that point.


Jan.r 1790 Published by J.s Sowerby London

16.

MENTHA ſativa.

Marſh Whorled Mint.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadeſt ſegment notched. *Stamina* erect, diſtant.

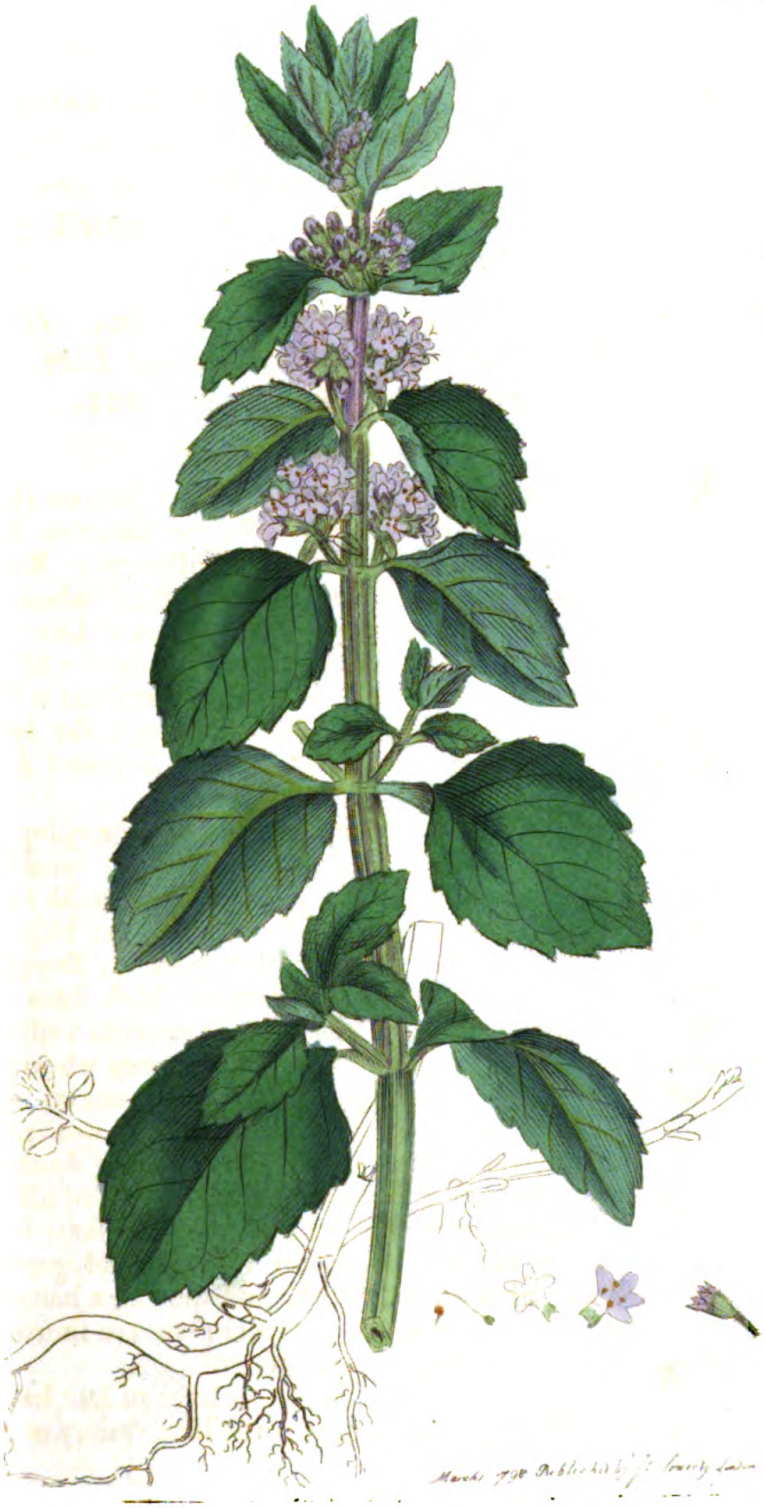
SPEC. CHAR. Flowers whorled. Stem erect. Leaves on winged foot-ſtalks, ovate, ſerrated, pubeſcent. Flower-ſtalks and calyx hairy.

SYN. Mentha ſativa. *Linn. Sp. Pl.* 805. *Hudſ.* 253. M. verticillata. *Raii Syn.* 232. *Linn. Syſt. Nat. ed.* 10. 1099. *Hudſ. ed.* 1. 222.

GATHERED by Mr. Edward Forſter jun. on the banks of the river Lea in Low Leyton marſh, not far from Lea bridge, the very ſpot evidently intended by Dillenius in Ray's Synopſis as "Hackney river near the Ferry-houſe," which houſe ſtill exiſts, though there has been no ferry ſince Lea bridge was built. Mr. Forſter therefore preſumes it to be the M. *verticillata* of the Synopſis. We have certainly determined it by the herbarium of Linnæus to be his *ſativa*, though the ſynonyms in *Sp. Pl.* may poſſibly both be wrong. It is found flowering in Auguſt and September.

Root creeping, and throwing out long creeping horizontal ſhoots, as well as one erect ſquare hairy ſtem, furniſhed all the way up to the flowering part with oppoſite ſhortiſh axillary leafy branches. Leaves on winged foot-ſtalks (the baſe of the leaf running down them) ovate, rather pointed, ſharply ſerrated from near the baſe, veiny, clothed on both ſides with ſhort ſcattered hairs, and paler beneath. Flowers in axillary cluſters from many of the uppermoſt leaves, forming whorls, and each cluſter is more or leſs pedunculated. General and partial flower-ſtalks thickly covered (eſpecially the ſummit of the latter juſt under the calyx) with white hairs pointing downwards like thoſe on the ſtem, but the calyx itſelf is clothed all over with hairs which point upwards, juſt as in M. *hirſuta;* by which it may be eaſily known from every variety of M. *gentilis*, whoſe flower-ſtalks are always ſmooth, and the calyx hairy about the top only. The ſtamina in our ſpecimens are ſhorter than the corolla; in thoſe of Linnæus, longer.

However ſtrange it may ſeem, we have of late had reaſon to ſuſpect that this plant is a mere verticillate variety of M. *hirſuta*.



March 1798 Published by J. Sowerby London

17.

MENTHA acutifolia.

Fragrant Sharp-leaved Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovato-lanceolate, tapering at each end. Calyx hairy all over. Hairs of the flowerstalks spreading.

SYN. Mentha acutifolia. *Sm. Tr. of Linn. Soc. v.* 5. 203. *Fl. Brit.* 619. *Hull. ed.* 2. 173.

M. verticillata. *Mill. Dict. ed.* 8. *n.* 17.

HAVING in vain explored the banks of the Medway for recent specimens of this Mint, we are obliged to make the best representation we can of it from one of Rand's original ones, preserved, with his hand-writing annexed, in Miller's herbarium, and given us by Sir J. Banks. This is the very identical specimen, described in all the places indicated above. It may very possibly be a variety of *M. hirsuta*, *t.* 447 and 448, but several circumstances seem to make it distinct. The leaves are narrower, more pointed or tapering at each end, and more unequally serrated. On this last mark indeed experience teaches us to lay little stress, any more than on the sweet smell, like frankincense thyme, which the specimen still retains. The hairs clothing the flowerstalks are horizontal or slightly recurved, not deflexed close to the stalk; what inclination they have is, however, that way, so this may be merely a difference in degree of depression. The whorls are all quite sessile. Corolla hairy in the throat, in which the stamens are included. The body of the calyx is clothed entirely with ascending hairs, especially at the base, which essentially distinguishes this plant from *rubra*, *t.* 1413.

May 1 1818 Published by Sowerby & Co. London.

18.

MENTHA rubra.

Tall Red Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovate. Stem upright, zigzag. Flower-stalks and lower part of the calyx very smooth; teeth hairy.

SYN. Mentha rubra. *Sm. Tr. of L. Soc. v.* 5. 205. *Fl. Brit.* 620.
M. sativa. *Sole Menth.* 47. *t.* 24.
M. verticillata. *Raii Syn.* 232.
M. sativa rubra. *Ger. em.* 680.

GATHERED in September 1804 under a hedge in the road from Watton to Saham church, Norfolk, where I have observed it for several years (see *Tr. of Linn. Soc.* and *Fl. Brit.*). The season being remarkably dry, the ditch was quite dried up, and the plant more hairy than usual; but the essential character of the smooth round polished flower-stalks and base of the calyx remained unchanged, though the calyx-teeth were hairy all over. On seeking about Saham mere, where several varieties of *M. hirsuta* (*Fl. Brit.* δ, ζ) usually grow, I found only the common capitate kind. *M. piperita* γ had dwindled away almost to nothing.

M. rubra is the tallest and handsomest of our native species, rising to the height of 4 or even 6 feet, with a red wavy stem. Leaves ovate, of a dark shining green; the upper ones small and short. Whorls numerous, of many large reddish flowers. Bracteæ linear, fringed. Calyx tubular, somewhat campanulate, dotted with resinous glands, its teeth always more or less hairy. The whole plant has a strong aromatic scent, especially in a dry soil. It is sometimes kept in gardens by the name of Heart Mint, in allusion to its cordial qualities, and is not very unfrequently found wild.

Pub.d 1.1.05 Published by Jas Sowerby London.

19.

MENTHA gentilis.
Bushy Red Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovate. Stem much branched, spreading. Flower-stalks and base of the calyx smooth.

SYN. Mentha gentilis. *Linn. Sp. Pl.* 805. *Sm. Tr. of L. Soc. v.* 5. 208. *Fl. Brit.* 621. *Hull. ed.* 2. 173.
M. rubra. *Sole Menth.* 41. *t.* 18.
β. M. rivalis α. *ib.* 45. *t.* 20.
γ. M. variegata. *ib.* 48. *t.* 19.
M. arvensis verticillata versicolor. *Moris. sect.* 11. *t.* 7. *f.* 5.

NATIVE of watery places, but rare, flowering in August and September. Our specimen was gathered at Edgefield near Holt, by Mr. Borrer and Mr. Hooker. The Rev. Mr. Williams has sent the same from Shropshire.

The stem is usually 12 or 18 inches high, erect, very bushy in consequence of the numerous opposite spreading branches, and quite different from the very tall, slender, zigzag habit of *M. rubra, t.* 1413, to which its specific character approaches in other points. The whole plant however is paler than in that, and rougher; leaves more uniform, and less rounded; whorls nearly sessile, except occasionally in the varieties; calyx rough with upright hairs on the upper half; sometimes the bottom and stalk, though usually smooth and polished, bear each a few scattered hairs, those on the latter being, in such case, deflexed. Stamens hardly longer than the corolla.

The variety γ, striped with yellow, is often cultivated by poor people in windows or cottage gardens for its beauty and scent. This species especially is improved in fragrance by growing in a dry soil.

Petit engraved & published by J. Sowerby London.

MENTHA gentilis.

Red Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovato-lanceolate, acute, nearly sessile, scarcely hairy. Flower-stalks perfectly smooth. Teeth of the calyx hairy.

SYN. Mentha gentilis. *Linn. Sp. Pl.* 805. *With.* 524.
M. rubra. *Hudf.* 252.
M. fusca sive vulgaris. *Raii Syn.* 232.

FOUND by Mr. B. M. Forster near Walthamstow, and by Mr. Crowe and Dr. Smith in September 1797, on a small common at Saham, Norfolk.

Root creeping. Stems several, erect, growing in tufts, about 18 inches high, with harsh somewhat hairy angles, more or less reddish in the upper part, branched, leafy. Leaves most crowded towards the upper part, nearly sessile, lanceolate inclining to ovate, acute, sharply serrated, veiny, punctured with shining dots, and sprinkled (especially about the margin, and the nerves on the back) with a few short hairs. Their usual scent is much like that of the M. *viridis*, or garden mackerel mint; but nothing is more variable than the smell of mints. We have from Mr. Sole what seems a variety of this, with the delightful scent of basil, to which probably C. Bauhin's synonym belongs. Bracteæ lanceolate, ciliated. Flower-stalks round, red, and always perfectly smooth, as is the lower part of the calyx, the upper part only, on or about the teeth, being fringed or clothed with hairs which point upwards. The pellucid globules on the calyx are very conspicuous. Stamina shorter than the corolla; Style much longer; Germen, as Dr. Withering has well remarked, standing on a fleshy receptacle.

We believe the synonyms above quoted are unquestionable. There is a mint which agrees with this in the calyx and flower-stalk, but grows much taller, with large ovate leaves. This many have taken for the true M. *gentilis*, but Dillenius seems to have confounded it with the *sativa*, by his description of the latter in Ray's Synopsis. We know the plant, and shall carefully investigate it; but in the mean time we venture to establish this now before us as the *gentilis*.

Jan.ʸ 1, 1798 Published by J. Sowerby London

21.

MENTHA arvensis.

Corn Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

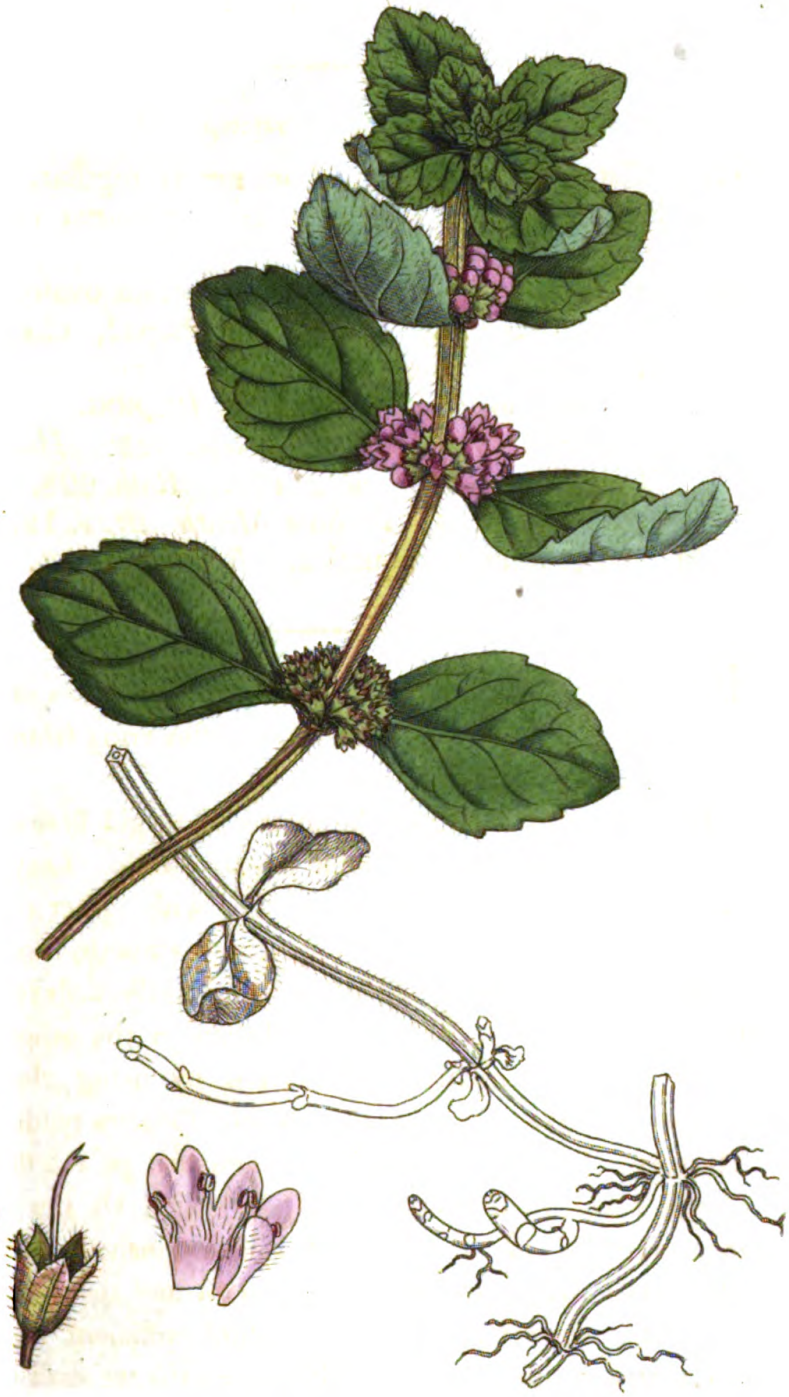
SPEC. CHAR. Flowers whorled. Leaves ovate. Stem much branched. Calyx bell-shaped, clothed all over with horizontal hairs.

SYN. Mentha arvensis. *Linn. Sp. Pl.* 806. *Sm. Tr. of L. Soc. v.* 5. 213. *Fl. Brit.* 623. *Huds.* 253. *With.* 524. *Hull. ed.* 2. 173. *Relh.* 228. *Sibth.* 182. *Abbot.* 127. *Sole Menth.* 29. *t.* 12.

M. seu calamintha aquatica. *Raii Syn.* 232.

FREQUENT in corn-fields where water stagnates in winter, especially on a sandy or gravelly soil, flowering from July to September.

Root perennial, creeping by means of turgid fleshy shoots, very difficult to eradicate. Stem mostly diffuse. Leaves ovate inclining to elliptical, obtuse, clothed with rather rigid prominent hairs. Flower-stalks generally smooth, sometimes furnished with a few spreading or slightly deflexed hairs. Calyx shorter and more bell-shaped than in the other British species, and essentially characterized by being clothed all over with horizontally-spreading hairs. Flowers reddish-lilac. The scent of this species is justly compared to the flavour of cheese covered with blue mould, by which all the varieties mentioned in *Fl. Brit.* are also distinguished. Of these Mr. Sole's *M. præcox* has more smooth and neatly elliptical leaves than the rest, but we cannot find sufficient reasons to make it a distinct species. Of his *agrestis* we shall speak in the next page.



Feb. 1810 published by J.s Sowerby London.

MENTHA agrestis.

Rugged Field Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves somewhat heart-shaped, strongly serrated, rugose. Stem erect. Calyx bell-shaped, clothed all over with horizontal hairs.

SYN. Mentha agrestis. *Sole Menth.* 33. *t.* 14.
M. arvensis ε. *Sm. Fl. Brit.* 624. *Tr. of L. Soc. v.* 5. 213, 216.

OBSERVED by the late Mr. Sole in corn-fields and neglected gardens in Somersetshire. Some plants for which I am indebted to his kindness having now for eleven years entirely preserved their original appearance and characters, I think it right to make this Mint known, which Mr. Borrer says is very common in Sussex. How far the erect stem, and roundish-heartshaped, rugged, strongly serrated leaves, may be thought a sufficient specific distinction from *arvensis*, with which it agrees in more essential points, I greatly doubt, but I leave to the judgment of others. Their permanency in a dry garden, under various treatment, is in their favour; for the varieties of *M. hirsuta*, and of the spiked mints, have, under my observation, frequently changed according to seasons and situations. The characters deduced from the calyx and its hairs, however, prove certain; but it does not always follow that two *Menthæ* agreeing in those, *must* otherwise be one species, though I have scarcely found an exception, if the present be not one. If this clue to a true knowledge of these difficult plants obliged me to dissent from my intelligent and experienced correspondent, as well as from many of the first botanists, it was not without due respect to their merits. Mr. Sole and Mr. Pitchford were preeminent in the knowledge of the various mints; we merely differed as to some of them being species or varieties, and my peculiar advantages only enabled me to correct their nomenclature.

Drawn and Etched by J. Sowerby Sowerby

MENTHA Pulegium.

Penny-royal.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovate. Stem prostrate. Flower-stalks and calyx downy all over; the teeth fringed.

SYN. Mentha Pulegium. *Linn. Sp. Pl.* 807. *Sm. Fl. Brit.* 625. *Tr. of L. Soc. v.* 5. 216. *Hudf.* 254. *With.* 525. *Hull.* 130. *Relh.* 224. *Sibth.* 182. *Woodv. Med. Bot. t.* 171. *Sole Menth.* 51. *t.* 23.

Pulegium. *Raii Syn.* 235.

PENNY-ROYAL, long celebrated among medical practitioners for removing obstructions of various kinds, strengthening the viscera, and other stimulant or tonic powers, is consequently frequent in gardens. In a wild state it less generally occurs; but may now and then be found on wet commons, especially on a strong soil, flowering in September, the usual season for Mints.

This is the smallest we have of its genus, and may be known by that circumstance, its prostrate stems, small downy recurved leaves, which are often quite entire, and numerous dense whorls of purplish (sometimes white) flowers. It is more peculiarly distinguished from our other *Menthæ* by the short soft downiness of its flower-stalks and calyx. The hairs of the latter indeed vary somewhat in length, and its teeth are always strongly ciliated.

The smell of this species is peculiarly strong and pungent, unlike that of any other British Mint, and more resembling *Thymus Nepeta, Fl. Brit.*

May 1. 1802 Published by Jas Sowerby, London.

V

GLECHOMA hederacea.

Ground-Ivy.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, nearly regular. *Antheræ* approaching each other in pairs forming a cross.

SPEC. CHAR. Leaves kidney-shaped, crenate.

SYN. Glechoma hederacea. *Linn. Sp. Pl.* 807. *Sm. Fl. Brit.* 625. *Hudſ.* 254. *With.* 526. *Hull.* 125. *Relh.* 225. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. faſc.* 2. *t.* 44. *Mart. Fl. Ruſt. t.* 61. *Woodv. Med. Bot. t.* 28.

Calamintha humilior, folio rotundiore. *Raii Syn.* 243.

GROUND-IVY, Gill, or Alehoof, for it is vulgarly known by all thoſe names, is a very common plant in dry groves, about hedge-banks, under park walls or pales, and ſimilar ſituations, where it puts forth its fragrant foliage on the firſt approach of ſpring, and flowers in April and May.

