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

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THE FIGURES BY

JAMES SOWERBY, F.L.S.

——" VIRESQUE ACQUIRIT EUNDO."——*Virg.*

VOL. VI.

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MONOTROPA hypopithys.

Yellow Bird's-neſt.

DECANDRIA Monogynia.

GEN. CHAR. *Calyx* none. *Petals* ten; the five outermoſt hollowed at the baſe, and producing honey. *Capſule* five-valved. *Theſe numbers reſpect the terminal flower only.*

SPEC. CHAR. Lateral flowers with ſix or eight ſtamina, the terminal one with ten.

SYN. Monotropa hypopithys. *Linn. Sp. Pl.* 555. *Hudſ. Fl. An.* 175. *With. Bot. Arr.* 424.

Hypopithys lutea. *Raii Syn.* 317.

BEECH and Fir woods in the midland counties of England produce this ſingular vegetable in abundance, flowering in June. Mr. Wagſtaff communicated our preſent ſpecimen, gathered by Mrs. Kett of Seething, in a pine grove at Stoke near Norwich, in which ſpot the Monotropa was diſcovered in 1782, and never before in that county.

The root is paraſitical, fibrous, and very ſlender. Stem thick and fleſhy, covered, eſpecially in the lower part, with ſcattered ſcales, which ſupply the place of leaves. Every part, as well as the flowers, is of a pale ſtraw-colour, turning browniſh when arrived at maturity, and then acquiring a fragrant ſmell, generally compared to primroſe roots, but rather reſembling thoſe flowers.

The terminal flower, from which Linnæus, in conformity to his own principles, takes his generic and claſſical characters, is larger than the reſt, and has pretty conſtantly ten ſtamina, with other parts in proportion. The lateral ones have from ſix to eight. The corolla is irregular, and deciduous; the ſtamina more permanent.

ANDROMEDA polifolia.

Marſh Andromeda.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* ovate; its orifice 5-cleft. *Capſ.* ſuperior, 5-celled; the partitions from the middle of the valves. *Antheræ* with 2 pores.

SPEC. CHAR. Flowers cluſtered, terminal. Leaves alternate, lanceolate, revolute, glaucous beneath.

SYN. Andromeda polifolia. *Linn. Sp. Pl.* 564. *Fl. Lapp. ed.* 2. 131. *t.* 1. *f.* 2. *Sm. Fl. Brit.* 441. *Hudſ.* 176. *With.* 398. *Hull.* 91. *Dickſ. H. Sicc. faſc.* 6. 4.

Ledum paluſtre noſtras, Arbuti flore. *Raii Syn.* 472.

VARIOUS of our friends ſituated in the north have obligingly communicated to us wild ſpecimens of this elegant little ſhrub, which grows on moſt peat bogs in the mountainous parts of England and Ireland, and lowlands of Scotland, intermingled with *Ericæ*, *Vaccinia*, &c. flowering in June.

It is ſmooth in every part, branched, rigid and ever-green. Leaves alternate, upright, on ſhort ſtalks, lanceolate, pointed, entire, revolute; of a blueiſh green above; very glaucous beneath. Small ſhort veins are moſt conſpicuous about the mid-rib. The flowers grow on little red cluſtered terminal ſtalks, drooping at firſt, but becoming erect as they fade. Their colour is a delicate roſe-colour, both in the calyx and corolla. Stamina 10. Antheræ brown, each with 2 horns. Capſules brown, erect, with many ſmall ſeeds.

Linnæus in his elegant and inſtructive *Flora Lapponica* has, with his uſual fancy, explained his reaſons for naming this plant *Andromeda*. The paſſage is too long to copy, and it would require his taſte to do juſtice to it in a tranſlation, but nothing can be more poetical than the original.

V

3.

ARBUTUS Unedo.

Strawberry-tree.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* deeply 5-cleft. *Cor.* ovate; its orifice 5-cleft; its base transparent. *Berry* superior, 5-celled. *Anthers* with 2 pores.

SPEC. CHAR. Stem arboreous. Leaves smooth, bluntly serrated. Panicle terminal. Berry with many seeds.

SYN. Arbutus Unedo. *Linn. Sp. Pl.* 566. *Suppl.* 238. *Sm. Fl. Brit.* 442. *Huds.* 177. *With.* 399. *Hull. ed.* 2. 121. *Dicks. H. Sicc. fasc.* 13. 16. *Mill. Ic. t.* 48.

Arbutus. *Raii Syn.* 464. *Ger. em.* 1496.

LIMESTONE rocks, which make a part of the beautiful scenery about the lake of Killarney, in the west of Ireland, are copiously adorned with this beautiful tree, now completely naturalized; though some have suspected that it might have been brought by the monks, formerly settled there, from France or Italy. The place in which it grows is certainly so analogous to its stations in the south of France, and the climate so mild, that it may well be deemed indigenous. In our gardens, from whence this specimen was taken, the *Arbutus* is tolerably hardy, though the fruit is seldom seen much to the north of London. It ripens in autumn from the blossoms of the autumn preceding, but however tempting in appearance, its vapid flavour is such, that the Latins named it *Unedo*, as if nobody would wish to eat more than one.

This is a bushy tree, with a reddish bark, the young shoots often bright red, and rough with glandular hairs. Leaves alternate, stalked, elliptic-lanceolate, unequally and bluntly serrated, smooth, except the rib, shining, veiny, evergreen. Panicles drooping, composed of a few racemose branches, with an oblong bractea under each flower. The corolla is of a greenish semipellucid white, sometimes tinged with red, inodorous. Anthers pendulous, awned at the base. Fruit crimson, tuberculated all over, resembling a strawberry, but the seeds are internal.

Feb 1 1818 published by Jos. Curtis London.

4.

ARBUTUS alpina.

Black-berried Alpine Arbutus.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* deeply 5-cleft. *Cor.* ovate; its orifice 5-cleft; its base transparent. *Berry* superior, 5-celled. *Anthers* with 2 pores.

SPEC. CHAR. Stems procumbent. Leaves rugged, serrated.

SYN. Arbutus alpina. *Linn. Sp. Pl.* 566. *Sm. Fl. Brit.* 442. *Huds.* 177. *With.* 399. *Hull.* 91. *ed.* 2. 121. *Lightf.* 215. *t.* 11. *fig.* a, b. *Fl. Dan. t.* 73.

Vaccinia pannonica, sive Vitis Idæa. *Ger. em.* 1416.

WE are obliged to Mr. G. Don for this wild specimen, gathered near the head of Loch Traig, Perthshire, between two high mountains, in a valley covered with common Heath, but we have been obliged to have recourse to a dried one for the flowers, scarcely to be received fresh. Still we trust our figure will not be found incorrect. The berries, which are round and black, like black currants, resembling them also, it is said, in flavour, we have not been able to procure.

The woody trailing stems spread widely, clothed with deciduous bark. Leaves deciduous, alternate, obovate, serrated, rugged with reticulated veins, smooth, except a fringe at each side of their taper base. Flowers in short terminal clusters, white, ill-drawn by Lightfoot's artist from a dry specimen, and not well in the *Flora Danica*. Each flower-stalk has an elegant, concave, reddish, fringed bractea at its base.

We have already observed, in *v.* 10. *p.* 714, that Ray confounded the synonyms of this plant with those of *Arbutus Uva-ursi*, nor was Dillenius able to set him right.

Drawn, published by T. S. Averty, London.

ARBUTUS Uva urſi.

Red trailing Arbutus.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* ovate; its orifice 5-cleft; its baſe tranſparent. *Berry* ſuperior, 5-celled. *Antheræ* with 2 pores.

SPEC. CHAR. Stems procumbent. Leaves entire.

SYN. Arbutus Uva urſi. *Linn. Sp. Pl.* 566. *Fl. Lapp. ed.* 2. 129. *t.* 6. *f.* 3. *Sm. Fl. Brit.* 443. *Hudſ.* 177. *With.* 399. *Hull.* 91. *Lightf.* 216. *t.* 11. *f.* c, d. *Woodv. Med. Bot. t.* 70.

Vaccinia rubra, foliis myrtinis criſpis. *Raii Syn.* 457.

A NATIVE of ſtony barren alpine heaths. We have received it from Durham by favour of the Rev. Mr. Harriman and Mr. Oliver. Ray ſaw it growing in Lancaſhire, but he and Dillenius confounded it with the ſynonyms of *A. alpina*, ſee the *Synopſis*, though Dr. Richardſon's account there given is ſufficient to aſcertain it; and if any doubt remained, Mr. Lightfoot's finding this plant, not *A. alpina*, in the iſle of Mull, would remove every uncertainty. It flowers in June. The berries are ſaid to remain all winter, untouched by birds, and the leaves are evergreen. Every part is extremely aſtringent. It has been much recommended as a medicine in calculous and gravelly complaints by the German practitioners, but has not been found ſucceſsful in this country.

The ſtems are long and trailing, branched, woody, clothed with alternate, obovate, obtuſe, entire, wrinkled, dark-green, ſhining leaves. Cluſters terminal, drooping, of a few roſe-coloured handſome flowers. Berries red, depreſſed, auſtere, containing the rudiments of 8 or 10 ſeeds, of which 4 or 5 only in general are perfected. The ſtamina vary from 8 to 10. The antheræ are barbed with 2 briſtles. Many perſons have confounded this plant with *Vaccinium Vitis Idæa*, *t.* 598, which ſomewhat reſembles it, but in that genus the germen is inferior.

6.

PYROLA rotundifolia.

Round-leaved Winter-green.

DECANDRIA Monogynia.

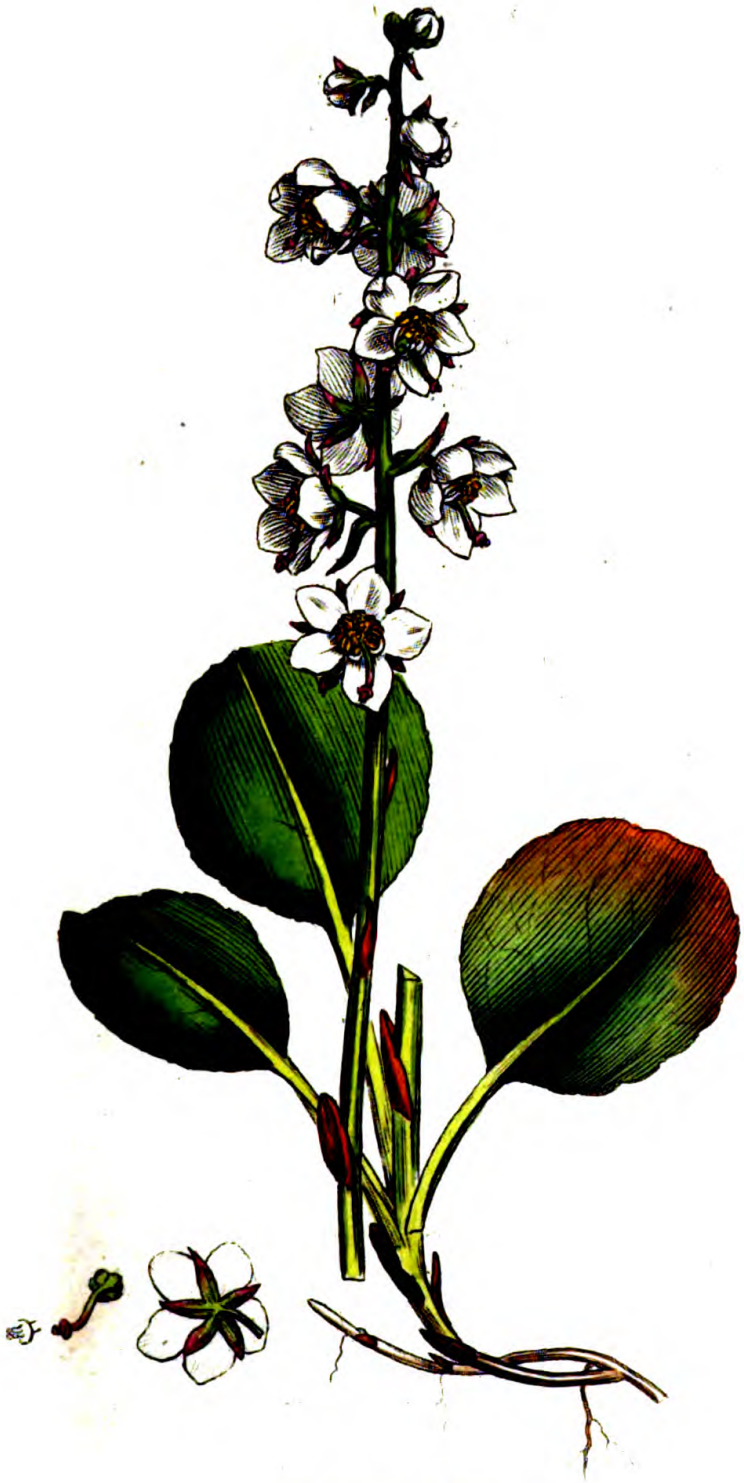
GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* 5-celled, burſting at the angles.

SPEC. CHAR. Stamina pointing upwards, ſtyle downwards.

SYN. Pyrola rotundifolia. *Linn. Sp. Pl.* 567. *Hudſ. Fl. An.* 175. *With. Bot. Arr.* 429.
Pyrola. *Raii Syn.* 363.

WE have already given the figures of two rare ſpecies of this pretty genus, and under the laſt (t. 158) promiſed as ſoon as poſſible to exhibit P. rotundifolia, which we are now enabled to do by means of a ſpecimen gathered by the accurate and indefatigable Mr. Wigg, among buſhes on a common at Bradwell not far from Yarmouth, where the plant grows ſparingly, and is elſewhere, even among its favourite mountains of the north, very rarely to be found. It flowers moſtly about July, and is perennial.

The root and leaves agree very much with thoſe of P. minor, except that the latter, as well as the flowers, are larger. The calyx is longer, and more lanceolate, but the eſſential difference conſiſts in the ſtamina being all bent, as if for ſhelter, towards the upper ſide of the flower, while the ſtyle (much longer than that of P. minor) is curved downwards in as ſingular a manner, and again recurved to catch the pollen. The ſtigma terminates in five blunt tubercles.



Nov 1 1794. Published by F. Bauerb. London

7.

PYROLA media.

Intermediate Winter-green.

DECANDRIA Monogynia.

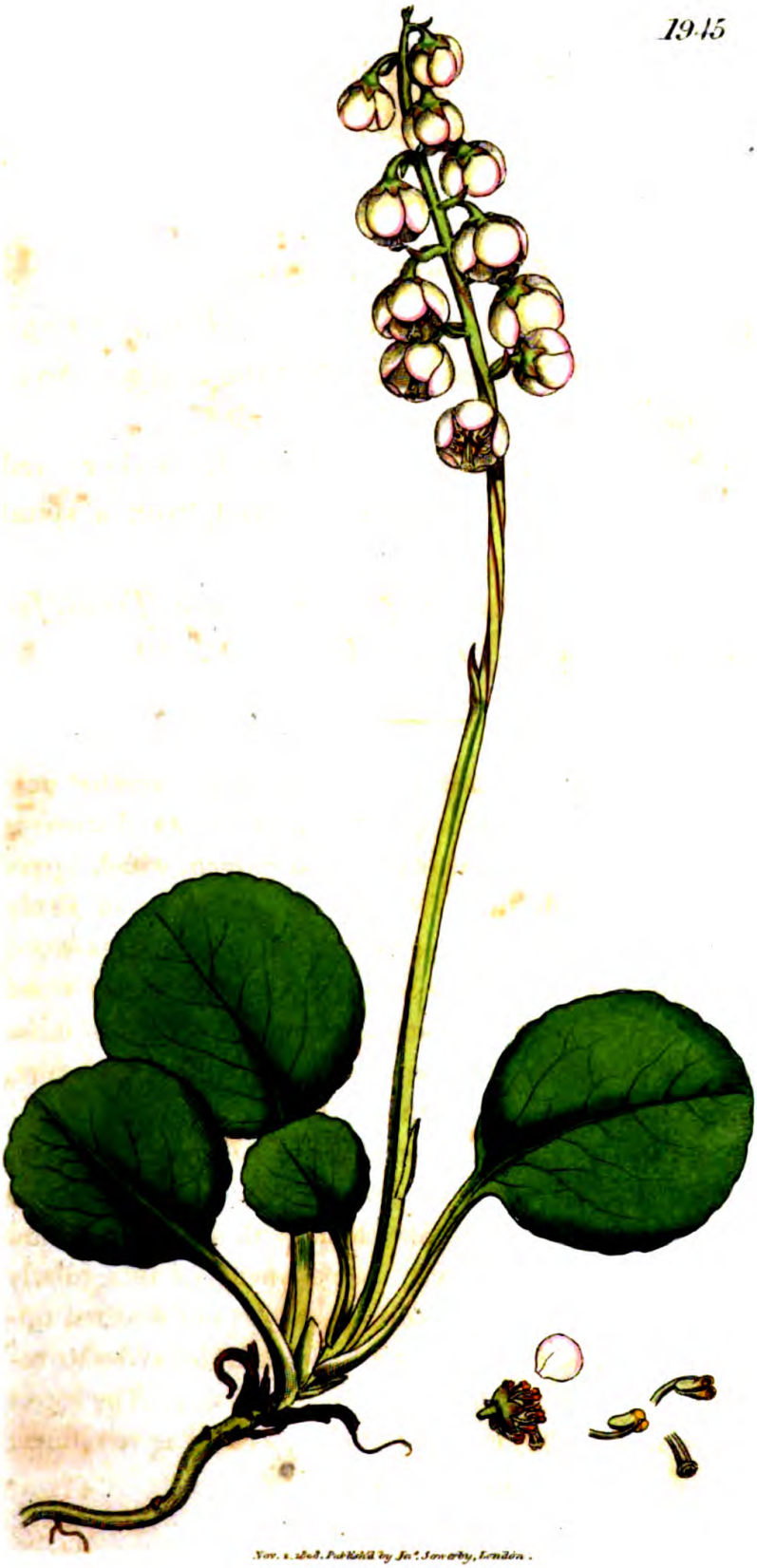
GEN. CHAR. *Cal.* deeply five-cleft. *Pet.* 5. *Caps.* superior, of 5 cells, bursting at the angles. *Seeds* numerous. *Anthers* with 2 pores.

SPEC. CHAR. Stamens regularly inflexed. Style curved downwards. Cluster many-flowered, with a spiral stalk.

SYN. Pyrola media. *Swartz in Stockholm Trans. for* 1784. 263. *t.* 7. *Winch Guide, v.* 2. 19.

WE have the unexpected pleasure of adding another new *Pyrola* to the British Flora, by favour of its discoverer N. J. Winch, Esq., who sent us this specimen, which agrees with an authentic one from Dr. Swartz. It grows in shady places, and has been observed by Mr. Winch in Scots-wood Dean, 3 miles west of Newcastle; in East-common wood near Hexham, Northumberland; in some woods 4 miles north of Wolsingham, Durham; and at Studley, Yorkshire, flowering towards the end of June.

This species has been confounded with *P. minor, t.* 158, with which it nearly agrees in general habit, but differs in its very spirally twisted flower-stalk, and in the declination and much greater length of its style. The stamens are all regularly incurved round the germen as in *P. minor*, not directed upwards as in *P. rotundifolia, t.* 213, neither is the style so recurved as in the latter, nor the flowers so large. The leaves of all these species vary much in outline, as well as serratures. The roots are creeping and perennial.



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

PYROLA rosea.

Rose-coloured Winter-green.

PYROLA Monogynia.

Gen. Char. *Cal.* deeply five-cleft. *Pet.* 5. *Caps.* superior, of 5 cells, bursting at the angles. *Seeds* numerous. *Anthers* with 2 pores.

Spec. Char. Stamens regularly inflexed. Style straight. Cluster of many drooping flowers. Stalk straight, quadrangular. Petals rounded, obtuse.

We are obliged to James Backhouse, Esq. of Darlington for specimens and drawings of this *Pyrola*, found, flowering in July, in Hyndon gill, near Cockfield, Durham, and not uncommon in most similar situations in that county. Mr. Backhouse observes that "it differs from *media*, *t.* 1945, in having a straight style, only half the length of that species; a stem without any twist, dark brown, with four angles, one of which is nearly obsolete; flowers at least one fifth smaller, and of a light pink. The stigma is large, and five-lobed. From the figure of *P. minor*, *t.* 158, it differs in having drooping globular flowers, and the petals and leaves shaped as in *media*."

We confess our doubts whether this species has not been confounded, even by Linnæus, with *P. minor*, nor have we perhaps escaped this error, into which the straight short style may have led botanists in general, without their examining further. Yet our *t.* 158, if the form of the petals and posture of the flowers be correct, cannot have been taken from the present species. For the exactness of the present figure we can vouch, and shall be obliged to any of our correspondents, who have access to the wild plants, to determine whether the real *minor* agrees with our *t.* 158, or whether it still remains unpublished by us. Our dried specimens have excited our scruples, but cannot remove them.

May 1st 1797 published by J.C. Sowerby London

PYROLA minor.

Lesser Winter-green.

DECANDRIA *Monogynia.*

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capsule* 5-celled, bursting at the angles.

SPEC. CHAR. Flowers in a racemus, scattered. Stamina spreading every way. Style straight.

SYN. Pyrola minor. *Linn. Sp. Pl.* 567. *Hudf. Fl. Ang.* 176. *With. Bot. Arr.* 423. *Relk Syn.* 363.

SENT from Scotland along with Pyrola uniflora n. 145 by James Brodie Esq. It is rather an alpine plant, occurring in mountainous forests, though even found in Stoken-church woods Oxfordshire. Dillenius well observes, that this is really more common than the P. rotundifolia, called by old authors *vulgaris*, and hitherto they may often have been confounded, as they certainly were by Ray. Dr. Smith found them so in Mr. Lightfoot's herbarium, though it distinct in the form and position of their stamina and pistilla, as we hope to demonstrate when we can obtain a wild specimen of P. rotundifolia.

The plant now figured has a perennial branchy root, producing a few short, angular, leafy stems. The leaves are roundish, obtuse, obsoletely serrated, of a hard firm texture, smooth, on longish, angular, and often webbed, footstalks. The stalk is erect, about 6 inches high, triangular, smooth, terminating in a simple upright bunch of white or reddish flowers, standing on short footstalks, and pointing every way. The bracteæ lanceolate, standing solitary at the base of each footstalk. Calyx small. Petals concave, veiny. Stamina spreading from their base, then erect. Antheræ roundish, with two holes at their lower part, but not, as in P. uniflora, protruded into tubes. Germen roundish, with five furrows. Style simple, short, erect, nearly on a level with the stamina. Stigma small, five-lobed.

This species, planted by Mr. Lightfoot, is in a manner naturalized in the Duke of Portland's fine wood at Bulstrode.

PYROLA secunda.

Serrated Winter-green.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* five-cleft. *Petals* five. *Caps.* five-celled, bursting at the angles.

SPEC. CHAR. Flowers all leaning one way.

SYN. Pyrola secunda. *Linn. Sp. Pl.* 567. *Huds.* 176. *With.* 401. *Dicks. H. Sicc. fasc.* 5. 8.

P. folio mucronato serrato. *Raii Syn.* 363.

TO complete our history of the British *Pyrolæ*, as far as they are at present known, we have obtained wild specimens of the species now before us by the kind assistance of James Brodie, Esq. F.L.S., from the hill of Dunnairn in the Earl of Moray's forest of Darnway, in the neighbourhood of Brodie house. It is of very rare occurrence in this island, growing only under the shade of firs in the most alpine forests. Ray had it from Yorkshire. It is perennial, and flowers in July.