The roots are perennial and creeping, throwing out running ſcions, which alſo take root to a great extent, and ſeveral weak ſquare ſtems. Leaves on foot-ſtalks, kidney or heart-ſhaped, truly crenate (of which kind of margin they are a good example), veiny, downy, dotted beneath with glandular points, from which, as Dr. Withering juſtly obſerves, the odoriferous oil of the plant proceeds. Flowers axillary, about 3 to each leaf, on ſhort ſtalks. Calyx tubular, ſtriated, nearly equally 5-cleft. Corolla blueiſh; its under lip largeſt, in 4 broad lobes, and prettily marked with dark-purple and white. Antheræ cohering in croſs-like pairs, often abortive, as in other creeping-rooted plants, nor are the ſeeds often to be found perfect.

The herb has been uſed to give ale a flavour by infuſion, but is more generally taken in the manner of tea, and is ſometimes ſold about the ſtreets. A very humble poet on the London Cries has ſaid

> " ——— did ye but know the taſte
> Of home-found ivy, ye would ne'er explore
> For foreign ſhrubs a diſtant Indian ſhore."

LAMIUM album.

White Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heart-shaped, pointed, stalked. Flowers about twenty in a whorl.

SYN. Lamium album. *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 626. *Hudf.* 255. *With.* 526. *Hull.* 131. *Relh.* 226. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 2. *t.* 45. *Mart. Fl. Rust. t.* 26. *Raii Syn.* 240.

COMMON every where in waste ground, by road sides, and the borders of fields, where it flowers abundantly in May and June, and again for the most part in autumn.

The root is creeping and perennial. Stems about 12 or 18 inches high, square, leafy. Leaves in pairs, all at nearly equal distances, on stalks, strongly serrated, veiny, a little hairy. Whorls in the bosoms of the leaves, each of about twenty flowers, which are large, hairy, cream-coloured and handsome, much frequented by bees, and often gathered by children for the sake of the honey, which may be sucked out of the tube. Stamina hairy, with black antheræ. The toothed margin of the tube of the corolla affords an excellent essential character for this genus.

The name Dead-nettle has been given from the resemblance of the leaves to the Stinging-nettle, which to a common observer is considerable, and has been universally noticed. The flowers are sometimes found tinged with a blush-colour in the neighbourhood of Norwich. The herb is useless in agriculture, and in general not eaten by domestic animals, except perhaps the hard-feeding laborious ass.

LAMIUM maculatum.

Spotted Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heartshaped, pointed, deeply serrated. Whorls ten-flowered.

SYN. Lamium maculatum. *Linn. Sp. Pl.* 809. *Ait. Hort. Kew. ed.* 2. *v.* 3. 393.

FOUND interspersed with *L. album, t.* 768, on a bank in a lane near Redland Court not far from Bristol, by Mrs. Vaughan, to whom we are obliged for fresh wild specimens. We formerly gathered the same about Bayswater, but suspected it to be the outcast of some botanic garden. It is perennial, flowering in April, and is distinguished in the winter and early spring by the large and elegant white spots, which render the radical leaves nearly as beautiful and conspicuous as those of a *Cyclamen*. The stem-leaves have scarcely any traces of these spots, and they, as well as the whole habit of the plant, accord much with *L. album*; but the flowers are only half as many in a whorl, and of a deep crimson, beautifully speckled. There is no question of the species being perfectly distinct, and we presume it must be truly wild in the place above mentioned. Throughout the south of Europe it mostly takes place of the *album*, so common with us.

July 1, 1817 published by J. & T. Stewart, Edinburgh.

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27.

LAMIUM purpureum.

Red Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heart-shaped, blunt, stalked; the uppermost clustered together.

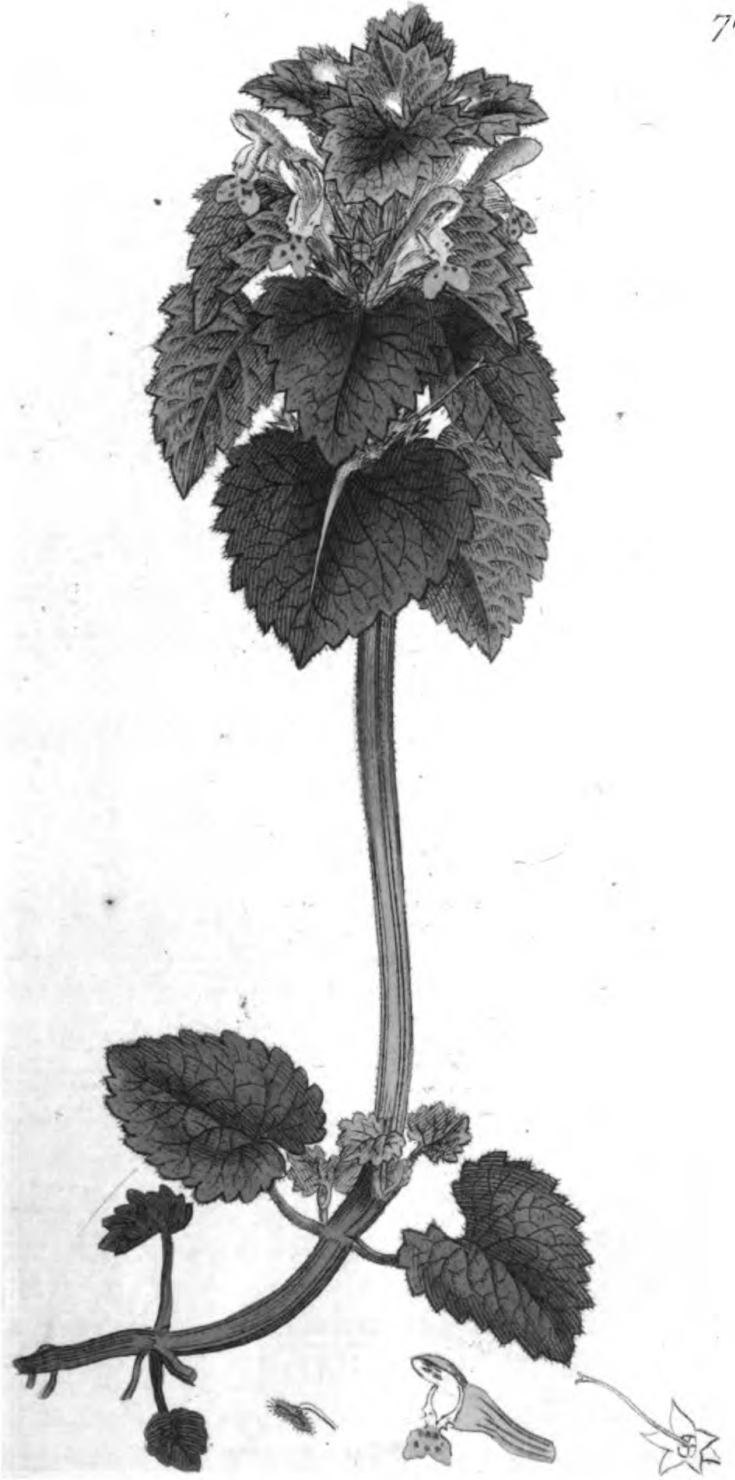
SYN. Lamium purpureum. *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 627. *Hudf.* 255. *With.* 527. *Hull.* 131. *Relh.* 226. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 1. *t.* 42. *Mart. Fl. Rust. t.* 25. *Dickf. H. Sicc. fasc.* 16. 20.

L. rubrum. *Raii Syn.* 240.

THIS is no less common a weed in cultivated ground than the L. *album* in untilled places, and may be found in flower from March to June; very frequently throughout the autumn.

Root annual. Whole plant but half the size of the last-described. Stems ascending; leafy and a little branched below, then naked, but thickly clothed with leaves in the upper part. Leaves broad-heartshaped, not pointed, unequally crenate. Flowers purple. Antheræ, or rather pollen, of the colour of red lead. Sometimes the corolla is white, and then the scarlet pollen is very conspicuous. The calyx is often purplish.

A variety, for so from long observation we deem it, with cut leaves, has been described as a species by Dr. Withering by the name of *dissectum*. There is also a more rare variety with entire leaves, resembling those of a *Parietaria*, which appears by a manuscript of the late learned Professor Martyn sen. to have been first found near Sudbury by a Mr. Joseph Andrews. This last is a weed in Chelsea garden.



LAMIUM incisum.

Cut-leaved Archangel.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heartshaped, dilated, stalked, irregularly cut; the uppermost crowded. Tube of the corolla internally naked.

SYN. Lamium incisum. *Willd. Sp. Pl. v.* 3. 89.

L. dissectum. *With.* 527. *Hull.* 132. *Sym.* 136.

L. purpureum β. *Sm. Fl. Brit.* 627. *Huds.* 255. *Relh.* 231.

L. rubrum minus, foliis profundè incisis. *Raii Syn.* 240. *Pluk. Phyt. t.* 41. *f.* 3.

FOUND by the Rev. G. R. Leathes in great plenty at Hunnington, Suffolk, in the middle of May last, also in a field of tares at Pakenham. We have often met with it, and have always judged it a variety of *L. purpureum, t.* 769; but an observation of Mr. J. D. Sowerby, that the tube of the corolla in *purpureum* is furnished internally near the base with a dense row of bristly hairs, which are wanting in our present plant, determines us to separate them, as Dr. Withering, Mr. Woodward and Professor Willdenow have done. We adopt the name given by the latter as being rather the best, and, from the popularity of his work, less likely to cause confusion than one which has never been followed.

The flowers of this *Lamium* approach nearer in form and hue to *L. amplexicaule, t.* 770, than to *t.* 769, especially their marginal teeth, while the leaves more resemble those of the latter. The plant is usually smaller than either, and like them annual. The seeds are like those of *purpureum*, and are ripened in plenty, so that, though an intermediate species, it cannot be supposed a hybrid production.

Sept. 1, 1808. Published by Jas. Sowerby London.

LAMIUM amplexicaule.

Henbit Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Floral leaves sessile, obtuse, embracing the stem.

SYN. Lamium amplexicaule. *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 627. *Hudſ.* 255. *With.* 527. *Hull.* 132. *Relh.* 226. *Sibth.* 184. *Abbot.* 128. *Curt. Lond. fasc.* 2. *t.* 46.

L. folio caulem ambiente majus et minus. *Raii Syn.* 240.

THE least general of the three British species of *Lamium* is the *amplexicaule.* It is found only in dry sandy barren fields, or on walls, where it flowers from the middle or end of February till June. The early blossoms, though otherwise perfect, and fertile, have an abortive corolla, which never expands; but, being always closed, perhaps more effectually shelters the stamina from the moisture of the season. Its red velvet tip is a beautiful object, and marks the plant at a distance. The singularly rounded and lobed floral leaves, generally pale at their base, also characterize this species. The root is annual. Herb about the size of L. *rubrum,* with stems, as in that, but thinly clothed with leaves in the lower part. Pollen of a vermilion hue.

V

GALEOPSIS Ladanum.
Red Hemp-Nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* notched, vaulted: lower with 2 teeth on its upper side.

SPEC. CHAR. Stem not swelled below the joints. Leaves lanceolate, more or less serrated, hairy. Upper lip of the corolla slightly notched.

SYN. Galeopsis Ladanum. *Linn. Sp. Pl.* 810. *Sm. Fl. Brit.* 628. *Hudf.* 256. *With.* 528. *Hull.* 132. *Relh.* 227. *Sibth.* 184. *Abbot.* 129.

Sideritis arvensis rubra. *Raii Syn.* 242.

A NATIVE of dry gravelly, or more especially chalky, cornfields, flowering in August and September. It is not mentioned by Mr. Lightfoot as growing in Scotland, but we have received from A. Bruce, Esq. specimens gathered in that country on dry limestone rubbish.

Root annual, fibrous. Stem about a foot high, oppositely branched, square, most hairy upwards with deflexed hairs, of an equal thickness throughout, often red. Leaves on stalks, lanceolate or inclining to ovate, more or less serrated; veins hairy beneath: the upper side clothed with close-pressed scattered hairs. Calyx hairy or woolly, the teeth pungent, the hairs often glandular and viscid. Corolla of a rose-colour, variously intermingled with crimson and white, hairy, the upper lip but slightly crenate. The Rev. Mr. Forby has found the terminal flower sometimes regularly four-cleft, as in *G. Tetrahit*, see *t.* 207.

Our specimen here figured, as well as those from Scotland, agrees in the form and serratures of the leaves with those in the Linnæan herbarium. In Norfolk a variety with narrower and almost entire leaves is most frequent.

31.

GALEOPSIS villosa.

Downy Hemp-Nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* notched, vaulted: lower with 2 teeth on its upper side.

SPEC. CHAR. Stem not swelled below the joints. Leaves ovato-lanceolate, serrated, villous. Upper lip of the corolla deeply notched.

SYN. Galeopsis villosa. *Huds.* 256. *Sm. Fl. Brit.* 629. *Hull. ed.* 2. 175. *Galp.* 50. *Dicks. H. Sicc. fasc.* 10. 15.

G. grandiflora. *With.* 528.

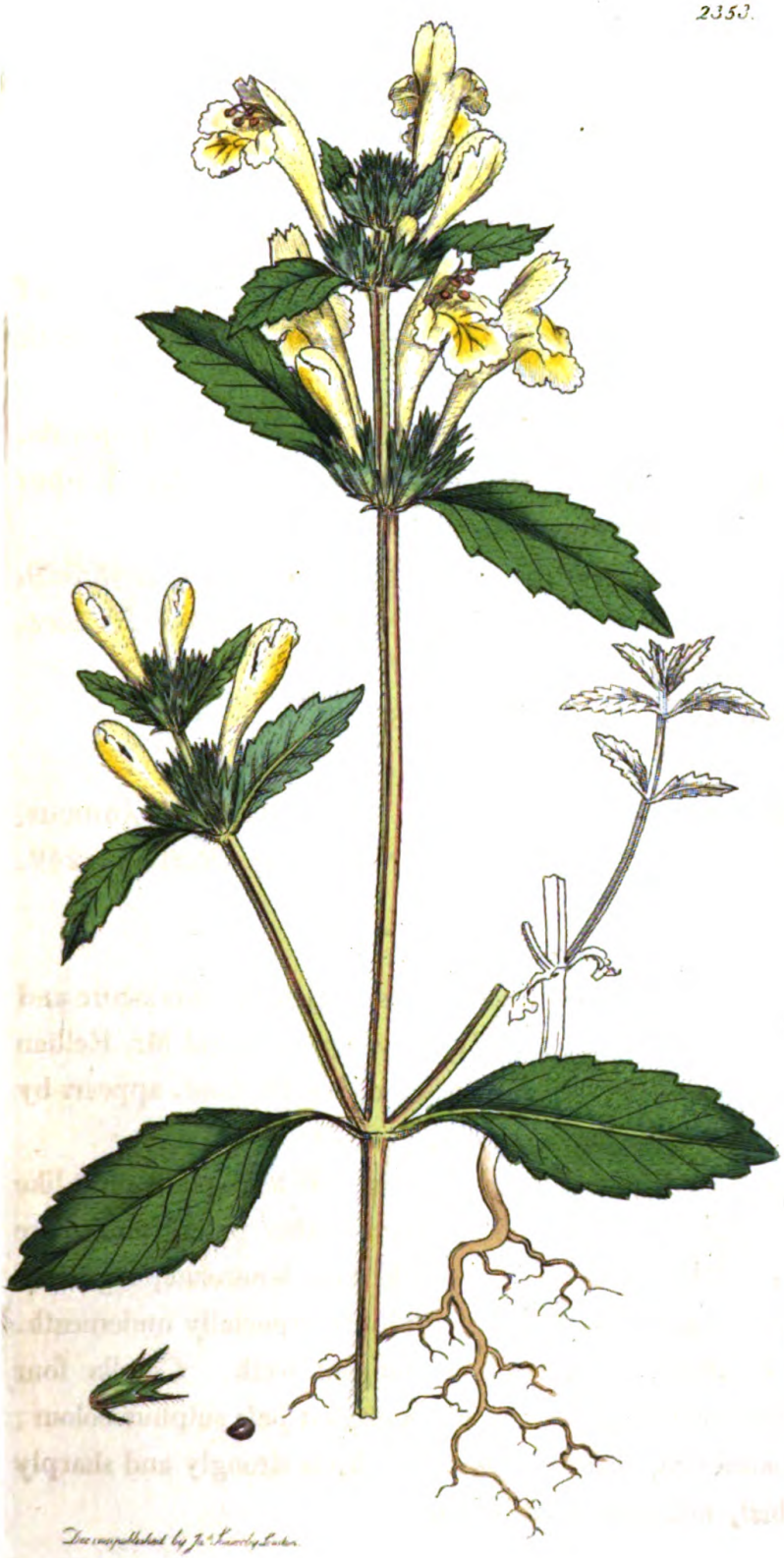
G. n. 267. *Hall. Hist. v.* 1. 117.

Betonica hirta. *Huds. ed.* 1. 220, but not of Linnæus.

Sideritis arvensis latifolia hirsuta lutea. *Raii Syn.* 242.

A NATIVE of sandy corn-fields, chiefly in Yorkshire and Lancashire, flowering in July and August. What Mr. Relhan mistook for it in the first edition of his *Fl. Cant.* appears by the second to be our *versicolor, t.* 667.

The root is annual and fibrous. Whole plant most like *G. Ladanum, t.* 884, but larger, rather paler, and more hoary. The leaves are more ovate than lanceolate, regularly serrated, clothed with dense soft down, especially underneath. Calyx villous, with straight pungent teeth. Corolla four times as long as the calyx, of an elegant pale sulphur colour; the palate deep yellow. The upper lip is strongly and sharply notched, and somewhat cloven.



Dec. 1st published by J. Sowerby, London.

GALEOPSIS Tetrahit.

Red Hemp-Nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* slightly notched, vaulted; lower lip with two teeth on its upper side.

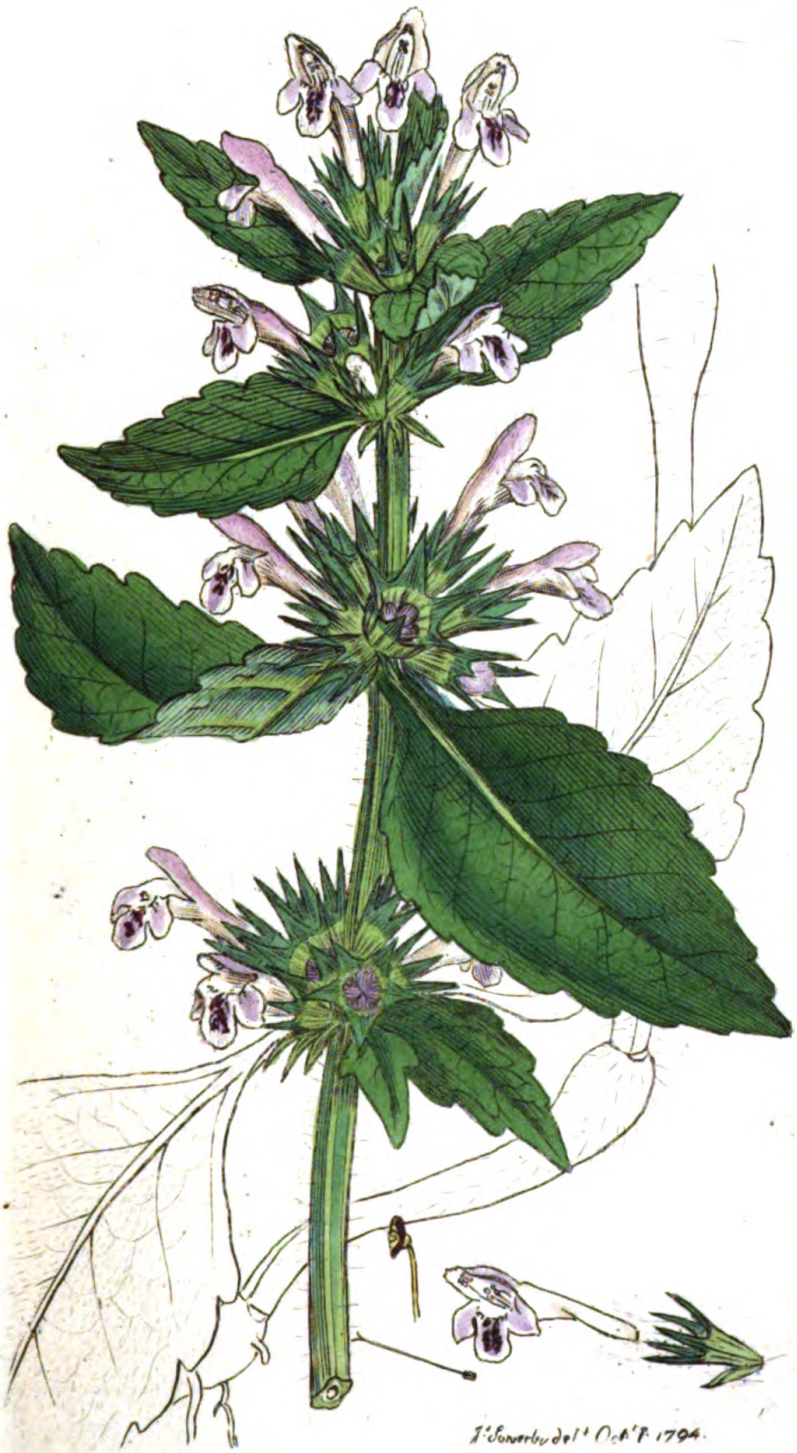
SPEC. CHAR. Stem swelled below the joints. Upper whorls crowded together. Calyx pungent.

SYN. Galeopsis Tetrahit. *Linn. Sp. Pl.* 810. *Hudſ. Fl. An.* 257. *With. Bot. Arr.* 608. *Relh. Cant.* 228. Lamium cannabino folio vulgare. *Raii Syn.* 240.

A TROUBLESOME weed in corn-fields, gardens, &c. on a gravelly soil, but being strictly annual is easily eradicated before flowering. The stem is quadrangular, but much swelled below 2 or 3 of the lowermost joints. Every part is rough with very sharp, but not venomous, prickles, and the calyx-teeth are very pungent. The herb has a strong, not aromatic, odour when bruised. The corolla varies much in size and colour, from purple to white, but the base of the lip seldom loses its elegant dark streaks. The antheræ are singularly two-lobed, and hairy.

Dr. Smith found at Matlock in 1788 a remarkable variety, whose terminal flowers were always regularly 4-cleft and salver-shaped, with 4 equal stamina, while all the rest had their proper form, as mentioned in his edition of *Linn. Flo. Lapponica*, p. 201.

The beautiful variety δ of Hudson, with a large yellowish flower, is so remarkable, we shall give a figure of it when it comes in our way; nor indeed are we quite certain of its not being a distinct species.


J. Sowerby del. Oct. 1. 1794.

GALEOPSIS verſicolor.

Large-flowered Hemp-Nettle.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* five-cleft, awned. Upper lip of the *corolla* notched, vaulted; lower with 2 teeth on its upper ſide.

SPEC. CHAR. Stem briſtly, ſwelled below the joints. Corolla three times as long as the calyx; its upper lip inflated.

SYN. Galeopſis verſicolor. *Curt. Lond. faſc.* 6. *t.* 38.
G. cannabina. *With.* 529. *Hull.* 132.
G. Tetrahit β. *Linn. Sp. Pl.* 810. δ *Hudſ.* 257.
Lamium cannabino folio, flore amplo luteo, labio purpureo. *Raii Syn.* 241.

IN our 3d volume, *p.* 207, we have already promiſed a figure of this plant as a variety of *Galeopſis Tetrahit*, but we now aſſent to the opinion of thoſe who judge it a diſtinct ſpecies. It is conſtant in its appearance and characters, propagating itſelf by ſeed: the corolla is 3 or 4 times as long as the calyx, large and ſwelling, with a much more inflated or hollow upper lip than in any variety of the *Tetrahit*; and, to common obſervers, the ſtriking purple ſpot on the lower lip, ſo elegantly contraſted with the other yellow hues, at once diſtinguiſhes it. The leaves are alſo broader, and of a brighter paler green than in that ſpecies. The ſtem is much inclined to purple; the root annual; the flowers appear from June to September. It is found on a ſandy, gravelly, and ſomewhat boggy ſoil in the north of England, and ſeveral parts of Norfolk, and is ſometimes called the Bee Nettle. Our ſpecimens were communicated from Caſtle Riſing by the Hon. Mrs. Howard, and from near Birmingham by Mrs. Corrie. It is found plentifully at Aſhill, Norfolk, by the Rev. Mr. Watts. It is eaſily raiſed from ſeed, and is by no means unworthy of a place in the flower-garden.

GALEOBDOLON luteum.

Yellow Archangel.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, unequal, awned. Upper lip of the *corolla* entire, vaulted; lower in 3 acute segments.

SPEC. CHAR. . . . . .

SYN. Galeobdolon luteum. *Hudf.* 258. *Sm. Fl. Brit.* 631. *With.* 530. *Hull.* 131. *Abbot.* 129.

G. Galeopsis. *Curt. Lond. fasc.* 4. *t.* 40. *Relh.* 228. *Sibth.* 185.

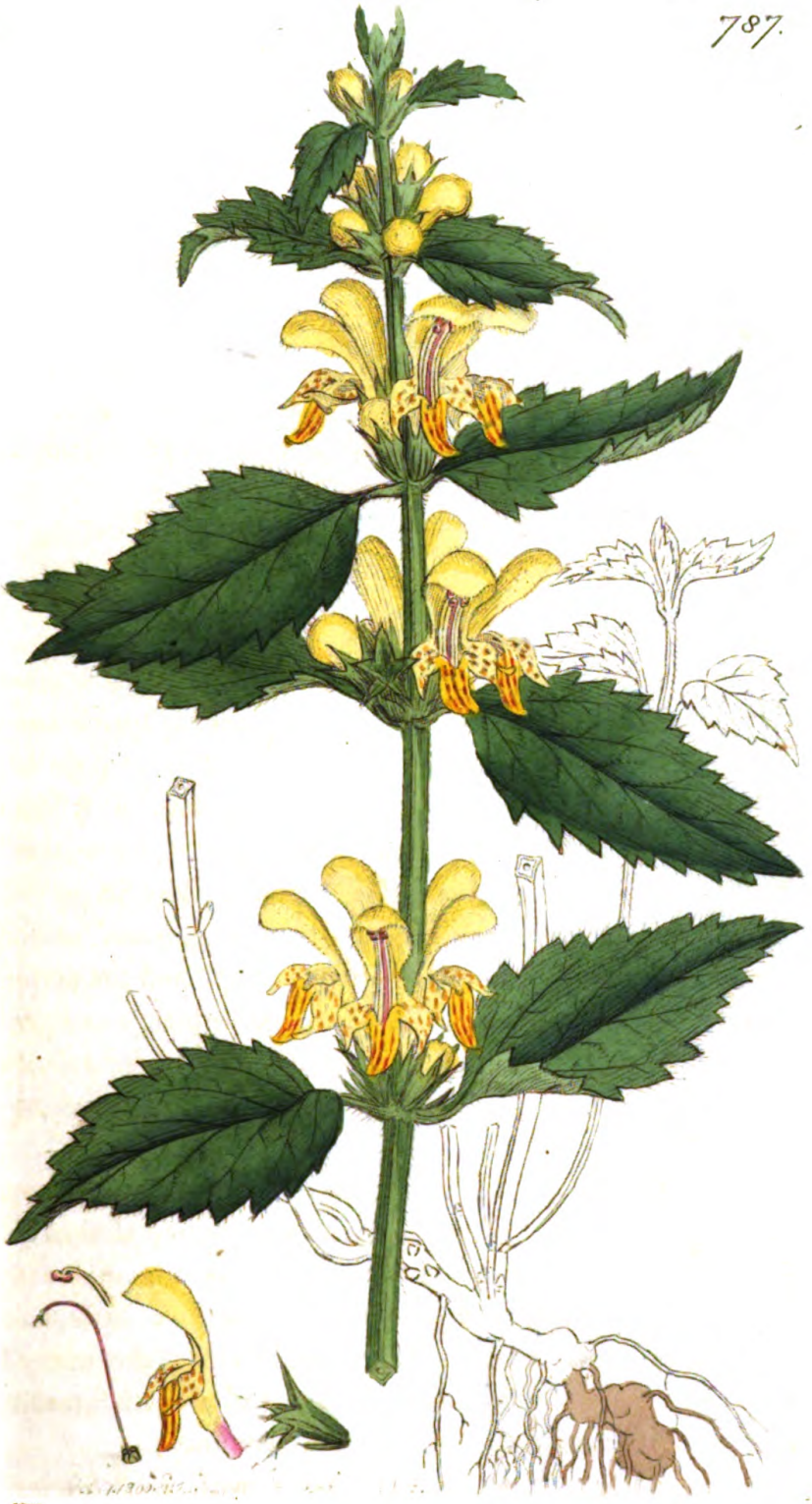
Galeopsis Galeobdolon. *Linn. Sp. Pl.* 810.

Lamium luteum. *Raii Syn.* 240.

SO obvious a resemblance to the genus *Lamium* runs through almost every part of this plant, that we cannot blame the old authors for naming it *Lamium luteum*. It is perhaps to be lamented that the strict, though sound, laws of systematic botany oblige us to make it a separate genus, for neither its natural habit nor essential characters will allow us to follow Linnæus in referring it to *Galeopsis*. The pointed, uniform, and almost equal, segments of the lower lip, and the perfectly entire margin of the upper, sufficiently discriminate it as a genus, though we know of no other species than that here described, which is not unfrequent in moist shady groves, flowering in May.

Root perennial, a little creeping. Stems upright, simple, about a foot high, square, as in all this order, clothed with scattered deflexed hairs. Leaves ovate, various in breadth, bright-green, deeply and unequally serrated, a little hairy. Flowers whorled, large and handsome, yellow, the under lip elegantly spotted and streaked with red. Calyx-teeth spreading, each tipped with a small bristle. Bracteæ linear.

In sensible qualities this herb agrees with most species of *Lamium*. No particular virtues are attributed to it, nor does its place of growth render it troublesome to the husbandman.



V.

BETONICA officinalis.

Wood Betony.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* ascending, flattish; lower 3-cleft: tube cylindrical.

SPEC. CHAR. Spike interrupted. Middle segment of the lower lip notched.

SYN. Betonica officinalis. *Linn. Sp. Pl.* 810. *Sm. Fl. Brit.* 632. *Hudf.* 258. *With.* 530. *Hull.* 131. *Relh.* 233. *Sibth.* 185. *Abbot.* 130. *Curt. Lond. fasc.* 3. *t.* 33. *Woodv. Suppl. t.* 241.

Betonica. *Raii Syn.* 238.

NOT rare in woods and thickets, where it flowers in July and August.

Root perennial, somewhat woody. Whole herb rough with rigid hairs, to which, as is well observed in the Dispensatory, the power of the dried plant to procure sneezing is owing, and not to any internal quality. The stem is simple, square, almost leafless. Radical leaves on long stalks, ovate, serrated; the uppermost oblong, opposite, nearly sessile. Spike terminal, obtuse, formed of several whorls, the lowermost generally remote from the rest, and accompanied by a pair of leaf-like bracteæ. Small entire bracteæ also accompany each flower. Corolla of a dull rose-colour, downy, occasionally pale or white; its lower lip generally cloven, sometimes only crenate.

Great virtues formerly attributed to the Betony are now disbelieved, and it is never used by our physicians. The herbage is said to be mildly astringent, and the root emetic and purgative. The smell is faintly aromatic.

March 1 1815 Published by Jas. Sowerby London

STACHYS sylvatica.

Hedge Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper-lip of the *corolla* vaulted; lower-lip reflexed at the sides, the large middle segment notched. *Stamina* after shedding their pollen divaricated.

SPEC. CHAR. Six flowers in a whorl. Leaves heart-shaped, on footstalks.

SYN. Stachys sylvatica. *Linn. Sp. Pl.* 811. *Huds. Fl. An.* 259. *With. Bot. Arr.* 612 *ed.* 3. *v.* 3. 531. *Relh. Cant.* 229. *Sibth. Ox.* 186. *Curt. Lond. fasc.* 3. *t.* 34.

Galeopsis legitima Dioscoridis. *Raii Syn.* 237.

FREQUENT under hedges and in other shady places, flowering in July and August. The name of *sylvatica*, which seems to have originated with Rivinus, is not well applied to this species; *nemorosa* would more accurately express its general situation.

Root perennial, creeping, but not very extensively. Stems 2 feet high, erect, but little branched, square, hairy, leafy. Leaves on footstalks, heart-shaped, acute, strongly serrated, rough, thin and pliable when handled, of a deep dull green; the upper ones on shorter footstalks, and gradually diminishing to lanceolate entire bracteæ. Spike erect, terminal, consisting of many close whorls of 6 flowers each. Calyx brownish, with 5 large sharp teeth. Flowers of a deep dull blood-colour, prettily marbled about the orifice with a darker hue intermixed with white. Their tube is cylindrical, with a small pouch on the under side near the base, similar to what may be observed in some species of *Origanum*.

This herb has a pungent fœtid smell when rubbed, approaching to that of Black Horehound. It is one of those that powerfully affect the nerves, and may therefore prove no contemptible stimulant if judiciously used. Haller refers it to his genus of *Cardiaca*, the limits of which are not well defined.

Jan. 1797 Published by J. Sowerby London

37.

STACHYS ambigua.

Ambiguous Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted; lower reflexed at the sides, the large middle segment notched. *Stamens* when old bent outwards.

SPEC. CHAR. Six flowers in a whorl. Leaves oblong, heart-shaped at the base, on footstalks. Stem hollow.

THE specimen in our plate was gathered in the Orkneys, where this plant is very abundant in potatoe fields and other cultivated ground, by Mr. W. Borrer and Mr. W. J. Hooker, who also found the same near Loch Carron and in Glen Ely in the north of Scotland, in September 1808. We have received in August 1809 a specimen, gathered by Mr. J. R. Weatherhead in a boggy place at the foot of one of the Pentland hills near Edinburgh, of the same plant in a less luxuriant state, about a foot high, with much narrower and more silky leaves, and a scarcely spotted flower. This latter approaches nearer to *S. palustris*, *t.* 1675, from which however it differs in its stalked leaves, which are not dilated at their base, and in having a faint degree of the peculiar fœtid smell of *S. sylvatica*. Mr. Hooker's and Mr. Borrer's specimens more approach this latter, but the stem is hollow, (as Mr. Weatherhead well observes in his), not filled up with pith as in *sylvatica;* the leaves are oblong, not rounded, though slightly heartshaped at the very base. The root is white and creeping. Hairs on the stem more or less deflexed. Corolla with a variegated lip in general, though sometimes very slightly so. Stem perfectly straight at the base, and about as high as that of *S. sylvatica*.

S. alpina, which we at first suspected our plant might be, differs from all the above-mentioned in the great breadth and bluntness (with a point) of the segments of its calyx, whic are strongly reticulated when in seed.

Nov: 1 1829 published by J. Sowerby London.

STACHYS palustris.

Marsh Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted; lower reflexed at the sides, the large middle segment notched. *Stamina* when old bent outwards.

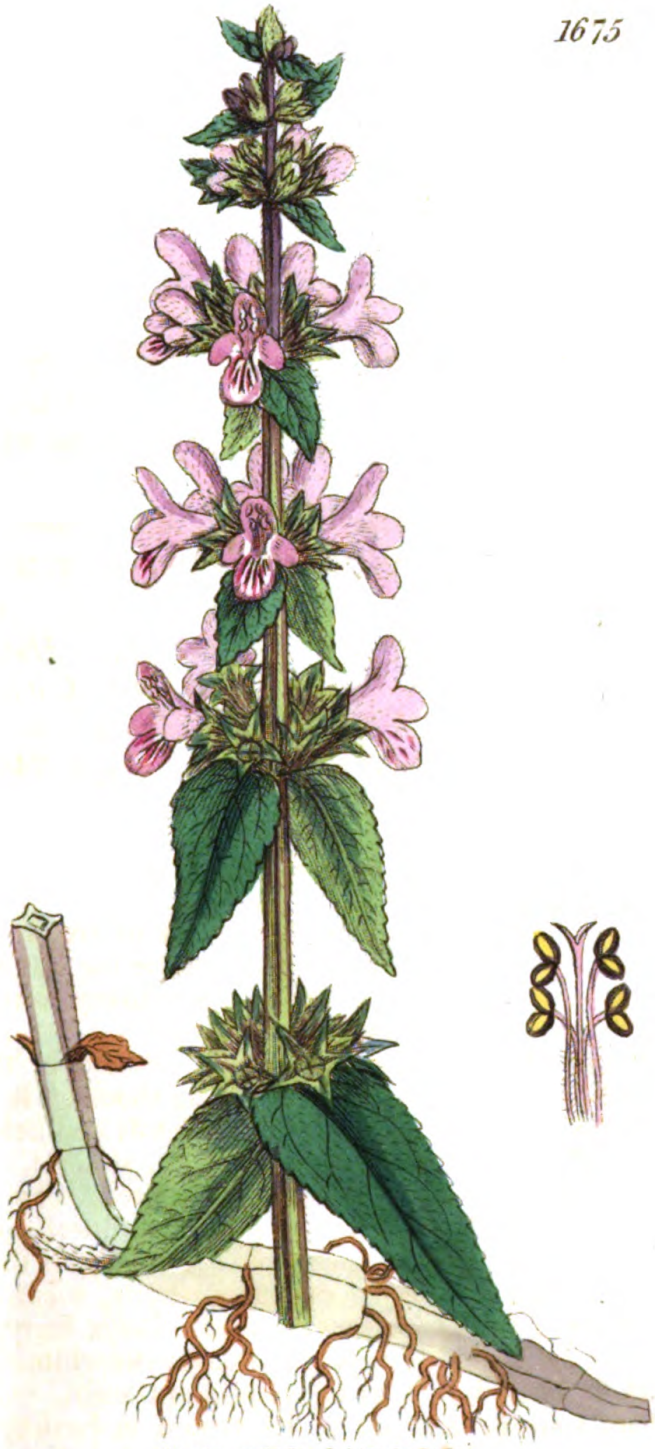
SPEC. CHAR. Six flowers in a whorl. Leaves linear-lanceolate, half embracing the stem. Root tuberous.

SYN. Stachys palustris. *Linn. Sp. Pl.* 811. *Sm. Fl. Brit.* 633. *Huds.* 259. *With.* 532. *Hull.* 132. *Relh.* 234. *Sibth.* 186. *Abbot.* 130. *Curt. Lond. fasc.* 3. *t.* 35. *Dicks. H. Sicc. fasc.* 15. 8.
Sideritis anglica strumosâ radice. *Raii Syn.* 242.
Panax coloni. *Ger. em.* 1005.

IN reedy watery places about the banks of rivers, and in wet hedges, this species is common, flowering in August. Mr. Curtis mentions it as "very noxious in many cornfields," but they must be such as are low and moist.

Root perennial, creeping very much, fleshy, in the autumn throwing out many tuberous young shoots. It is best eradicated before these shoots form, which is also before the seeds are perfected. Stems 2 or 3 feet high, straight, square, rough with deflexed bristles. Leaves serrated, silky above, rather woolly beneath, lanceolate or somewhat linear, (at least the lower ones,) acute; the upper ones heartshaped at the base, and clasping the stem. Spike of many whorls, accompanied by small leaves; the upper ones crowded. Calyx hairy. Corolla purple; its lower lip prettily streaked with white.

The whole plant has a strong unpleasant scent. Gerarde gives a very amusing account of its virtues in healing most "grievous and mortal wounds," the knowledge of which he derived from a clown, who cured a wound with it in a week, that, says Gerarde, "would have required 40 daies with balsam itself." Hence he named the plant Clown's Woundwort.



Dec. 1806. Published by Jas. Sowerby London

39.

STACHYS germanica.

Downy Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted; lower reflexed at the sides, the large middle segment notched. *Stamina* when old bent outwards.

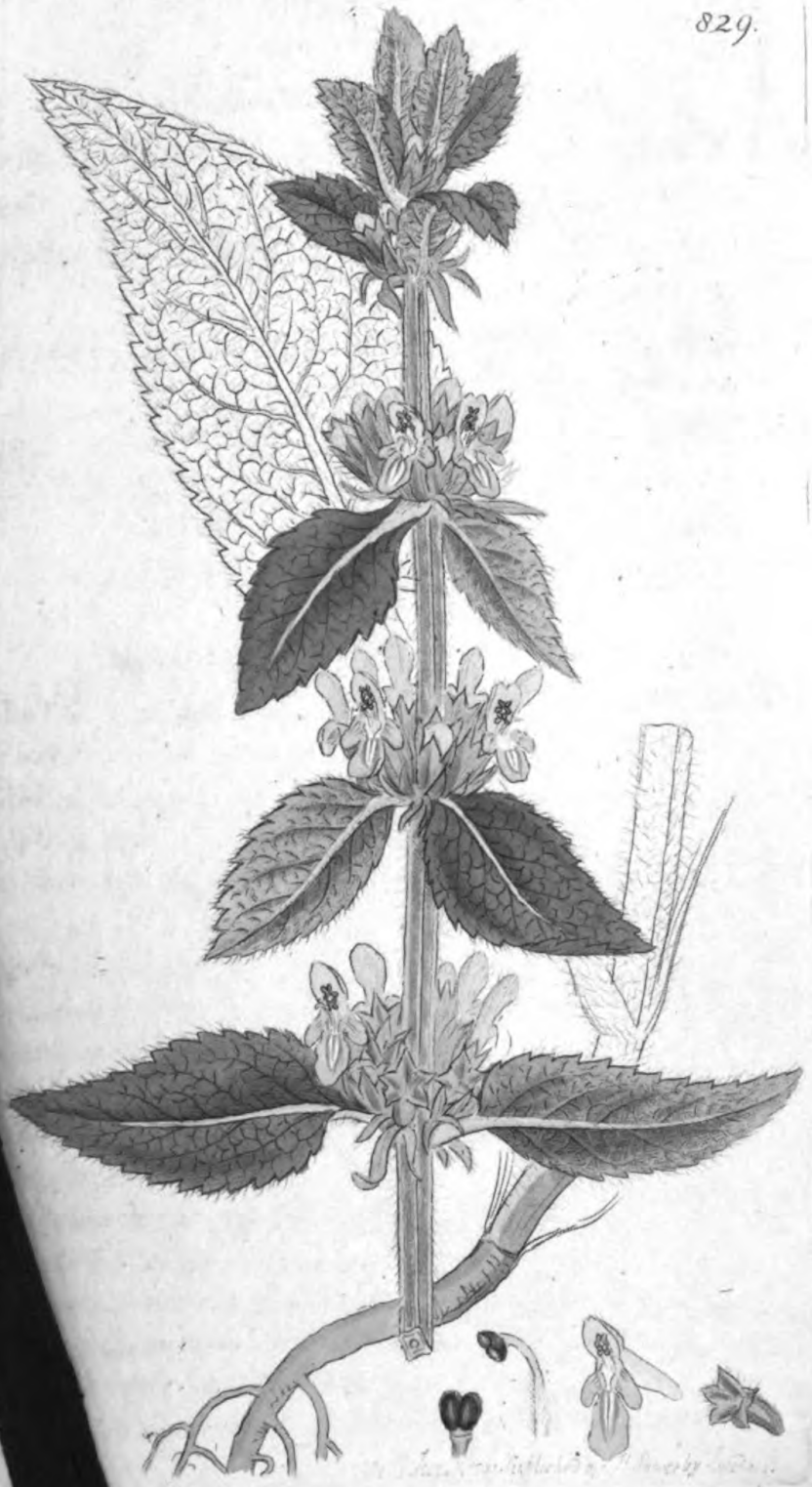
SPEC. CHAR. Many flowers in a whorl. Leaves crenate. Stem woolly, erect.

SYN. Stachys germanica. *Linn. Sp. Pl.* 812. *Sm. Fl. Brit.* 634. *Hudf.* 259. *With.* 532. *Hull.* 132. *Sibth.* 186.