The roots are small and fibrous. Stems at first procumbent, creeping, slender, alternately branched, clothed with a few scattered lanceolate stipulæ; their extremities are angular, leafy and erect. Leaves on longish footstalks, spreading, ovate, acute, finely serrated, neatly reticulated with veins, smooth on both sides, of a bright pleasant green. Stalk terminal, erect, simple, bearing a few scattered lanceolate bracteæ, and terminating in a simple cluster of greenish-white flowers, which stand on footstalks, each accompanied by a bractea, a little drooping, and all lean to one side. The calyx is small, its edges membranous and somewhat lacerated, as are those of the bracteæ. Petals oblong, concave. Stamina equal and uniform, when young crooked, the antheræ bent outwards with their pores downward; when ripe the filaments become straight, the antheræ bent inwards, and their pores are uppermost, according to Mr. Sowerby's remark. The germen and capsule are depressed, with five furrows. Style long, straight, permanent, with a large, depressed, five-lobed stigma. The seeds are very minute and chaffy.

The other British species of this genus are described in our 3d volume.

PYROLA uniflora.

Single-flowered Winter-green.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capsule* 5-celled, bursting at the angles.

SPEC. CHAR. Stalk bearing a solitary flower.

SYN. Pyrola uniflora. *Linn. Sp. Pl.* 568. *Fl. Dan. t.* 8. very incorrect.

P. scapo unifloro. *Hall. Hist.* 1011.

P. quarta minima Clusii. *Ger. em.* 408.

HAVING in the preceding page determined an obscure plant, we hope in this to afford the British botanist no less pleasure in presenting him with a new one. Pyrola uniflora, though a native of the Lapland, Norway, German and Swiss alps, was never supposed to grow in our island till James Brodie Esq. of Brodie-house in Scotland found it in that neighbourhood last summer, when also Mr. James Hoy F. L. S. sent it to the Linnæan Society from near Gordon Castle. Both these gentlemen we believe are equally entitled to the honour of its discovery; to the former we are indebted for recent wild specimens.

This Pyrola is found in moist alpine woods; its long branched perennial roots run deep among the moss, which in such places is watered by numerous little rills. Every part is smooth. The stem short, simple, angular, set with a few alternate concave scales, and bearing several roundish, more or less obtuse, serrated, veiny, petiolate leaves. Stalk terminal, erect, much longer than the stem, angular, bearing seldom more than one concave bractea, with a solitary flower of great elegance, compared by Clusius to that of the Parnassia (t. 82), and possessing all the fragrance of Lily of the valley. This flower is in perfection about July. Its corolla is sometimes streaked externally with red, as is the calyx. Linnæus and Haller have well observed that the stamina are not placed regularly with respect to the petals, some of the latter having 3 stamina next them, others 2, and others but 1. The antheræ are of a most curious figure, 4-lobed, with two tubes at the base by which probably the pollen is discharged. The stigma resembles a 5-rayed crown.

12.

CHRYSOSPLENIUM alternifolium.

Alternate-leaved Golden Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Calyx* four or five-cleft, coloured. *Corolla* none. *Capsule* with two beaks, one cell, and many seeds.

SPEC. CHAR. Leaves alternate.

SYN. Chrysosplenium alternifolium. *Linn. Sp. Pl.* 569. *Hudſ. Fl. An.* 179. *With. Bot. Arr.* 404.

Saxifraga aurea foliis pediculis oblongis insidentibus. *Raii Syn.* 158.

THE favourite situation of this plant is a black boggy soil on the margins of little rills in wet shady woods, where it is, though rarely, found, intermixed generally with the more common species of Chrysosplenium, which has opposite leaves. Both are conspicuous for their yellow hue, which discovers them at a distance. They flower early in May, and are perennial.

This species is the more striking of the two, being rather the largest. Its leaves are always alternate, one of them standing solitary about the middle of the stem, which is triangular; the rest are clustered, partly about the root, and partly near the flowers. The terminal or central flower is not so regularly five-cleft as to justify Linnæus in placing this genus in *Decandria* instead of *Octandria*, according to his principle in Philosophia Botanica, *sect.* 178. Dr. Stokes, therefore, removes it to the 8th class. We retain it in its old place for the convenience of those who use Linnæus's works, and especially on account of its near affinity to Saxifraga.

CHRYSOSPLENIUM oppositifolium.

Opposite-leaved Golden Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 4 or 5 cleft, coloured. *Cor.* none. *Capsule* with 2 beaks, 1 cell, and many seeds.

SPEC. CHAR. Leaves opposite.

SYN. Chrysosplenium oppositifolium. *Linn. Sp. Pl.* 569. *Hudf.* 178. *With.* 402. *Sibth.* 137. *Curt. Lond. fasc.* 2. *t.* 27.

Saxifraga aurea. *Raii Syn.* 158.

IN our first volume, *t.* 54, the other more rare species of this pretty genus is figured and described. In that the leaves are alternate, herb and flowers more deeply coloured and more striking in appearance. Notwithstanding the doubts of Linnæus they seem unquestionably distinct, and the different situations of the leaves afford an elegant and decisive mark of distinction.

Chrysosplenium oppositifolium grows like the former about the margins of clear springs under the shade of trees or rocks, forming broad patches of a pale yellowish green hue. Root perennial, of simple fibres springing from the joints of the procumbent part of the stem. Leaves all opposite, on footstalks, inclining to heart-shaped, crenate, succulent, clothed with a few hairs. Flowers in a terminal leafy corymbus, pale yellow, mostly four-cleft. Their notched glandular ring, which surrounds the base of the germen, is inserted between that part and the stamina, and is therefore (as Mr. Curtis remarks) probably a nectary, or at least it cannot be called a receptacle. The seeds are numerous, round and blackish.

14.

SAXIFRAGA ſtellaris.

Hairy Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with two beaks, one-celled; *ſeeds* numerous.

SPEC. CHAR. Leaves ſerrated. Stem naked, branching. Petals pointed.

SYN. Saxifraga ſtellaris. *Linn. Sp. Pl.* 572. *Hudſ. Fl. An.* 179. *With. Bot. Arr.* 430.

Geum paluſtre minus, foliis oblongis crenatis. *Raii Syn.* 354.

THE elegant genus of Saxifraga is almoſt entirely alpine, and moſt of its ſpecies can bear a conſiderable degree of cold, provided they enjoy a pure air. This now before us grows plentifully in Wales, Scotland, and the northern parts of England, eſpecially Weſtmoreland. Dr. Woodville favoured us with freſh wild ſpecimens gathered laſt ſummer on Skiddaw. Its favourite ſtation is in the black turfy margins of rills on the north ſides of mountains, near their ſummits, where it flowers in June or July.

The roots are perennial, long and fibrous, crowned with flat ſtellated tufts of obovate leaves, which are hairy above, paler and ſmooth, ſometimes purple, beneath, pointed and groſsly ſerrated. Stalks from two to ſix inches high, erect, round, clothed with ſcattered divaricating hairs, and ſubdivided at the top into a ſort of corymbus of from 3 to 7 or 9 flowers, each on a partial foot-ſtalk, at whoſe baſe is a bractea, either palmated or entire. Calyx reflexed. Petals ſpreading, ovate, white, with 2 yellow ſpots near the baſe. Stamina all nearly equal. Antheræ and germen purple. Capſule green, with a purple ring near the baſe. In this ſpecies and ſome others the germen is completely ſuperior; but there are others again where it is partly, if not altogether, below the flower; ſo that this circumſtance of the ſituation of the germen, ſo important in moſt orders of plants, is in this genus of no conſequence.

Del. Aug. 1794

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15.

SAXIFRAGA nivalis.

Cluſtered Alpine Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with two beaks, one-celled. *Seeds* numerous.

SPEC. CHAR. Leaves obovate, ſerrated. Stem ſimple, naked. Flowers cluſtered.

SYN. Saxifraga nivalis. *Linn. Sp. Pl.* 573. *Hudſ.* 180. *With.* 403. *Lightf.* 221, *tab.* 12.

S. foliis oblongo-rotundis dentatis, floribus compactis. *Raii Syn.* 354, *tab.* 16. *f.* 1.

THIS, the moſt alpine of our Britiſh ſaxifrages, is found about the ſummits of the higheſt mountains only, in Scotland and Wales, where it flowers throughout the ſhort ſummer of thoſe exalted regions, but moſt naturally and plentifully in Auguſt. Dr. Smith found it ſparingly, in 1782, under the ſhade of a rock to the weſt, among ſome large diſperſed maſſes of white quartz on the top of Ben Lomond. We have been favoured with wild freſh ſpecimens from Wales laſt ſummer (along with many other rare plants) by I. W. Griffith, Eſq. F. L. S. of Garn near Denbigh, whoſe remarks on its extreme variableneſs, as to ſize, ſhape of the leaves, luxuriance of its flowering-ſtem, and number of flowers, may be ſeen in Dr. Withering's new edition.

Root perennial, black, ſending down long fibres into the black moiſt ground. Leaves radical, ſpreading, fleſhy, obovate, ſtrongly ſerrated, lengthened out at the baſe, dark green above, purpliſh beneath (eſpecially near the edges and tips), hairy about the margin. Stalk for the moſt part ſolitary, erect, three or four inches high, ſimple, leafleſs, round, clothed in the upper part with fine hairs tipped with viſcid moiſture, terminating in a cluſter of ſeveral flowers on ſhort (ſometimes branched flower-ſtalks, the lowermoſt often accompanied by a ſimple entire bractea. Teeth of the calyx fleſhy, purple. Petals ovate, obtuſe, white ſpotted with pale green, frequently purpliſh. Piſtilla white or purpliſh. It has moſt affinity with S. *ſtellaris*, ſee *t.* 167, but may eaſily be known by the characters given above. Ray's figure is better than Lightfoot's; but neither is very good. Flora Danica, *t.* 28, repreſents a luxuriant branched ſpecimen.

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16.

SAXIFRAGA umbrosa.

London Pride, or None-so-pretty.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* five-cleft. *Petals* five. *Caps.* with two beaks, one cell, and many *seeds.*

SPEC. CHAR. Leaves obovate, bluntish, with a cartilaginous notched margin. Stem naked, panicled. Capsule superior.

SYN. Saxifraga umbrosa. *Linn. Sp. Pl.* 574. *Sm. Fl. Brit.* 450. *With.* 403. *Hull.* 92.

Geum folio subrotundo minori, pistillo floris rubro. *Magnol. Hort.* 88. *t.* 14. (majori) *Mill. Ic. t.* 141. *f.* 2. *Dill. in Raii Syn.* 355.

IT is singular that this plant should have been omitted by Mr. Hudson. The authorities mentioned by Dillenius for its growing on several mountains in Ireland are indubitable; and to them may be added that of Mr. Lambert, who gathered this Saxifrage on Croagh Patrick in the County of Mayo, a conical hill observed by Mr. Kirwan to rise 2666 feet above the neighbouring ocean. Sir T. Frankland and Dr. White have gathered it in Thorp Arch woods, Yorkshire. Our specimen grew in a truly wild situation, on a rocky bank near a rivulet, half a mile west of Mrs. Foster's house in Hesleton Gill, betwixt Arncliffe and Horton in Craven, and was communicated by Mr. W. Bingley. It is perennial, flowering in July; and is well known in gardens, particularly for thriving in London better than most plants, where it flowers earlier than on its native mountains.

The leaves are all radical, growing in a rose-like form, on flat foot-stalks, obovate, quite smooth, with a hard whitish crenate edge, and often purple beneath. Stalk a span high, erect, panicled, many-flowered, red, hairy, with a few small alternate bracteæ. Flowers upright. Calyx at length reflexed. Petals nearly elliptical, white or flesh-coloured, most beautifully spotted with yellow and dark red. Germen altogether superior, red. Capsule inflated, tipped with purple. It cannot be confounded with any other British species.

17.

SAXIFRAGA hirsuta.

Hairy Oval-leaved Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Leaves oval, somewhat heartshaped, abrupt, with cartilaginous notches. Stem naked, panicled. Capsule superior.

SYN. Saxifraga hirsuta. *Linn. Sp. Pl.* 574. *Picot Lapeyrouse Pyren. t.* 23.

IN our 22d volume, p. 1561, we have announced the discovery of this plant on the Irish mountains by Mr. J. T. Mackay, and we are obliged to that assiduous botanist for a specimen produced last June, in the Dublin garden, from a native root.

This species is very near *S. Geum, t.* 1561, but Mr. Mackay, who has observed it both in a wild and cultivated state, is satisfied of their being distinct. All we can vouch for is its being what Linnæus described as *hirsuta.* The synonym of *Geum folio circinato, acutè crenato, pistillo floris rubro,* Magnol. Hort. 87. t. 13, appears by the figure rather to belong to *S. Geum.* Linnæus justly points out the affinity of these two plants, but says the leaves of the present are oval, not kidney-shaped, which is true, and appears to be constant. The flowers are rather larger and more ornamental, having more red spots on their petals, but this may be variable. *S. hirsuta* seems an intermediate species between *Geum* and *umbrosa, t.* 663.

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18.

SAXIFRAGA Geum.

Kidney-leaved Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Leaves of a rounded kidney-shape, sharply toothed. Stem naked, panicled. Capsule superior.

SYN. Saxifraga Geum. *Linn. Sp. Pl.* 574.

Sedum montanum rotundifolium minus album non guttatum. *Moris. Hist. v.* 3. 478—no figure.

Sanicula montana minor. *Clus. Pann.* 441.

DISCOVERED by Mr. J. T. Mackay on a mountain near Dingle in the county of Kerry, Ireland, in September 1804. Roots brought from thence flowered the following June, and we are obliged to that gentleman and to Dr. Scott for specimens. The *Saxifraga umbrosa, v.* 10. *t.* 663, was long supposed a doubtful native of Ireland, nor had any one suspected that the *S. Geum* and *hirsuta* grew there too; yet Mr. Mackay has found these, and what may possibly prove another species. We hope in due time to elucidate them all, but at present must content ourselves with giving what is the real *S. Geum* of Linnæus, of which the above are conceived to be certain synonyms.

This differs from *S. umbrosa* in having rounded, somewhat kidney-shaped, hairy leaves, sharply toothed, by no means elongated at the base into a flat footstalk, but standing each on a longish, narrow, hairy footstalk. The flowerstalk is panicled, and clothed with red, glandular hairs. Petals cream-coloured, not sprinkled with yellow and red spots, but merely marked at the base with a purple line and yellow stain. The germen is superior, and calyx reflexed.

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19.

SAXIFRAGA oppositifolia.

Purple Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* in five segments. *Cor.* of five petals. *Capsule* with two beaks, one-celled; *seeds* numerous.

SPEC. CHAR. Leaves opposite, imbricated all along the stem, the upper ones ciliated. Flowers solitary, terminal.

SYN. Saxifraga oppositifolia. *Linn. Sp. Pl.* 575. *Hudſ. Fl. An.* 180. *With. Bot. Arr.* 432. *Fl. Dan. t.* 34.
S. Alpina ericoides, flore cæruleo. *Raii Syn.* 353.

A NATIVE of the highest alpine rocks, especially of Snowdon and Ingleborough, where it is "doomed to blush (for the most part) unseen" on the first melting of the snow. In the latter part of summer the plant acquires a dark mahogany colour, like that of some species of Jungermannia, the young leaves only remaining green. The beauty of its flowers has caused it to be cultivated in pots for ornamenting rooms in spring, mixed with Hyacinths, Narcissuses, &c. with which it makes an agreeable variety.

The figure in Flora Danica represents this plant in a dwarf state: ours is taken from a cultivated, and therefore more luxuriant specimen, resembling the appearance of the plant as it is found on the Alps of Switzerland.

SAXIFRAGA Hirculus.
Yellow Marſh Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with 2 beaks, 1 cell, and many *ſeeds.*

SPEC. CHAR. Stem-leaves lanceolate, alternate, entire. Stem erect. Germen ovate, ſuperior.

SYN. Saxifraga Hirculus. *Linn. Sp. Pl.* 576. *Sm. Fl. Brit.* 451. *Hudſ.* 181. *With.* 404. *Hull.* 93. *Curt. Lond. faſc.* 6. *t.* 26. *Fl. Dan. t.* 200.

Geum anguſtifolium autumnale, flore luteo guttato. *Dill. in Raii Syn.* 355.

THE genus of *Saxifraga* is on the whole one of the moſt elegant we have in Europe, and the ſpecies before us one of the moſt rare. It was ſhown to Dr. Richardſon by Dr. Kingſtone, growing plentifully on Knutsford moor, Cheſhire, early in the laſt century, and our wild ſpecimens were gathered laſt ſummer in a moraſs about the centre of the ſame moor by Mr. Okell of Cheſter. It is perennial, flowering in Auguſt, and may be cultivated in a moiſt border of bog earth.

The roots are fibrous, throwing out creeping leafy ſcions. Stems 6 or 8 inches high, erect, leafy, round, more or leſs ſhaggy with ſoft brown hairs. Leaves alternate, lanceolate, obtuſe, entire, ſmooth and ſhining, though occaſionally fringed or looſely inveſted with a few hairs like thoſe on the ſtem. Two or three large handſome flowers on ſhaggy ſtalks terminate the ſtem in a panicled manner. Their calyx is reflexed; their petals of a full yellow, beautifully dotted with red half way from the baſe, many-ribbed, and furniſhed above their claw with two remarkable protuberances. Stamina yellow, ſlender. Germen altogether ſuperior, ovate, green, ſmooth.—It ſeems ſcarcely neceſſary to indicate a mode of diſtinguiſhing this from [illegible], v. 1. *t.* 39; yet, as they have been confounded, we may remark that the ſuperior germen at once characterizes the *Hirculus.*

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21.

SAXIFRAGA aizoides.

Yellow Mountain Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* in five divisions. *Cor.* of five petals. *Capsule* with two beaks, one cell, and many seeds.

SPEC. CHAR. Stem-leaves linear, scattered, generally edged with tooth-like ciliæ: radical ones aggregate. Stem decumbent.

SYN. Saxifraga aizoides. *Linn. Sp. Pl.* 576. *Hudf. Fl. An. ed.* 1. 158.

S. autumnalis. *Hudf. Fl. An. ed.* 2. 180. *Lightf. Fl. Scot.* 222. *With. Bot. Arr.* 433.

S. alpina angusto folio, flore luteo guttato. *Raii Syn.* 353.

A NATIVE of alpine rills and moist rocks in a black boggy soil; in Scotland and the north of England very plentiful, flowering from June till the end of autumn. The roots creep very far: the stems are almost prostrate in their lower part, and thickly covered with leaves; their flowering extremities grow erect, and the leaves on them are much more scattered, as well as larger. The leaves are edged with such strong and remote ciliæ, that they might almost be called dentated: these ciliæ are, nevertheless, sometimes wanting, whence Linnæus describes his *S. aizoides* as having naked, and not ciliated leaves. Even his own specimen however (which is certainly the same species as ours) has traces of them; and, in fact, the number and density of these ciliæ are very variable. The flowers, which are terminal, and often form a kind of small corymbus, are extremely beautiful when closely examined; those that appear earliest are most deeply coloured.

Haller and Jacquin, and after them Lightfoot, suppose the Linnæan S. autumnalis not specifically distinct from this plant; and Linnæus himself has thought the hint worth noticing in his Mantissa ii. p. 383. Unluckily, his own Herbarium has no specimen to shew what he intended by S. autumnalis; and it appears he took up the plant from other authors. However this may be, the synonyms of Breynius and Morison quoted in Sp. Pl. certainly belong to S. Hirculus, and the rest probably to our plant. Dr. Stokes's conjecture (Bot. Arr. 434) is perhaps nearest the truth, that Linnæus's S. autumnalis is a ciliated variety of S. Hirculus.

We have endeavoured to make a new specific character, tolerably applicable to the plant. We prefer the name of *aizoides*, because it is undoubtedly right, as well as expressive; whereas that of *autumnalis* is not only, as above said, uncertain, but improper for a plant that flowers during most part of the summer.

Drawn by dd. Nov. 1790

SAXIFRAGA granulata.

White Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with two beaks, one cell, and many *seeds.*

SPEC. CHAR. Stem-leaves kidney-shaped, lobed. Stem branched. Root granulated.

SYN. Saxifraga-granulata. *Linn. Sp. Pl.* 576. *Huds.* 182. *With.* 405. *Relh.* 166. *Sibth.* 137. *Curt. Lond. fasc.* 1. *t.* 30. *Dicks. H. Sicc. fasc.* 5. 5. S. rotundifolia alba. *Raii Syn.* 354.

THIS pretty Saxifrage, rendered conspicuous by its brilliant white blossoms in the month of May, grows in dry pastures and on banks, where the soil is gravelly, but not very frequently, though where it does occur it is always in plenty. About Norwich it is far from rare; near London it is less common.

Root perennial, of several little grains or knobs, attached to one main fibre, and throwing out small fibres from their base. Stem solitary, erect, branched and panicled above, leafy, round, clothed with viscid hairs, and of a brown or reddish hue, with which colour the leaves and calyx-teeth are also tinged, giving the whole herb a rich and glowing appearance: these parts are also clothed with the same kind of hairs, especially the calyx, which is very clammy to the touch. The leaves are palmate and notched, somewhat fleshy, the radical ones on long footstalks. Petals obovate, much longer than the calyx, marked with three branched veins. Stamina all nearly equal. Germen inferior. Stigmas blunt and downy.—It is frequently cultivated with double flowers.

This plant has been recommended in the stone and gravel, because its granulated roots resemble small pebbles; but not being within the reach of every bungling apothecary or village doctress, its place has beeen capriciously supplied by the *Pimpinella, t.* 407, with which it has scarcely any character or property in common.

SAXIFRAGA cernua.

Drooping Bulbous Saxifrage.

DECANDRIA Digynia.

Gen. Char. *Cal.* five-cleft. *Petals* 5. *Caps.* with two beaks, one cell, and many *seeds*.

Spec. Char. Leaves on footstalks, palmate. Stem bearing bulbs. Germen superior. Petals blunt.

Syn. Saxifraga cernua. *Linn. Sp. Pl.* 577. *Fl. Lapp. t.* 2. *f.* 4. *Sm. Fl. Brit.* 453. *Dickf. Tr. of Linn. Soc. v.* 2. 290. *With.* 405. *Hull.* 93.

Mr. DICKSON first detected this rare alpine plant on the summit of Ben Lawers. The impossibility of procuring fresh specimens from thence, has made us thankfully accept this from the garden of the Rev. Mr. Bale, F. L. S. at Withyam, Sussex. Though a cultivated one, it exhibits the true wild appearance, and agrees precisely with those from Scotland and Lapland. It is perennial, and flowers in July or August.

Root a small scaly bulb, throwing out branched black fibres. Stem four or five inches high, erect, round, leafy, mostly smooth, generally simple and single-flowered, sometimes branched. Leaves alternate, on footstalks, kidney-shaped, lobed in a palmate manner, a little succulent, smoothish; the upper ones bearing in their bosoms little purple scaly bulbs, which falling to the ground become new plants. Flower terminal, solitary, white, more or less drooping. Segments of the calyx elliptical, erect, clothed with glandular hairs. Petals obovate, blunt, often almost notched at the end, three-nerved, the nerves united above the base, obliterated before they reach the top. Germen ovate, superior, green.

The figure in *Fl. Dan.* t. 366. seems rather to belong to our plant than to the *S. aizoides*, which last has acute petals, and always a purple stem. Linnæus could not distinguish them.

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SAXIFRAGA rivularis.

Alpine Brook Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Leaves palmate, stalked; the uppermost spatulate. Stem few-flowered. Root fibrous. Germen half inferior.

SYN. Saxifraga rivularis. *Linn. Sp. Pl.* 577. *Fl. Lapp. n.* 174. *t.* 2. *f.* 7. *ed.* 2. 142. *Sm. Fl. Brit.* 454. *Fl. Dan. t.* 118.

A RARE inhabitant of alpine rills in the Highlands of Scotland, specimens of which were communicated to Mr. Sowerby by Mr. G. Don. It is perennial, flowering in June or July.