S. Fuchsii. *Raii Syn.* 239.

IN corn-fields and by way-sides on the limestone soil of Oxfordshire the *Stachys germanica* has long been observed; but the Rev. Mr. Hemsted discovered this plant on a hill 2 miles from Bedford in September last, a new British station for it, from whence he favoured us with the present specimen.

The root is perennial. Whole herb remarkably invested with a white soft silky pubescence, in which respect it is only inferior to the garden *Stachys lanata*, a species that differs from it besides in having blunter leaves, stems procumbent at the base, and taking root at that part. The stems of our plant are erect. Leaves ovate, rather pointed, sharply crenate, reticulated with veins, silky above, most woolly beneath; the radical ones on long stalks; the rest smaller and nearly sessile. Whorls axillary, numerous, many-flowered; the upper ones crowded. Bracteæ linear. Flowers purple within, streaked about the mouth with white; their outside whitish and very downy, especially the upper lip. Stamina hairy. Seeds roundish, black.



40.

STACHYS arvenſis.

Corn Woundwort.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted; lower reflexed at the ſides, the large middle ſegment notched. *Stamina* when old bent outwards.

SPEC. CHAR. Six flowers in a whorl. Stem weak. Leaves heart-ſhaped, obtuſe, crenate, ſlightly hairy.

SYN. Stachys arvenſis. *Linn. Sp. Pl.* 814. *Sm. Fl. Brit.* 634. *Hudſ.* 260. *With.* 532. *Hull.* 132. *Relh.* 234. *Sibth.* 187. *Curt. Lond. faſc.* 4. *t.* 41. *Dickſ. H. Sicc. faſc.* 15. 7.

Sideritis humilis, lato obtuſo folio. *Raii Syn.* 242.

COMMON in gravelly, chalky, or light ſandy fields, flowering in July and Auguſt.

The root is ſmall and annual. Stems ſpreading, often proſtrate, weak, branched, leafy, ſquare, hairy or ſmooth. Leaves oppoſite, on ſhort ſtalks, ovate or a little heart-ſhaped, obtuſe, crenate, in ſome degree three-nerved at the baſe, more or leſs ſlightly hairy on both ſides. Whorls ſeveral, of 6 flowers each. Calyx tubular, hairy, with fringed teeth. Corolla ſcarcely projecting beyond them, variegated with white and pale purple.

No uſes or peculiar properties are aſcribed to this herb, nor has it any beauty to boaſt. It partakes of the diſagreeable ſmell of others of the ſame genus. As a weed it gives little trouble, though not unfrequent in kitchen gardens on a light ſoil, being eaſily eradicated when the firſt flowers appear.

Apl. 1. 1805. Published by Jas. Sowerby. London.

BALLOTA nigra.

Black Horehound.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Calyx* nearly salver-shaped, with five teeth and ten ribs. *Upper lip* of the *Corolla* concave, notched.

SPEC. CHAR. Leaves heart-shaped, undivided, serrated. Divisions of the calyx tapering gradually to a point.

SYN. Ballota nigra. *Linn. Sp. Pl.* 814. *Hudf. Fl. An.* 260. *With. Bot. Arr.* 615. *Relb. Cant.* 231.

Ballotte. *Raii Syn.* 244.

ABUNDANT every where in hedges and waste ground, flowering throughout the summer very copiously. The whole herb has an uncommonly pungent disagreeable smell, and therefore promises to be useful in hysteric and other nervous disorders. Accordingly we find a decoction of it recommended for such complaints in Ray's Synopsis.

The flowers are occasionally found white; and that variety has been mistaken by Mr. Hudson and others for the Ballota alba of Linnæus, which last we believe has never been found in England. It exists, however, in the Linnæan Herbarium, and will some time or other be figured by Dr. Smith, in his *Plantarum Icones*.

42.

MARRUBIUM vulgare.

White Horehound.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Calyx* salver-shaped, rigid, with 10 furrows. Upper lip of the *corolla* cloven, linear, straight.

SPEC. CHAR. Teeth of the calyx ten, bristle-shaped, hooked.

SYN. Marrubium vulgare. *Linn. Sp. Pl.* 816. *Huds. Fl. An.* 261. *With. Bot. Arr.* 617. *ed.* 3. *v.* 3. 533. *Relh. Cant.* 232. *Sibth. Ox.* 187. *Woodv. Med. Bot. t.* 97.

M. album. *Raii Syn.* 239.

FREQUENT on waste ground among rubbish, particularly in very dry situations, where it flowers copiously during the latter part of summer, even though frequently covered with the dust of high-roads, and exposed to the most burning sun. From the last it is protected, like a great many Cretan and African plants, by a thick fine coat of woolly hoariness, enveloping all the green parts of the herb. This kind of clothing seems intended by nature rather as a protection from heat than cold; and yet it is difficult to account for its being found most abundantly on the *under* sides of some leaves, while the *upper*, exposed to the sun, are naked.

The root is perennial, and woody. Stems several, branching from the bottom, and altogether forming a round bush; in the upper part they are simple, square, bearing several pairs of roundish or ovate, wrinkled, unequally serrated leaves, on shortish footstalks. The flowers grow in thick axillary whorls. Calyx with ten furrows, and as many bristly strong hooked teeth, which attach themselves to the coats of animals. Corolla white, the lower lip in three segments, the side ones small and sharp, the middle one large, inversely heart-shaped and slightly notched.

This plant is aromatic and very bitter. The latter flavour only remains in the extract, which was formerly a scholastic medicine, and is now a popular one, for coughs and asthmas. Most quack medicines are what orthodox practitioners have laid aside, sometimes with reason, sometimes from accident.

July 1797 Published by J. Pridy London.

43.

LEONURUS Cardiaca.

Motherwort.

DIDYNAMIA Gymnospermia.

GEN. CAHR. *Calyx* 5-angled. *Antheræ* sprinkled with shining dots. *Upper lip* of the *corolla* shaggy, concave.

SPEC. CHAR. Stem-leaves lanceolate, 3-lobed.

SYN. Leonurus Cardiaca. *Linn. Sp. Pl.* 817. *Huds. Fl. An.* 261. *With. Bot. Arr.* 618. *Relh. Cant.* 232.

Cardiaca. *Raii Syn.* 239. *Ger. em.* 705.

ITS proper situation is on banks and under hedges in a gravelly or calcareous soil, not on dunghills, except by accident, as Mr. Woodward remarks. It occurs here and there in Norfolk and Suffolk. Mr. Lightfoot found it in Monmouthshire. Our specimen grew in a lane near Combe wood, Surrey.

The root is at least biennial, according to Mr. Relhan perennial. Stem upright, 2 or 3 feet hight, quadrangular and furrowed, often purplish, the angles downy. The greater part of the leaves are lanceolate and acutely three-lobed, with some notches besides; but the uppermost are undivided, and the lowermost very much and obtusely lobed and broad, something like those of the gooseberry. Whorls of flowers numerous. Calyx with 5 sharp spreading teeth. Corolla whitish externally, elegantly stained with paler and darker purple within. Antheræ, before they burst, sprinkled with white globular points, by which this genus is chiefly distinguished from *Phlomis*, if such a character be sufficient. The herb is bitter and tonic, with no very pleasant though pungent smell.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444.

CLINOPODIUM vulgare.

Wild Basil.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 2-lipped. *Involucrum* of many taper leaves placed under the whorl.

SPEC. CHAR. Whorls hairy. Floral leaves bristle-shaped. Flower-stalks branched. Leaves slightly serrated.

SYN. Clinopodium vulgare. *Linn. Sp. Pl.* 821. *Sm. Fl. Brit.* 638. *Huds.* 261. *With.* 535. *Hull.* 135. *Relh.* 236. *Sibth.* 188. *Abbot.* 132.
C. origano simile. *Raii Syn.* 239.

NOT uncommon in bushy places by road sides where the soil is calcareous or gravelly, blossoming from July to the end of autumn. Our specimen was gathered in a lane at Saham, Norfolk, in September last.

Root perennial, fibrous or somewhat creeping. Stems wavy, but not regularly zigzag, hairy, with four bluntish angles. Leaves on stalks, ovate, rather obtuse, slightly serrated, hairy, especially at the back of the veins, where the hairs form a regular fringe. Whorls terminal and axillary, not many, but composed of numerous red flowers, which stand on branched hairy stalks. These bear, at the foot of the little stalks on which the flowers stand, several setaceous hairy leaves, called by Linnæus an *involucrum* in his generic character, and *bracteæ* in his specific one, and to which he was obliged to have recourse (as in the umbelliferous tribe) for forming his generic character; a character natural and certain enough, if not rigidly conformable to his own laws. Like a true philosopher, he *sometimes* sacrificed them to truth, no philosopher ever did so *always*. Calyx ribbed and hairy; its lower teeth longest and most prominent. Corolla twice as long as the calyx, handsome, with 2 hairy knobs at the orifice. The whole herb is aromatic, with a faint thyme-like odour.

Gad 2 1805 Published by Jas Sowerby, London

V

45.

ORIGANUM vulgare.
Common Marjoram.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Calyces* collected, by imbricated *bracteæ*, into a spicate, quadrangular *cone*.

SPEC. CHAR. Spikes roundish, panicled, clustered, smooth. Bracteæ ovate, longer than each calyx.

SYN. Origanum vulgare. *Linn. Sp. Pl.* 824. *Sm. Fl. Brit.* 639. *Hudſ.* 262. *With.* 535. *Hull.* 134. *Relh.* 237. *Sibth.* 188. *Abbot.* 132. *Curt. Lond. fasc.* 5. *t.* 39. *Woodv. Med. Bot. t.* 164.
O. vulgare spontaneum. *Raii Syn.* 236.

As a grateful and stimulating aromatic this plant is infinitely more worthy of notice than the preceding, and accordingly is retained, at least among rural practitioners, as well as for culinary uses, though for the latter the more fragrant *O. Majorana* is preferred in the neighbourhood of London.

O. vulgare grows plentifully on chalky or limestone soils, sometimes on gravel, in bushy or woody places, flowering in July and August. The roots are perennial, creeping. Stems square, hairy, leafy, purple. Leaves opposite, ovate, entire, dotted with glandular spots. Spikes numerous, in a terminal cluster or head, each consisting of numerous rose-coloured flowers, with smooth entire purple bracteæ, with which last colour the calyx is also tinged. It cannot be confounded with any other British plant.

Bees are fond of the flowers. The whole herb has a strong fragrant thyme-like smell, and warm pungent taste. Our specimen grew at Charlton. The general colours and appearance of the plant are most elegant in open places and on a chalk soil.

46.

THYMUS Serpyllum.

Wild Thyme.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 2-lipped, its orifice closed with hairs. Upper lip of the *corolla* flat, notched.

SPEC. CHAR. Flowers in small heads. Stems decumbent. Leaves flat, ovate, obtuse; fringed at the base.

SYN. Thymus Serpyllum. *Linn. Sp. Pl.* 825. *Sm. Fl. Brit.* 639. *Huds.* 262. *With.* 536. *Hull.* 133. *Relh.* 237. *Sibth.* 188. *Abbot.* 132. *Curt. Lond. fasc.* 2. *t.* 47.
Serpyllum vulgare. *Raii Syn.* 230.

WILD THYME clothes many a heath and hillock, in dry or gravelly countries, with its purple blossoms during the summer months. Its entangled branches form an elastic turf, and the bruised leaves when trodden upon diffuse a warm aromatic odour. Bees frequent the flowers in great numbers. The flavour of mutton is supposed to be improved by the sheep feeding on this plant.

The roots are fibrous, perennial and creeping. Stems shrubby, slender, branched, procumbent, leafy, downy, often reddish. Leaves elliptic-ovate, flat, entire, obtuse, sprinkled with resinous dots, coarsely fringed at the base, as are also their footstalks throughout. Heads of flowers terminal, leafy. Flowers on shortish hairy stalks. Calyx ribbed, dotted, purple, most hairy underneath; its two lower teeth prominent, narrow and fringed; its mouth closed with dense white hairs. Corolla purple; lower lip variegated, deeply 3-cleft. Stamina divaricated. Seeds not often perfected.

Authors notice several varieties of this species, differing chiefly in size and uprightness. It sometimes occurs very hairy, and is often infested with hairy swellings caused by an insect. The lemon-scented variety is common in gardens, though rarely found wild.

Oct. 1. 1805. Published by Jas. Sowerby, London.

V

47.

THYMUS Acinos.

Basil Thyme.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Calyx* two-lipped, its orifice closed with hairs.

SPEC. CHAR. Flowers on simple flower-stalks, about six in a whorl. Stem ascending, branched. Leaves acute, serrated. Calyx gibbous at the base.

SYN. Thymus Acinos. *Linn. Sp. Pl.* 826. *Huds. Fl. An.* 263. *With. Bot. Arr.* 624. *ed.* 3. *v.* 3. 537. *Relh. Cant.* 235. *Sibth. Ox.* 189. *Curt. Lond. fasc.* 1. *t.* 43. *Dicks. H. Sicc. fasc.* 11. 8.
Acinos multis. *Raii Syn.* 238.

FOUND in dry hilly fields, more especially on a chalky soil, common about Dartford and other parts of Kent, and not rare in Norfolk, flowering in July and August.

Root annual, composed of a tuft of small fibres. Stems branched, spreading in every direction, but the upper parts are erect. Leaves on short footstalks, ovate, varying to roundish or oblong, acute, more or less deeply and copiously serrated, veiny, hairy, as indeed is the whole herb. Ray justly observes that the leaves are sometimes quite entire; very frequently they have only a single notch on each side. The upper ones taper very much at the base. Flowers about 6 in a whorl, each on a footstalk various in length. Calyx swelling at the base on the lower side, deeply furrowed, the prominent ribs fringed with bristly hairs; upper lip erect, in 3 broadish nearly equal segments; lower lip projecting, in 2 narrow sharp ones. The orifice is fringed internally with white hairs, which pointing inwards completely close it when the corolla is fallen, but these hairs are equally evident in *Melissa*. Tube of the corolla dilated upwards; upper lip notched; the lower in three blunt segments, the middle one obcordate, marked at the base with white, and a spot or two of darker purple than the rest of the flower.

This plant is aromatic, though sometimes very slightly so.

The swelling at the base of the calyx, observed by Mr. Curtis, is to be found also in T. *alpinus*, though not so considerable.

48.

THYMUS Calamintha.

Common Calamint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 2-lipped, its orifice closed with hairs. Upper lip of the *corolla* flat, notched.

SPEC. CHAR. Whorls on footstalks, forked, many-flowered. Leaves with shallow serratures. Hairs in the mouth of the calyx not prominent.

SYN. Thymus Calamintha. *Sm. Fl. Brit.* 641. *Relh.* 238.
Melissa Calamintha. *Linn. Sp. Pl.* 827. *Huds.* 263. *With.* 538. *Hull.* 135. *Sibth.* 189. *Abbot.* 133.
Calamintha vulgaris. *Raii Syn.* 243.

THIS kind of Calamint occurs here and there about the borders of fields, hedge banks and road sides, on a gravelly soil, but is seldom found in any quantity together. It flowers from August to the very end of Autumn, and is perennial.

Though evidently distinct from *T. Nepeta, t.* 1414, and remarkable for its peculiar sweet and fragrant scent, the specific difference is not easily defined. The leaves of this are larger, with smaller serratures. Stem more constantly erect and bushy. Lower flowerstalks shorter than the leaves, and not so repeatedly nor regularly dichotomous as in the other. The white hairs which close the orifice of the calyx are by far less prominent, as well as less dense and conspicuous, than in *T. Nepeta.* The upper lip of the corolla is slightly concave, with reflexed edges.

The flavour of this species is much less like Pennyroyal. Its infusion is of a wholesome stomachic quality, and may be used as tea, like mint, balm or sage.

Dec. 1806. Published by Jas. Sowerby, London.

49.

THYMUS Nepeta.

Lesser Calamint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 2-lipped, its orifice closed with hairs. Upper lip of the *corolla* flat, notched.

SPEC. CHAR. Whorls on foot-stalks, forked, many-flowered, longer than the leaf. Leaves serrated. Hairs in the mouth of the calyx prominent.

SYN. Thymus Nepeta. *Sm. Fl. Brit.* 642. *Relh.* 239.

Melissa Nepeta. *Linn. Sp. Pl.* 828. *Huds.* 263. *With.* 538. *Hull.* 135. *Sibth.* 190. *Curt. Lond. fasc.* 6. *t.* 40.

Calamintha odore Pulegii. *Raii Syn.* 243.

A NATIVE of dry calcareous hills and banks, about villages and by road sides, where it is generally found in abundance if at all. Our specimens were gathered near Saham church, Norfolk. It is a perennial plant, and flowers copiously in August and September.

Root somewhat creeping. Stems ascending, branched, square, rough, as is the whole herb. Leaves on foot-stalks, ovate, with a few broad serratures. Flower-stalks axillary, repeatedly forked, many-flowered, greatly exceeding in length their corresponding leaves. Bracteæ setaceous, in pairs at each fork of the stalks. Calyx-teeth all spreading; the 2 lowermost setaceous and longer than the others. White hairs very dense and prominent in the mouth of the calyx, which they close like a mouse-trap. Corolla variegated with pale purple and white, externally downy. The hairs on the stem and flower-stalks all point backwards, the rest in a contrary direction. Every part is pungently aromatic, like Penny-royal, but much more agreeable, and makes a pleasant stomachic tea for those who relish the mint flavour at all.

The spreading upper teeth of the calyx, so different from the peculiar structure of the true *Melissa*, and the copious hairs in its mouth, as well as the whole habit, surely authorize the removal of this plant and the *Calamintha* to *Thymus*.

Feb.y 1 1805. Published by Jas Sowerby London

J '

50.

MELITTIS Meliſſophyllum.

Reddiſh Baſtard-Balm.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* unequal, wider than the tube of the corolla. *Cor.* upper lip flat; lower three-lobed, crenate. *Antheræ* cohering croſs-wiſe.

SPEC. CHAR. Calyx three-lobed.

SYN. Melittis Meliſſophyllum. *Linn. Sp. Pl.* 832. *Hudſ.* 264. *With.* 539.
Meliſſa Fuchſii. *Raii Syn.* 242. *Camer. Hort. t.* 30.

THIS beautiful plant is found in woods and hedges in ſeveral parts of the Weſt of England; Ray ſays about Totneſs, Devonſhire, and Haverford-weſt, Pembrokeſhire; and Hudſon in the New Foreſt. Specimens gathered by Mr. Lightfoot in St. Leonard's Foreſt, Suſſex, and near Netley Abbey, Hampſhire, are in his herbarium at Frogmore, and exactly agree with ours, which is the produce of a root brought by Mr. Hudſon from the Weſt to Chelſea-garden, where it continues unaltered by culture. Another moſt diſtinct ſpecies, whoſe calyx is four-lobed, and corolla different in ſize and colour from this, has been figured by Mr. Curtis as the Engliſh kind, *Fl. Lond. faſc.* 6. *t.* 39. If therefore he has not confuſed himſelf with a garden ſpecimen, there are two ſpecies of *Melittis* in England, which we ſhall take an opportunity of aſcertaining further when in our power. Hitherto we have never ſeen authentic ſpecimens of any other than this, the true M. *meliſſophyllum* of Linnæus.

It is perennial, and flowers in May. The whole herb has, when freſh, rather an offenſive ſmell; when dried it ſmells like new hay, as is the caſe alſo with the other, which we beg leave to call M. *grandiflora*.

Root fibrous. Stems upright, ſimple, 18 inches high, leafy, ſquare, hairy. Leaves oppoſite, on footſtalks, ovate, ſerrated, hairy, ſometimes obtuſe. Flowers axillary, about 3 on each ſide, and often leaning one way. Calyx campanulate, ample, coloured, three-lobed; the upper lobe longeſt, acute, often dentate on each ſide; the ſide-ones equal, pointed or notched. Corolla large, handſome, externally fleſh-coloured, internally whitiſh, the lip marked with a divided crimſon ſpot.

51.

MELITTIS grandiflora.

Purple and white Baſtard-Balm.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* unequal, wider than the tube of the corolla. *Cor.* upper lip flat; lower three-lobed, crenate. *Antheræ* cohering croſs-wiſe.