The root is fibrous and somewhat creeping. Stems decumbent at the base, two or three inches high, scarcely branched but at the bottom, bearing from two to five flowers, on stalks that are slightly downy and viscid. Lower leaves on long stalks, smooth and fleshy, palmate, in three or five rounded lobes, of which the middle one is the largest; one or two ovate or spatulate undivided leaves accompany the flowers. The petals are white, single-ribbed, rounded, not much exceeding the calyx, which is half inferior, surrounding the middle of the capsule.

May 1 1811 published by J. & J. Sowerby London

V

SAXIFRAGA tridactylites.

Rue-leaved Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* five-cleft. *Petals* five. *Caps.* with two beaks, one cell, and many *seeds.*

SPEC. CHAR. Stem-leaves wedge-shaped, three- or five-cleft, alternate; the uppermost undivided. Stem erect, panicled.

SYN. Saxifraga tridactylites. *Linn. Sp. Pl.* 578. *Huds.* 182. *With.* 406. *Relh.* 166. *Sibth.* 138. *Curt. Lond. fasc.* 2. *t.* 406. *Dicks. H. Sicc. fasc.* 8. 10. *Lightf.* 224.

S. verna annua humilior. *Raii Syn.* 354.

COMMON in most parts of England on walls, thatched roofs, and dry barren places, but rare in Scotland; it succeeds the *Draba verna* in the same situations, flowering in May, after which it becomes sunburnt, of a blood red or mahogany colour, soon sheds its seed, and withers away. When it happens to grow in shady places, it is greener, more slender, and longer lived.

Root annual, small, and entirely fibrous. Stem various in height and luxuriance, erect, round, leafy, a little zigzag, much branched above in a panicled manner. The whole herb is clothed with projecting viscid hairs. Leaves palmate in three segments, or pedate in five, tapering down into a wedge-shaped base, their margin entire, their substance tumid and fleshy; the uppermost of all are lanceolate and undivided. Flowers small, white, on upright solitary flower-stalks. Calyx urn-shaped, with small teeth. Petals obovate, scarcely exceeding the calyx. Styles greatly divaricated.

Some have taken this for the *Paronychia* of Dioscorides; but if the point were worth the pains of an examination, there are many plants that agree better with his short and lame account. His *Paronychia* was used to cure whitlows. Hence this saxifrage has been called whitlow-grass, a name more commonly given to *Draba verna.*

SAXIFRAGA cæſpitoſa.

Tufted Alpine Saxifrage.

DECANDRIA Digynia.

Gen. Char. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with 2 beaks, 1 cell, and many *ſeeds.*

Spec. Char. Radical leaves cluſtered, fleſhy, linear, undivided or three-cleft, ribbed beneath. Stem almoſt naked, bearing one or two flowers.

Syn. Saxifraga cæſpitoſa. *Linn. Sp. Pl.* 578. *Sm. Fl. Brit.* 455.

FOR this plant alſo we are obliged to Mr. Griffith, who diſcovered it on the rocks about Cwm Idwel growing very ſparingly, flowering in June. It affords us a fortunate opportunity of exhibiting, and fixing as a Britiſh ſpecies, the certain plant of Linnæus; for, if Dr. Withering be right, the *S. cæſpitoſa* of Hudſon is no other than Jacquin's *moſchata*, to which perhaps all the ſynonyms, applied in *Sp. Pl.* to the true *cæſpitoſa*, really belong. Even the figure of Scopoli, the only one I ventured to quote in the *Fl. Britannica*, I am now ſatisfied is rightly referred by Jacquin to his *muſcoides*.

The true *S. cæſpitoſa*, of which the Linnæan herbarium contains abundant ſpecimens, has a perennial root, crowned with denſe tufts of fleſhy linear blunt leaves, each with a triple nerve beneath; of which the lowermoſt are undivided, the reſt three-cleft, ſometimes five-cleft. Stem about two inches high, erect, bearing a few linear (rarely three-cleft) bracteæ, and terminated by one or two large cream-coloured flowers. Calyx hemiſpherical, clothed like the herbage with prominent, glandular, not woolly, hairs, but its teeth are ſmoother and blunt. Petals obovate, entire, blunt, with a triple nerve. Germen almoſt entirely inferior.

It is much to be wiſhed that ſome accurate botaniſt would aſcertain whether it be this ſpecies, the *moſchata*, or the *muſcoides*, that grows about Ambleſide.

Pub. by Jas. Sowerby, London.

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SAXIFRAGA moschata.

Musky Alpine Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds*.

SPEC. CHAR. Radical leaves aggregate, thin, linear-lanceolate, undivided or three-cleft, triple-ribbed. Stem nearly naked, with very few flowers.

SYN. Saxifraga moschata. *Murray in Linn. Syst. Veg. ed.* 14. 414. *Sm. Fl. Brit.* 455. *Hull. ed.* 2. 124. *With.* 406.

S. cæspitosa. *Huds.* 181 ?

S. n. 985. *Hall. Hist. v.* 1. 421.

WHETHER the plant found by Hudson on mountains above Ambleside, Westmoreland, (which spot we have examined in vain,) be the *moschata*, as Withering supposed, or not, we are now authorized in admitting this curious species as a British native, Mr. Don of Cambridge having given us specimens from his garden, the parent roots of which he received from the Highlands of Scotland. Jacquin's figure, *Misc. v.* 2. *t.* 21. *f.* 1, is so bad, that we decline quoting it, rather supposing it to represent one of several exotic species known to us, but hitherto not well explained in books. Neither is Haller's plate, *It. Helvet. t.* 1, very good.

This little species forms perennial tufts, and flowers in May or June. The whole herb is glutinous, and has an aromatic musky smell in warm weather. The leaves are much thinner than those of *S. cæspitosa*, *t.* 794, generally undivided, a few of them sometimes three-cleft; the main rib of each sending off, beyond its middle, two lateral ribs. The stems are about two inches high, bearing but few leaves, and from two to five flowers, whose germen is inferior, and whose petals, stamens, and styles are buff-coloured, with a reddish tinge. The petals are nearly obovate, three-ribbed above their base,

May 1 as published by Jas. Sowerby London.

SAXIFRAGA palmata.
Palmate Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with 2 beaks, 1-celled. *Seeds* numerous.

SPEC. CHAR. Leaves hairy, palmate: the lower ones in five diviſions; upper in three. Shoots aſcending. Stem erect, leafy, with a denſe panicle of few flowers. Petals roundiſh.

SYN. Saxifraga petræa. *With.* 890.
S. cæſpitoſa. *Fl. Dan. t.* 71.

GATHERED wild on the rocks of Cwm Idwell, North Wales, by Mr. Griffith in the end of May laſt. The ſame gentleman alſo communicated ſpecimens to Dr. Withering, who has inſerted this plant at the end of his 3d volume by the name of S. *petræa* of Linnæus and Gouan; a miſtake ſcarcely to be avoided, conſidering the confuſion which envelops the S. *petræa*, and which we could never have removed without the original ſpecimens of Linnæus, Gouan, and Seguier now before us. From them it appears that the true *petræa*, figured by Pona, and ſent by Seguier to Linnæus, who firſt rightly deſcribed it in the 10th edition of Syſtema Naturæ, and then in *Sp. Pl.* ed. 2, is widely different, both from our plant and the variety β of S. *tridactylites* in *Flor. Suec.* It is no leſs different from Gouan's *petræa*, notwithſtanding what he ſays about comparing it with Seguier's ſpecimens at Niſmes; for his is actually S. *adſcendens* of Linnæus. We have not room here to illuſtrate this matter as it deſerves. We cannot refer our *palmata* to any ſpecies deſcribed in Haller, Allioni, Scopoli or Villars, though it comes in ſome points near the *exarata* of the latter. We have little doubt in quoting the *Flora Danica*, from the figure only; for, as uſual, there is not much to be learned from the letter-preſs of that work. This figure has no reſemblance to S. *cæſpitoſa* of Linnæus.

S. *palmata* has a perennial root, and grows in tufts, compoſed of numerous radical leaves, from whoſe centre ariſes a ſimple erect flowering-ſtem, ſurrounded at the baſe with ſeveral nearly upright, ſhortiſh, leafy ſhoots or branches. All the leaves are palmate, lengthened out at their baſe, clothed with long white woolly ſcattered hairs; the radical ones, as well as one or two on the lower part of the ſtem, are in 5 (rarely 7) ſegments; thoſe on the ſtem and ſide ſhoots in 3. All the ſegments are inclined to be elliptical, not linear. Panicle erect, terminal, viſcid, denſe, compoſed of 5 to 7 or 8 greeniſh-white flowers. Bracteæ 3-cleft, or undivided. Segments of the calyx ovate, pointed, hairy and viſcid. Petals roundiſh, a little pointed, with 3 ſimple nerves united at their baſe. Styles club-ſhaped.—The ſpecific character in Dr Withering, as well as the deſcription from Linnæus, belong to the true S. *petræa*.

March 1790 Published by J. Sowerby London

29.

SAXIFRAGA hirta.

Trifid Hairy Saxifrage.

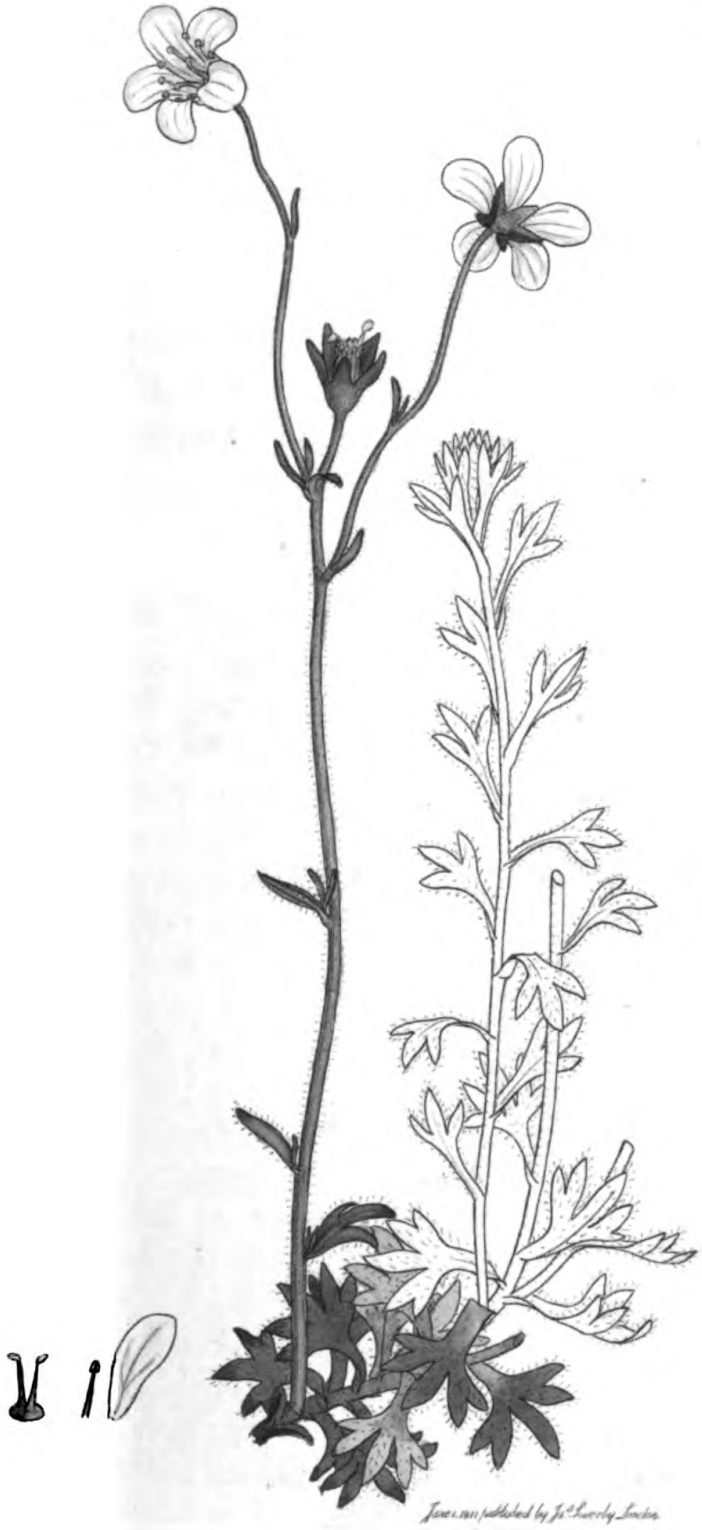
DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Leaves in five, or three, deep, elliptical, acute lobes; hairy, like the stem and footstalks. Shoots ascending. Stem erect, leafy, with few flowers. Petals obovate, with three simple nerves.

SYN. Saxifraga hirta. *Donn. Cant. ed.* 5. 107.

WE have received from the worthy Curator of the Cambridge garden living plants of this Saxifrage under the above name, along with several others, all of Scottish growth; but the specimen in our plate was communicated by Mr. Joseph Woods from a garden, as being a plant found by Mr. Mackay in Ireland. It proves distinct from all we can find described of this intricate tribe. It flowers in May, or early in June, and forms lax perennial tufts, with ascending leafy shoots, and erect flowering stems. The leaves have broad flat footstalks, marked with a central groove, and exceeding their own length. They are themselves deeply divided or fingered, the lobes 3 or 5, the 2 outer ones in the latter case less separated; all elliptical, acute, entire; fringed, like the shoots, with long, soft, white hairs. The stem varies in height according to circumstances, and is clothed with glandular hairs; it bears 3 or 4 loosely panicled, white, large flowers, accompanied by a few simple oblong bracteas. The petals are obovate, in which this species differs from *S. palmata, t.* 455, though in many points they agree, especially in their pubescence. Three green simple ribs are found in each petal, combined for a short distance from the bottom.


June 1, 1811, published by Jos. Sowerby, London.

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SAXIFRAGA platypetala.

Broad-petalled Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Leaves in three or five bristle-pointed segments. Shoots procumbent. Stem somewhat leafy. Petals obovate, nearly orbicular.

SYN. Saxifraga platypetala. *Sm. Tr. of Linn. Soc. v.* 10. 341.

MR. TURNER gathered this Saxifrage upon Snowdon in 1802, and communicated it to us long ago as a new species, which we find confirmed by an examination of all the books and specimens that have come in our way. Mr. G. Don found the same on the mountains of Clova, Angusshire, as will appear, among many other interesting discoveries of his, in the 10th vol. of the Linnæan Society's Transactions, part 2.

It is perennial, agreeing greatly in habit with *S. hypnoides, t.* 454, but is usually more luxuriant. The leaves are less simple, being almost universally divided into three, sometimes five, lobes, a few on the upper part of the flowering stem only being undivided. Each lobe is awned or hair-pointed. The petals, very useful in discriminating *Saxifragæ,* are remarkably different, being so broad in their limb as to be almost orbicular. They have three principal ribs, united in the lower part, of which the middlemost is either quite simple, or deeply cloven into two simple branches, while the lateral ribs send off numerous irregular fine branches, towards the edge of the petal. The leaves and stem are clothed with scattered soft hairs, and the flowerstalks and calyx with brownish glandular viscid ones.

May 1 1811 published by Jas Sowerby London

SAXIFRAGA elongella.

Long-stalked Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Leaves in three or five bristle-pointed segments; their base elongated: the uppermost linear and undivided. Flowerstalks very long and naked.

SYN. Saxifraga elongella. *Donn. Cant. ed.* 5. 107. *Sm. Tr. of Linn. Soc. v.* 10. 340.

OUR specimens from Mr. G. Don were gathered on a rock by a river called Lintrathen, a mile and half north of Airly castle, Angusshire. The stems creep considerably, and are smooth, slightly leafy, throwing out numerous short, much more leafy, branches. The lower leaves on each branch, and one or two below the flowerstalk, are linear and undivided; the rest, from a long narrow base, divide suddenly into three oblong, acute, nearly equal lobes, the two outermost of which are sometimes cloven; all the leaves are more or less fringed with soft hairs, and their points tipped with a small bristle. What chiefly characterize this species are the solitary, simple, terminal, naked flowerstalks, very slightly glandular, each about two inches tall, and bearing a very large white upright flower, whose germen is inferior, calyx-teeth ovate, and petals obovate, entire, with three slender ribs, separating a little above the base, the lateral ones incurved to the midrib before they reach the top. In cultivated specimens there are sometimes one or two lateral 2-flowered stalks, but this is not natural to the plant. It blossoms early in summer.

May 1.1810 published by J. & E. Sowerby London.

SAXIFRAGA hypnoides.
Mossy Saxifrage, or Ladies' Cushion.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1-celled. *Seeds* numerous.

SPEC. CHAR. Leaves linear, undivided or three-cleft. Shoots procumbent. Stem erect, almost naked.

SYN. Saxifraga hypnoides. *Linn. Sp. Pl.* 579. *Hudf.* 182. *With.* 407. *Lightf.* 224.
S. muscosa, trifido folio. *Raii Syn.* 354.

TUFTS of this saxifrage often clothe rocks, whose inequalities are filled with black turfy earth, on the mountains of Wales, Scotland, and the north of England. We have gathered it on Ben Lomond, and on Arthur's Seat near Edinburgh. The specimen here represented was sent fresh from North Wales, by J. W. Griffith, Esq. It flowers in May, and often again sparingly in July and August.

Roots fibrous, long and slender, perennial, throwing out many procumbent leafy shoots, which grow matted together, forming thick tufts, and from the common origin of which arises a solitary erect round stem, bearing two or three straggling linear undivided leaves, and terminating in an upright panicle of a few large white flowers. Leaves alternate, linear, acute, pale green, smooth, their edges only often hairy with soft white woolly filaments; the leaves on the shoots simple and undivided; those at the bottom of the stem all deeply three-cleft, but never (we believe) more compound. Bracteæ solitary at each subdivision of the panicle, lanceolate, and (like its branches) clothed with viscid short hairs. Calyx also viscid, its segments acute. Petals lanceolate, approaching to an elliptical form, acute, entire, yellowish at the base, ribbed with three green lines, which are all united for some distance above their origin, and the central one mostly branched near the top. Stamina subulate, five of them rather the shortest. Styles still shorter, nearly erect; Stigmas blunt. This species grows well in gardens in a shady situation. By a careful attention to the above characters it may be known from all other *Saxifragæ*. The S. *ajugifolia* is very like it, but has all the leaves 3 or 5-cleft, as well as more numerous, though much smaller and yellower, flowers, with blunt petals, whose mid-rib is not branched at the top. We should not wonder if this should prove to have been hitherto overlooked by British botanists, as we find by Mr. Davall has been the case in Switzerland.

The student of natural genera may be amused with tracing the affinity, and yet distinction, between this genus, the *Adoxa*, and their connecting link *Chrysosplenium*.

Mauke. 1930 P. Hockberg f. Lowry Lith.

SAXIFRAGA pedatifida.

Pedatifid Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Radical leaves kidney-shaped, divided in a pedate manner into seven lobes: stem-leaves palmate or linear. Stem naked below, branched. Petals linear-obovate.

SYN. Saxifraga pedatifida. *Ehrh. Exsicc. n.* 15. *Sm. Tr. of Linn. Soc. v.* 10. 340.
S. quinquefida. *Donn. Cant. ed.* 5. 107.

EHRHART, a very accurate observer of whatever plants he could procure, first distinguished this species from *S. geranioides*, with which his countrymen the Swiss seem to have confounded it, and he gave it the above apt name. Mr. G. Don, and the late Mr. J. Mackay, both gathered this plant in the Highlands, the former on the mountains of Clova, Angusshire. Our figure is unavoidably taken from a cultivated specimen. This Saxifrage flowers in May, and is, of course, perennial, forming spreading cushion-like tufts, by means of its long and branching shoots, being one of the most rambling of its tribe. The very numerous radical leaves are deeply cut into three lobes, which vary greatly in breadth, and the side ones are again lobed in a pedate manner; all are acute, and somewhat fringed, like their long narrow flat footstalks. The flowerstalks are a span high, central and solitary, slightly hairy; naked below; branched and leafy above, such upper leaves being some deeply and narrowly palmate, others undivided. The flowers are numerous and corymbose, but proportionably small. Germen inferior. Calyx hairy, lanceolate. Petals white, obovate but narrow, their ribs much like those of *S. elongella.*

34.

SCLERANTHUS annuus.

Annual Knawel.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* of one leaf. *Cor.* none. *Seeds* two, enclosed in the calyx.

SPEC. CHAR. Calyx of the ripe fruit with sharp spreading teeth. Stems spreading.

SYN. Scleranthus annuus. *Linn. Sp. Pl.* 580. *Huds. Fl. An.* 178. *With. Bot. Arr.* 436. *Relh. Cant.* 165. *Sibth. Ox.* 138.
Knawel. *Raii Syn.* 159.

NOTHING can be more common on a sandy soil than *Scleranthus annuus*, especially in fallow fields. It is an annual, flowering about the middle of summer, and sowing its seeds very abundantly in autumn, which produce a crop of young plants that generally survive the winter, or, if destroyed, are replaced by another crop arising from those seeds that happen not to vegetate till spring.

Root annual, long, not much branched. Stems very numerous, spreading in all directions, the outermost decumbent at the base only, not prostrate their whole length, all round, a little downy, much branched, leafy, pale, sometimes reddish. Leaves opposite, united at their base by a dilated, membranous and downy margin, linear, somewhat keeled, acute, smooth, of a grassy green, not glaucous nor silvery. Flowers of the same colour, sessile, in terminal leafy clusters. Calyx with 10 ribs, and cloven half way down into 5 sharp spreading teeth, a little membranous at their edges. Stamina shorter than the calyx, sometimes 10, but generally from 5 to 8, of which several are short and imperfect. Germen superior, ovate. Styles spreading. Stigmas downy. Seed enclosed in the permanent hardened calyx, often solitary (as several writers remark); but we have found two, or at least the unripened rudiments of two.

SCLERANTHUS perennis.

Perennial Knawel.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* of one leaf. *Cor.* none. *Seeds* two, enclosed in the calyx.

SPEC. CHAR. Calyx of the ripe fruit with obtuse incurved teeth. Stems prostrate.

SYN. Scleranthus perennis. *Linn. Sp. Pl.* 580. *Huds. Fl. An.* 178. *With. Bot. Arr.* 437.

Knawel incanum flore majore, perenne. *Raii Syn.* 160. *t.* 5. *f.* 1.

THIS is much more rare than the preceding, having hitherto been observed only in Norfolk and Suffolk, always on the driest barren sandy heaths. We received it from the neighbourhood of Bury, by favour of W. Mathew, Esq. flowering in November, for it is later in that respect than authors mention.

The root is said to be perennial, but that we have not been able to verify. Stems perfectly prostrate and close pressed to the ground, downy in the upper part, often purplish, much branched, especially towards their extremities. Leaves glaucous, "covered with shining pellucid tubercles," according to Mr. Mathew's remark, and sometimes downy. Segments of the calyx with a more membranous border than in *S. annuus*, their points much more obtuse and curved inward. The earlier flowers in the end of summer are of a very silvery appearance, and attract the eye at a distance. Filaments not all perfect. Calyx in the flowering state cloven rather more than half way down, but not so when the germen swells, externally pubescent. When growing old the whole plant becomes of a reddish brown. Dillenius's figure in Ray's Synopsis is too large and upright, and shows nothing that could serve to discriminate so difficult a plant.

36.

SAPONARIA officinalis.

Soapwort.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* of 1 leaf, naked. *Petals* 5, with claws. *Capſ.* ſuperior, oblong, moſtly of 1 cell.

SPEC. CHAR. Calyx cylindrical. Leaves elliptic-lanceolate.

SYN. Saponaria officinalis. *Linn. Sp. Pl.* 584. *Sm. Fl. Brit.* 459. *Hudſ.* 183. *With.* 408. *Hull.* 94. *Relh.* 167. *Sibth.* 138. *Abbot.* 94. *Curt. Lond. faſc.* 2. *t.* 29. *Woodv. Suppl. t.* 251.