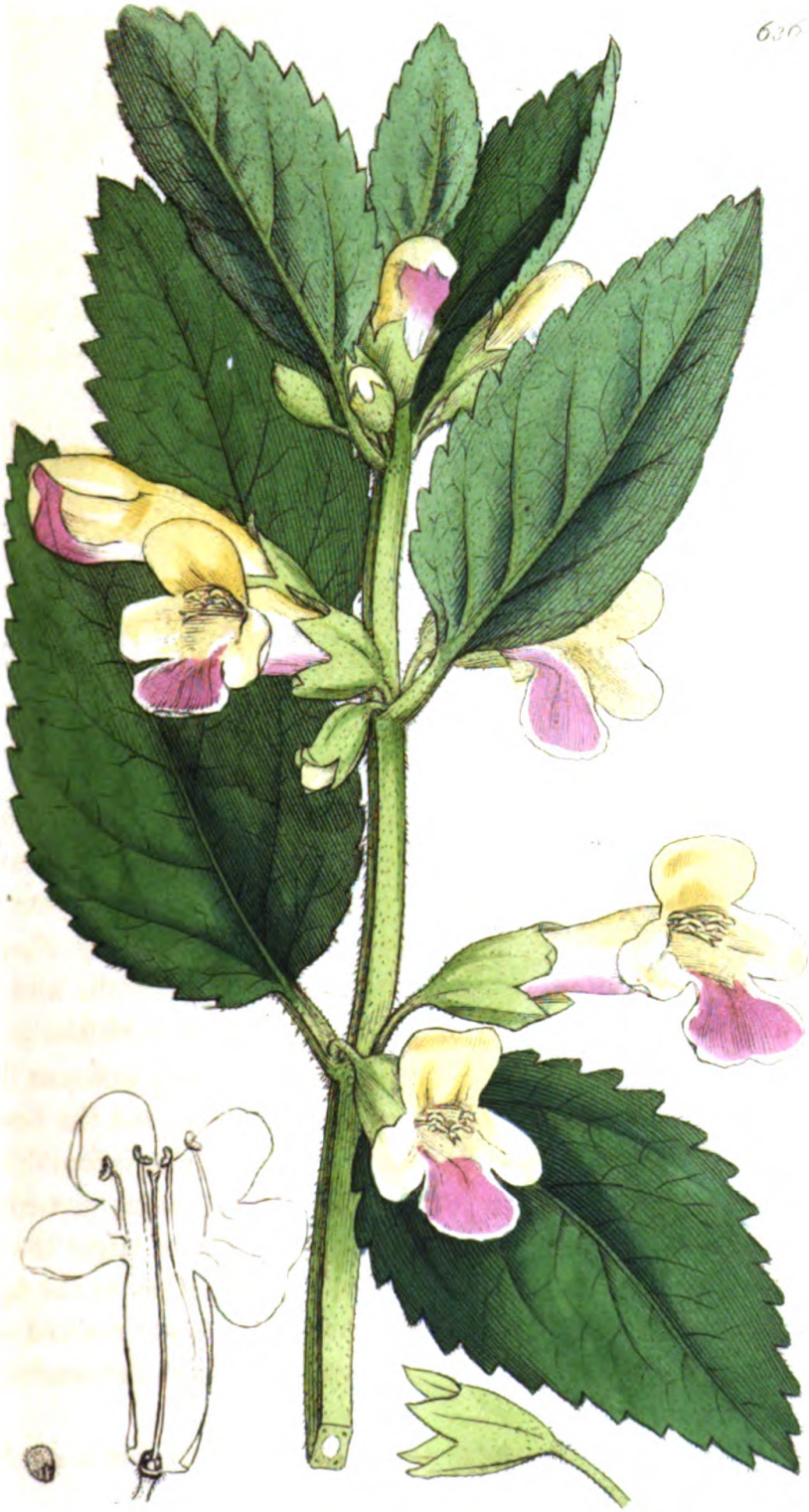
SPEC. CHAR. Calyx four-lobed.

SYN. Melittis Meliſſophyllum. *Curt. Lond. faſc.* 6, *t.* 39. *Mill. Illuſtr. t.* 52.

Melitſa Fuchſii flore albo. *Ger. em.* 690.

WITH great pleaſure we here confirm the ſuſpicion advanced in p. 5[illegible] of this work, that there are two ſpecies of *Melittis* natives of England. The wild ſpecimen here delineated was gathered in the middle of June laſt by Mr. D. Turner and Mr. Sowerby, who found the plant in great plenty about a mile from Ashburton in the road towards Plymouth, and alſo in Cornwall. This is what Mr. Curtis has publiſhed as the real M. Meliſſophyllum. It is indeed not very different from that [illegible] in habit, ſcent, or form of leaves; but the flowers afford [illegible] marks of diſtinction. The calyx is four-lobed, having on each ſide a lateral not vertical lobes, ſometimes [illegible], but more generally entire. Corolla larger than in the other kind, white, with a pale tinge of yellow in the upper part, the upper [illegible] ſlightly emarginate, the lower marked with a large [illegible] purple or violet-coloured ſpot, ſurrounded by a [illegible] margin.

[illegible] ornamental plant, eaſily cultivated in a moiſt or [illegible]



SCUTELLARIA galericulata.

Common Skull-cap.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* rim nearly entire, closed and covered with a lid after flowering.

SPEC. CHAR. Leaves heart-lanceolate, crenate, rugged. Flowers axillary.

SYN. Scutellaria galericulata. *Linn. Sp. Pl.* 835. *Hudſ.* 265. *With.* 540. *Relh.* 236. *Sibth.* 190. *Curt. Lond. faſc.* 2. *t.* 36.

Caſſida paluſtris vulgatior, flore cæruleo. *Raii Syn.* 244.

COMMON about ditches and reedy rivulets, flowering in July and Auguſt.

The root is perennial and creeping. Stem erect, generally branched about the middle, thickly clothed with leaves to the top, ſquare, roughiſh. Leaves oppoſite, ſpreading, on ſhort footſtalks, lanceolate, heart-ſhaped at the baſe, regularly and equally crenate to very near the point, rugged, veiny, clothed with very ſhort hairs, paler beneath. Stipulæ none. Flowers axillary, ſolitary, almoſt ſeſſile, a little drooping. Calyx hairy, ſlightly notched, furniſhed on the upper ſide with a ſmall concave ſcale, which, after the corolla falls, is enlarged and overtops the already cloſed orifice. Corolla tubular, ringent, but not gaping, hairy, blue, the palate ſtreaked with white, the tube pale and purpliſh. Stamina and ſtyle white. Stigma ſimple. The two oppoſite flowers generally droop together on the ſame ſide of the ſtalk.

This genus is eaſily diſtinguiſhed by the ſingular ſtructure of its calyx, which in its advanced ſtate has been compared to a helmet, and ſerves as a capſule for the ſeeds, which are naturally four, though ſeldom all perfected, the plant being principally increaſed by its root.

SCUTELLARIA minor.

Lesser Skull-cap.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* rim nearly entire, closed and covered with a lid after flowering.

SPEC. CHAR. Leaves heart-ovate, nearly entire. Flowers axillary.

SYN. Scutellaria minor. *Linn. Sp. Pl.* 835. *Hudſ.* 265. *With.* 540. *Curt. Lond. faſc.* 4. *t.* 43. *Dickſ. H. Sicc. faſc.* 5, 6.

Caſſida paluſtris minima, flore purpuraſcente. *Raii Syn.* 244.

A MUCH rarer plant than the laſt. It is however found on ſeveral moiſt heaths near London, as well as in Norfolk, and the more mountainous counties, flowering about Auguſt.

Root creeping, perennial. Whole habit much reſembling the S. *galericulata*, but it is in every part a ſmaller plant; the ſtem is branched more from the bottom, the leaves broader in proportion to their length, and not rugged; they are for the moſt part perfectly entire, though ſometimes found with a deep notch or two at their baſe, ſo as to become ſomewhat haſtate. This variety was firſt pointed out to us on Barnes Common by G. Hibbert, Eſq. F.L.S. Mr. Curtis has figured the entire leaves only. The flowers are not half ſo large as in the *galericulata*, and of a delicate pink colour, rarely blueiſh; their lip white ſpotted with red.

This haſtate variety confirms the accuracy of Linnæus's remark concerning the great affinity between this ſpecies, the *galericulata*, and the *haſtifolia*. The latter indeed cannot be confounded with this, having real haſtate leaves, and being as large in all its parts as the *galericulata*, from which it is known at firſt ſight by the leaves not being crenate.

PRUNELLA vulgaris.

Self-heal.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Filaments* forked, one point bearing the *anthera*. *Stigma* cloven.

SPEC. CHAR. All the leaves ovate-oblong, on footstalks.

SYN. Prunella vulgaris. *Linn. Sp. Pl.* 837. *Sm. Fl. Brit.* 646. *Hudſ.* 264. *With.* 541. *Hull.* 134. *Relh.* 236. *Sibth.* 190. *Abbot.* 133. *Curt. Lond. faſc.* 4. *t.* 42. *Mart. Ruſt. t.* 137.

Prunella. *Raii Syn.* 238.

THE common *Prunella* grows in open airy paſtures, flowering in July and Auguſt. The meaning of the Engliſh name *Self-heal* is not very clear, and *ſelf* probably is a corruption of ſome word now forgotten; perhaps *ſlough*, for the healing powers of the herb are particularly celebrated in ſore throats and ulcers of the mouth and fauces; which Ray tells us are called *Die Breune* in German. Hence comes the name *Brunella*, ſoftened by Linnæus into *Prunella*, but ſtill confeſſing its barbarous origin.

Root fibrous, or rather ſomewhat creeping, perennial. Stems from 6 to 10 inches high, branched chiefly below, ſquare, rough with erect hairs, leafy. Leaves ovate, or oblong, bluntiſh, entire or ſlightly waved, hairy. Spikes terminal, ſolitary, cylindrical, blunt, denſe, furniſhed with a pair of nearly ſeſſile leaves at their baſe. Each whorl of flowers is accompanied by a pair of kidney-ſhaped waved coloured bracteæ. Calyx cloſed when in fruit, its upper lip remarkably abrupt and broad, with 3 ſmall teeth; lower cloven. Corolla of a violet hue, occaſionally red or white. The middle ſegment of its lower lip is toothed as in *Nepeta*, but the forked ſtamina ſufficiently diſcriminate the genus before us.


Drawn & published by J. Sowerby London.

V

55.

BARTSIA alpina.

Alpine Bartsia.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Calyx* in 4 lobes, coloured. *Cor.* ringent, with a contracted orifice: upper lip notched, concave, longest; lower in 3 nearly equal lobes. *Caps.* ovate, compressed, with 2 cells, and many angular seeds.

SPEC. CHAR. Leaves opposite, heart-shaped, bluntly serrated.

SYN. Bartsia alpina. *Linn. Sp. Pl.* 839. *Huds. Fl. An.* 267. *With. Bot. Arr.* 633. *Dicks. H. Sicc. fasc.* 10. 14.

Euphrasia rubra Westmorlandica, foliis brevibus obtusis. *Raii Syn.* * 285.

Clinopodium alpinum. *Ger. em.* 676.

THE wild recent specimens of this very rare plant, from which our drawing was taken, were gathered July 27, 1796, near Middleton in Teesdale, Durham, by the Rev. Mr. Harriman, and Mr. Oliver surgeon, of Middleton, and sent us by our liberal correspondent Mr. E. Robson. Ray and Hudson found this Bartsia near Orton in Westmorland, and Mr. Dickson first observed it in Scotland. It prefers a moist stony soil, on the borders of alpine rills, or little boggy spots in the interstices of rocky precipices, flowering after the middle of summer, and soon ripening its seed.

The root is perennial and creeping. Stems from 4 to 8 inches high, erect, simple, square, clothed from top to bottom with several pair of opposite sessile leaves, which are ovate or heart-shaped, acute, strongly serrated and veined, smooth above, hairy beneath; the lowermost are very small; the uppermost coloured with purple, and out of the bosoms of these the flowers arise solitary, on very short flower-stalks, forming a terminal leafy spike. The calyx is viscid and hairy, in 4 nearly equal segments, tipped with purple. Corolla of a violet purple, thrice as long as the calyx, compressed, clothed with glandular viscid hairs; the lower lip reflexed. Antheræ prominent, very hairy. Style projecting beyond the stamina, with a blunt stigma. Capsule ovate, downy, of two valves, with a transverse partition arising from each. Seeds numerous, angular, with membranous striated angles, more akin to those of *Rhinanthus* than to those of *Melampyrum*, with which last genus the flower of *Bartsia* has great affinity.

The whole herb turns very black in drying, especially when gathered young.

56.

BARTSIA viſcoſa.

Yellow Viſcid Bartſia.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Cal.* in 4 lobes, moſtly coloured. *Cor.* ringent, with a contracted orifice: *upper lip* concave, longeſt; *lower* in 3 equal reflexed lobes. *Capſ.* ovate, compreſſed, with 2 cells, and many angular *ſeeds*.

SPEC. CHAR. Leaves ſerrated: the upper ones alternate. Flowers lateral and diſtant. Antheræ hairy.

SYN. Bartſia viſcoſa. *Linn. Sp. Pl.* 839. *Sm. Fl. Brit.* 648. *Hudſ.* 267. *With.* 541. *Hull.* 136. *Lightf.* 321. *t.* 14. *Dickſ. Dr. Pl.* 72.

Euphraſia major lutea latifolia paluſtris. *Raii Syn.* * 285.

GATHERED by S. Hailſtone, eſq. near Blackpool and Scareſbrick, Lancaſhire, flowering in July and Auguſt. It is one of our rareſt plants, having been found chiefly in marſhy parts of Devonſhire and Cornwall, and in Argylſhire.

Root annual. Herb downy and viſcid, drying black. Stem almoſt always ſimple, erect, various in height, round, leafy. Leaves ſeſſile, oblong or ſomewhat ovate, ribbed, rough, deeply toothed or ſerrated; the lowermoſt oppoſite; the reſt alternate. Flowers axillary, ſolitary, nearly ſeſſile. Calyx tubular, ribbed, regular, pale or whitiſh at the baſe. Corolla yellow; its upper lip undivided; lobes of the lower obtuſe, nearly equal, ſtriped at their baſe. Antheræ hairy, with 2 ſharp lobes. Capſule ovate, ribbed, purpliſh, hairy, eſpecially upwards. Seeds very numerous, minute, ſomewhat angular, by no means either compreſſed or winged.

Great difficulties attend the generic diſcrimination of *Bartſia*, *Rhinanthus*, *Melampyrum* and *Euphraſia*. We are not ſure that *Rhinanthus Trixago* of Linnæus is not the very ſame thing with his and our *Bartſia viſcoſa*; but we are certain our plant cannot be a *Rhinanthus* on account of the ſeeds, which, with the antheræ, afford the beſt marks for diſtinguiſhing theſe genera.

57.

BARTSIA Odontites.

Red Bartsia.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 4 lobes, mostly coloured. *Cor.* ringent, with a contracted orifice: *upper lip* concave, longest; *lower* in 3 equal reflexed lobes. *Caps.* ovate, compressed, with 2 cells, and many angular *seeds.*

SPEC. CHAR. Leaves lanceolate, serrated; the upper ones alternate. Flowers racemose, leaning one way. Antheræ smoothish.

SYN. Bartsia Odontites. *Huds.* 268. *Sm. Fl. Brit.* 648. *Relh.* 240.

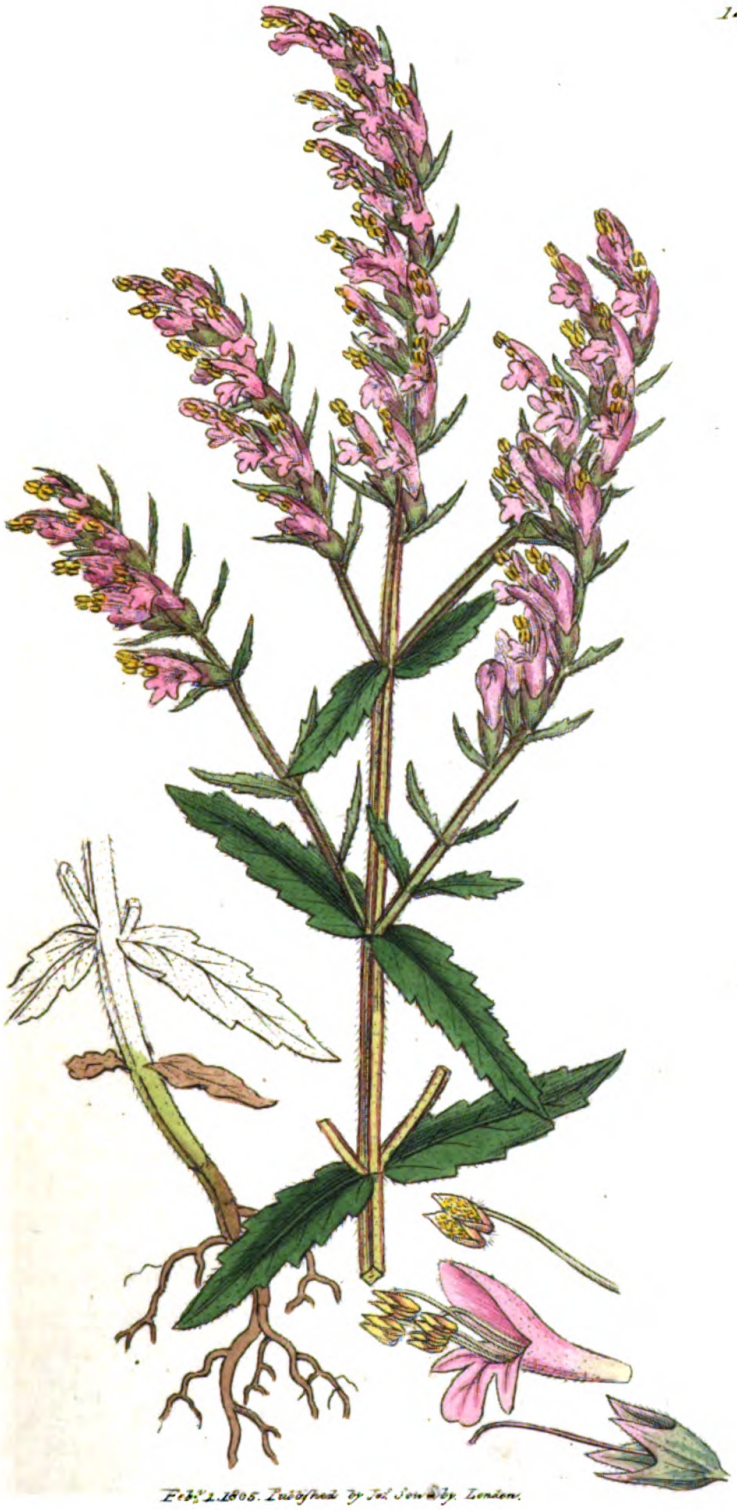
Euphrasia Odontites. *Linn. Sp. Pl.* 841. *With.* 543. *Hull.* 137. *Sibth.* 192. *Abbot.* 135. *Curt. Lond. fasc.* 1. *t.* 44. *Mart. Rust. t.* 42.

E. pratensis rubra. *Raii Syn.* *284.

THIS plant is not uncommon in corn fields, as at Battersea, &c., flowering in July and August. It prefers rather a strong and moist soil, and is most abundant on those cold clay springy grounds that hold too much water in winter.

Root fibrous, annual. Stem square, oppositely branched, rough with deflexed hairs. Leaves sessile, lanceolate, spreading, serrated, rough, opposite except the floral ones. Clusters terminal, long, leafy. Flowers all leaning one way, sessile. Calyx hairy, purplish, sometimes 5-cleft. Corolla of an elegant rose-colour, hairy; its upper lip undivided; lower in 3 not very unequal lobes. Antheræ large, smooth in front, more or less hairy at the back only, ending at the base in 2 little points. Style sometimes smooth, often hairy. Capsule a little compressed, hairy. Seeds numerous, small, angular, striated.

The undivided upper lip, the entire lobes of the lower, the want of long spines to the antheræ, and the angular (though striated) seeds, induce me to follow Hudson in the genus of this plant.



Feb.y 1. 1805. Published by Jas. Sowerby, London.

58.

RHINANTHUS Crista-galli.

Yellow Rattle.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* inflated, 4-toothed. Upper lip of the *Corolla* compressed. *Caps.* of 2 cells, blunt, compressed. *Seeds* imbricated, flat.

SPEC. CHAR. Upper lip of the corolla arched. Calyx smooth. Leaves lanceolate, serrated.

SYN. Rhinanthus Crista-galli. *Linn. Sp. Pl.* 840. *Hudſ.* 268. *With.* 542. *Hull.* 137. *Relh.* 238. *Sibth.* 192. *Abbot.* 134. *Curt. Lond. fasc.* 5. *t.* 43. *Mart. Fl. Rust. t.* 148.

Pedicularis, seu Crista galli lutea. *Raii Syn.* *284.

FREQUENT in meadows and pastures, flowering in June. Root fibrous, annual. Stem upright, a foot or more in height, branched, smooth, quadrangular, leafy, often spotted with red. Leaves opposite, sessile, lanceolate, heart-shaped at the base, rough, very sharply serrated. Spike terminal, leafy. Flowers not always strictly opposite, on short stalks. Calyx bladdery, with strong ribs and a net-work of veins, of a pale greenish yellow, smooth, permanent; its orifice contracted. Corolla twice as long as the calyx, yellow; its upper lip arched, compressed, tipped with 2 blue spots; its lower in 3 equal lobes. Antheræ awn-less, but very hairy. Capsule dry and membranous. Seeds with a membranous border.

This plant, though to be found in almost every hay-stack, is supposed not to be of any peculiar agricultural use.

We cannot clearly distinguish which of Ehrhart's 2 species of *Rhinanthus* (see Dr. Hull's *Flora*) this may be. Ours has generally a spotted stem, and the calyx is smooth, if by that term is meant its being free from hair, *glaber*; if free from inequality, *lævis*, it is not so. The style is in an early state shorter than the corolla, afterwards often longer.

We know not Dillenius's plant, the β of Hudson, nor whether it may be Ehrhart's *R. major* or *minor*.

59.

EUPHRASIA officinalis.

Eye-Bright.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* cylindrical, 4-toothed, equal. *Upper lip* of the *corolla* divided; *lower* of 3 cloven lobes. *Antheræ* bearded with unequal spines. *Caps.* ovate-oblong. *Seeds* striated.

SPEC. CHAR. Leaves ovate, furrowed, sharply toothed.

SYN. Euphrasia officinalis. *Linn. Sp. Pl.* 841. *Sm. Fl. Brit.* 650. *Huds.* 269. *With.* 543. *Hull.* 136. *Relh.* 242. *Sibth.* 192. *Abbot.* 134. *Curt. Lond. fasc.* 5. *t.* 42. *Woodv. Suppl. t.* 220.

Euphrasia. *Raii Syn.* *284.

"FAM'D Euphrasy may not be left unsung,
That gives dim eyes to wander leagues around."

So at least thought Shenstone's shool-mistress, and we wish experience could confirm the tale of antient times, which seems to have arisen from the brillant eye-like blossoms of this little plant, which do indeed attract the sight at a considerable distance; and their beauty gratifies the sense, if their virtues cannot supply the defect of it.

Root small, fibrous and annual. Stem from 2 to 4 or 5 inches high, various in luxuriance, generally branching from the bottom, rough, often purplish. Leaves sessile, ovate, deeply toothed or serrated, rough, marked with strong lines where the veins run. Flowers about the top of the stem, axillary, sessile, solitary. Calyx angular, rough. Corolla various in size and colour, generally white striped with purple, and stained with yellow in front. It is often remarkable for size and beauty in dwarf plants, and in alpine situations. Each of the antheræ is armed with an unequal pair of spines at bottom. The seeds are few, small, striated, slightly angular.