Lychnis Saponaria dicta. *Raii Syn.* 339.

GATHERED by the ſides of woods between the Half-way houſe and Gad's-hill in the way to Rocheſter, where it is moſt aſſuredly wild, as well as in many other parts of the kingdom about hedges and thickets, flowering in Auguſt and September.

Root perennial, deep and much branched, producing many upright, round, leafy, panicled ſtems, about 18 inches high. Every part of the herb is ſmooth, and ſlightly ſucculent. Leaves oppoſite, joined at the baſe, broad-lanceolate, entire, 3-ribbed. Panicle roundiſh, of numerous handſome bluſh-coloured flowers, whoſe very ſweet ſcent is to many perſons oppreſſive. The claw of each petal is remarkable for having four angles or wings. The flowers are ſometimes found double, in which ſtate they are often cultivated in gardens.——The moſt remarkable variety, however, is that called *Saponaria concava anglicana*, found by Gerarde in Northamptonſhire, with broad ſheathing alternate leaves, and a monopetalous corolla. This had been thought a loſt plant, but was diſcovered laſt year by Dr. Boſtock of Liverpool on ſand-hills about 7 miles north of that town growing under the ſhade of *Populus alba*.

Soapwort is ſo called from a property in the herb of forming a lather with water, and anſwering, though very imperfectly, the purpoſes of ſoap.


Published by J. Sowerby London.

37.

DIANTHUS Armeria.

Deptford Pink.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* cylindrical, of one leaf, with about 4 scales at the base. *Petals* 5, with claws. *Caps.* cylindrical, one-celled.

SPEC. CHAR. Flowers clustered, in bundles. Calyx-scales lanceolate, downy, equal to the tube.

SYN. Dianthus Armeria. *Linn. Sp. Pl.* 586. *Huds. Fl. An.* 183. *With. Bot. Arr.* 440. *Sibth. Ox.* 139. Caryophyllus latifolius barbatus minor annuus, flore minore. *Raii Syn.* 337.

ALTHOUGH less striking at first sight than many of its beautiful family, the Deptford Pink will be found on minute examination to be very delicately pencilled, and to possess a great degree of elegance in its form. It loves a gravelly soil, and grows, as Mr. Woodward informed Dr. Withering, not unfrequently in Norfolk. Mr. Sowerby gathered the present specimen a little beyond the Falstaff Inn on Gad's hill, Kent.

Root annual, tapering and zigzag. Stem round, leafy, erect, subdivided, the branches very straight, downy, terminated by little compound clusters of inodorous flowers, which appear in July, and continue to bloom till very late in autumn. The lower leaves are broad and somewhat spatulate; those at each joint of the stem, and under the flowers, narrow, lanceolate and acute; all opposite, entire, a little downy. Scales of the calyx of the form of the upper leaves, and as long as the tube. Petals a little toothed, narrow, sprinkled with minute red dots, and marked with more or less of a line, forming an eye-like ring in the centre of the flower. Each flower lasts but one day, and there is seldom above one expanded at a time in each cluster. The seeds are black, flat and minute.


April 1st 1796 Published by T. Sowerby London

DIANTHUS prolifer.

Proliferous Pink.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* cylindrical, of one leaf, with ſcales at the baſe. *Petals* 5, with claws. *Capſ.* cylindrical, ſuperior, of 1 cell.

SPEC. CHAR. Flowers cluſtered, in heads. Calyx-ſcales ovate, blunt, beardleſs, membranous, overtopping the tube.

SYN. Dianthus prolifer. *Linn. Sp. Pl.* 587. *Sm. Fl. Brit.* 461. *Hudſ.* 184. *With.* 409. *Hull.* 94.
Caryophyllus ſylveſtris prolifer. *Dill. in Raii Syn.* 337.

THIS very uncommon *Dianthus* grows on a gravelly, or rather marly, ſoil, in not more than 3 or 4 places in England. Dillenius firſt had it from Suſſex: Mr. Ballard, an accurate and experienced obſerver, has found it in Worceſterſhire: Mr. Humphrey met with it many years ago in the borders of a field out of St. Auſtin's gates, Norwich, where it ſtill occurs, more or leſs ſparingly in different ſeaſons, flowering from July to the very end of autumn.

Root annual, ſmall. Stems erect, ruſhy, ſlender, little branched except when very luxuriant, round, leafy, ſmooth. Leaves linear, pointed, rough on the edge; the lowermoſt ſpatulate. Heads terminal, ovate, the dry brown membranous ſcales enfolding many flowers, one or two of which only are in perfection at once, and they are ſo tender and ſhort-lived that we have been obliged to have recourſe to a garden ſpecimen to expreſs them. Calyx-tube ſlender, furrowed, ſhorter than the ſcales. Petals notched. Stamina various in length, with blueiſh antheræ. Capſule cylindrical, containing many flat black ſeeds.

In gardens this plant grows with great luxuriance, and is not unornamental, though the flowers want the fragrance which many pinks poſſeſs.

DIANTHUS Caryophyllus.

Clove Pink, or Carnation.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* cylindrical, of one leaf, with about 4 scales at the base. *Petals* 5, furnished with claws. *Caps.* cylindrical, one-celled.

SPEC. CHAR. Flowers solitary. Scales of the calyx almost rhomboid, and very short. Petals notched, beardless.

SYN. Dianthus Caryophyllus. *Linn. Sp. Pl.* 587. *Hudf. Fl. An.* 184. *With. Bot. Arr.* 441. *Smith in Linn. Transf. v.* 2. 299.

Caryophyllus simplex flore minore pallido rubente. *Raii Syn.* 336.

GATHERED on the walls of Rochester castle in June last. It is plentiful on walls in that neighbourhood, and sometimes occurs about those of other old towns. Ray and Hudson take it for an outcast of gardens. Indeed it varies in size and colour, like all plants so circumstanced. Ours is surely the plant of Ray, and, we think, ought to be esteemed the real original species, rather than a variety as marked by Mr. Hudson. It agrees precisely with the specimens of Linnæus.

The root is perennial, and runs deep into the mortar, producing several tufts of channelled glaucous leaves, finely denticulated a little above the base, but in the upper part perfectly entire, and smooth at the margin. The stem is panicled, bearing many solitary (not fasciculated) flowers, of a light red or flesh colour; their petals unequally notched, smooth at the outset; calyx striated, with 4 scales not a third of its length, the 4 outermost rhomboid, 2 innermost wedge-shaped, even broader than they are long, with a small point, all of them ribbed. The stamina are sometimes very short, and perhaps in that case abortive, as in Arenaria dianthoides, *Smith Ic.* t. 10. The styles are commonly long, recurved, and downy on the upper side.

What Mr. Dony records by a "hairy species, frequent in Kent, and found [illegible] other places," distinct from the above, we are at a loss to determine.

40.

DIANTHUS deltoides.

Maiden Pink.

DECANDRIA Digynia.

GEN. CHAR. *Calyx* cylindrical, of one leaf, with about four ſcales at the baſe. *Petals* five, furniſhed with claws. *Capſule* cylindrical, one-celled.

SPEC. CHAR. Flowers ſolitary. Two lanceolate ſcales only to each calyx. Corolla notched.

SYN. Dianthus deltoides. *Linn. Sp. Pl.* 588. *Hudſ. Fl. An.* 184. *With. Bot. Arr.* 441. *Relh. Cant.* 167. Caryophyllus minor repens noſtras. *Raii Syn.* 335.

FOUND on ſandy banks and heaths in various parts of England, growing proſtrate among graſs and other herbs, for want of the natural ſhelter of which in a garden, it is not eaſily cultivated. It begins flowering in July, and laſts till very late in autumn. The petals vary much in colour, being ſometimes of a very pale fleſh colour, ſometimes deep red, but are always marked with a ring of deeper red dots, near the centre of the flower.

Mr. Hudſon's variety β has white flowers, with a beautiful purple ring, and leaves rather more glaucous than in the common kind here figured. That variety is the true Dianthus glaucus of Linnæus, and perhaps of Lightfoot, which, though common in gardens, we have never yet met with wild in England. It ſeems, however, no more than a variety. It has indeed generally four ſcales to the calyx, and ſo has frequently D. deltoides. Mr. Hudſon's D. glaucus is a very different plant, ſee *tab.* 62.

V

41.

DIANTHUS cæſius.

Mountain Pink.

DECANDRIA Digynia.

GEN. CHAR. *Calyx* cylindrical, of one leaf, with about four ſcales at the baſe. *Petals* five, furniſhed with claws. *Capſule* cylindrical, one-celled.

SPEC. CHAR. Stems moſtly ſingle-flowered. Scales of the calyx roundiſh and ſhort. Petals notched, bearded. Leaves rough in the margin.

SYN. Dianthus virgineus β. *Linn. Sp. Pl.* 590.
D. glaucus. *Hudſ. Fl. An.* 185.
Armeriæ ſpecies flore in ſummo caule ſingulari. *Rai Syn.* 336.

WE believe this plant has never yet been found in any part of Great-Britain, except on Chedder rocks, Somerſetſhire, where it was gathered in Ray's time by Mr. Brewer, and ſince by the Rev. Mr. Lightfoot, and ſome other botaniſts. The flowers appear in July, and are highly fragrant.

The whole hiſtory of this ſpecies in Engliſh writers is a heap of confuſion. Dr. Stokes alone has formed any tolerable conjectures on the ſubject. The error originated with Linnæus, who quoted Dillenius's excellent figure (*Hort. Elth. t.* 298, *f.* 385.) as a variety of his D. virgineus, with which it has no affinity. Mr. Hudſon unluckily increaſed the confuſion, by taking it for D. glaucus. We are happy to clear up the point by means of wild and original ſpecimens, and to give, from Dr. Smith's manuſcripts, a new ſpecific character, which, if attended to, will be found abundantly ſufficient to diſtinguiſh this from every other Dianthus hitherto known. The trivial name *cæſius* is taken from the character given by Dillenius, and alludes to the blueiſh green of the leaves.

The roots are woody and perennial, and thrive beſt in a dry or ſomewhat ſandy ſoil.

CUCUBALUS baccifer.

Berry-bearing Chickweed.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated. *Petals* 5, with claws. *Berry* superior, of 1 cell, with many *seeds*.

SPEC. CHAR. . . . .

SYN. Cucubalus baccifer. *Gærtn. v.* 1. 376. *t.* 77. *f.* 7. *Sm. Fl. Brit.* 464.

C. bacciferus. *Linn. Sp. Pl.* 591. *Huds.* 185. *With.* 411. *Hull.* 97. *Dicks. H. Sicc. fasc.* 4. 9.

C. Plinii. *Dill. in Raii Syn.* 267.

COMMUNICATED by Mr. W. Borrer from his garden. We have never seen a wild specimen. Dillenius received it from Anglesea, and admitted it into his edition of Ray. The latter noticed it near Frankfort, and afterwards in Italy and the south of France; see his *Observations* 79, and his *Cat. Stirp.* 7, but has not mentioned it as a British plant. It grows in hedges, flowering in June and July, and is perennial. In autumn the black berries, so unusual in this natural order, by which it is distinguished from the genus *Silene*, are very remarkable. These are supposed to be poisonous, but we know not on what foundation.

The root creeps. The stems are weak and straggling, 2 or 3 feet long, much branched, forked, leafy, round, hollow, rough with deflexed hairs. Leaves opposite, on stalks, ovate, entire, downy. Flowers axillary and terminal, solitary, drooping, on downy stalks. Calyx large, bell-shaped, downy, thin, permanent. Petals greenish-white, cloven, generally more or less crowned, but in that respect they vary. Stamina inserted into the petals and the receptacle alternately. Berry stalked, globular, black and shining.

March 1806. Published by Jas. Sowerby, London.

SILENE anglica.

English Catchfly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* ſwelling, of one leaf. *Petals* 5, with claws. *Capſ.* ſuperior, imperfectly 3-celled, burſting at the ſummit. *Seeds* many.

SPEC. CHAR. Hairy, viſcid. Petals notched. Flowers lateral, erect, alternate. Lower fruit ſpreading or reflexed.

SYN. Silene anglica. *Linn. Sp. Pl.* 594. *Sm. Fl. Brit.* 465. *Hudſ.* 187. *With.* 413. *Hull.* 97. *Relh.* 167. *Abbot.* 95. *Curt. Lond. faſc.* 4. *t.* 30. *Dickſ. H. Sicc. faſc.* 13. 18.

Lychnis ſylveſtris, flore albo minimo. *Raii Syn.* 339.

LIKE other annuals which grow in cultivated fields occaſionally, but are not common weeds, this *Silene* occurs now and then on light ſandy ſoils among corn, turnips, &c., but is rarely ſeen for ſeveral years in ſucceſſion in any one ſpot. It flowers in July.

Root ſmall. Herb hairy and ſlightly viſcid. Stem branched and ſpreading, ſcarcely ſupporting itſelf alone, leafy, round, ſwelling above each joint. Leaves lanceolate or obovate, acute, entire. Flowers ſolitary, from the boſoms of the upper leaves, on ſhort ſtalks, upright. Calyx ribbed, hairy, at length ſwelling. Petals broadly elliptical, notched, with long claws, crowned with a notched ſcale. Their colour is generally white; but we have found them with a central reddiſh ſpot, faintly imitating *S. quinquevulnera*, *t.* 86. Capſules ovate, hard and rigid; the lower ones generally ſpreading widely, or bent back; the uppermoſt nearly erect.

June 1. 1803. Published by Ja.s Sowerby, London.

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44.

SILENE quinquevulnera.

Variegated Catchfly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* ſwelling. *Petals* five, furniſhed with claws, and with a crown at the mouth. *Capſ.* three-celled.

SPEC. CHAR. Flowers ſolitary, lateral, alternate; limb of the petals roundiſh and entire. Fruit erect.

SYN. Silene quinquevulnera. *Linn. Sp. Pl.* 595. *Hudſ. Fl. An.* 188. *With. Bot. Arr.* 449.

MR. Hudſon is our authority for conſidering this pretty plant as of Britiſh growth, having mentioned it in his 2d edition of Flora Anglica as a native of ſandy fields about Wrotham in Kent. It is commonly cultivated in flower-gardens, and may frequently be found almoſt naturalized on heaps of rubbiſh and other ſuch places.

From a ſmall fibrous annual root ariſe ſeveral flaccid ſpreading ſtems, round, hairy, and a little viſcid, as are alſo the leaves, though very ſlightly ſo. Numerous flowers ſpring in an alternate order from the boſoms of the upper leaves, erect, or but little divaricated, even when the fruit is ripe. The petals are remarkable for the deep red ſpot in their centre like a drop of blood, as if the flower had received five wounds; whence the name *quinquevulnera.*

It continues in flower from June till the end of Auguſt, and produces great plenty of ſeeds.

Silene anglica is ſometimes found with pale reddiſh ſpots on its petals; but its ſpecific character, greater degree of viſcoſity, and paler colour of all its parts, diſtinguiſh it from this ſpecies.

√

SILENE nutans.

Nottingham Catch-fly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* ſwelling. *Petals* 5, with claws, and with a crown at the mouth. *Capſ.* three-celled.

SPEC. CHAR. Petals cloven. Lateral flowers drooping, all towards one ſide. Panicle drooping.

SYN. Silene nutans. *Linn. Sp. Pl.* 596. *Hudſ.* 188. *With.* 413. *Fl. Dan. t.* 242.

Lychnis ſylveſtris alba 9 Cluſii. *Raii Syn.* 340. *Ger. em.* 470. *Deering Nott.* 137.

WE received this from Nottingham Caſtle by favour of Mr. Ordoyno. It loves a lime-ſtone ſoil, and was obſerved upon rocks in the bed of the river Dove, Derbyſhire, by Mr. Woodward; and near North Queen's-ferry, for the firſt time we believe in Scotland, by Mr. J. Mackay in 1793. It is perennial, and flowers in June and July.

Stems ſeveral, ſimple, bowed at the baſe, then erect, a foot or more in height, leafy, jointed, round, downy, viſcid in the upper part, terminating in a forked panicle, the ſummit and branches of which all droop towards one ſide. Leaves entire, pointed, downy, of a paliſh green, lanceolate; the radical ones inclining to obovate, and forming thick tufts. Flowers nodding, white, of a delicate texture. Calyx obovate, membranous, with ten green ribs, downy, but not very remarkably ſo, ſometimes purpliſh, as are very generally the long footſtalks of the leaves at their inſertion, and the baſe of the ſtem. Petals expanding in the evening, very deeply cloven, crowned with a ſharp cloven projection between their ſegments. Five of the ſtamina projecting, the other 5 ſhorter than the claws of the petals, to which they are more particularly attached. Styles varying in length. Seeds rugged, numerous.

The Dover Catchfly, *Raii Syn.* 340. 12, ſo long miſtaken for Cucubalus viſcoſus *Linn.*, has of late been referred to this ſpecies of Silene; but we have reaſon to think it S. *paradoxa*. On this point however we do not abſolutely decide till we can obtain freſh wild ſpecimens from Dover.

May 1. 1798 Published by J. Sowerby London

46.

CUCUBALUS Behen.

Bladder Campion.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* ſwelling. *Petals* five, furniſhed with claws, not crowned at the mouth. *Capſ.* three-celled.

SPEC. CHAR. Calyx nearly globular, ſmooth, reticulated with veins. Leaves ovato-lanceolate, glaucous, ſmooth.

SYN. Cucubalus Behen. *Linn. Sp. Pl.* 591. *Hudſ. Fl. An.* 186. *With. Bot. Arr.* 445. *Relh. Cant.* 168. Lychnis ſylveſtris, quæ Ben album vulgo. *Raii Syn.* 337.

FOUND every where in corn-fields, paſtures, and by way-ſides, flowering abundantly in the middle and latter part of ſummer, and thriving though frequently covered with duſt. It appears to moſt advantage in a chalky ſoil.

Root perennial. Radical leaves in tufts, ſpatulate; thoſe on the ſtem lanceolate or ovate; all of them entire, pliable and ſomewhat ſucculent, glaucous, with a very green pulp, moſtly ſmooth, though ſometimes ciliated and a little hairy. The ſtem is round, ſmooth and glaucous, a foot or two in height, erect, leafy, dichotomouſly panicled. The flowers on ſlender foot-ſtalks, nodding, numerous, with ſcarcely any ſmell. Calyx inflated, and beautifully veined with purple and green. Petals white, quite deſtitute of a crown. The antheræ are ſometimes liable to a diſeaſe, becoming large and ſwelled, and producing a vaſt quantity of barren purple duſt, inſtead of the true pollen, with which the petals are often ſtained, ſo as to be diſcoverable at a great diſtance. Dr. Withering ſays the leaves boiled may be eaten as peas.

Whether the Silene amœna of our Britiſh authors (widely different from that of Linnæus) be only a variety of this plant, as the laſt-mentioned writer thought, or really a diſtinct ſpecies and genus, we ſhall at ſome future time endeavour to determine.

SILENE maritima.

Sea Campion.

DECANDRIA Trigynia:

GEN. CHAR. *Cal.* ſwelling, of one leaf. *Petals* 5, with claws. *Capſ.* ſuperior, imperfectly 3-celled, burſting at the ſummit. *Seeds* many.

SPEC. CHAR. Flowers moſtly ſolitary, terminal. Petals cloven, crowned at the mouth. Calyx ſmooth, reticulated with veins. Stems proſtrate at the baſe.

SYN. Silene maritima. *With.* 414. *Sm. Fl. Brit.* 468. *Hull.* 98.

S. amœna. *Hudſ.* 188. *Lightf.* 227.

Cucubalus Behen β. *Linn. Sp. Pl.* 591.

Lychnis maritima repens. *Raii Syn.* 337.

ABUNDANT on the ſea ſhore both in ſandy and rocky places, flowering in Auguſt and September. Our ſpecimen was ſent by Mr. W. Borrer from Suſſex. Like ſome other maritime plants it is alſo truly alpine, flouriſhing in the ſtony beds of mountain torrents. Having cultivated it ſeveral years in various ſoils, and propagated it by ſeed, we can now ſpeak to its certainty as a ſpecies; indeed few plants vary leſs in habit, though in the number of its ſtyles, and their correſponding fruit-cells, it varies (unfortunately for the Linnæan ſyſtem) from 3, the prevailing number, to 4 or 5. The petals are conſtantly crowned at their baſe; a circumſtance which ſometimes, though rarely, occurs in *Silene inflata* [illegible], figured under the Linnæan name of *Cucubalus Behen* [illegible]; and which proving in ſome other caſes not to be [illegible], we have now ſet aſide as a generic character.

The [illegible] before us has a creeping perennial root, many [illegible] ſtems, whoſe extremities only grow upright, and [illegible] a handſome white flower, generally [illegible] accompanied by 1 or 2 more; but the [illegible] bears ſo many flowers as in *S. inflata*, neither is the [illegible] ſo long as in that ſpecies. In the leaves and calyx [illegible] a conſiderable affinity between the two.


Published by Jos. Jenkins London.

48.

CUCUBALUS Otites.

Spanish Campion.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* swelling. *Petals* five, furnished with claws, not crowned at the mouth. *Caps.* three-celled.

SPEC. CHAR. Flowers dioicous. Petals linear, undivided.

SYN. Cucubalus Otites. *Linn. Sp. Pl.* 594. *Hudf. Fl. An.* 186. *With. Bot. Arr.* 446. *Relh. Cant.* 168.

Lychnis viscosa flore muscoso. *Raii Syn.* 340.

THIS plant, the least ostentatious of all its tribe, is peculiar to dry, sandy, and gravelly soils in a very few parts of England, chiefly Norfolk, Suffolk, and Cambridgeshire. The flowers appear in July and August; and although very numerous, may, from their green colour, be easily overlooked among the panicles of surrounding grasses. Our present specimen was sent from Bury by Wm. Matthew, Esq.

The root is perennial and strong, running deep into the ground, and producing many thick tufts of narrow, spatulate, entire, sharp-pointed leaves, which are viscid, and rough with minute, thick-set, curved and sometimes stellated, hairs, as are likewise the stem and flowerstalks. The stem is from one to two feet high, erect, viscid in the upper part, and producing numerous little opposite tufts of pedunculated flowers, intermixed with membranous bracteæ. The flowers are male on one root, and female on another; but the former often produce abortive pistilla (as in our figure), and the latter abortive stamina. We suspect the number of styles varies from two to five. We have found in both sexes the same narrow entire yellowish petals, though they are said to be sometimes wanting; they are very much like those of Saponaria lutea *Linn.* (Smith Spicil. t. 5.) to which this plant is allied in habit; but the capsule of that has only one cell. Fig. 1 and 2 represent the pistilla of the female flowers; the others belong to the male.


1
2

49.

SILENE conica.
Corn Catchfly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, ſwelling. *Petals* 5, with claws. *Capſ.* ſuperior, imperfectly 3-celled, burſting at the top. *Seeds* many.

SPEC. CHAR. Stem forked. *Petals* cloven, crowned. Leaves ſoft. Calyx when in fruit conical, with thirty furrows.

SYN. Silene conica. *Linn. Sp. Pl.* 598. *Sm. Fl. Brit.* 470. *With.* 416. *Hull.* 98.

S. conoidea. *Hudſ.* 189. *Linn. Sp. Pl.* 598 ?

Lychnis ſylveſtris anguſtifolia, caliculis turgidis ſtriatis. *Dill. in Raii Syn.* 341.

L. caliculis ſtriatis, ſecunda Cluſii. *Ger. em.* 470.

THIS ſpecies of *Silene* is a native of Kent, but, as far as we know, of no other part of Britain. Mr. Dillwyn ſupplied us with ſpecimens from the ſand-hills near Sandown Caſtle, where it grew in the time of Dillenius. It is annual, flowering in July, and thriving in the moſt barren ſandy ſoil.