Eye-bright grows on dry mountainous barren ground, and flowers throughout the autumn.

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MELAMPYRUM cristatum.

Crested Cow-wheat.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compressed, turned back at the margin. *Capsule* two-celled, oblique, bursting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes quadrangular. Bracteæ heart-shaped, imbricated, compact, denticulated.

SYN. Melampyrum cristatum. *Linn. Sp. Pl.* 842. *Hall. Fl. An.* 269. *With. Bot. Arr.* 638. *Relh. Cant.* 240.

Melampyrum cristatum, flore albo & purpureo. *Ray Syn.* *286.

COMMUNICATED from Madingley wood, Cambridgeshire, by the Rev. Mr. Sutton.

The species of this genus, although for the most part remarkably elegant when living, are equally remarkable for turning black or brown in drying, so that they make a very poor appearance in a hortus siccus. The kind here figured grows in the borders of woods, or in corn-fields. Its root is annual, from very much branched and bushy. The spikes of flowers are very ornamental, though less so than those of some other species. The corolla is occasionally purple, or white marked with yellow and purple. The seeds of this genus have a remarkable resemblance to grains of wheat, on which account we prefer the old English name to that of Cow-wheat, given by Dr. Stokes.

J. Sowerby del. et sc. 1791.

√

61.

MELAMPYRUM arvenſe.

Purple Cow-wheat.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compreſſed, turned back at the margin. *Capſule* two-celled, oblique, burſting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes conical, looſe. Bracteas fringed with narrow taper teeth.

SYN. Melampyrum arvenſe. *Linn. Sp. Pl.* 842. *Hudſ. Fl. An.* 270. *With. Bot. Arr.* 638. *Dickſon's Dried Plants, No.* 74.

M. purpuraſcente coma. *Raii Syn.* * 286.

THIS, though a rare plant, occurs occaſionally in corn-fields in ſeveral parts of England, flowering in July and Auguſt. Our ſpecimen came from Coſteſy, near Norwich, and was obligingly communicated by Mr. Pitchford. Few flowers excel it in beauty; nor is it much inferior in this reſpect to the Melampyrum nemoroſum, of which Linnæus obſerves, with a kind of triumph, that it grows in Sweden, though not in England. We are ſcarcely, indeed, worthy to poſſeſs the M. arvenſe; for its charms, however ſtriking, have never procured it admiſſion into a flower-garden, though it may eaſily be raiſed from freſh ſeed on a dry gravelly ſoil. The root is annual. The ſeeds reſemble very much grains of wheat.

62.

MELAMPYRUM pratenſe.

Common Yellow Cow-wheat.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compreſſed, turned back at the margin. *Capſule* two-celled, oblique, burſting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Flowers lateral, leaning one way. Leaves in diſtant pairs. Corolla cloſed.

SYN. Melampyrum pratenſe. *Linn. Sp. Pl.* 843. *Lightf. Fl. Scot.* 324. *With. Bot. Arr.* 639.

M. ſylvaticum. *Hudſ. Fl. An.* 270.

M. ſylvat. flore luteo, ſive ſatureja lutea ſylveſtris. *Raii. Syn.* * 286.

MANY people, with the late Mr. Hudſon**, miſtake this for the M. ſylvaticum, apparently becauſe it grows generally in groves and thickets; but the true ſylvaticum is a native chiefly of alpine foreſts, and has much ſmaller flowers, the orifice of whoſe corolla is much more gaping.

Root branched, annual. Stem ſlender, divided into ſeveral oppoſite ſpreading branches, the largeſt uppermoſt, the terminal one firſt producing ſeveral pairs of flowers, accompanied towards the top by dentated purpliſh bracteæ. Corolla pale at the baſe, deep yellow towards the tip, its upper lip fringed with denſe hairs, the lower one ſtraight, not bent downwards as in M. ſylvaticum, as Dr. Stokes well obſerves. Palate with two deep yellow elevated plaits. The antheræ cohere together at their tips.

Linnæus ſays, the beſt and yelloweſt butter is made where this plant abounds. All authors have copied him, and we do not ſcruple to do the ſame, in hopes that ſomebody will in time be induced to make experiments on the ſubject in England, where this plant is far from uncommon, flowering all Summer long.

** The celebrated author of the Flora Anglica, after repeated paralytic attacks, departed this life May 23, 1793. His memory requires no ſtudied eulogium here, as every page of the preſent work is an index to his labours. May the writer of this leave no more errors behind him, as an author, or as a man!

MELAMPYRUM ſylvaticum.

Wood Cow-wheat.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Cal.* tubular, 4-cleft. Upper lip of the *corolla* compreſſed, turned back at the margin. *Capſ.* 2-celled, oblique, burſting at one edge. *Seeds* 2, gibbous.

SPEC. CHAR. Flowers lateral, leaning one way. Leaves in diſtant pairs. Corolla open, with its lip bent downwards.

SYN. Melampyrum ſylvaticum. *Linn. Sp. Pl.* 843. *Sm. Fl. Brit.* 653. *Lightf.* 325. *With.* 546. *Hull.* 137. *Fl. Dan. t.* 145.

IT appears that this *Melampyrum* was not known to Mr. Hudſon. What he called *M. ſylvaticum* is the common *pratenſe*, ſee our *t.* 113; and his *pratenſe*, adopted from Ray, is undoubtedly, as Dr. Withering firſt ſuggeſted, only a variety of the ſame. Mr. Lightfoot's herbarium proves the Scottiſh *ſylvaticum* to be right, and our wild ſpecimens ſent from the county of Durham by the Rev. Mr. Harriman, as well as others from Mr. Robſon, are the real plant of Linnæus. It occurs only in mountainous woods or foreſts, flowering in July, and the root is annual.

This is rather ſmaller than *M. pratenſe*, with which it otherwiſe much agrees in appearance. The ſtem however is roughiſh; leaves more conſtantly undivided; flowers but about half the ſize of that ſpecies, and of a fuller yellow, orange coloured at the mouth. The eſſential character conſiſts in that part being pervious, not cloſed, the upper lip being a little elevated, and the lower hanging ſtraight down, not projecting horizontally. The teeth of the calyx are dilated at their baſe, and the capſule is marked with a net-work of prominent veins. Sometimes the ſeeds are ſolitary in each cell, though moſt frequently in pairs.

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64.

LATHRÆA Squamaria.

Greater Tooth-wort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Calyx* four-cleft. A depressed *gland* at the base of the suture of the germen. *Capsule* of one cell.

SPEC. CHAR. Stem perfectly simple. Flowers pendulous; their lower lip three-cleft.

SYN. Lathræa Squamaria. *Linn. Sp. Pl.* 844. *Hudſ. Fl. An.* 266. *With. Bot. Arr.* 642.

Anblatum Cordi ſive Aphyllon. *Raii Syn.* 288*.

GATHERED by the Earl of Gainſborough, in the neighbourhood of his Lordſhip's ſeat at Exton, near Stamford. The flowers appear in April, emerging from decayed leaves of trees, among which the plant is moſtly found half buried. The root is paraſitical, and is generally attached to the roots of elms, haſels, or ſome other tree, in a ſhady ſituation.

Having lately (tab. 48.) given a figure of the Ophrys Nidus avis, we now exhibit the preſent plant as another of thoſe connecting links which combine ſome families of vegetables in many reſpects differing widely from each other. By theſe two ſpecies we can trace a line of affinity between the *Didynamia Angioſpermia* of Linnæus, and the natural order of *Orchideæ*.

The name *Tooth-wort* is derived from the reſemblance of the ſcaly roots of this plant to the human fore-teeth; for which reaſon it *muſt* be good for the tooth-ach,

"As wiſe philoſophers have judg'd!"

65.

PEDICULARIS palustris.

Marsh Lousewort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* (mostly) with 5 clefts. *Caps.* pointed, oblique, with 2 cells. *Seeds* few, angular, pointed.

SPEC. CHAR. Stem solitary, branched. Calyx ovate, hairy, ribbed, in two notched divisions.

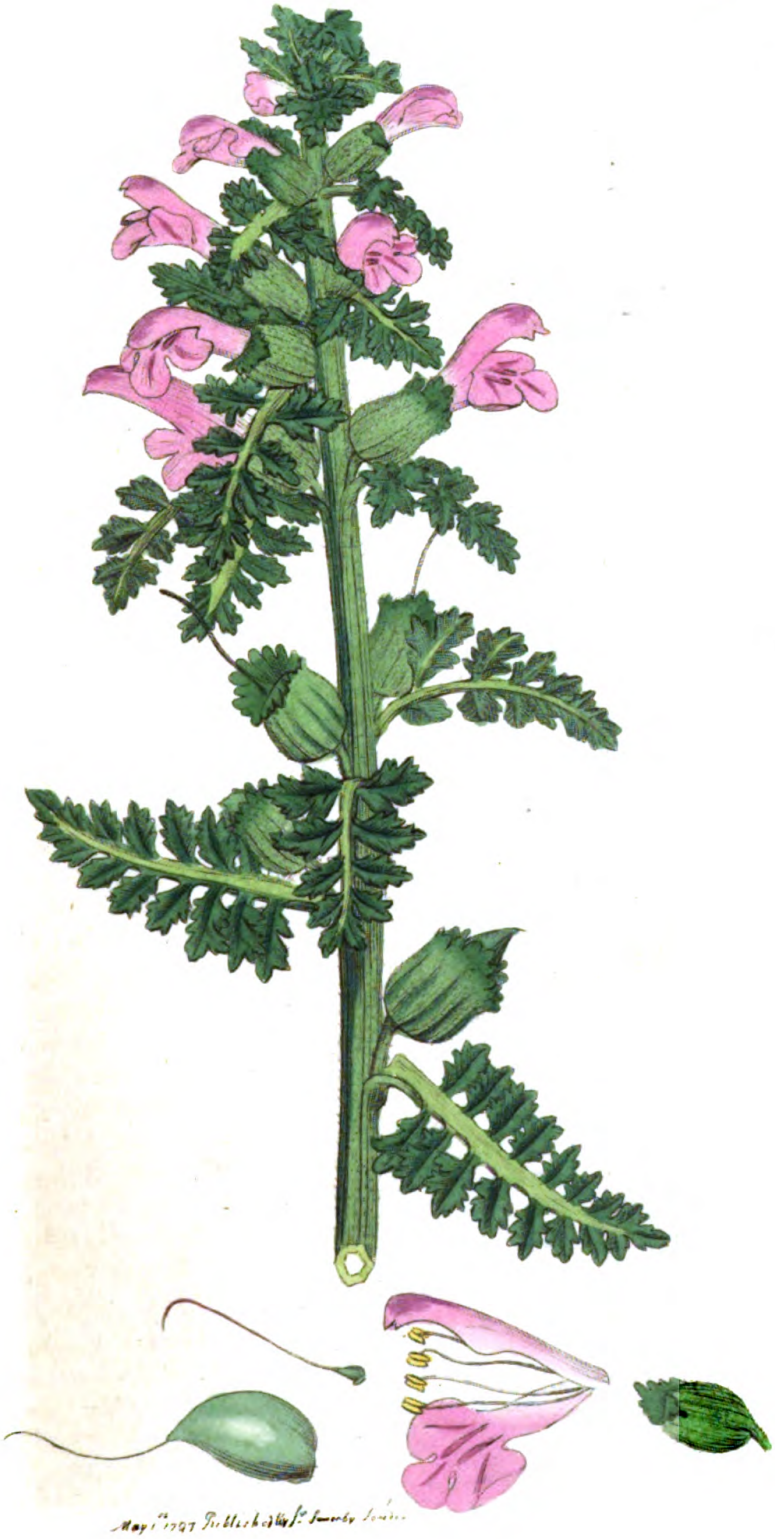
SYN. Pedicularis palustris. *Linn. Sp. Pl.* 845. *Huds. Fl. An.* 270. *With. Bot. Arr.* 643. *Relh. Cant.* 241. *Sibth. Ox.* 193.

P. palustris rubra elatior. *Raii Syn.* *284.

BY no means unfrequent in boggy meadows, flowering in June and July. We believe it to be, as most authors assert, perennial; though both this and the following are marked as annuals in Ray's Synopsis.

Root small. Stem solitary, erect, 12 to 15 inches high, angular, consisting of one principal branch and many smaller spreading lateral ones, which spring irregularly from the bottom to the top. The angles are hairy. Leaves scattered, here and there opposite, bipinnatifid and notched; the segments obtuse, varying much in breadth, their margins often recurved. Flowers axillary, solitary, on short flower-stalks, purple, very handsome. Calyx inflated, ovate, ribbed, hairy, its margin divided perpendicularly into two leafy lobes, very much cut and notched; but this part can scarcely be said to be 5-lobed, as the Linnæan generic character requires. Corolla ringent; the tube white; upper lip much compressed, vaulted, purple with a deeper stain at the summit, tipped with 2 minute teeth, but scarcely emarginate; lower lip oblique, in 3 large spreading purple lobes, each streaked with a red line, and minutely fringed with white. Stamina inserted into the bottom of the tube. Germen ovate. Style incurved. Stigma simple. Capsule ovate, compressed, when ripe projecting, with its sharp oblique beak, beyond the permanent calyx. Partitions contrary to the valves. Seeds about 5 or 6 in each cell. We have spent a great deal of time to no purpose in looking for the tunic of the seeds, mentioned by Linnæus, and we find Gærtner denies its existence, at the same time describing a minute membranous appendage in *P. verticillata*, which may perhaps have been what Linnæus had seen more conspicuous in other species.

P. palustris is an acrid useless weed, which cattle will not touch.



May 1st 1797 Pubd by Sowerby London

PEDICULARIS sylvatica.

Pasture Lousewort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* (mostly) with 5 clefts. *Caps.* pointed, oblique, with 2 cells. *Seeds* few, angular, pointed.

SPEC. CHAR. Stems several, spreading, simple. Calyx oblong, angular, smooth, in five unequal notched segments.

SYN. Pedicularis sylvatica. *Linn. Sp. Pl.* 845. *Huds. Fl. An.* 271. *With. Bot. Arr.* 644. *Relh. Cant.* 241. *Sibth. Ox.* 194.

P. pratensis rubra vulgaris. *Raii Syn.* *284.

RATHER more frequent with us than the last, inhabiting moist pastures and heaths in hilly situations chiefly, and flowering in June and July. It is remarkable that this is, according to Mr. Davall, extremely rare in Switzerland, where so many magnificent species of *Pedicularis*, total strangers to Britain, abound.

Root perennial, strong and thick. Stems several, about 3 or 4 inches high, the central one erect, the rest procumbent, all angular, the angles slightly hairy. Leaves alternate, bipinnatifid and notched as in the last, but the floral leaves are less compound than the rest. From the crown of the root arises a circle of ovate, undivided, recurved, crenate leaves, not to be found in *P. palustris*. Flowers axillary, solitary, rose-coloured, of a more uniform hue than in the preceding kind, but of an elegant appearance as they peep from the side-branches out of the surrounding short grass. Calyx tubular, but little inflated, smooth, with 4 larger and 4 smaller angles alternately: the margin in 5 segments, 4 of which are notched, the fifth smaller, and opposite to the deepest fissure. Corolla like the preceding, but the lower lip is more equally divided, and not fringed. In the rest of the fructification they nearly agree.

We are obliged for many of these remarks to the Rev. Mr. Baker, F. L. S. of Gloucestershire, a most accurate and candid botanist, whose communications have often enriched this publication.

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ANTIRRHINUM Cymbalaria.

Ivy-leaved Snapdragon.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* five-leaved. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* two-celled.

SPEC. CHAR. Leaves heart-shaped, five-lobed, alternate, smooth. Stems procumbent.

SYN. Antirrhinum Cymbalaria. *Linn. Sp. Pl.* 851. *Huds.* 271. *With.* 549. *Relh.* 242. *Sibth.* 194. *Curt. Lond. fasc.* 1. *t.* 45.

Linaria hederaceo folio glabro, seu Cymbalaria. *Raii Syn.** 282.

Cymbalaria italica. *Ger. em.* 529. fig. reversed.

ALTHOUGH originally introduced into gardens from Italy, this elegant little plant has long been perfectly naturalized with us upon old walls about the shores of the Thames, as well as at Oxford, Cambridge, and in short wherever there are any long established botanic gardens; for no weed in the world takes more absolute possession, when once it is well rooted. It is perennial, forming a thick pendent tapestry, either in sunshine or shade, and flowering from May to the end of autumn.

The stems are trailing, very much branched, round, leafy. Every part of the herb is smooth, and often purplish. Leaves generally alternate, on longish curved foot-stalks, heart-shaped, five-lobed, of a darkish green, and not unaptly compared to those of ivy. Stipulæ none. Flowers solitary, on simple axillary stalks, purple with a yellow downy palate, and a short pale spur. The capsule bursts at the top in a lacerated manner, and contains several blackish seeds very much wrinkled.

68.

ANTIRRHINUM ſpurium.

Round-leaved Fluellin.

DIDYNAMIA Angioſpermia.

GEN CHAR. *Cal.* in 5 ſegments. *Cor.* with a prominence at its baſe, pointing downwards and bearing honey. *Capſ.* 2-celled.

SPEC. CHAR. Leaves ovate, alternate. Stems procumbent.

SYN. Antirrhinum ſpurium. *Linn. Sp. Pl.* 851. *Sm. Fl. Brit.* 657. *Hudſ.* 272. *With.* 549. *Hull.* 138. *Relh.* 242. *Sibth.* 194. *Abbot.* 137. *Curt. Lond. faſc.* 3. *t.* 37.

Linaria Elatine dicta, folio ſubrotundo. *Raii Syn.* *282.

GATHERED in Shepey iſland September 24, 1797, on the high cliffs next the ſea, where corn fields had lately been, but which are continually crumbling away. Mr. Curtis has obſerved this ſpecies to be rare about London. In Suffolk and the midland counties it is more frequent. Mrs. Kett has found it at Seething, Norfolk.

Root ſmall, annual. Stems ſpreading, ſoon becoming procumbent, branched, round, hairy. Leaves numerous, alternate, on ſhort foot-ſtalks, of a broad ovate or roundiſh figure, pointed, hairy, moſtly entire, with now and then a ſolitary notch or tooth. Flower-ſtalks axillary, ſolitary, hairy, ſingle-flowered. Calyx with ovate, pointed, hairy ſegments. Corolla with a recurved ſpur, the upper lip violet, lower yellow.

A very young botaniſt and artiſt, the ſon of Mr. Sowerby, has diſcovered in this and A. *Elatine* an abortive ſtamen between the 2 upper filaments, which appears to be conſtant, and which on examination was found alſo in A. *majus*, *Linaria* and *Cymbalaria*.

The late Sir John Cullum obſerved regular quinquefid flowers with 5 ſpurs and 5 equal ſtamina, as in *Peloria*, in this ſpecies; a circumſtance mentioned by Hudſon.

✓

69.

ANTIRRHINUM Elatine.

Sharp-pointed Fluellin.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves halberd-shaped, alternate. Stems procumbent.

SYN. Antirrhinum Elatine. *Linn. Sp. Pl.* 851. *Sm. Fl. Brit.* 658. *Hudf.* 271. *With.* 549. *Hull.* 138. *Relh.* 242. *Sibth.* 195. *Abbot.* 137. *Curt. Lond. fasc.* 1. *t.* 46.

Linaria Elatine dicta folio acuminato. *Raii Syn.* *282.

FOUND with the preceding at Shepey by Mr. Sowerby. It is more common than that in corn-fields on a gravelly or calcareous soil, flowering from July to September.

Root annual. Stems and general habit much the same as in A. *spurium*, except that this is in all respects a more slender plant, and the flowers are smaller. The halberd-shaped leaves essentially distinguish it, though the lower ones approach to a roundish form. Flower-stalks capillary, and mostly smooth. Segments of the calyx approaching to lanceolate. Corolla yellow with a violet upper lip. Seeds very rugged, as in A. *Cymbalaria*. This species also has occasionally regular flowers. The abortive fifth stamen appears to be constant, and shews, among many other circumstances, the close affinity between the Order in Linnæus to which these plants belong, and the *Pentandria Monogynia*.

70.

ANTIRRHINUM repens.
Creeping Pale-blue Toadflax.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves linear, glaucous, whorled or scattered. Stem panicled. Calyx smooth, the length of the spur.

SYN. Antirrhinum repens. *Linn. Sp. Pl.* 854. *Sm. Fl. Brit.* 658. *Huds.* 272. *With.* 550. *Hull.* 139. *Sibth.* 414. *Dicks. Dr. Pl.* 75. *H. Sicc. fasc.* 17. 18.

A. monspessulanum. *Linn. Sp. Pl.* 584.

Linaria cærulea, foliis brevioribus et angustioribus. *Raii Syn.* *282: also L. odorata Monspessulana. *Ibid.*

A RARE inhabitant of chalky banks, hitherto observed in but few parts of our island. Ray had it from Cornwall (where it still grows) and from Hertfordshire. It abounds on Henley hill, Oxfordshire; and we are informed by the Rev. Mr. Butt and by Mr. Dillwyn that it is plentiful about Llandovery and Llangaddock, South Wales. It flowers from July to September, diffusing a very sweet fragrance in some states of the atmosphere, but not at all times.

The root is perennial, creeping much in the manner of *A. Linaria*, and throwing up numerous, erect, branched, round, leafy stems. Every part of the herbage is smooth and glaucous. Leaves narrow and entire, mostly scattered, but sometimes whorled. Flowers in panicled clusters, erect. Bracteæ small. Segments of the calyx lanceolate, smooth. Spur and lower lip of the corolla whitish; upper lip and tube striped with greyish blue; the spur is conical, shorter than the flower-stalk, and about as long as the calyx. Capsule globose. Seeds angular, rugged and black.