Root ſmall, tapering, but little branched. Stem erect, round, downy, ſomewhat viſcid, branched, leafy, repeatedly forked in the flowering part, various in height. Leaves oppoſite, linear-lanceolate, entire, acute, clothed all over with ſoft ſhort down, and of a grayiſh green colour. Flowers from the divarications of the ſtem, ſolitary, ſtalked, erect, in an evening exhaling a ſweet ſmell, approaching to that of a honeyſuckle, but weaker. Calyx cylindrical, becoming conical as the fruit ſwells, membranous, with 30 green downy prominent equal ribs, and 5 ſharp teeth. Petals narrow, their limb cloven, roſe-coloured, with a ſharp tooth on each ſide of the baſe, and a notched ſcale above, forming the crown. Capſule ovate. Seeds rough.

It is more than probable that the *S. conoidea* is a very ſlight variety of this, with ſmoother leaves. The petals being undivided is not an invariable mark. Whatever the figures of Lobel and Gerarde cited in *Fl. Brit.* may be intended for, we now prefer that of Gerarde above quoted as the moſt exact repreſentation.

Sept.r 1. 1801. Published by Jas. Sowerby, London.

SILENE noctiflora.

Night-flowering Catchfly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* swelling. *Petals 5*, with claws, and with a crown at the mouth. *Caps.* three-celled.

SPEC. CHAR. Calyx with ten angles, and teeth as long as its tube. Stem forked. Petals cloven.

SYN. Silene noctiflora. *Linn. Sp. Pl.* 599. *Huds. Fl. An.* 189. *With. Bot. Arr.* 452. *Relh. Cant. Suppl.* 1. 13. *Sibth. Ox.* 140.
Lychnis noctiflora. *Raii Syn.* 340.

IN sandy fields of the midland and southern counties, not rare in Norfolk and Suffolk, flowering about July.

Root annual, small in proportion to the herb, which often becomes very luxuriant in a manured soil. Stem erect, round, hairy, leafy, repeatedly forked in the upper part. Leaves soft and downy, lanceolate, sessile, the lower ones broadest, and the lowest obovate. Flowers solitary at the divisions of the stem, on hairy viscid stalks, which are short at first, but afterwards lengthened out to about an inch. Calyx white, with green angles and veins, its teeth almost as long as the tubular part. Petals of a cream colour tinged with red, their limb rolled in during the day, but unfolding in the evening, and then the flowers become very sweet-scented, at least while warm weather continues. We believe each flower lasts several days, the petals rolling themselves up every evening till the impregnation is fully accomplished. If so, how is this involution performed? Does the action of light upon the upper surface of each petal stimulate that surface to contract? The phænomena of such flowers as expand or smell only by night, deserve the attention of the physiologist, for they are ruled by very constant laws. We recommend them to the evening meditations of the philosophic recluse, at "that best hour of musing" when the mind turns to Nature and its Author with peculiar complacency.

SILENE Armeria.

Common or Lobel's Catchfly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* swelling, of one leaf. *Petals* 5, with claws. *Caps.* superior, imperfectly 3-celled, bursting at the summit. *Seeds* many.

SPEC. CHAR. Panicles forked, clustered, many-flowered. Petals notched, crowned with sharp teeth. Upper leaves heart-shaped, smooth.

SYN. Silene Armeria. *Linn. Sp. Pl.* 601. *Sm. Fl. Brit.* 471. *Huds.* 189. *With.* 415. *Hull.* 98. *Fl. Dan. t.* 559.

Lychnis viscosa purpurea latifolia lævis. *Dill. in Raii Syn.* 341.

Muscipula Lobelii. *Ger. em.* 601.

THE pretensions of this plant to a place in a British Flora seem to us very slight. Dr. Richardson informed Dillenius that it grew on the banks of the river half a mile below Chester, but no one has confirmed his account, nor strengthened it by finding the plant any where else in Britain. We never saw a British specimen, but have chosen a self-sown garden one, which seems to exhibit the natural appearance of the species. It is annual, flowering all July and August, and is commonly cultivated in gardens for ornament, being very easily propagated by seed.

Root small. Herb destitute of pubescence. Stem 6 to 18 inches high, round, branched, leafy, marked with a brown viscid ring under the upper joints, by which flies are caught, for what particular purpose has scarcely been guessed. Leaves opposite, sessile, entire, glaucous, very smooth, ovate or heart-shaped. Flowers erect, red, inodorous, in a flat-topped, forked, dense tuft, accompanied by small bracteæ. Calyx tubular, smooth, coloured, membranous, with 10 ribs and as many teeth. Petals with long claws, an obcordate limb, and 2 erect sharp teeth. Capsule elliptical, placed on a long footstalk. Seeds many.

Decr. 1 1804. Published by Jas. Sowerby, London.

SILENE acaulis.

Moſs Campion.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* ſwelling, of one leaf. *Petals* 5, with claws. *Capſ.* ſuperior, imperfectly 3-celled, burſting at the ſummit. *Seeds* many.

SPEC. CHAR. Leaves linear, ciliated at the baſe. Stalks ſolitary, ſingle-flowered. Petals crowned.

SYN. Silene acaulis. *Linn. Sp. Pl.* 603. *Sm. Fl. Brit.* 472. *Lightf.* 227. *t.* 12. *f.* 1. *With.* 416. *Hull.* 98. *Dickſ. H. Sicc. faſc.* 1. 8.

Cucubalus acaulis. *Hudſ.* 187.

Lychnis alpina minima. *Raii Syn.* 341.

A NATIVE of the higher parts of the moſt alpine mountains of Britain, where its elegant bloſſoms appear in June and July, and its ripe capſules in Auguſt. Our ſpecimens were collected on Snowdon, July 12th laſt, by Mr. D. Turner. We have been favoured with others from ſeveral friends in Scotland.

The root is perennial, running deep into the fiſſures of rocks, and branching at its crown into many ſhort, leafy, proſtrate, ſubdivided ſtems, which form thick moſſy tufts. Leaves crowded, ſpreading, linear, acute, more or leſs ciliated, eſpecially towards their baſe, which is extended into a ſheathing, dilated foot-ſtalk; their colour is a bright green. From the ſummit of each ſhort branch of the ſtem ariſes one elegant roſe-coloured flower, on a ſimple, ſmooth, naked ſtalk, which is at firſt very ſhort, but as the fruit ripens becomes often an inch and half long. The calyx is moſtly purple in the upper part. Petals ſlightly notched, minutely crowned at their baſe, as we have often had an opportunity of obſerving. Capſule cylindrical, lengthened out as it ripens, as in the genus *Ceraſtium*.

From the above deſcription it appears that the term *acaulis* is not ſtrictly applicable to this plant, but rather alludes to its appearance at firſt ſight.

June 1, 1832 Published by J. Sowerby London

STELLARIA nemorum.

Wood Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* five-leaved, ſpreading. *Petals* five, cloven. *Capſule* one-celled, with many ſeeds.

SPEC. CHAR. Lower leaves, heart-ſhaped, on foot-ſtalks; upper ones ovate, ſeſſile. Panicle dichotomous.

SYN. Stellaria nemorum. *Linn. Sp. Pl.* 603. *Hudſ. Fl. An.* 190. *With. Bot. Arr.* 455.

Alſine montana, folio Smilacis inſtar, flore laciniato. *Raii Syn.* 347.

CONFINED to moiſt woods and the borders of clear ſhaded ſprings in the moſt northern parts of England, as well as in the low-lands of Scotland, flowering in May. Mr. Robſon, to whom we are indebted for ſo many rare plants figured in this work, gathered the preſent ſpecimen in Cliff-wood near Darlington.

Root perennial, ſmall and creeping. Stems ſeveral, weak and lax, round, hollow, ſcattered here and there with hairs, chiefly in the upper part. Leaves pale green, tender and ſucculent. The numerous ſtar-like flowers are viſible at a diſtance, and of a delicate ſtructure when cloſely examined.

For the conſolation of fallible botaniſts we muſt remark that Linnæus in his Flora Lapponica (No. 186) confounds this plant with Alſine media and Ceraſtium aquaticum. The former may always be known, in all its numerous varieties, from this and every other plant of its natural order, by the hairy line on one ſide of its ſtem, firſt pointed out, if we remember right, by Mr. Curtis. The latter is diſtinguiſhed from our Stellaria by being viſcid, and much more hairy; its flowers much leſs conſpicuous; calyx more oval, and leſs membranous; panicle more leafy; and eſpecially by all the ſtem-leaves being ſeſſile, neither are they lengthened out into ſo long a point; not to mention its five ſtyles, which are very conſtant.

Stellaria nemorum thrives very well in Chelſea garden.

STELLARIA media.

Common Chickweed.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, cloven. *Capſ.* 1-celled, with 6 valves, and many *ſeeds.*

SPEC. CHAR. Leaves ovate. Stems procumbent, with a hairy alternate ridge on one ſide. Stamina 5 to 10.

SYN. Stellaria media. *With.* 418.
Alſine media. *Linn. Sp. Pl.* 389. *Hudſ.* 131. *Relh.* 128. *Sibth.* 105. *Curt. Lond. faſc.* 1. *t.* 20. *Fl. Dan. t.* 438 & *t.* 525.
A. vulgaris, ſeu Morſus gallinæ. *Raii Syn.* 347.

WE moſt readily follow Dr. Withering in his removal of this plant from the genus of *Alſine*, with which it has no natural affinity, nor any agreement in botanical character, except having generally but 5 ſtamina. The genuine ſpecies of *Alſine* reſemble *Arenaria tenuifolia* in habit, and have undivided petals (a very important mark) and a 3-valved capſule: the plant now under conſideration has deeply cloven petals, and a 6-valved capſule, the eſſential characters, and all the habit, of a *Stellaria*, ſee our *t.* 92. Nothing is more common than for ſome plants of a genus to have occaſionally, or even conſtantly, but half their proper number of ſtamina.

The *Stellaria media* is a common weed in every ſoil and ſituation, eſpecially in cultivated ground, flowering from the beginning of ſpring till the end of autumn; for, though the root is annual, the ſeedlings moſtly ſtand the winter. The ſtems are ſeveral, proſtrate, brittle and ſlender at the bottom, leafy, marked on one ſide from joint to joint, but in an alternate manner, with a hairy line, by which deciſive character, pointed out by Mr. Curtis, all its Proteus-like varieties (of which we here exhibit two very different ones) may be known at once from every plant of its natural order, and particularly from *Ceraſtium aquaticum*. Leaves oppoſite, ovate, entire, ſmooth, on, longer or ſhorter, fringed foot-ſtalks, and folded together at night. Flowers on ſolitary axillary or terminal ſtalks, which are hairy on one ſide. Calyx hairy, longer than the petals. Stamina 10 or 5, rarely but 3, each with a gland at its baſe. Seeds rough, pale brown.

It is a good vegetable boiled like ſpinach. Small birds eat the whole herb, as do young poultry.

[illegible] by Sowerby London

STELLARIA holoſtea.

Greater Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, cloven. *Capſule* of one cell, with many ſeeds.

SPEC. CHAR. Leaves lanceolate, ſerrulated. Petals two-lobed.

SYN. Stellaria holoſtea. *Linn. Sp. Pl.* 603. *Hudſ.* 190. *With.* 417. *Relh.* 170. *Sibth.* 140. *Curt. Lond. faſc.* 2. *t.* 30. *Dickſ. H. Sicc. faſc.* 7. 6.

Caryophyllus holoſteus arvenſis glaber flore majore. *Raii Syn.* 346.

VERY frequent in groves and about dry hedge bottoms, where its brilliant white ſtarry bloſſoms render it conſpicuous in the ſpring. The herb has ſo much of a graſſy appearance, that old botaniſts have named it the white-flowering graſs.

Root perennial, creeping, ſmall. Stems at their baſe decumbent, ſlender and very delicate, then upright, ſupporting themſelves among buſhes or graſs, otherwiſe the leaſt breath of wind would lay them proſtrate; they are ſquare, jointed, rough at the angles immediately under the joints, leafy, brittle, but with a ſtrong woody ſtructure in their inner part, as is the caſe with moſt of this tribe. Leaves oppoſite, ſeſſile, lanceolate, long and ſharp-pointed, a little revolute, their margins finely ſerrulated, their mid-rib ſharp, their ſurface ſlightly glaucous and deſtitute of all pubeſcence. The ſtem terminates in a forked manner, leafy, ſomewhat panicled, and the flowers grow on long ſolitary ſimple ſtalks from its diviſions. Calyx-leaves lanceolate, a little membranous at the edges. Petals inverſely heart-ſhaped, cloven about half way down. Stamina white with yellow antheræ. Styles ſhorter, blunt and downy. Germen globular. Capſule of nearly the ſame figure, and containing about 6 or 7 kidney-ſhaped brown ſeeds.

STELLARIA graminea.

Lesser Stitchwort.

DECANDRIA Trigynia.

Gen. Char. *Cal.* 5-leaved, spreading. *Petals* 5, deeply cloven. *Caps.* superior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

Spec. Char. Leaves linear-lanceolate, entire. Panicle terminal, spreading. Calyx three-nerved, about equal to the petals.

Syn. Stellaria graminea. *Linn. Sp. Pl.* 604. *Sm. Fl. Brit.* 475. *Hudf.* 190. *With.* 419. *Hull.* 97. *Relh.* 170. *Sibth.* 140. *Abbot.* 96.

Caryophyllus holosteus arvensis glaber, flore minore. *Raii Syn.* 346.

THE white starry blossoms of this delicate plant prettily bespangle furze-bushes, heath, and low broom, on a gravelly or sandy soil; and its herbage being concealed by the bushes or grass, and the stalks of the panicle very slender, the flowers seem suspended in the air. They are principally observable in June and July.

The root is perennial and creeping. The whole habit of the plant much like that of *S. holostea*, figured in our 8th *vol. t.* 511, but its size is smaller, and the colour a grass green, not glaucous. The stem and flower-stalks are perfectly smooth. Leaves entire, and scarcely even rough at the margin. Panicle divaricated. Calyx-leaves pale, with three acute green ribs, which, as Dr. Stokes observes, are not to be found in *S. holostea*. Petals about as long as the calyx or longer, very deeply divided. Antheræ of a pale reddish hue, pointed out by Ray as a rare circumstance, and characteristic of this species. It is however also observable in *S. glauca*, *Fl. Brit.* which Ray originally considered as a variety of this, though he afterwards separated them.

March 1806 Published by J. Sowerby.

STELLARIA glauca.

Glaucous Marſh Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, deeply cloven. *Capſ.* ſuperior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

SPEC. CHAR. Leaves linear-lanceolate, entire, glaucous. Flower-ſtalks erect. Calyx three-nerved, ſhorter than the petals.

SYN. Stellaria glauca. *With.* 420. *Sm. Fl. Brit.* 475. *Sym. Syn.* 108. *Hull.* 97.

S. media. *Sibth.* 141. *Abbot.* 96.

S. graminea β. *Hudſ.* 190.

Caryophyllus holoſteus arvenſis medius. *Raii Syn.* 347.

ALTHOUGH it may be difficult to draw up a very ſtriking ſpecific character between this plant and the *S. graminea* repreſented in *t.* 803, there can be no queſtion of their being perfectly diſtinct ſpecies. The preſent is found only in moiſt meadows, or about ditches. Its glaucous colour, perfect ſmoothneſs of the edges of the leaves as well as of the ſtem, and larger flowers, the petals being twice as long as the calyx; to which may be added that the flower-ſtalks are more univerſally lateral and ſolitary, much leſs collected into a panicle, and the 3 nerves of the calyx leſs ſharply prominent; all theſe circumſtances help to diſtinguiſh it from the former. In colour, ſize and general habit it rather approaches the *S. holoſtea, t.* 511; but that is beautifully diſtinguiſhed by the total want of nerves in its calyx, and the rough edges of its leaves and ſtem.

S. glauca is not a very general plant, though it may be found in moiſt ſituations in many parts of Great Britain, eſpecially where the ſoil is gravelly. It begins to flower towards the end of June, and laſts till Auguſt. The antheræ are of a pale reddiſh brown.

Jan. 1. 1801. Published by Jas. Sowerby, London.

58.

STELLARIA uliginosa.

Bog Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, deeply cloven. *Caps.* superior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

SPEC. CHAR. Leaves elliptic-lanceolate, entire, with a callous tip. Flowers irregularly panicled, lateral. Petals shorter than the calyx.

SYN. Stellaria uliginosa. *Sm. Fl. Brit.* 476. *Curt. Lond. fasc.* 6. *t.* 28. *With.* 420. *Hull.* 97. *Sibth.* 141. *Abbot.* 96.

S. graminea γ. *Hudf.* 190. *Linn. Fl. Suec.* 150. *Relb.* 170. *ed.* 2. 171.

Alsine longifolia, uliginosis proveniens locis. *Rail Syn.* 347.

FREQUENT in rivulets, and clear brooks or ditches by road sides, flowering plentifully in June.

The root is annual, small and fibrous. Herb weak and slender, smooth, of a pale somewhat glaucous green. Stems branched, quadrangular, leafy. Leaves rather elliptical, furnished with many parallel veins, entire, but waved in the margin, tipped with a small callous point. Flower-stalks axillary and terminal, spreading, generally three together, of which 2 are three-cleft and three-flowered, the remaining one single-flowered, all furnished with membranous lanceolate bracteæ. Flowers smaller than in any other British species. Calyx leaves 3-nerved, the outermost fringed. Petals greenish white, shorter than the calyx. Dr. Stokes has observed that the styles vary from 3, the natural number, to 4 or 5.

It may seem strange that this very distinct species should ever have been confounded with *S. graminea*, (see *v.* 12. *t.* 803.); the German botanists are entitled to the honour of first distinguishing them. The peculiar inflorescence, the short petals, and the form and structure of the leaves, mark *S. uliginosa* with sufficient precision.

Sept.r 1. 1802 Published by Ja.s Sowerby London

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59.

STELLARIA scapigera.

Many-stalked Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, deeply cloven. *Caps.* superior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

SPEC. CHAR. Stem shorter than the flower-stalks. Leaves linear-lanceolate, rough-edged. Calyx three-nerved, the length of the petals.

SYN. Stellaria scapigera. *Willden. Sp. Pl. v.* 2. 716.

WILD specimens of this new and curious *Stellaria* have been obligingly communicated to us by Mr. G. Donn, who gathered them at different times, from the year 1794 to 1803, on the sides of rivulets in Perthshire, and about Loch Nevis, Invernessſhire. The plant was received by the younger Linnæus from the Kew garden with the apt name of *scapigera*, but does not appear in the *Hortus Kewensis* of Mr. Aiton. A specimen having come to the hands of Professor Willdenow, he has described it in his *Sp. Pl.*, but its native country was altogether unknown till Mr. Donn's fortunate discovery.

It is perennial, but of the precise time of its flowering we are not informed. The stems are very short, tufted, thickly clothed with numerous, opposite, linear-lanceolate, acute leaves, rough on the edges, but otherwise smooth, each having a single rib, very thick at the base, tapering and vanishing towards the point. Numerous long square smooth stalks spring from the bosoms of the upper leaves, rising high above the stem, mostly simple, and each bearing a white flower, whose calyx-leaves have 3 ribs, a membranous edge, and are about as long as the petals. Antheræ red. The leaves turn red in decay, and remain long on the stem. We do not find them 3-ribbed, nor is the plant *acaulis* as described in Willdenow.

Feb.y 1 1804 Published by Jos. Sowerby London

60.

STELLARIA ceraſtoides.

Alpine Stitchwort.

DECANDRIA Trigynia:

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, deeply cloven. *Capſ.* ſuperior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

SPEC. CHAR. Leaves elliptic-oblong, bluntiſh. Stems generally two-flowered, marked with a hairy longitudinal line. Calyx-leaves with a ſingle nerve, downy.

SYN. Stellaria ceraſtoides. *Linn. Sp. Pl.* 604. *Sm. Fl. Brit.* 477. *Pl. Ic. t.* 15. *Dickſ. Tr. of Linn. Soc. v.* 2. 290. *H. Sicc. faſc.* 2. 11. *With.* 421. *Hull.* 97. *Fl. Dan. t.* 92.

AN uncoloured plate of this plant was given in the firſt faſciculus of my *Plantarum Icones* in 1789, becauſe I had then no idea of its being any where figured, and few botaniſts appeared to know it. Linnæus himſelf after publiſhing an excellent deſcription in *Fl. Suec. n.* 394, confounded many other things with it. Mr. Dickſon firſt made it known as a Britiſh native. Our wild ſpecimens were gathered on Ben Nevis, and mountains to the north of Invercauld, by Mr. J. Mackay.

The root is perennial and creeping, and the flowers come out in June. Stems diffuſe, branched at the bottom, leafy, marked with a ſlender alternate hairy line (firſt detected by Mr. Sowerby) as in the Common Chickweed *t.* 537, which confirms the generic affinity of the two plants. The flower-ſtalks however, which grow about 2 together at the extremity of the ſtem, are downy in every part. Leaves oppoſite, lanceolate or ſomewhat ſpatulate, blunt, entire, ſmooth, often leaning to one ſide. Flowers erect, white. Calyx-leaves obtuſe, ſingle-ribbed, downy and viſcid at the baſe, membranous in the margin. Petals about twice as long as the calyx, cloven half-way down, narrow. Styles ſometimes 4 or 5; teeth of the capſule double their number. Seeds rough, pale brown.

61.

ARENARIA peploides.

Sea Chickweed.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* five-leaved, ſpreading. *Petals* five, undivided. *Capſ.* of one cell, with many ſeeds.

SPEC. CHAR. Leaves ovate, acute, fleſhy.

SYN. Arenaria peploides. *Linn. Sp. Pl.* 605. *Hudſ. Fl. An.* 191. *With. Bot. Arr.* 458.

Alſine marina, foliis Portulacæ. *Raii Syn.* 351.

PECULIAR to the ſandy ſhores of the ſea, but there found in abundance. Its juices partake of the alkaline nature of other ſucculent maritime plants.

The roots are ſtringy, creeping, and extend very far, throwing out fibres at every joint. Stem alternately branched, forming thick leafy procumbent tufts, angular, ſmooth and lucid, as is every part of the herb. Leaves ſeſſile, ovate, entire, ſlightly recurved, of a beautiful bright green. Flowers on ſhort footſtalks, ſolitary at the diviſions of the ſtem, ſmall, white, and not very conſpicuous. Calyx quite deſtitute of ribs. Germen with a row of yellowiſh glands round its baſe. Styles very ſhort.

No other ſpecies of Arenaria can be confounded with this. It flowers about the middle of ſummer, and is perennial.

ARENARIA trinervis.

Plantain-leaved Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, undivided. Capsule superior, of 1 cell, with many seeds.

SPEC. CHAR. Leaves ovate, acute, stalked, ribbed. Keel of the calyx-leaves rough, with three obscure ribs.

SYN. Arenaria trinervis. *Linn. Sp. Pl.* 605. *Sm. Fl. Brit.* 478. *Huds.* 191. *With.* 421. *Hull.* 95. *Relh.* 171. *Sibth.* 141. *Abbot.* 97. *Curt. Lond. fasc.* 4. *t.* 31.

Alsine plantaginis folio. *Raii Syn.* 349.

INCURIOUS observers may pass by this little plant as a variety of the common *Stellaria media,* to which it bears some resemblance in general aspect; but its paler hue, and uniform downiness, readily distinguish it. When examined more carefully, the undivided petals and the 3-ribbed leaves mark it decisively.

It grows in shady bushy places, for the most part on a rather moist but not boggy soil. It is also partial to calcareous ground, and flowers in May and June.

Root annual. Stems upright, but weak, and trusting to other plants for support, much branched, spreading, round, downy all over. Leaves on footstalks, opposite, ovate, acute, entire, ciliated, marked with 3, rarely 5, evident ribs. Flowers small, white, on longish solitary stalks, each proceeding from a fork of the stem. Calyx longer than the petals, acute, each leaf with 3 obsolete ribs, and downy at the back. Capsule opening with 6 revolute teeth. Seeds black and smooth.

Aug.t 1 1808. Published by Jas Sowerby London

63.

ARENARIA ſerpyllifolia.

Thyme-leaved Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſ.* ſuperior, of 1 cell, with many ſeeds.

SPEC. CHAR. Leaves ovate, nearly ſeſſile, rough. Calyx hairy, its outer leaves five-ribbed.

SYN. Arenaria ſerpyllifolia. *Linn. Sp. Pl.* 606. *Sm. Fl. Brit.* 479. *Hudſ.* 191. *With.* 421. *Hull.* 95. *Relh.* 171. *Sibth.* 142. *Abbot.* 97. *Curt. Lond. faſc.* 4. *t.* 32. *Dickſ. H. Sicc. faſc.* 16. 3.

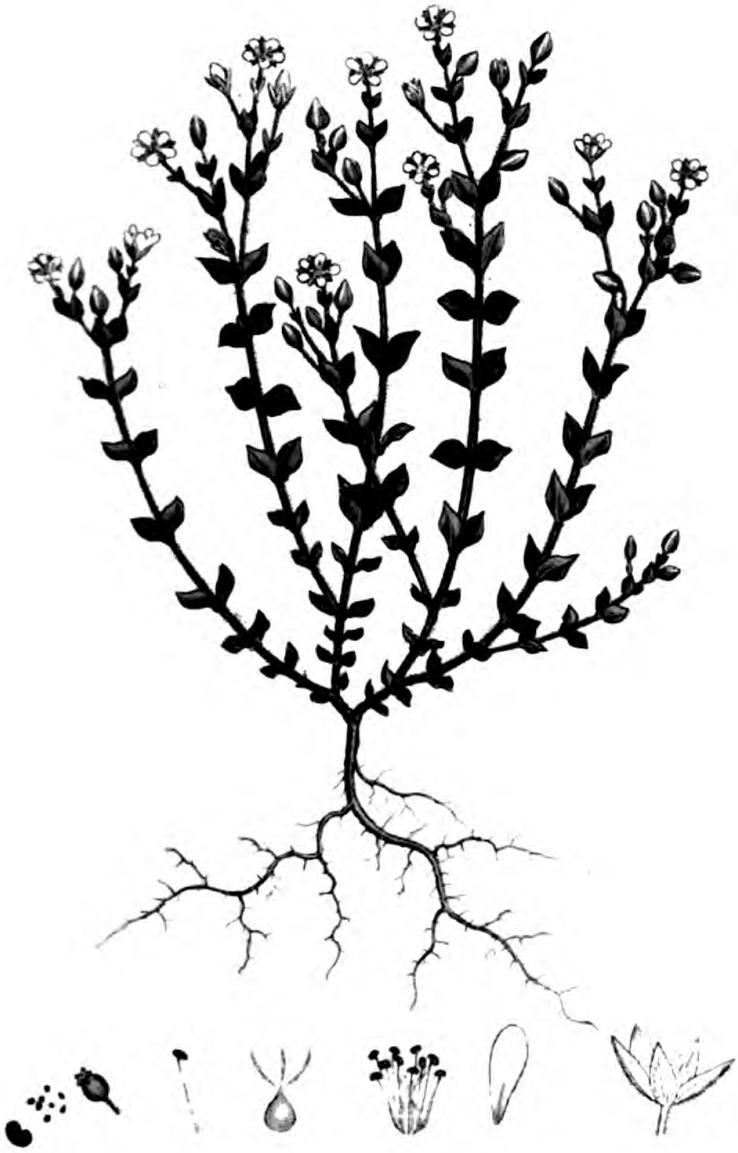
Alſine minor multicaulis. *Raii Syn.* 349.

COMMON on walls and in barren waſte places, flowering from May to the middle of July.

The root is ſmall, fibrous, annual. Stems ſeveral, 3 or 4 inches high, ſpreading, a little branched, leafy, rigid, round, downy, forked upwards, ſet with ſeveral pairs of oppoſite, ſmall, ovate, entire, thyme-like leaves, which are roughiſh on both ſides, and ſlightly ribbed. Flower-ſtalks always erect. Leaves of the calyx ovate, acute, hairy, with a white membranous edge; the 3 outermoſt furniſhed with 5 ribs, the 2 inner ones with only 3. Petals white, ſhorter than the calyx. Capſule ovate, with 6 teeth. Seeds rough, reddiſh.

The whole herb when rubbed has a faint herbaceous ſmell. We know not that it poſſeſſes any peculiar qualities. Small birds, and ſome caterpillars, eat the flower-buds and unripe capſules.

The ſtructure of the calyx, particularly the number of its ribs, is of great importance in this genus, as in *Linum*, for diſcriminating the ſpecies.



ARENARIA rubra.

Purple Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſule* ſuperior, of 1 cell, with many ſeeds.

SPEC. CHAR. Leaves linear, tipped with a ſmall briſtle. Stipulæ membranous, ſheathing. Seeds compreſſed, angular, roughiſh.

SYN. Arenaria rubra. *Linn. Sp. Pl.* 606. *Sm. Fl. Brit.* 479. *Hudſ.* 192. *With.* 422. *Hull.* 96. *Relh.* 172. *Sibth.* 142. *Abbot.* 98.
Spergula purpurea. *Raii Syn.* 351.

THIS ſpecies of *Arenaria* is one of the moſt common in dry ſandy fields, ſpreading widely on the ground, and flowering in July and Auguſt; but the bloſſoms expand only in bright weather, when their beauty and brilliancy will be found worthy of an accurate examination.

Root ſmall, ſpindle-ſhaped, branched, annual. Stems proſtrate, branched, ſpreading in a circular form, flaccid, leafy, round, ſmooth, a little tumid at their joints. Leaves flat, linear, narrow, pointed, entire, tipped with a ſmall briſtle, glaucous or rather hoary, ſomewhat ſucculent, nearly the length of each correſponding joint of the ſtem, and connected at their baſe by a pair of white membranous cloven ſtipulæ. Panicles terminal, leafy, forked, their terminations racemoſe; their flower-ſtalks downy and viſcid. Calyx of 5 hairy leaves, without ribs, their margin membranous. Petals generally ſhorter than the calyx. Capſule equal to the calyx, ovate, of 3 valves. Seeds numerous, pale-brown, compreſſed, of an angular and ſomewhat wedge-like figure, rough on their outer edge with little ſharp tubercles. By the figure of the ſeeds and the briſtles that terminate the leaves, this plant is diſtinguiſhed from *A. marina* and its varieties, which we hope on ſome future occaſion to illuſtrate.

65.

ARENARIA marina.

Sea Spurrey-Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſule* ſuperior, of 1 cell, with many ſeeds.

SPEC. CHAR. Leaves ſemicylindrical, fleſhy, awnleſs. Stipulæ membranous, ſheathing. Seeds compreſſed, bordered, ſmooth.

SYN. Arenaria marina. *Fl. Dan. t.* 740. *Sm. Fl. Brit.* 480. *Hull.* 95.

A. rubra β. *Linn. Sp. Pl.* 606. *Lightf.* 230. *Hudſ.* 193, (media).

A. media. *With.* 422.

Spergula maritima, flore parvo cæruleo, ſemine vario. *Dill. in Raii Syn.* 351.

β. Arenaria media. *Sp. Pl.* 606, the ſynonyms wrong.

A. marina. *With.* 422. *Relh.* 172.

A. rubra γ, (marina). *Hudſ.* 193.

Alſine Spergulæ facie media. *Raii Syn.* 351.

COMMON on moſt parts of the Britiſh coaſt, flowering from June to Auguſt.

The root is ſpindle-ſhaped and ſtrong, though annual. Stems proſtrate, ſpreading circularly, quite ſmooth, except at the ſummit, as in *A. rubra, t.* 852, with which this ſpecies agrees in moſt reſpects, but eſſentially differs from it in the following characters. The leaves are fleſhy, ſemicylindrical, deſtitute of a briſtle at their points: the flowers and capſules are conſiderably larger, eſpecially the latter: but the ſeeds more peculiarly diſtinguiſh *A. marina,* being (inſtead of wedge-ſhaped with a rough external edge) round, flat, ſmooth, and encircled by a membranous border, which varies in breadth and colour, (even in ſeeds of the ſame capſule, as Dr. Stokes well obſerves,) being either white and elegantly ſtriated, or browniſh and leſs conſpicuous. The latter ſtate we are inclined to think merely an imperfection in growth or ripeneſs, and therefore the two varieties marked above, with their ſynonyms, might perhaps ſafely be reduced to one.

66.

ARENARIA tenuifolia.

Fine-leaved Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſ.* of one cell, with many ſeeds.

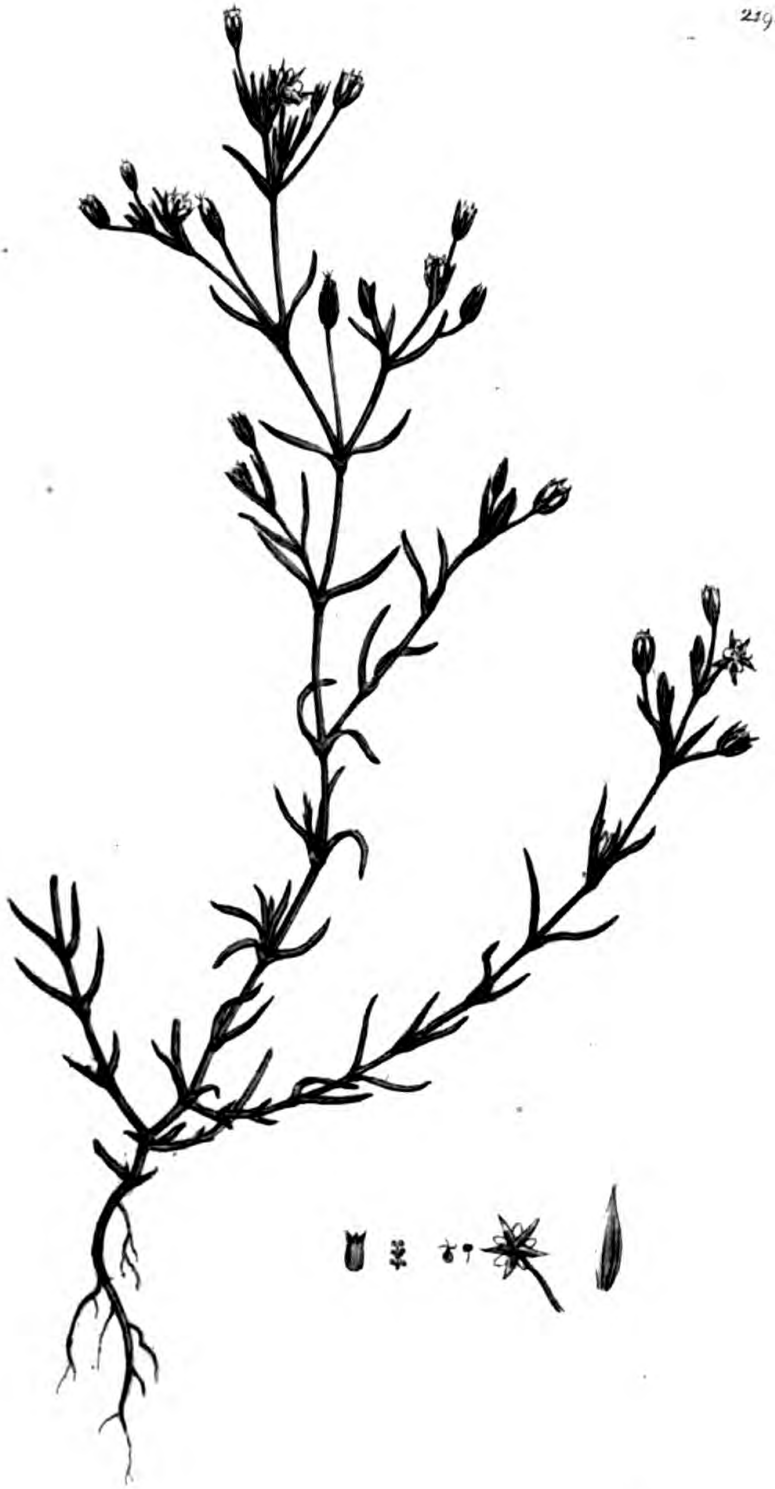
SPEC. CHAR. Leaves awl-ſhaped. Stem panicled. Capſules erect. Petals lanceolate, ſhorter than the calyx.

SYN. Arenaria tenuifolia. *Linn. Sp. Pl.* 607. *Hudſ. Fl. An.* 192. *With. Bot. Arr.* 461. *Relh. Cant.* 172. *Sibth. Oxon.* 142.

Aiſine tenuifolia. *Raii Syn.* 350.

SENT by the Rev. Mr. Hemſted from the neighbourhood of Newmarket, where it grows in dry ſandy fields, on walls, &c. contenting itſelf with very ſpare nouriſhment, though not ſucculent ſo as to reſiſt much drought. Accordingly it flowers early in ſummer, and is ſoon entirely dried up. Its ſeeds produce another crop the following ſpring.

The ſmall annual root bears ſeveral branching ſtems, varying much in ſize according to the degree of moiſture they are ſupplied with, and cloathed with oppoſite awl-ſhaped leaves, joined at the baſe, ſmooth at the back, or rather 3-ribbed, ſmooth. Flower-ſtalks ſolitary, ſingle-flowered, capillary, erect, longer than the leaves, and ſo numerous as to make the ſtem look like a panicle. Flowers very ſmall and inconſpicuous. Calyx-leaves lanceolate, very acute, 3-ribbed, with a white membranous margin, and more as long as the little narrow white petals. The flowers ſcarce expand but in bright ſun-ſhine, and are ſoon paſt. Stamens commonly ten, very ſhort. Germen round. Capſule ovate, as long as the calyx. It is a little plant of [illegible] appearance, which [illegible] either to mankind or the [illegible] to [illegible].



67.

ARENARIA verna.

Vernal Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſ.* of 1 cell, with many ſeeds.

SPEC. CHAR. Leaves awl-ſhaped, bluntiſh. Stem panicled. Petals longer than the calyx, obovate. Calyx with three remote equal ribs.

SYN. Arenaria verna. *Linn. Mant.* 72. *Hudſ.* 191. *With.* 423. *Lightf.* 231. *Dickſ. Dr. Pl.* 6. *Hort. Sicc. faſc.* 13. 17.

Alſine puſilla, pulchro flore, folio tenuiſſimo noſtras. *Raii Syn.* 350.

THIS *Arenaria* grows plentifully on Arthur's ſeat near Edinburgh, but is moſt abundant about the lead mines of Derbyſhire, on the ſoil thrown out of the mines, which ſcarcely nouriſhes any other plant. From thence our ſpecimens were taken. We have received others from Wales and Durham, by favour of Mr. Griffith and Mr. Robſon. It is perennial, begins flowering in May, and laſts above three months.

The root is very long and ſtrong, deſcending perpendicularly, and branching below. Stems extremely numerous, branched, forming a thick ſpreading tuft, round, thickly clothed with oppoſite leaves, and terminating in upright panicles. Leaves narrow, awl-ſhaped but blunt, three-nerved, connate at their baſe. Bracteæ ovate, ſharp pointed, three-nerved, concave, broader, but much ſhorter, than the leaves. Flower-ſtalks growing in a panicled manner, but not regularly forked; each is ſingle-flowered, erect, with a pair of bracteæ at its baſe. Calyx-leaves ovate, acute, with a broad whitiſh membranous border, and marked with three equal prominent ribs, which are more remote from each other than in ſome ſpecies. Petals longer than the calyx, obovate. Antheræ reddiſh. Capſule cylindrical. The whole herb, more eſpecially the ſtem, is ſometimes clothed with ſhort viſcid pubeſcence, but the leaves are moſtly ſmooth. The *Arenaria* figured in Gerard, *Flo. Gallopr. t.* 15. *f.* 1. is the *recurva* of Allioni, not hitherto found in England, any more than the true *juniperina* and *laricifolia*.

ARENARIA fastigiata.

Level-topped Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, undivided. *Capsule* superior, of 1 cell, with many seeds.

SPEC. CHAR. Stem erect, straight. Flowers crowded. Leaves awl-shaped. Petals very short. Lateral ribs of the calyx dilated.

SYN. Arenaria fasciculata. *Jacq. Austr. v.* 2. 49. *t.* 182. *Don. Herb. Brit. fasc.* 6. 136.
Stellaria rubra. *Scop. Carn. ed.* 2. *n.* 538. *t.* 17.
Alsine n. 870. *Hall. Hist. v.* 1. 384. *t.* 17. *f.* 2.

MR. GEORGE DON had the good fortune to discover this new British plant on rocks in the mountains of Clova, Angusshire, and also in Fifeshire. He rightly referred it to Jacquin's *A. fasciculata*, not having the means of knowing that the plant of Linnæus and Gouan is a very distinct species, distinguished by the long unequal leaves of its calyx, and other marks, as appears by the authentic Linnæan specimen and Gouan's description. Both plants are very distinct from *Alsine mucronata*. The name we have chosen is peculiarly expressive of the habit of the plant when ripening seed. To account for the seemingly preposterous synonym of Scopoli, it must be observed that he unites *Arenaria* to *Stellaria*, and that the stem of the species before us is often purplish. About Haller's plant there is no question.

Root annual, zigzag, tapering. Stem 1 or more, 4 or 5 inches high, erect, round, leafy, nearly smooth, alternately branched upwards, the branches many-flowered, dichotomous, at length level-topped. Leaves awl-shaped, rigid, very slender, permanent till the stem decays. Calyx-leaves all nearly equal, acute, smooth, green at the keel, with a slender white central rib and a very broad lateral one on each side reaching almost to the margin, an important mark of this species. Petals small, white. Stamens 10, whose antheras have been observed by Mygind to be at first united in pairs. Capsule oblong, of 3 valves. Seeds beautifully toothed, on long stalks. It flowers in June.

May 22 1807 Published by Jas Sowerby London.

67.

ARENARIA ciliata.

Fringed Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, undivided. *Capsule* superior, of 1 cell, with many seeds.

SPEC. CHAR. Stems numerous, much-branched, downy. Flowers terminal, solitary. Leaves spatulate, roughish, fringed at the base. Calyx-leaves with five or seven ribs.

SYN. Arenaria ciliata. *Linn. Sp. Pl.* 608. *Wulf. in Jacq. Coll. v.* 1. 245. *t.* 16. *f.* 2. *Fl. Dan. t.* 346.
Alsine serpilli folio, multicaulis et multiflora. *Segu. Veron. v.* 1. 420. *t.* 5. *f* 2.
A. n. 876. *Hall. Hist. v.* 1. 386. *t.* 17. *f.* 3.

THIS new addition to our Flora was discovered in September 1806 by Mr. J. T. Mackay, on the calcareous cliffs of a high mountain adjoining to Ben Bulben, in the county of Sligo, Ireland. Though found in Iceland, and very abundantly in Switzerland, France, &c., it had never before been seen in the British isles. It is perennial, flowering in autumn.

Root much branched, bearing numerous stems, which are prostrate and repeatedly branched in their lower part, leafy, round, their extremities ascending and most downy. Leaves in pairs crossing each other, recurved, spatulate, obtuse, entire, somewhat fleshy, single-ribbed, more or less rough or hairy, fringed, more particularly towards the base. Flowers erect, on longish, solitary, terminal, simple stalks, clothed with fine white recurved down. Calyx-leaves ovate, acute, concave, hairy, green, with 5 or 7 more or less obscure ribs, and a white membranous edge. Petals obovate, longer than the calyx, of a brilliant white. Stamens 10, all about as long as the corolla. Capsule short, ovate.

In a less luxuriant state this is the *A. multicaulis* of Linnæus. Haller's figure, though far less characteristic than usual with him, and even very faulty in the leaves, represents the plant in this state. The figure in *Fl. Danica* is more like our Irish specimens, but deficient in every peculiar character.

N. N. Mybeda Sowerby London.

70.

CHERLERIA sedoides.

Dwarf Cherleria.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 5 leaves. *Petals* none? *Nectariferous glands* 5, cloven, at the base of the stamina. *Capsule* superior, with 3 valves, 1 cell, and many seeds.

SPEC. CHAR. . . . . .

SYN. Cherleria sedoides. *Linn. Sp. Pl.* 608. *Sm. Fl. Brit.* 483. *Huds.* 193. *With.* 424. *Hull.* 98. *Lightf.* 232. *Dicks. H. Sicc. fasc.* 1. 9.
Cherleria. *Hall. Hist. v.* 1. 381. *t.* 21. *Seguier. Veron. suppl.* 180. *t.* 4. *f.* 3.

RAY and Dillenius were not acquainted with this little plant as of British growth, though described from exotic specimens by Plukenet, and others of his time. The first correct accounts of it were given by Haller and Seguier, and it was afterwards discovered in Scotland by some of Dr. Hope's travelling pupils. It is only found about the summits of the highland mountains, in boggy spots, flowering in July, and is perennial. We received specimens from the late Mr. Mackay.

The branching leafy stems form dense moss-like tufts, of a light green, about an inch high. Leaves rather fleshy, triangular, blunt, smooth, with 3 ribs beneath. Flowers yellowish-green, solitary on short simple stalks about the summit of the stem, with a pair of bracteæ to each. Calyx in 5 spreading obtuse segments. Stamina spreading with the calyx, those 5 which are opposite to its leaves having each a cloven gland between them and the germen. Capsule ovate, of 1 cell, containing many angular seeds.

Seguier contends for the existence of 5 entire petals, alternate with the calyx-lobes, which, if constant, would almost reduce the plant to an *Arenaria*. We have never been able to find any, nor did Haller or Linnæus.

Septr 1 1803 Published by Ja^s Sowerby London.

71.

COTYLEDON Umbilicus.

Common Navel-wort.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* five-cleft. *Cor.* of one petal. *Nectary* of five scales at the base of the germen. *Capsules* five.

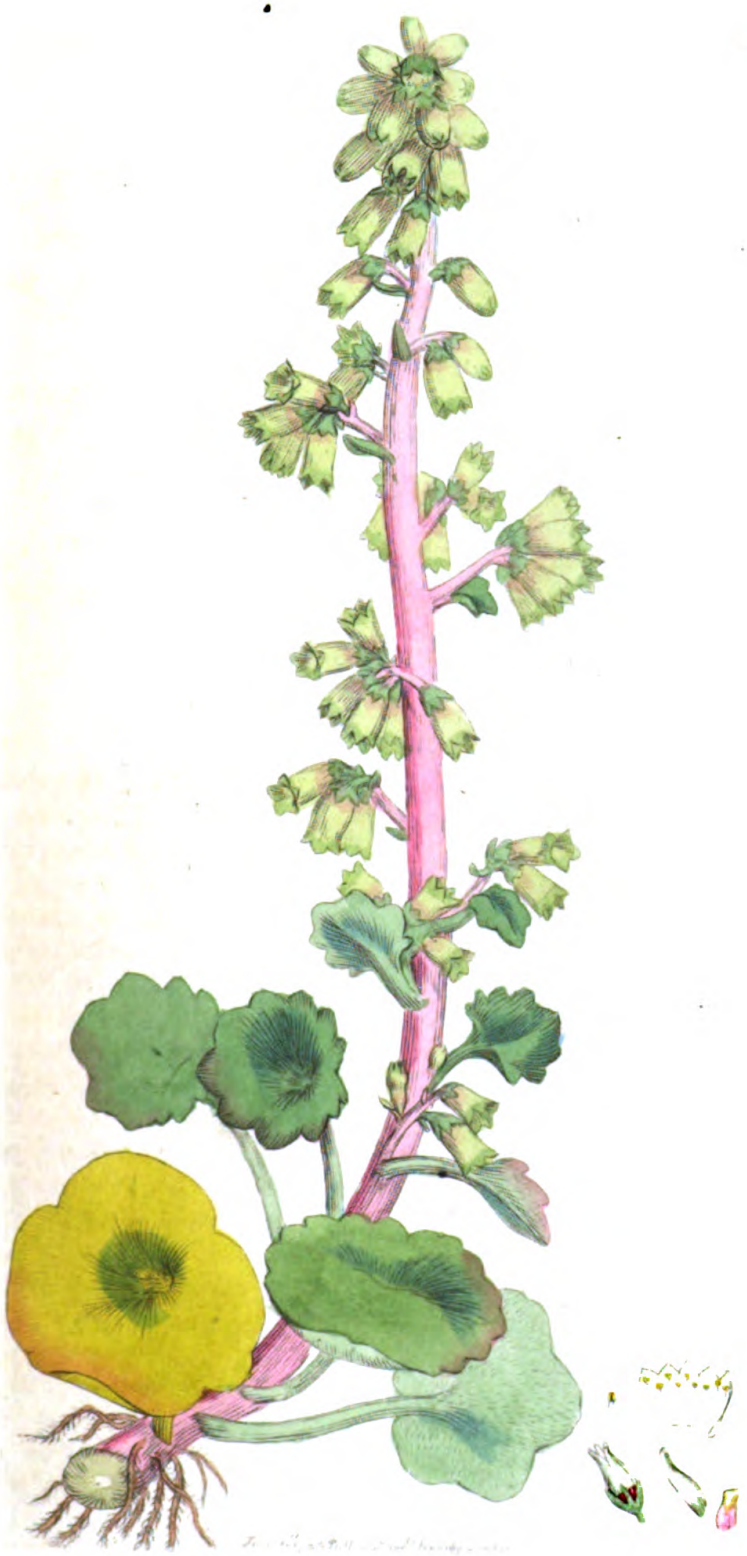
SPEC. CHAR. Leaves peltate, scolloped. Stem spiked, rarely branched. Flowers pendulous. Bracteæ entire.