This plant has had the fate of being twice described by Linnæus and Ray. Such mistakes were very rarely made by the latter, nor often by the former when he did not trust to other people. He described *A. repens* after Dillenius, without seeing it, not knowing that it was his own *A. monspessulanum*. We prefer the first name as the most expressive.

Decr. 1. 1808. Published by Jos. Sowerby, London.

ANTIRRHINUM Linaria.

Yellow Toad-flax.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 5-leaved. *Cor.* with a prominence at its base pointing downwards and bearing honey. *Capf.* 2-celled.

SPEC. CHAR. Leaves linear-lanceolate, crowded. Stem erect. Spikes terminal. Flowers imbricated. Calyx smooth, shorter than the spur.

SYN. Antirrhinum Linaria. *Linn. Sp. Pl.* 859. *Hudf.* 273. *With.* 551. *Hull.* 139. *Relh.* 243. *Sibth.* 195. *Ait.* 138. *Curt. Lond. fasc.* 1. *t.* 47. *Mart. Fl. Rust. t.* 93. *Woodv. Suppl. t.* 221.

Linaria lutea vulgaris. *Raii Syn.* *281.

THE uniformity of our plan requires the exhibition of this plant in a natural state, though we have already figured its curious variety the *Peloria*, *t.* 260. We have the less reluctance to add one to the many plates of *A. Linaria* already existing, as we have the good fortune of being able to represent from nature one of its flowers only, the lowermost on our spike, advancing a step towards the *Peloria*. This, if any new proof were wanting, would absolutely decide that production to be merely a variety.

The common yellow Toad-flax grows frequently in hedges and borders of fields, in a barren gravelly soil, and though often a troublesome weed, must be allowed to be a flower of great beauty. It flowers in June and July. The root is [illegible] woody. Stems erect, 2 feet high, [illegible] branched. Leaves linear, or inclining to lanceolate, [illegible] spreading, very little glaucous, thickly set without any order. Spike terminal, erect, many-flowered. Bracts lanceolate. Calyx smooth. Corolla large, bright-yellow, [illegible] with a deeper orange-coloured mouth. Spur and [illegible] protrude 3 times as long as the calyx.

ANTIRRHINUM Linaria, var. *Peloria.*
Deformed Yellow Toad-flax.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* five-leaved. *Cor.* with a prominence at its base pointing downwards and bearing honey. *Caps.* two-celled.

SPEC. CHAR. Leaves linear-lanceolate, crowded. Stem erect. Spikes terminal. Flowers imbricated. Calyx smooth.

β Flowers regular, with 5 equal stamina and 5 nectaries.

SYN. Antirrhinum Linaria, Peloria. *Linn. Sp. Pl.* 859. *Hudſ. Fl. An.* 273. *With. Bot. Arr.* 648. *Curt. Fl. Lond. faſc.* 6. *t.* 41.

WE received a living ſpecimen of this ſingular variety or monſtroſity from the garden of Mr. Ordoyno at Newark, who obtained the root wild from a wood in Lincolnſhire. Mr. Curtis had it from the ſame ſource, and informs us it increaſes much by root, and ſometimes bears ſeeds. Whether the plants which they produce likewiſe bear monſtrous flowers, is as yet unknown; but it is probable they would not, varieties of ſtructure being far leſs frequently propagated by ſeed than varieties of colour. All ideas of this being a mule production, much leſs a diſtinct genus, are now exploded. Dr. Smith and others have obſerved the ſame transformation in many Britiſh and exotic ſpecies of *Antirrhinum*, with naturally-ſhaped flowers from the very ſame root, and *Bignonia radicans* ſometimes varies with a regular corolla and 5 equal ſtamina. We have mentioned, p. 207, a ſimilar very curious monſtroſity in *Galeopſis Tetrahit.*

Every part of the plant before us agrees exactly with the common *A. Linaria*, except the corolla and ſtamina. Root creeping, whitiſh. Stems erect, round, 2 feet or more in height. Leaves linear, ſmooth, ſomewhat glaucous, thickly ſet along the ſtem. Spikes terminating the ſtem and branches; of numerous flowers, with a lanceolate bractea to each. Calyx ſmooth. But inſtead of the natural ringent corolla with one ſpur, the flower is tubular, with 5 ſpurs at the baſe, and the orifice cloſed and purſed up, with a reflexed five-cleft margin. Stamina 5, equal, attached to the corolla, and alternate with its ſpurs. Germen and ſtyle in the natural ſtate. It flowers in June and July.

73.

ANTIRRHINUM minus.
Least Snapdragon.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves lanceolate, obtuse, downy, mostly alternate. Stem much branched, spreading. Calyx longer than the spur.

SYN. Antirrhinum minus. *Linn. Sp. Pl.* 852. *Sm. Fl. Brit.* 660. *Huds.* 272. *With.* 551. *Hull.* 139. *ed.* 2. 182. *Relh.* 245. *Sibth.* 195. *Abbot.* 137. *Curt. Lond. fasc.* 5. *t.* 41. *Dicks. H. Sicc. fasc.* 6. 17.

Linaria Antirrhinum dicta. *Raii Syn.* *283.

THIS, the only known British *Antirrhinum* which we have not yet presented to our readers, is an annual native of sandy cultivated fields, flowering from June to September. The Rev. Mr. Leathes has sent it from Bury, Mr. Wigg from Yarmouth, and we have gathered it about Battersea, where Mr. Curtis likewise observed it to grow.

Root small, zigzag. Stem upright, more or less branched, various in height and luxuriance, round, downy, leafy. Leaves linear-lanceolate, entire, obtuse, downy and clammy; the lowermost often opposite, and broadest. Flowerstalks numerous, axillary, solitary, simple, about the length of the leaves. Flowers small and inconspicuous, though of no inelegant appearance when magnified, being purplish, with a white three-cleft under lip, and yellow palate. The spur is much shorter than the other part of the corolla. Segments of the calyx unequal, spatulate, covered, like the stalks and leaves, with prominent viscid hairs. Capsule ovate, obtuse, compressed, 2-lobed, opening at length by a jagged orifice as in others of this genus. Seed curiously furrowed, that part affording exquisite specific characters, if wanted, among the annual kinds of *Antirrhinum*.

yt 1809 Published by J. Sowerby London.

74.

ANTIRRHINUM majus.

Great Snapdragon.

GEN. CHAR. *Cal.* 5-leaved. *Cor.* with a prominence at its base pointing downwards and bearing honey. *Capsule* two-celled.

SPEC. CHAR. Corolla not elongated into a spur. Flowers spiked. Capsules roundish.

SYN. Antirrhinum majus. *Linn. Sp. Pl.* 859. *Hudf. Fl. An.* 274. *With. Bot. Arr.* 650. *Relh. Cant.* 243.

GATHERED on walls at Greenwich, where, as in other places in Kent, and about many of the older towns in the south and east parts of England, this magnificent species of Antirrhinum may be found in abundance, flowering from the end of May to the middle of July, or later. Ray has omitted this plant, and Mr. Hudson has marked it with an asterisk, both considering it as of foreign origin; an idea which its being only occasionally perennial with us, though now perfectly naturalized, seems to justify.

Root fibrous, producing a tuft of short spreading leafy stems. Flowering stems erect, 12 or 18 inches high, strong, leafy, round, smooth below, hairy and viscid above, branched towards the bottom, but terminating in a simple dense spike of flowers, which never appear till the second year. The pedicles are short, with a concave bractea at their base, and sometimes a pair of narrow lanceolate bracteæ close to the calyx, which consists of five broad, concave, entire leaves, brown and viscid on their outside. The corolla is generally of a rose-colour, sometimes white, but always with a large yellow spot on the protuberant part of the under lip; the gardens possess a deep crimson variety of great beauty, very ornamental to rock-work. The leaves are deep green, smooth, lanceolate, and entire, varying much in breadth.

The corolla in most species of this genus is so constructed that, when pressed laterally between the finger and thumb, it gapes, closing itself again from elasticity when left: hence the name *Snapdragon*.


J. Mawe del. Aug. 1. 1791

75.

ANTIRRHINUM Orontium.

Lesser Snapdragon.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Corolla not elongated into a spur. Flowers loosely spiked. Calyx finger-shaped, longer than the corolla.

SYN. Antirrhinum Orontium. *Linn. Sp. Pl.* 860. *Sm. Fl. Brit.* 662. *Hudf.* 274. *With.* 552. *Hull.* 139. *Curt. Lond. fasc.* 4. *t.* 45. *Dicks. H. Sicc. fasc.* 11. 9.

A. angustifolium sylvestre. *Raii Syn.* *283.

THIS is not an uncommon plant in dry fields on a sandy, gravelly, or chalky soil, so that we are rather surprised to find it not mentioned in any of our three provincial Floras. This specimen was gathered at Battersea by Mr. Groult in July last.

Root annual, small. Herb slightly hairy. Stem erect, branched, round. Leaves alternate, lanceolate, entire. Spikes terminal, solitary, simple, lax, leafy, of several nearly sessile rose-coloured flowers, the deep linear segments of whose calyxes just equal the corolla in length when first expanded, but soon grow much beyond it. The palate of the flower is yellow with white edges. The Rev. Mr. Forby found in Norfolk a variety with a white corolla and violet lips, which remains constant in a garden. The capsule of this *Antirrhinum* exhibits the whimsical resemblance of a monkey's, or perhaps more accurately, a bat's face, when presented in front. The seeds are quadrangular. The calyx and flower-stalk are slightly viscid.

Apr. 1. 1803. Published by Jas. Sowerby, London

76.

SCROPHULARIA nodosa.

Knotty-rooted Figwort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, 2-celled.

SPEC. CHAR. Leaves heart-shaped, acute, with three ribs at the base. Stem sharp-edged.

SYN. Scrophularia nodosa. *Linn. Sp. Pl.* 863. *Sm. Fl. Brit.* 663. *Huds.* 274. *With.* 553. *Hull.* 138. *Relh.* 246. *Sibth.* 196. *Abbot.* 138.
S. major. *Raii Syn.* *283. *Ger. em.* 716.

COMMON in shady rather dry places, about hedge bottoms and in groves, flowering in July and August.

Root perennial, whitish, thick and tuberous, beset with little knobs. Stem 2 or 3 feet high, upright, simple, leafy, furnished with 4 sharp angles, smooth. Leaves opposite, on footstalks, heart-shaped, acute, serrated, smooth, of a shining dark green above, paler beneath, veiny, with one principal rib, and 2 smaller ones at the base which run a little way along the margin, affording an example of what Linnæus denominates "a leaf 3-nerved at the base." Flowerstalks axillary and terminal, forked, angular and glandular, each bearing a pair of lanceolate bracteæ, and all together combining to form a compound upright cluster. The calyx, as well as the summit of each flowerstalk, is smooth. Corolla dull green, with a livid purple lip. Capsule ovate and pointed, longer than in *S. aquatica*, *t.* 854.

Every part of the plant is very fœtid when bruised, resembling Elder in scent. It is reported to be good for scrophulous diseases, whence the generic name; but we are not certain how far the form of the root might suggest its use in glandular swellings. A medical botanist must always be on his guard against whim, superstition and quackery.

77.

SCROPHULARIA aquatica.

Water Figwort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, 2-celled.

SPEC. CHAR. Leaves heart-shaped, on foot-stalks, decurrent, blunt. Stem winged.

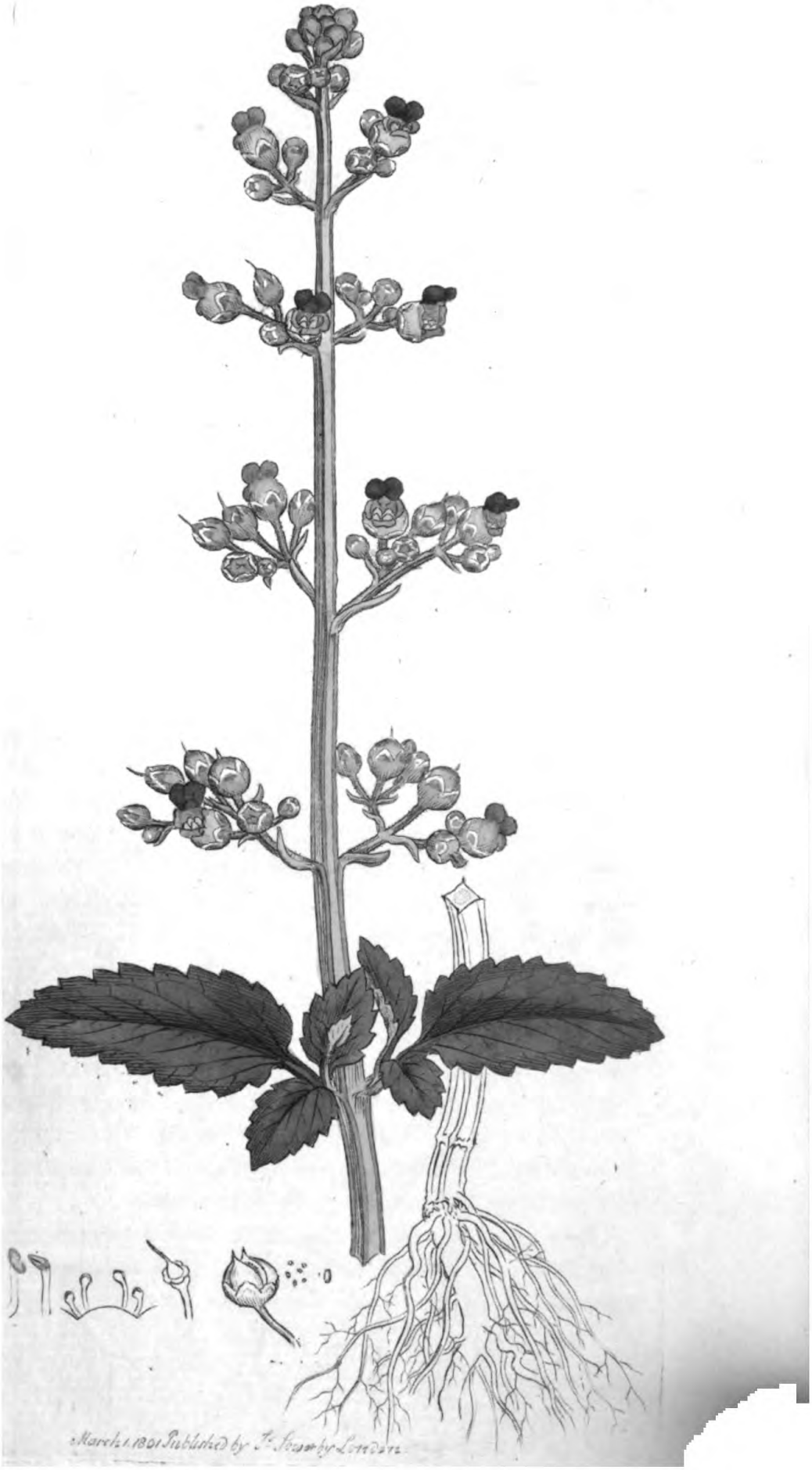
SYN. Scrophularia aquatica. *Linn. Sp. Pl.* 864. *Sm. Fl. Brit.* 663. *Hudf.* 275. *With.* 554. *Hull.* 138. *Relh.* 244. *Sibth.* 196. *Abbot.* 138. *Curt. Lond. fasc.* 5. *t.* 44.

S. aquatica major. *Raii Syn.* *283.

A NATIVE of watery places, as alder-swamps, margins of pools and rivers, &c. not uncommon in England, though very rare in Scotland. It is perennial, and flowers after midsummer.

Root fibrous, not knotty as in the upland *S. nodosa*. Stem upright, straight, and nearly simple, 3 or 4 feet high, square, very smooth, winged, leafy. Leaves opposite, stalked, ovate or elliptical, blunt, serrated, smooth; heart-shaped at the base, and running down a little upon the edges of the foot-stalk. Flowers in small forked panicles, oppositely compounded into a long leaflefs (though bracteated) racemus. Calyx smooth, deeply five-cleft. Corolla with a greenish inflated tube; its lower lip, which from the flower being reversed is turned uppermost, of a dull dark blood-colour, and furnished with a small intermediate lobe within the other two. Capsule roundish, a little depressed, pointed, the inflexed edges of its valves dividing it into 2 cells. Seeds numerous.

The whole plant is fœtid when bruised. Its old name of Water Betony arose merely from the slight resemblance of its leaves in form to those of *Betonica officinalis*.



March 1. 1801 Published by J. Sowerby Lond.

78.

SCROPHULARIA Scorodonia.

Balm-leaved Figwort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, 2-celled.

SPEC. CHAR. Leaves heart-shaped, doubly serrated, downy beneath. Cluster leafy.

SYN. Scrophularia Scorodonia. *Linn. Sp. Pl.* 864. *Sm. Fl. Brit.* 664. *Huds.* 275. *With.* 553. *Hull. ed.* 2. 183. *Dicks. H. Sicc. fasc.* 15. 9.

S. Scorodoniæ folio. *Raii Syn.** 283.

FIRST remarked by Sherard at the sides of rivulets between the port and St. Hilary, Jersey, and since by Mr. Edward Lhwyd about St. Ives in Cornwall. In the latter station Hudson, Dickson and others have gathered this plant, which is scarcely met with elsewhere in Britain. We have been obliged to draw a garden specimen, which differs in no respect from wild ones. It is perennial, and flowers in July and August.

The stems are 2 or 3 feet high, or more, square, leafy, branched, covered with soft spreading hairs. Leaves stalked, heart-shaped, various in size and length, acute, doubly serrated, veiny, 3-nerved at the base as in *S. nodosa, t.* 1544, clothed all over, but most abundantly at the back, with soft downiness. Flowerstalks axillary and terminal, doubly forked; the upper ones alternate; all together constituting a terminal, upright, leafy, downy cluster. Flowers paler than in most of this genus. Calyx downy, obtuse. Capsule smooth, roundish or ovate, pointed. Seeds numerous, angular.

This is scarcely to be seen but in curious botanic gardens, having no beauty nor any other quality to recommend it to general notice.

Now in use, published by Jos. Sowerby London.

77.

SCROPHULARIA vernalis.

Yellow Figwort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, two-celled.

SPEC. CHAR. Leaves heartshaped, doubly serrated, downy. Flower-stalks axillary, solitary, forked, leafy.

SYN. Scrophularia vernalis. *Linn. Sp. Pl.* 864. *Hudf.* 275. *With.* 554. *Fl. Dan. t.* 411.

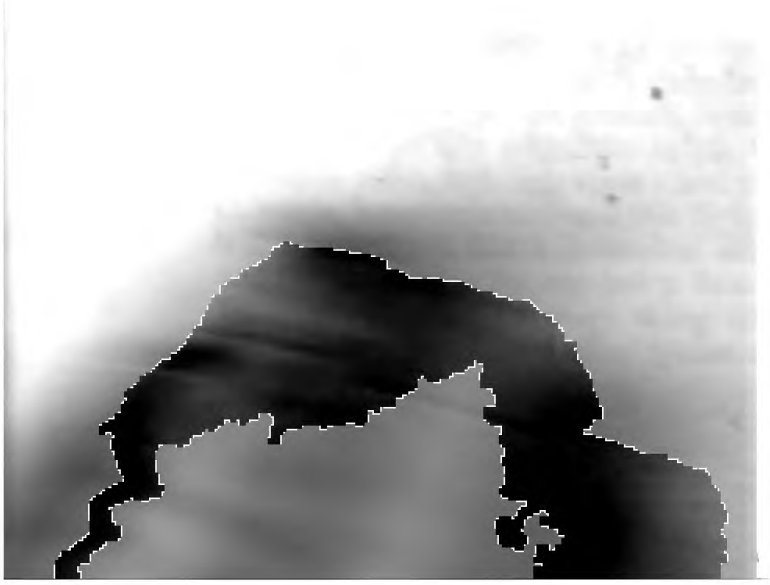
S. flore luteo. *Ger. em.* 717.

THIS grows in shady moist places, but rarely, flowering in April and May, and the root is biennial. Mr. Sowerby gathered it near Bury, in company with Sir Thomas Cullum, and has also received wild specimens from a lane leading from Merton Abbey to Mitcham, Surrey, by favour of the Rev. Mr. Lysons, the learned and elegant illustrator of the environs of London.

Stem hairy, about two feet high, square or five-angled, and in the latter case the leaves grow three together, as Linnæus in his manuscripts defines them; but they are full as often opposite. They are heartshaped, pointed, sharply and doubly serrated, veiny, most hairy beneath, and stand on footstalks. Flower-stalks axillary, about as long as the leaves, solitary, forked, bearing many flowers accompanied by serrated or entire bracteæ. Calyx hairy. Corolla inflated, yellow, contracted at the mouth. Capsule ovate, acute, with many minute seeds.

It is curious to observe a certain resemblance or affinity between this plant and the pretty Peruvian genus of *Calceolaria*, one species of which, the *pinnata*, is now frequent in our gardens; the fruit and seeds, the calyx, the habit and hue of the whole plant, strikingly agree: and there is another species, C. *ovata*, between which and this *Scrophularia* the conformity is still greater; so that a somewhat different form of corolla, and the *Calceolaria* having but 2 stamina, are their only generic distinctions. In every thing else they are very much nearer akin than this and other species of *Scrophularia*.

March 1. 1799 Published by J. Sowerby London.



80.

DIGITALIS purpurea.

Purple Foxglove.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* bell-shaped, five-cleft, inflated. *Caps.* ovate, of 2 cells, with many *seeds.*

SPEC. CHAR. Segments of the calyx ovate, acute. Corolla obtuse; its upper lip undivided. Leaves downy.

SYN. Digitalis purpurea. *Linn. Sp. Pl.* 866. *Sm. Fl. Brit.* 665. *Huds.* 275. *With.* 555. *Hull.* 138. *Sibth.* 197. *Abbot.* 139. *Curt. Lond. fasc.* 1. *t.* 48. *Woodv. Med. Bot. t.* 24. *Raii Syn.* * 283.

THE "stately and elegant" Foxglove, as Mr. Curtis, with his usual taste for the genuine beauties of Nature, denominates it, is most abundant in the northern and rather hilly parts of Great Britain, growing about hedges and thickets, on a dry chalky, loamy, or gravelly soil, flowering in June and July. In Norfolk and Suffolk it rarely, if ever, occurs; but is found about Charlton and other parts of Kent. In gardens it is often cultivated, especially the white variety, which, however, is less handsome than the red one.

Root biennial, fibrous. Stem upright and wand-like, leafy, roundish, downy, 3 or 4 feet high. Leaves alternate, on footstalks which are often winged; the leaf itself is ovate, crenate, downy, rugged and veiny; the radical ones largest. Spike terminal, erect, simple, formed of a great number (sometimes 60) of large, pendulous, scentless flowers, each on a short round stalk accompanied by a bractea. The calyx is soft and downy. Corolla an inch and half long, tubular, or rather bell-shaped, of a rich purplish crimson, elegantly speckled, and somewhat hairy, within; its margin slightly lobed. Stamina springing from the tube, bent, with large, smooth, 2-lobed incumbent antheræ. Stigma cloven. Capsule superior, ovate, 2-celled, full of innumerable small seeds.

Foxglove has of late been much used in medicine to allay irritability and retard the pulse, from which properties it is useful in incipient consumptions. It has for some years been celebrated in dropsies, and Dr. Withering's book on the subject is well known.

How extraordinary is it that no old original English name should be known for so striking a plant! That in present use is derived from *Digitalis Fuchsii*, Fuchs's Glove; Fuchs or Fuchsius having first named it *Digitalis*. In Yorkshire it is called Foxes' Gloves.

April 1. 1804. Published by Jas. Sowerby. London.

LINNÆA borealis.

Two-flowered Linnæa.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Calyx* double; that of the fruit 2-leaved; that of the flower in 5 divisions, superior. *Cor.* bell-shaped. *Berry* dry, 3-celled.

SPEC. CHAR. . . . . .

SYN. Linnæa borealis. *Linn. Sp. Pl.* 880. *Fl. Suec.* 219. *t.* 1. *Fl. Lapp. ed.* 2. 214. *t.* 12. *f.* 4. *Ait. Hort. Kew. v.* 2. 358. *Oed. in Fl. Dan. t.* 3. *Lamarck Fl. Franc. n.* 946. *Hall. Helvet. n.* 299. *Hoffm. Fl. Germ.* 221. *Trans. of Linn. Soc. v.* 3. 333. *With.* 556.

FOR this most interesting addition to the British Flora we are indebted to Professor James Beattie jun. of Aberdeen, who discovered it in an old fir wood at Mearns in that neighbourhood, and communicated wild specimens, along with an accurate coloured drawing, to the Linnean Society, June 2d, 1795. For the dissection of the flower only, which is a little magnified, we have been obliged to have recourse to a garden specimen. The *Linnæa* grows in dry stony mossy woods, flowering in May or June; and, as it has been found in Sweden, Germany, Switzerland, and the south of France, it seems wonderful that it should not long ago have been observed in Britain. This discovery, and some others we have of late had the pleasure of announcing, may encourage our domestic botanists to trust that the ardour and accuracy, in which they eminently excel those of most other nations, has not yet received its full reward, and that further acquisitions still remain to be made.

Root fibrous. Stems trailing, creeping, perennial, woody, round, leafy, a little branched, very long; the younger shoots slightly hairy. Leaves opposite, on footstalks, roundish or ovate, veiny, crenate in the forepart, paler beneath, with a few scattered hairs above. Flowering branches erect, 3 or 4 inches high, with a pair or two of leaves near the bottom, naked above, terminating in 2 equal flower-stalks with a pair of small leaves at their base, and each bearing one drooping flower accompanied by two small lanceolate bracteæ. Outer calyx of 2, often 4, roundish concave leaves, closely embracing the germen, which is roundish and crowned by the inner calyx, which consists of 5 deep equal lanceolate segments, surrounding the tube of the flower. Corolla bell-shaped with a tapering pale tube, and 5 equal segments, stained, especially on the inside, with red and some yellow. Stamina 4, 2 of them half as long again as the others. Style thread-shaped, ascending. Stigma capitate, rough. Fruit a dry berry, with 3 cells, each containing 1 or 2 seeds. The flower-stalks, bracteæ, germen and calyces are clothed with glandular viscid hairs. The flowers are said in the Flora Suecica to be very fragrant at night, smelling like the Meadow-sweet. Linnæus, in Critica Botanica p. 80, has traced a pretty fanciful analogy between his own early fate and this "little northern plant, long overlooked, depressed, abject, flowering early," and, we may now add, more honoured in its name than any other.

Moody Lawson

SIBTHORPIA europæa.

Sibthorpia, or Cornish Money-wort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 divisions. *Cor.* 5-cleft, irregular. *Stam.* approaching each other in pairs. *Caps.* compressed, inversely heart-shaped, of 2 cells, with transverse partitions.

SPEC. CHAR. Leaves kidney-shaped, somewhat peltate, crenate.

SYN. Sibthorpia europæa. *Linn. Sp. Pl.* 880. *Hudf.* 276. *With.* 556. *Hull.* 138. *Dickf. Dr. Pl.* 76.

S. prostrata. *Salisb. Ic.* 11. *t.* 6.

Alsine spuria pusilla repens, foliis Saxifragæ aureæ. *Raii Syn.* 352.

THIS curious and most distinct genus was named by Linnæus in honour of Dr. Humphrey Sibthorp, successor to Dillenius in the Botanic chair at Oxford. His son, the late Professor John Sibthorp, has richly earned his inheritance of the honour, by his indefatigable zeal in the pursuit of the same science, to which indeed he fell a sacrifice. To the writer of this, no stranger to his merit and abilities, the arrangement of his Grecian treasures is now entrusted. His knowledge of the plants of his own country is displayed in a work published not very long before his death, and often cited by us, the *Flora Oxoniensis*.

The only genuine species of *Sibthorpia* is that before us, so that the specific character is now superfluous. It grows in shady places, and about springs in Cornwall and Devonshire, where Mr. Sowerby gathered this specimen. It flowers from June to August, and is perennial.

Root fibrous. Stems prostrate, creeping to a great extent, branched, slender and delicate, leafy, hairy. Leaves alternate, on footstalks, horizontal, kidney-shaped, with shallow distant notches, hairy. Flower-stalks axillary, solitary, short, single-flowered, hairy as well as the calyx. Corolla pale yellow, with a purplish tinge in the three upper segments. Stamina inclined to each side in pairs, very short. Stigma peltate. Capsule containing but few seeds.

53.

LIMOSELLA aquatica.

Mudwort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* five-cleft. *Cor.* five-cleft, equal. *Stamina* approaching each other in pairs. *Caps.* with one cell, two valves, and many seeds.

SPEC. CHAR.

SYN. Limosella aquatica. *Linn. Sp. Pl.* 881. *Huds. Fl. An.* 276. *With. Bot. Arr.* 656. *Relh. Cant.* 245. *Sibth. Ox.* 197.

Plantaginella palustris. *Raii Syn.* 278.

FEW persons, except the scrutinizing botanist, observe this little plant, which occasionally occurs in muddy places where water has stagnated during the preceding winter. The Rev. Mr. Abbot sent it from Bedfordshire, flowering in the middle of July.

The root is annual, throwing out naked cylindrical prostrate runners, which take root at their extremities, and form new plants. Leaves radical, on long foot-stalks, spatulate, smooth, entire; we have not found them involute. Flowers small, radical, on simple flower-stalks, which become inflexed as the fruit ripens. Segments of the calyx sharp, the 2 uppermost least deeply divided. Corolla with a swelling tube; the limb in 5 equal segments, whitish without, red on the inside, the 2 uppermost of which are a little inflexed. Stamina ascending, divaricated in pairs towards each side of the flower. Style declining, with a blunt rough stigma. Capsule globular, with a groove along its upper side. Seeds very numerous.

OROBANCHE major.

Greater Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla inflated; its upper lip undivided; lower in three equal segments. Stamina smooth. Style downy.

SYN. Orobanche major. *Linn. Sp. Pl.* 882. *Huds. Fl. An.* 265. *With. Bot. Ar. ed.* 3. 557. *Relh. Cant.* 237. *Sibth. Ox.* 191. *Curt. Lond. fasc.* 4. *t.* 44.
O. major Garyophyllum olens. *Raii Syn.* 288*.

FOUND not unfrequently on shrubby hills over-run with broom and furze, on the roots of which it grows parasitically flowering in June or July.

The stem is simple, erect, straight, angular, downy, very juicy, clothed with scattered, upright, lanceolate, leafy scales; its base swelling into a bulbous form, which is still more scaly, and throws out several radicles, by which the plant is attached to, and nourished from, the shrub on which it grows, and it is to all appearance perennial. Flowers sessile, in a terminal, rather close-set, upright spike, the whole being of a dull purplish yellow hue, clothed with rusty downiness, and soon turning altogether brown and withered, in which state the plant remains a considerable time. Bracteæ solitary, lanceolate, mostly shorter than the flowers. Calyx of 2 lateral leaves, each of which is deeply cloven into 2 nearly equal, lanceolate, acute segments. Corolla ventricose or inflated, a little incurved, carinated at the back: its upper lip perfectly undivided, with a reflected waved margin: the lower lip in 3 dependent lobes, which are equal, acute, more or less undulated, and sometimes almost crenate. Stamina rather shorter than the tube, channelled at their base on the inside, and perfectly smooth, or void of all pubescence, in their lower part, though a little glandular just under the antheræ. Style downy. Stigma of two yellow separate globules.

We are now persuaded that the foreign *Orobanche* distinguished by Bauhin as smelling of cloves, which ours does not, is a distinct species, its stamina being very hairy at the base, which in this genus seems an important mark. See *Sketch of a Tour on the Continent*, v. ii. 308.

OROBANCHE elatior.

Tall Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla tubular; lower lip in three acute equal segments. Stamina downy. Style smooth.

SYN. Orobanche elatior. *Sutton Tr.* of *Linn. Soc. v.* 4. 178. *t.* 17.

THE Rev. Mr. Sutton, of Norwich, first observed and well ascertained this species, and he has favoured us with the use of the original drawing, made under his inspection, in order to complete our history of the genus as far as it is known in England.

The O. *elatior* has hitherto been confounded with the *major*, *t.* 421, for it occurs full as frequently as that in fields, thickets, and hilly bushy places on a gravelly soil, flowering in July and August.

It differs from O. *major*, in being taller, more yellowish, and with a much longer and more numerous spike of flowers; Mr. Sutton having sometimes counted above 100. The root generally adheres to that of *Trifolium pratense*, or *Centaurea Scabiosa*. The leaves of the calyx are united at the base before. The corolla is less inflated; its border is much curled and fringed; its upper lip sometimes a little cloven. The stamina, so useful in characterizing the species of *Orobanche*, are inserted into the tube above its base, and are downy on the inside from the bottom upwards for half their length, being smooth in the upper part, not clothed with glandular roughness as in O. *major*. The germen and style, which in that are downy, in this are smooth. Stigma inversely heartshaped, yellow.—The O. *minor*, *t.* 422, has a purple stigma, the stamina ciliated, not clothed with hairs, the middle segment of the lower lip lobed and undulated, the calyx of two separate leaves, and the whole plant is a great deal smaller.

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86.

OROBANCHE minor.
Lesser Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell with 2 valves and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple, Corolla tubular; its upper lip undivided; lower in three curled segments, of which the middle one is lobed. Stamina ciliated. Style smooth.

SYN. Orobanche ramosa β. *Huds. Fl. An.* 266.
O. flore minore. *Raii Syn.* 288 *.

THIS plant is found very copiously on various parts of Norfolk, on fields of clover for the most part, to the roots of which it seems to be attached, flowering in July. We have for above 15 years past considered it as a distinct species from *O. major*, as it unquestionably is from *ramosa*; and the genus having of late been more studied and better understood, several respectable Botanists have assented to our opinion, particularly the Rev. Mr. Sutton of Norwich, who has paid considerable attention to it, and who favoured us with this specimen last year from near Sheringham.

It is much smaller in all its parts than the last, and more purplish (though sometimes found entirely of a pale yellow by Mr. Sutton,) and the stem is more inclined to be zigzag. Bracteæ solitary. Flowers tubular, scarcely at all ventricose. Calyx-leaves more unequally divided, though that mark is not absolutely invariable. Upper lip of the Corolla undivided, at least till it splits by age or violence; lower in lip in three segments, which are more obtuse and undulated than in *O. major*, the middle one being larger than the rest and more or less perfectly three-lobed. The most important and permanent character, however, consists in the stamina being in their lower part thickly ciliated with projecting hairs, which we have never found to vary, while the style on the contrary is smooth. Stigma purple.

We think there can be no doubt that our *O. minor* is the *O. flore minore* of Dillenius, in Ray's Synopsis, as above quoted, found by Mr. Rand in Kent. Our late worthy friend, Mr. Jacob Rayer, observed it plentifully in that county. It seems to be the plant intended under the same denomination by John Bauhin, but we have some doubt of its being the *Orobanche prima* of *Tabernæ-montanus*.

87.

OROBANCHE rubra.

Red Fragrant Broom-rape.

DIDYNAMIA Angiospermia.

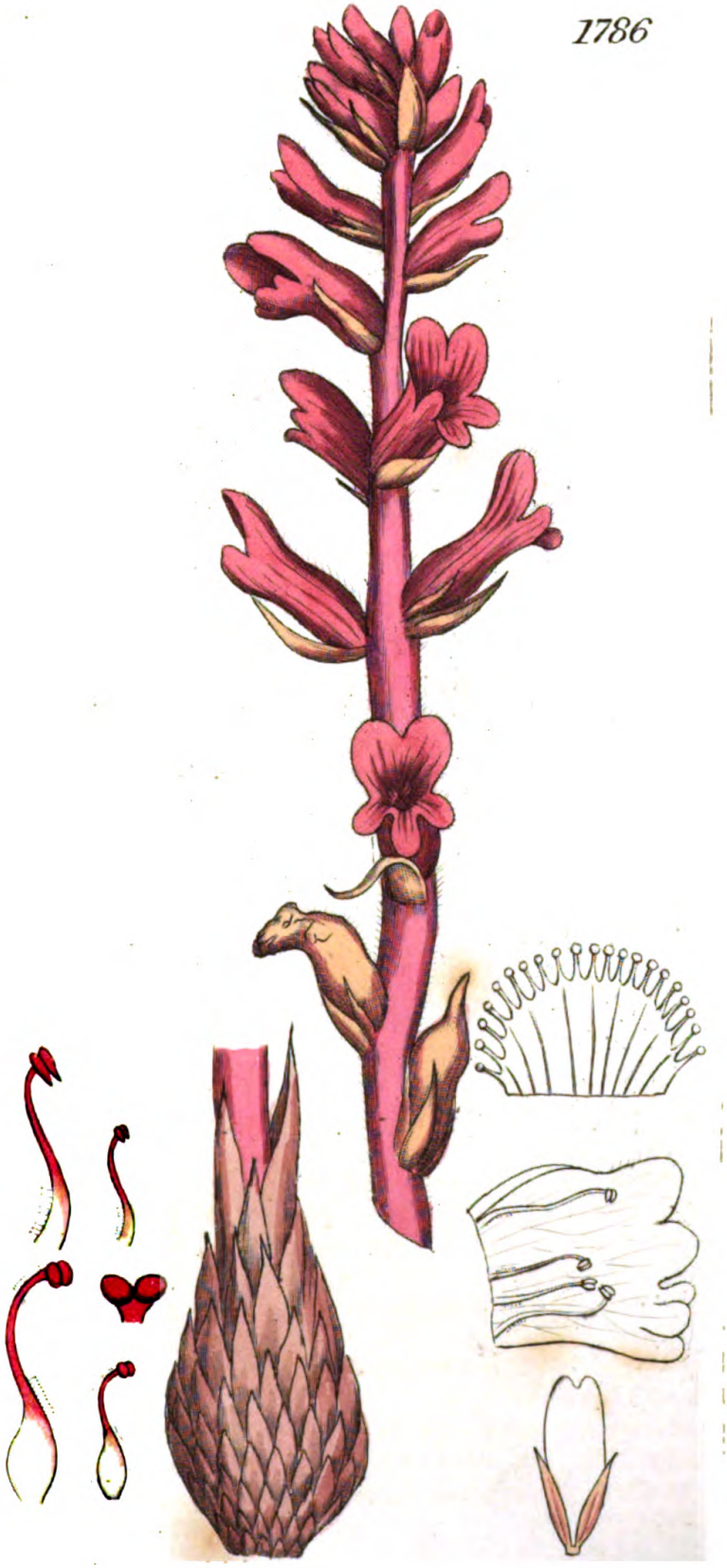
GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla tubular; its upper lip cloven; lower in three nearly equal segments. Stamina fringed on one side at the base, germen and style at their summits. Bracteas solitary.

THIS curious species of *Orobanche*, which appears to be hitherto entirely undescribed, was discovered by John Templeton, Esq. growing plentifully on the basaltic rock at Cavehill near Belfast, in August 1805. We are obliged to that gentleman for a coloured drawing of it, exactly copied in our figure, and to Mr. Rees of Paternoster-row for specimens gathered at the same place by himself. Mr. Templeton observes that, though there are plenty of similar situations, he never found the plant but in the spot above mentioned.

Roots creeping on the rock, and following the inequalities of its surface, covered with about 5 inches of decayed rock and zeolite. Short grass, *Campanula rotundifolia* and *Thymus Serpyllum* accompany the plant, but Mr. Templeton could never, on the most careful examination, find the roots to be parasitical on any others. Stem simple, often a foot high, bulbous and most scaly at the base, ending in a spike of near 20 flowers, and clothed, as well as the upper part of the corolla, with glandular viscid hairs. Bracteas solitary, lanceolate, acute. Calyx-leaves undivided. Corolla very slightly inflated, fringed with glandular hairs; its upper lip cloven, lower in 3 flat rounded segments, of which the central one, magnified in our plate, is rather the largest. Filaments fringed at one edge near the base, as are the germen and style at their upper parts. Style red. The whole plant above ground is of a purplish red. The flowers smell very powerfully like a honeysuckle or pink.

In describing *Centaurea Jacea*, *t.* 1678, we ought to have mentioned Mr. Templeton's having in 1796 sent a wild specimen of that plant from Ireland, which had escaped our memory.



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58.

OROBANCHE cœrulea.
Purple Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla tubular; its upper lip cloven and notched; lower in three equal entire segments. Stamina smooth. Bracteæ three.

SYN. Orobanche cœrulea. *Villars Dauph. v.* 2. 406.
O. lævis. *Lamarck Flo. Franc. v.* 2. 327.
O. purpurea. *Jacq. Aust. t.* 276.
O. n. 294. *Hall. Hist. v.* 1. 129.
O. ramosa β. *With. Bot. Arr. ed.* 3. 558.

NO species of *Orobanche* has been less understood than this. We have reason to think it has been taken by many British Botanists for the *ramosa*. Linnæus confounded its synonyms with those of some other very different plants under his *O lævis*, the history of which we may one day give in another place; but the species before us, which Linnæus did not know, can by no means be taken for his *lævis*, though Haller, Lamarck, and Villars guessed it to be so. Jacquin has described it anew by the name of *purpurea*, but there is another species so named in the *Suppl. Plant.* Ours might far more properly be named *violacea*, but to avoid unnecessary changes we call it *cœrulea* with Villars. It grows in hilly pastures on the north coast of Norfolk, flowering in July. A single specimen was found in 1779 by a Mr. Scarles near Northreps, and several more last year near Sheringham by Mr. W. Skrimshire of Wisbeach; ours was gathered by the Rev. Mr. Sutton at Beeston, near Cromer.

This is in general more slender and less pubescent than either of the preceding, and of a darker and much more blue or purplish colour. Its flowers also are longer. The bracteæ are three, one large external and two small internal ones, as we ought also to have described them in *O. ramosa*, t. 184. Calyx tubular at the base, the lobes of its segments nearly equal, subulate. Corolla palish violet, with an elevated downy white divided palate. Upper lip ascending, more or less deeply two-lobed, with a notch or two between the segments; lower lip of three equal ovate entire lobes, by no means fringed, undulated or plaited. Stamina smooth all the way up. Style a little downy.

—— *Orobanche ramosa* differs essentially from this species in being almost always very much branched in the upper part of its stem, which is yellow, not purple, and in having its upper lip deeply lobed, without any teeth or notches between. In appearance also there is a manifest difference.

59.

OROBANCHE ramosa.

Branched Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 2-lipped. *Cor.* ringent. *Caps.* of one cell, with two valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem generally branched. Corolla with five segments.

SYN. Orobanche ramosa. *Linn. Sp. Pl.* 882. *Hudf. Fl. An.* 266. *With. Bot. Arr.* 658. *Raii Syn.** 288.

MR. WOODWARD, who has so admirably illustrated this rare plant in the *Bot. Arr.* and who is one of the few people who have found it since Ray's time, was so obliging as to send us this recent wild specimen from a field at Mettingham in Suffolk, in which neighbourhood it grows plentifully, attached to the roots of hemp in a parasitical manner, and flowers in August.

The root is annual, a solid bulb, throwing out fleshy fibres which are entwined with those of the plant on which it grows. Stem erect, more or less obscurely zigzag, and never quite straight, clothed with a few scattered brown scales, and almost always branched, sometimes very copiously so. Spikes a continuation of the stem and branches, set with numerous sessile flowers, in an alternate order, with a brown concave bractea at the base of each. Calyx with 4 teeth, the 2 uppermost very distant; it can hardly be called two-lipped. The 2 upper segments of the corolla are rather the shortest.

We are by no means convinced that the *Orobanche flore minore* of Ray's Synopsis is a variety of this, but are rather inclined to refer it to O. major, if it be not a non-descript species. Neither are we certain that Mr. Pitchford's specimen from Northreps is the same with either. A sketch made from it when recent agrees better with O. purpurea of Jacquin (not Linnæus). The whole genus wants a thorough investigation.


Sowerby delt June 1 1794