SYN. Cotyledon Umbilicus. *Linn. Sp. Pl.* 615. *Huds. Fl. An.* 194. *With. Bot. Arr.* 463. *Sibth. Ox.* 143. C. vera, radice tuberosa. *Raii Syn.* 271.

FOR this wild specimen, gathered on walls at Peterborough, we are indebted to the Rev. Mr. Hemsted. The plant is most frequent in the west of England and Wales, growing on moist rocks. In Gerarde's time it grew over the door of Poet's Corner, Wesminster Abbey, but was not to be found there when his second edition was published. It flowers in June, and lasts through July.

Root perennial, tuberous. Stem round, very succulent (as are also the leaves), purplish, erect, terminating in a simple or branched spike of numerous, drooping, pale-yellow flowers. Leaves smooth, mostly peltate, on longish foot-stalks, more or less deeply and acutely crenate, those on the stem becoming less peltate and more deeply notched the higher they are situated, and at length changed for small, lanceolate, entire bracteæ. Corolla cylindrical, the margin in five small erect segments. Antheræ on very short filaments, inserted in two rows just within the orifice of the corolla, and not projecting beyond its margin.

Though this be the variety β of Linnæus, yet being by far more common than his α, we think it best to retain it as the true *C. Umbilicus*, as all authors have done. If the α (Mr. Hudson's *lutea*) be really distinct, we shall take some other opportunity of describing it.



COTYLEDON lutea.

Greater Yellow Navelwort.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* five-cleft. *Cor.* of one petal. *Nectary* of five scales at the base of the germen. *Capsules* five.

SPEC. CHAR. Leaves deeply crenate or toothed; the lowermost somewhat peltate. Stem spicate, mostly simple. Flowers erect. Root creeping.

SYN. Cotyledon lutea. *Huds.* 194. *Sm. Fl. Brit.* 484. *With.* 426. *Hull.* 99.

C. Umbilicus. *Linn. Sp. Pl.* 615, α.

C. flore luteo, radice tuberosâ repente. *Dodart. Mem.* 78, with a figure.

OUR knowledge of this fine plant as growing in Britain is entirely owing to Mr. Hudson. He gives it as a native of wa s and moist stony places in the west riding of Yorkshire, on the authority of his friend Tofield, adding that he himself saw it in the garden of a Mr. Clement who received it from Somersetshire. Plants communicated by Mr. Hudson to Chelsea Garden have flourished and increased there, and from one of them our figure was taken in July last.

The root is perennial, fleshy and creeping. Stem a foot or more in height, sometimes branched. Lower leaves only present; the rest obovate, scattered, on short stalks, deeply crenate or toothed, succulent, smooth. Flowers very numerous in a dense, upright, cylindrical spike, all nearly erect, on short stalks. Corolla and stamina bright yellow. Nectaries white. Petals entire or toothed.

It is remarkable that Linnæus should have made this the α, or proper species, of his *C. Umbilicus*, whereas the most common kind, with really umbilicated leaves, and so called by all authors besides, alone deserves the name. See our [illegible]

Nov.1 1808 Published by Jas Sowerby London

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73.

SEDUM Telephium.

Orpine.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5, superior.

SPEC. CHAR. Leaves flattish, serrated. Corymbus leafy. Stem erect.

SYN. Sedum Telephium. *Linn. Sp. Pl.* 616. *Sm. Fl. Brit.* 485. *Huds.* 195. *With.* 426. *Hull.* 99. *Relh.* 173. *Sibth.* 143. *Abbot.* 98. *Curt. Lond. fasc.* 3. *t.* 25.

Anacampseros, vulgò Faba crassa. *Raii Syn.* 269.

FOUND in the borders of fields, about hedges, bushy hills, and such kinds of situations, on a gravelly or calcareous soil, flowering in August.

The root is perennial, consisting of several oblong, tapering, fleshy, white lumps, with fibres at their extremity. Stems between one and two feet high, erect, simple, very leafy, round, smooth, generally spotted with purple. Leaves irregularly scattered, sessile, ovate, fleshy, flat, bluntly serrated, smooth and somewhat glaucous, with a thick coloured rib disappearing before it reaches the summit. Flowers in dense clustered tufts, intermixed with small leaves, crimson or purple, rarely white. Petals acute. Antheras and stigmas more deeply coloured than the rest of the flower.

Like all succulent plants this is very tenacious of life, and will keep growing long after it has been torn from its native spot. The country people in Norfolk sometimes hang it up in their cottages, judging by its vigour of the health of some absent friend. Those who have ever parted from a very dear friend will sympathize with their anxiety if not with their superstition.

June 1. 1804. Published by Jos. Sowerby, London.

74.

SEDUM dasyphyllum.

Thick-leaved Stonecrop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Leaves opposite, ovate, obtuse, fleshy. Stem weak. Panicle glutinous.

SYN. Sedum dasyphyllum. *Linn. Sp. Pl.* 618. *Hudſ.* 197. *With.* 428. *Hull.* 99. *Relh.* 179. *Sibth.* 144. *Abbot.* 98. *Curt. Lond. faſc.* 3. *t.* 26.
S. minus circinato folio. *Dill. in Raii Syn.* 271.

THIS pretty little *Sedum* was pointed out to us at Clifton, near Briſtol, by Mr. Dyer. It grows on walls or rocks, and is often to be ſeen about London, as at Hammerſmith, Kew and Chelſea. When once introduced into a garden it propagates itſelf freely upon walls, waſte places, and about garden-pots. We believe it to be perennial, though it ſo frequently diſappears in one ſpot, and re-appears in another, we have ſometimes thought it only biennial. It flowers copiouſly in June.

Root of ſmall white fibres. Stems thread-like, creeping, weak and proſtrate, being quite weighed down by the leaves, except the flowering branches, which are panicled, downy and viſcid. The leaves are oppoſite, cloſely imbricated, ſeſſile, ovate, glaucous, extremely thick and juicy; thoſe on the flowering branches only being alternate. Panicles terminal, ſpreading, of a few flowers. Calyx downy, viſcid. Petals white, with a purple keel. Antheræ dark red. Capſules often more than five.

Published by J. Sowerby, London.

75.

SEDUM anglicum.

English Stone-crop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Leaves thick, ovate, gibbous and loose at the base, alternate. Cyme of two branches.

SYN. Sedum anglicum. *Hudf. Fl. An.* 196. *With. Bot. Arr.* 468.

S. rubens. *Lightf. Fl. Sc.* 235.

S. minimum non acre, flore albo. *Raii Syn.* 270. *t.* 12. *f.* 2.

COMMUNICATED by Dawson Turner, Esq. from the sandy downs near Yarmouth, where it is very abundant, as well as on the mountains of the north. Dr. Smith gathered it in Westmoreland, and on the rock of Dumbarton-castle in Scotland.

The root is generally supposed to be annual, throwing out many stems, branched and decumbent at their base, then upright and more simple, round, reddish, clothed with alternate rather thick-set leaves, and terminated by small bifid or trifid cymes of flowers. The leaves are very thick and succulent, oval, glaucous, with a blunt protuberance at their base, below their attachment to the stem. The flowers are at first thickly clustered together; but as the cyme expands, they appear more remote, one always standing at the first divarication of the cyme. The calyx resembles the leaves, and is obtuse. The petals have a reddish rib, and are often spotted with the same colour at their tip. The capsules are membranous and smooth.

This species has cost us no small trouble to determine accurately. Of the plants which approach it, Sedum annuum of Linnæus has a yellow flower, and much shorter and broader leaves. S. atratum has leaves like S. annuum, and very blunt purple capsules, with red and white petals. Crassula rubens has a sharper calyx than our plant, and rough, spreading, strong (not membranous) capsules. Mr. Hudson and Mr. Lightfoot were therefore right in making this a species distinct from all those of Linnæus.

Published Apl 1 1794

SEDUM acre.

Biting Stone-crop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous ſcales at the baſe of the germen. *Capſules* 5.

SPEC. CHAR. Leaves alternate, ſomewhat ovate, fleſhy, gibbous, fixed to the ſtem by their inner ſide above the baſe. Cyme three-cleft, leafy.

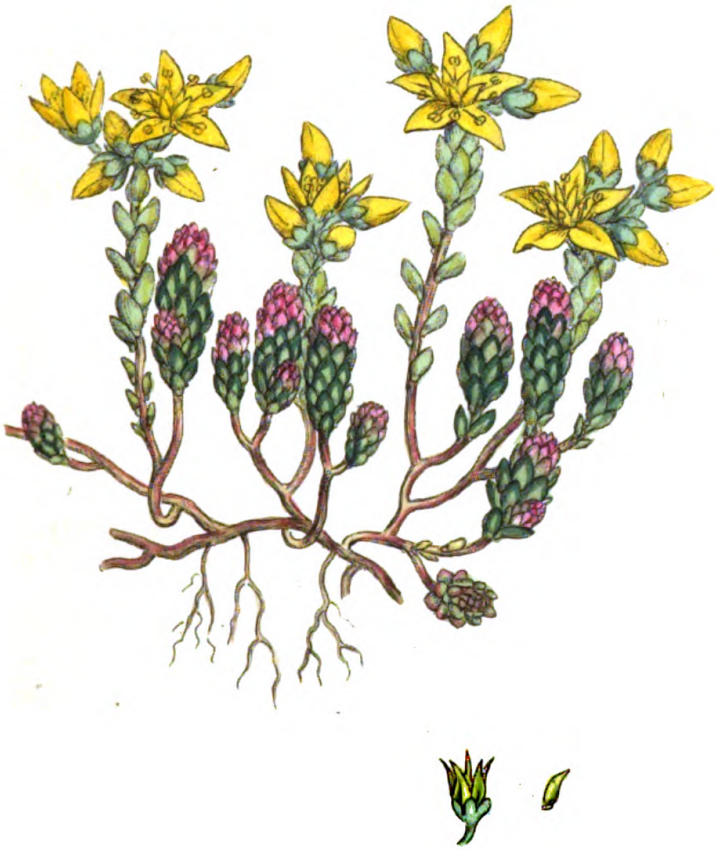
SYN. Sedum acre. *Linn. Sp. Pl.* 619. *Sm. Fl. Brit.* 487. *Hudſ.* 196. *With.* 427. *Hull.* 99. *Relh.* 174. *Sibth.* 144. *Abbot.* 99. *Curt. Lond. faſc.* 1. *t.* 32. *Woodv. Suppl. t.* 231.

S. parvum acre, flore luteo. *Raii Syn.* 270.

THIS brilliant little flower is conſpicuous enough about midſummer, and for ſome time afterwards, on walls, roofs, and dry barren or ſandy ground, which it clothes as it were with a cloth of gold, in defiance of the drought and moſt ſcorching ſun.

The ſmall fibrous roots are perennial, and ſpring from the lower part of the tufted and intricate ſtems, whoſe branches only grow upright, and are covered with alternate, imbricated, very ſucculent, ſmooth, graſs-green leaves, which are of an ovate form, protuberant at the back, fixed to the ſtem not by their baſe, but by their inner or upper ſurface a little above it, conſequently ſpurred beneath the inſertion, as in *S. reflexum*, *t.* 695. Flowers in ſmall terminal leafy cymes, which are three-cleft when luxuriant only. Calyx of five bluntiſh ſmooth ſegments. Petals ovate, acute. Capſules membranous, pointed, ſmooth.

The whole herb is acrid, hot and biting to the taſte, whence its common name Wall Pepper. Dr. Woodville quotes ſeveral authorities to prove its uſe in ſcorbutic and ſcrophulous diſorders.



Feb. 1. 1801. Published by Jas. Sowerby, London.

J

SEDUM sexangulare.

Insipid Stonecrop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5, superior.

SPEC. CHAR. Leaves in six or seven rows, somewhat cylindrical, obtuse, fleshy, spreading, fixed to the stem by their inner side above the base. Cyme three-cleft, leafy.

SYN. Sedum sexangulare. *Linn. Sp. Pl.* 620. *Sm. Fl. Brit.* 488. *Huds. ed.* 1. 171. *With.* 428. *Hull.* 99. *Relh.* 174. *Curt. Lond. fasc.* 4. *t.* 33.
S. acre β. *Huds.* 196.

IT cannot but excite wonder that any systematic botanist should confound this with *Sedum acre, t.* 839. Mr. Curtis has given the first figure of the plant before us, (Lobel's *Ic.* 379. *f.* 1, being too unlike and uncertain to be relied on,) having gathered it on Greenwich park wall near the south-west corner. It was found in several parts of Kent by Mr. Hudson, and in Cambridgeshire by Mr. Relhan. Our specimen was brought by Mr. Turner from the famous rotten walls of Old Sarum, and blossomed in a garden about the end of July, being 2 or 3 weeks later than the *acre*.

It differs moreover in being, though unpleasantly austere, destitute of all acrid pungency of flavour, but especially in the form and disposition of its leaves, which are pretty accurately cylindrical, by no means ovate, and stand 3 or 4 together in alternate whorls, so as to spread 6 or 7 different ways, producing in the whole leafy stem or branch 6 or 7 angles or rows. The cymes are terminal, of 2 larger branches and a small one. Flowers yellow, much like those of *S. acre*, or rather paler. The foliage of the plant often turns red.

1946

Nov 1st 1808. Published by Jas Sowerby London.

78.

SEDUM villosum.

Hairy Stonecrop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with five nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Stem erect. Leaves flattish, slightly hairy, as well as the flower-stalks.

SYN. Sedum villosum. *Linn. Sp. Pl.* 620. *Huds. Fl. An.* 197. *With. Bot. Arr.* 469.

S. purpureum pratense. *Raii Syn.* 270.

THIS is one of those rare north-country plants which we should have no chance of procuring, but for the kind assistance of our friends. We are indebted for it to the same gentlemen who sent *Bartsia alpina*, see *t.* 361. *S. villosum* grows in bogs and moist meadows near rivulets in Westmoreland, Durham, and the north-west part of Yorkshire, more frequent in Scotland. Dr. Smith found it near Linlithgow. It is annual, and flowers in June and July.

Root small, fibrous, stem 3 or 4 inches high, bowed at the base, then erect, round, leafy, spotted, smooth. Sometimes a few leafy branches without flowers spring from the base, and sometimes there are a few slender lateral flowering branches, but most commonly the flowers are all in a terminal downy corymbus. Leaves oblong, convex at the back, flat above, often red, sometimes a little rough at the back with viscid-pointed hairs, especially the uppermost. Flowers on slender alternate flower-stalks, clothed (as well as the calyx) with similar hairs. Petals white or rose-coloured, with a red rib, Antheræ red. Capsules brown, rough, tipped with the permanent styles. We have never seen this species cultivated.

79.

SEDUM album.

White Stonecrop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Leaves oblong, cylindrical, obtuse, spreading, smooth. Panicle much branched.

SYN. Sedum album. *Linn. Sp. Pl.* 619. *Sm. Fl. Brit.* 489. *Huds.* 196. *With.* 427. *Hull.* 99. *Relh.* 174. *Abbot.* 99. *Curt. Lond. fasc.* 1. *t.* 31.
S. minus teretifolium album. *Raii Syn.* 271.

ON walls about London in several places, also in some other parts of England either on walls or rocks, flowering in July, but it is not frequent.

Root fibrous, perennial. Stems 4 or 5 inches high, branched and weak at the bottom, round, leafy, smooth, often reddish. Leaves scattered, spreading, sessile, cylindrical, obtuse, smooth, extremely juicy, of a pale green inclining to glaucous, often tinged with red. Panicle cymose, terminal, much branched, smooth. Flowers white or pale red. Calyx obtuse, smooth. Antheras red. Nectariferous scales slightly notched.

For decorating ruins or rockwork this is a lively delicate-looking *Sedum*, but it is not one of those that thrive indiscriminately and without trouble in any situation. It requires some depth of soil, and a little support for its stems, which in such circumstances throw out roots and creep to some extent. It also likes a little moisture and shade.

March 1. 1806. Published by Jas. Sowerby, London.

SEDUM reflexum.

Yellow Stone-crop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous ſcales at the baſe of the germen. *Capſules* 5.

SPEC. CHAR. Leaves awl-ſhaped, ſcattered, looſened at the baſe; the lowermoſt recurved. Flowers ſomewhat cymoſe.

SYN. Sedum reflexum. *Linn. Sp. Pl.* 618. *Sm. Fl. Brit.* 490. *Hudſ.* 195. *With.* 429. *Hull.* 100. *Relh.* 173. *Sibth.* 144. *Abbot.* 99.

S. minus, luteum, ramulis reflexis. *Raii Syn.* 270. and

S. minus hæmatoides. *Raii Syn.* 269.

COMMON on walls and thatched roofs, flowering in July. The roots are perennial, conſiſting of ſimple fibres that ſpring from the lower parts of the round, fleſhy, variouſly ſpreading, entangled or pendent, ſtems. The leaves are irregularly but not diſtantly placed on the branches and upright flowering ſtems, and are extremely ſucculent, ſmooth, rather glaucous, often reddiſh, of an awl-ſhaped figure, attached by their flat inner-ſide a little above the baſe, ſo that they terminate below in a kind of ſhort ſpur. When old, they eaſily fall off. Flowers in a terminal cyme, bright yellow, numerous, very generally conſiſting of 6 petals and germens, with as many ſegments of the calyx, and 12 ſtamina, having (as Linnæus expreſſes it) a fifth part added to the natural number in the fructification; a circumſtance common in the natural order to which *Sedum* belongs.

Ray notices two kinds of this Stonecrop, differing only in the branches and flower-ſtalks being more or leſs recurved, and indeed he himſelf thought them only varieties.

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81.

SEDUM glaucum.

Glaucous Stone-crop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Leaves glaucous, awlshaped, scattered, loosened at the base; those of the branches thread-shaped. Flowers in a cyme. Segments of the calyx lanceolate.

SYN. Sedum glaucum. *Donn. Cant. ed.* 5. 112.
S. reflexum β. *Sm. Fl. Brit.* 490.
S. minus hæmatoides. *Ger. em.* 512. *Raii Syn.* 269.

FOUND by F. K. Eagle, Esq. near Mildenhall, Suffolk, on the southern sides of some small rough hills, most indubitably wild, flowering in July or August. We received specimens through the hands of E. Forster, Esq., who suggests that this is probably what Mr. Haworth, in a late work on Succulent Plants, has marked as the larger variety of *S. glaucum*, the smaller one being more compact, erect, and shorter, in its branches. This last we have not seen, but it is said to be cultivated in some gardens.

The *Sedum* before us differs from *S. reflexum, t.* 695, in its more glaucous hue, and more slender leaves, especially those of the branches. We presume it to be the plant of Gerarde, from his figure and description; but whether it be, as the old authors say, usually intermixed with the *reflexum* upon walls; or whether they, as we have always supposed, distinguished as species or varieties the two different stages of growth of that plant, differing only in the posture of the flowers, we are by no means certain. There can however be no doubt of the distinction between our *glaucum* and *reflexum*.

Nov. 1812, published by Jas. Sowerby, London.

SEDUM Forsterianum.

Forsterian Stonecrop.

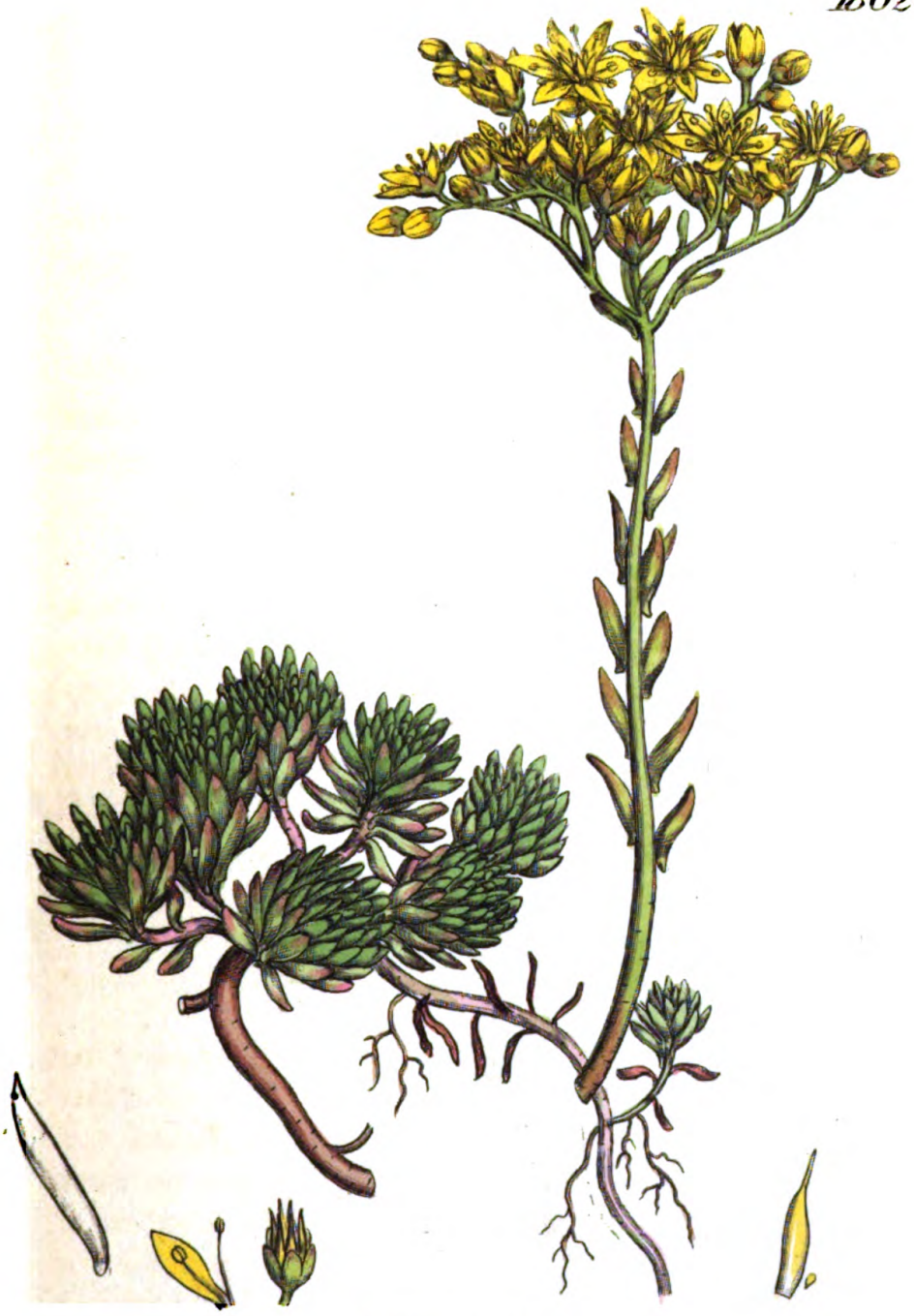
DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5, superior.

SPEC. CHAR. Leaves thick, awlshaped, clustered together in many rows, spreading, loose at the base. Flowers in a cyme. Segments of the calyx short and rounded.

GATHERED in 1806, by E. Forster junior, Esq., on a rock at the fall of the Rhydoll, near the Devil's-bridge, Cardiganshire. The root brought from thence flowered this year, in the month of July, in Mr. Forster's garden, to whom we are obliged for specimens, as well as for the detection of this new species, hitherto confounded with *S. rupestre*, *t.* 170. Mr. Griffith, having never found the latter in Wales, suggests that our *S. Forsterianum* is probably what Dr. Richardson and Mr. Llwyd gathered "on rocks overhanging the little valley of Nant-phrancon," as recorded in *Raii Syn.* 270, which has hitherto been supposed the *S. rupestre*.

Our *Sedum* differs from *rupestre* in having the leaves of the barren branches spreading in a rosaceous form, not close-pressed or erect, and especially in the want of a glaucous hue in the leaves, stem and calyx. The petals also are more elliptical and blunt. The segments of the calyx in both these species are short, rounded and obtuse; in *S. reflexum* they are longer, lanceolate and acute, which we confess is not quite so well expressed in our *t.* 695 as it might have been. The petals of the latter are, moreover, pointed likewise, as that figure represents them.



Oct 1 1807. Published by Ja.t Sowerby London.

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SEDUM rupeſtre.

Rock Stone-crop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous ſcales at the baſe of the germen. *Capſules* 5.

SPEC. CHAR. Leaves thick, ſubulate, cluſtered together in a five-fold order, and looſe at the baſe. Flowers in a cyme.

SYN. Sedum rupeſtre. *Linn. Sp. Pl.* 618. *Hudſ. Fl. An.* 195. *With. Bot. Arr.* 466.

S. minus a rupe S. Vincentii. *Raii Syn.* 270.

ORIGINALLY obſerved on St. Vincent's rocks near Briſtol hot-wells, and afterwards on Chedder rocks by Dillenius, and on a hill in Wales. Mr. Robſon found it on walls about Darlington, from whence he ſent us this wild ſpecimen, flowering in July 1792.

The roots are perennial, branched, and throw out many long decumbent ſtems, which are round, red and naked in their lower part, taking root in many places; above they are alternately branched, terminating in thick club-ſhaped tufts of leaves, cloſely imbricated. The flowering ſtems are more upright, a foot high, clothed with more ſcattered leaves, and terminated by a large handſome cyme of yellow flowers. The calyx is very glaucous, often tipped with red. Flowers often in 6 or 7 parts inſtead of 5. All the leaves are glaucous, thick and ſucculent, ſubulate, unconnected with the ſtem at their baſe, which is like a little blunt ſpur; they are more compreſſed, and much more cloſely imbricated than in S. reflexum, neither are they ever recurved as in that ſpecies.

Dillenius firſt well aſcertained this plant in his Hortus Elthamenſis, where he has given a good figure of it, *tab.* 256, *f.* 333.

Flora Danica, *tab.* 59, is a very different plant, the Sedum ſaxatile of Wiggers, *Flo. Holſat.* 35.

j

OXALIS Acetosella.

Common Wood-Sorrel.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, connected by their claws. *Caps.* superior, of 5 cells, 5-sided, bursting at the angles. *Seeds* clothed with an elastic tunic.

SPEC. CHAR. Stalk single-flowered. Leaves ternate, inversely heart-shaped, hairy. Root of scaly joints.

SYN. Oxalis Acetosella. *Linn. Sp. Pl.* 620. *Sm. Fl. Brit.* 491. *Hudf.* 198. *With.* 430. *Hull.* 100. *Relh.* 176. *Sibth.* 144. *Abbot.* 100. *Curt. Lond. fasc.* 2. *t.* 31. *Woodv. Med. Bot. t.* 20.
Oxys alba. *Raii Syn.* * 281.

GROVES and thickets in the spring abound with this pretty plant, whose delicate drooping blossoms do not indeed obtrude themselves upon the notice of every passenger, being generally shaded by bushes, or concealed by the herbage of other plants; but when observed they cannot fail to be admired, especially if contrasted with the bright verdure of their proper foliage. They are produced in April or May. Later in the summer the capsules are found darting forth their little shining seeds on the slightest touch, by means of the elastic *arillus* that contains them.

The root is perennial, and consists of numerous fleshy reddish scales. Stem none. Leaves on long stalks, three together, inversely heartshaped, drooping at night, very acid to the taste, often purplish beneath. Flowers on a simple hairy purplish stalk. Petals white, beautifully veined with purple, yellow at their base, and adhering together by a little glandular swelling on each side.

The leaves are beaten with sugar into an agreeably acid refreshing conserve, partaking of the flavour of green tea.

I cannot help suspecting this genus to be more allied to the *Rutaceæ* of M. de Jussieu than to his *Gerania*. Many of the former, lately discovered in New Holland, have acid purplish leaves. The *arillus* however is the most important point of agreement which first led me to this suspicion.

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85.

OXALIS corniculata.

Yellow Procumbent Wood-Sorrel.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, connected by their claws. *Caps.* superior, of 5 cells, 5-sided, bursting at the angles. *Seeds* clothed with an elastic tunic.

SPEC. CHAR. Stem branched, spreading on the ground. Flowers in small umbels. Footstalks with stipulas at their base.

SYN. Oxalis corniculata. *Linn. Sp. Pl.* 623. *Berk. Syn. v.* 2. 141. *Sm. Fl. Brit.* 492. *With.* 430. *Hull.* 100. *Jacq. Oxal.* 10. *t.* 5.
Oxys lutea. *Ger. em.* 1202.

IT would be unjust to deprive Dr. Berkenhout of the honour of first making this known as a British plant. His specimens were gathered near Exeter by a Mr. John Turner. Ours were sent from the same county by the Rev. Dr. Beeke, Rev. Mr. Neck, W. J. Hooker, Esq. and the Rev. J. Jervis. The celebrated authoress Mrs. Charlotte Smith has informed us of this species being found near Cuckfield, Sussex, by Mr. Fearon; and it was observed this autumn in Scotland, near Stirling, by our worthy friend Dr. Buchanan. All these authorities surely establish it as a native. It is annual, flowering from the beginning of summer to the end of autumn.

Root fibrous. Stems several, spreading widely on the ground and often taking root, somewhat branched, round, reddish, leafy, downy. Leaves alternate, though often nearly opposite, ternate, spreading; leaflets inversely heartshaped, rounded, downy. Stipulas united to the base of the footstalk. Flowerstalks axillary, each bearing 2 or 3 umbellate, declining pedicles. Flowers small, yellow. Fruit large, pyramidal. Stamens united at the base.

We have already, *p.* 762, pointed out the affinity of this genus to all the *Rutaceæ* of Jussieu, of which we have lately had further confirmation. The little white elastic *arillus* is conspicuous in this species, though of course much thinner in texture than the *arillus* of larger plants. Mr. de Jussieu himself has suggested the above affinity.

Apr 1.1806; Published by Jas Sowerby London.

86.

AGROSTEMMA Githago.

Corn Cockle.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of 1 leaf, coriaceous. *Pet.* 5, with claws; their limb obtuſe, undivided. *Capſ.* ſuperior, of 1 cell; the orifice with 5 teeth.

SPEC. CHAR. Hairy. Calyx reaching beyond the corolla. Petals entire, deſtitute of a crown.

SYN. Agroſtemma Githago. *Linn. Sp. Pl.* 624. *Sm. Fl. Brit.* 493. *Hudſ.* 198. *With.* 431. *Hull.* 101. *Relh.* 176. *Sibth.* 145. *Abbot.* 100. *Curt. Lond. faſc.* 3. *t.* 27. *Mart. Fl. Ruſt. t.* 105. Lychnis ſegetum major. *Raii Syn.* 338.

BUT too common in corn-fields, to the ornament of which however it greatly contributes, raiſing its fine purple flowers to a level with the ripening ears in June and July; after which the round black ſeeds are either ſcattered upon the ground, or gathered in with the harveſt. It is beſt eradicated by the hand before it flowers, or indeed as ſoon as it can be diſtinguiſhed from the young corn, which is the caſe at a very early period.

Root ſmall, annual. Whole herb rough with hoary upright briſtles. Stem 2 or 3 feet high, branched, ſpreading, round, leafy. Leaves oppoſite, linear-lanceolate, entire. Flowers terminal, on long ſtalks, ſolitary, large and very conſpicuous. Calyx with 10 ribs, and 5 linear leafy teeth, longer than the corolla, and at length deciduous, leaving the coriaceous body of the calyx inveſting the hard ſmooth ſeed-veſſel. The petals have no teeth or crown at their common centre of union, as in ſome foreign ſpecies.

We can ſcarcely think that this genus ought to be kept ſeparate from *Lychnis*, the coriaceous calyx and undivided petals being all that diſtinguiſh it. If all the ſpecies of *Lychnis* which have a capſule with one cell (the reſt having 5 cells) were referred to *Agroſtemma*, it would make a very unnatural aſſemblage, though ſuch a decided character might look well upon paper.

June 1st 1800. Published by J. Sowerby.

V

87.

LYCHNIS Flos-Cuculi.

Meadow Lychnis, or Ragged Robin.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of one leaf, oblong. *Petals* 5, with claws; their limb moſtly divided. *Capſ.* ſuperior, opening with 5 teeth, of 1 or 5 cells.

SPEC. CHAR. Petals four-cleft. Fruit roundiſh, of one cell.

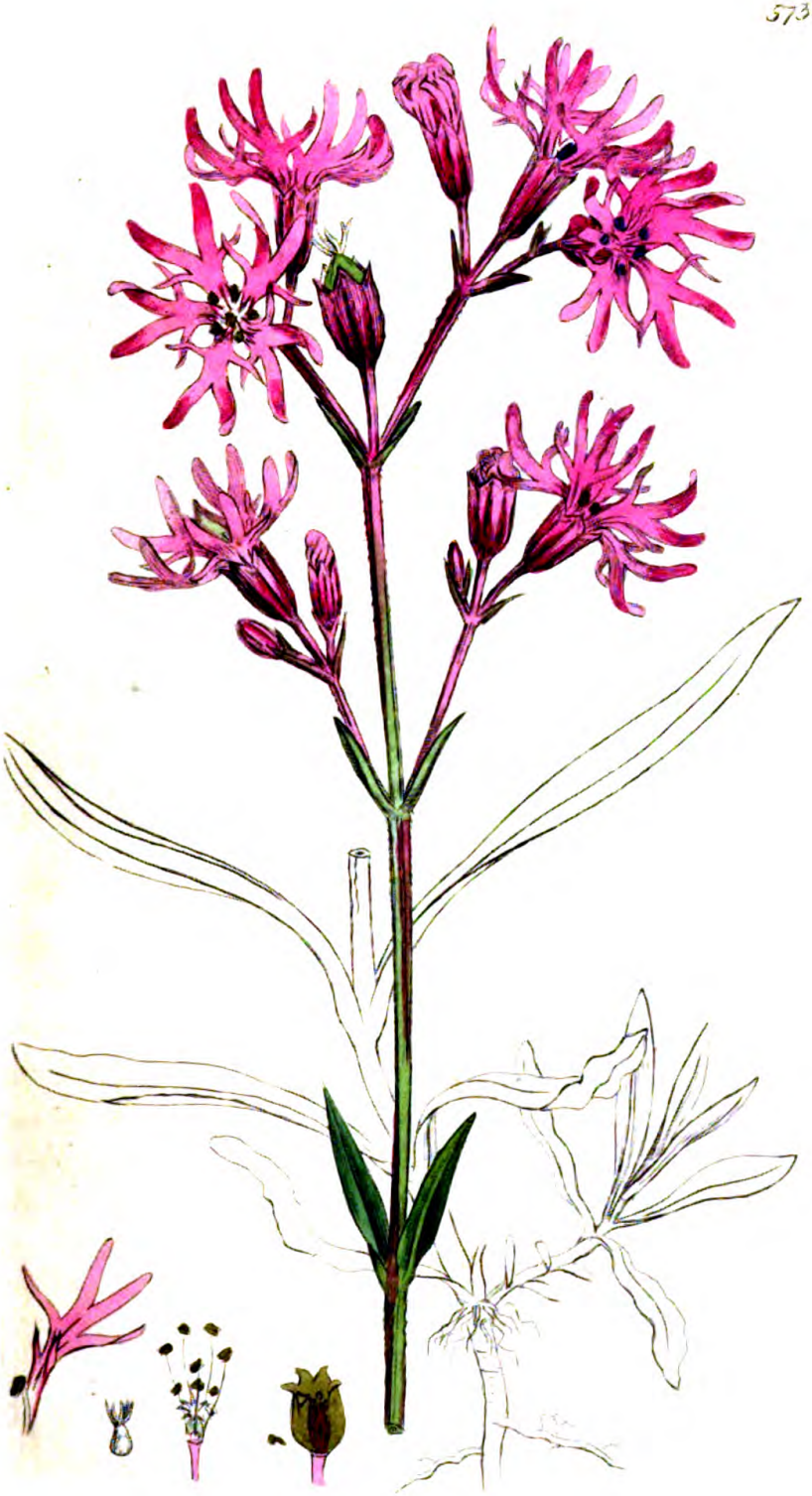
SYN. Lychnis Flos-Cuculi. *Linn. Sp. Pl.* 625. *Hudſ.* 199. *With.* 432. *Relh.* 177. *Sibth.* 145. *Abbot.* 100. *Curt. Lond. faſc.* 1. *t.* 33.

L. plumaria ſylveſtris ſimplex. *Raii Syn.* 338.

FREQUENT in moiſt meadows, flowering early in June, when its pretty delicate petals are ſeen quivering to every breeze; but the mower's ſcythe ſoon levels them in the undiſtinguiſhed heap of meadow hay.

Root fibrous, perennial. Stem erect, one or two feet high, angular, leafy, roughiſh with little briſtles that point downwards; clammy in the upper part; ſometimes branched at the baſe, and the branches often take root at their joints. Leaves united at their inſertion, lanceolate, entire, nearly ſmooth. Panicle forked, erect, with a pair of ſmall leaves or bracteæ at each ſubdiviſion. Calyx tubular, with ten ſtrong dark-purple ribs. Petals roſe-coloured, flaccid, cut into four linear ſegments, and crowned with two ſharp erect teeth above the claw. Capſule of a roundiſh cylindrical figure, with but one cell. The ſeeds are numerous, each ſtanding on a little footſtalk, round a central receptacle.

A variety with double flowers, whoſe petals are extremely numerous and thickly ſet, is common in gardens, and the flowers are ſaid to be ſometimes found white.



88.

LYCHNIS Viſcaria.

Red German Catchfly.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of 1 leaf, oblong. *Petals* 5, with claws; their limb moſtly divided. *Capſ.* ſuperior, opening with 5 teeth, of 1 or 5 cells.

SPEC. CHAR. Petals undivided. Fruit of five cells.

SYN. Lychnis Viſcaria. *Linn. Sp. Pl.* 625. *Sm. Fl. Brit.* 494. *Hudſ.* 199. *With.* 433. *Hull.* 100. *Lightf.* 239.

L. Sylveſtris viſcoſa rubra anguſtifolia. *Raii Syn.* 340.

A VERY rare plant wild, though common with double flowers in gardens. It ſtill grows in ſeveral rocky ſpots about Edinburgh, as mentioned by Ray, and from thence Mr. Mackay ſent us freſh ſpecimens; the ſame accurate obſerver has found it at Craig Hall, near Blair gowrie, Angus-ſhire. It is perennial, and blooms early in the ſummer, when its flowers are a great ornament to its native crags, their roſe-coloured petals being prettily contraſted with the purpliſh calyx and dark-brown ſtem.

The roots are woody and perennial, ſtrongly fixed in the clefts of the rocks. Stems ſtraight, about a foot high, ſimple, angular, leafy, dark-brown and clammy under each joint, by which inſects are plentifully caught, as in ſeveral other plants of the pink or campion tribe, for what purpoſe no one has yet aſcertained; probably their decaying bodies form an air which is ſalutary to vegetable life. Leaves lanceolate, entire, pointed, dark-green, ſmooth. Flowers in a denſe forked panicle or *thyrſus*. Calyx membranous, coloured, ſmooth, or ſometimes a little hairy. Petals ſlightly emarginate, with a cloven crown at the baſe of their limb. Capſule ovate, ſcarcely half ſo long as the calyx, divided internally into five cells, containing many rough ſeeds.

89.

LYCHNIS alpina.

Red Alpine Campion.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of 1 leaf, oblong. *Petals* 5, with claws; their limb mostly divided. *Caps.* superior, opening with 5 teeth, of 1 or 5 cells.

SPEC. CHAR. Smooth. Petals cloven. Flowers corymbose. Leaves linear-lanceolate.

SYN. Lychnis alpina. *Linn. Sp. Pl.* 626. *Sm. Tr. of Linn. Soc. v.* 10. 342. *Fl. Dan. t.* 65. *Willd. Sp. Pl. v.* 2. 809. *Curt. Mag. t.* 394.

Silene Lapponica alpina, facie viscariæ. *Linn. Fl. Lapp. n.* 185.

AS this pretty *Lychnis* is a native of the Lapland as well as the Swiss alps, it is rather a wonder that it has not long ago been found in our island. Mr. G. Don however first made this interesting discovery, on rocks near the summit of Clova mountains in Angusshire, in 1795. The plant is there very scarce, being only found, any where, on the most elevated spots. It is perennial, flowering in June or July. We have preferred drawing Mr. Don's original specimen, though dry, to any garden one; but we have compared it with such, and with other dried specimens from Switzerland.

This species most resembles *L. Viscaria, t.* 788, from which Linnæus, while travelling in Lapland, was at some pains to distinguish it. The present is much smaller, and not viscid, besides the essential difference of its half-divided petals. The styles are certainly five, and the petals each crowned with a cloven tooth, notwithstanding the various and contradictory accounts in the works of Linnæus, Haller, and others, the history of which, much too long for this place, is given in the Transactions of the Linnæan Society, above quoted.—The Botanical Magazine and *Hort. Kew.* copy *Syst. Veg.* ed. 14, apparently without their authors being aware of the above confusion, nor does the description or figure in the former throw any light upon the subject.

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Mee - ue published by J. & J. Sowerby London

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90.

LYCHNIS dioica: *flore rubro.*
Red Campion.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of 1 leaf, oblong. *Petals* 5, with claws; their limb mostly divided. *Caps.* superior, opening with 5 teeth, of 1 or 5 cells.

SPEC. CHAR. Flowers dioecious. Fruit of one cell.

SYN. Lychnis dioica. *Linn. Sp. Pl.* 626. *Sm. Fl. Brit.* 495. *Huds.* 199. *With.* 431. *Abbot.* 101.

α. Flowers red.

L. dioica. *Curt. Lond. fasc.* 2. *t.* 32. *Hull.* 100.

L. diurna. *Sibth.* 145. *Sym.* 112.

L. sylvestris rubello flore. *Raii Syn.* 339. *Ger. em.* 469.

SOMETIMES it happens that plants which every one well knows at first sight, are attended with much difficulty in their botanical characters, as is the case with the common Red and White Campions, both comprehended by Linnæus under his *Lychnis dioica*. We shall endeavour to illustrate them in this and the following plate.

The Red Campion is common under hedges and in other shady and rather moist places, flowering copiously in the spring, and occasionally, when it has been accidentally cropped at an early period, its flowers are observable here and there throughout the summer. The root is perennial and tapering. Herb clothed with fine soft prominent hairs, and somewhat viscid. Stem upright but weak, round, jointed, leafy, about 18 inches or 2 feet high, terminating in a forked spreading panicle. Leaves ovate, soft, acute, entire. Flowers on partial stalks, with somewhat membranous bracteas. Calyx dark red; in the male flowers tubular; in the female (which are on distinct and stronger plants) ovate; in both 10-ribbed, without intermediate veins. Petals rose-coloured, with whitish claws and 4-cleft crown, the limb cloven, and sometimes having 2 slight lateral lobes. The flowers have no smell. They are often seen double in gardens. There is a pale variety in which the stamina and pistilla are sometimes, not always, together in the same flower.

Sprat's Bot. Poll. Lond. by

91.

LYCHNIS dioica: *flore albo.*
White Campion.

GEN. and SPEC. CHAR. See preceding page.

β. Flowers white. *Relh.* 177.

Lychnis dioica. *Fl. Dan. t.* 792.

L. vespertina. *Sibth.* 146. *Sym.* 112. *Hull.* 100.

L. sylvestris albo flore. *Raii Syn.* 339.

THIS variety, as it is presumed to be, of *Lychnis dioica* is no less common than the red one, but differs from it in place of growth, being found in rather more exposed situations, principally open fields, flowering in June and July. The whole plant is firmer and taller than the foregoing. Leaves rather more lanceolate than ovate, thicker and less flaccid. Flowers larger, white, sometimes pale blush-coloured, diffusing a delicate sweet fragrance in an evening or before rain, but we do not find them, according to Dr. Sibthorp's account, expanded more particularly at that time, for ours were gathered at noon; nor do the differences indicated by that indefatigable botanist in the shape of the fruit appear constant to us. We dissent from him and others, who have made 2 species of these plants, very unwillingly and with great diffidence. We have thought the intermediate veins between the calyx-ribs in the female flower of this white kind, might distinguish it from the red. The form of the crown of the petals seems a little different, but experience shows that to be variable. Both organs of fructification sometimes occur in the same flower in this variety also.

As we here publish two varieties of the same species, we have not repeated the characters. Otherwise we deem it essential, in all periodical publications of this kind, that each plant should be accompanied by its essential characters, both generic and specific, in order that the work may without inconvenience be bound up according to any arrangement whatever.

April 1 1806. Published by Jas Sowerby London

CERASTIUM vulgatum.

Broad-leaved Mouſe-ear Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* cloven. *Capſ.* ſuperior, of 1 cell, burſting at the top, with 10 teeth.

SPEC. CHAR. Hairy, viſcid, forming tufts. Leaves ovate. Petals equal to the calyx. Flowers longer than their ſtalks.

SYN. Ceraſtium vulgatum. *Linn. Syſt. Nat. ed.* 10. *v.* 2. 1039. *Sp. Pl.* 627. *Sm. Fl. Brit.* 496. *Lightf.* 240.

C. viſcoſum. *Hudſ.* 200. *With.* 433. *Hull.* 101. *Relh.* 178. *Sibth.* 147. *Abbot.* 101. *Curt. Lond. faſc.* 2. *t.* 35.

Alſine hirſuta Myoſotis latiſolia præcocior. *Raii Syn.* 348.

Myoſotis arvenſis hirſuta parvo flore. *Vaill. Par. t.* 30. *f.* 3.

NO plants have been more generally miſtaken for each other than the common *Ceraſtium vulgatum* and *C. viſcoſum*. The cauſe of the error is Linnæus, who miſquoted Vaillant's admirable figures; and the indolent practice of turning to plates and ſynonyms, inſtead of attending to his definitions and ſolid deſcriptions, has miſled many of his compiling diſciples. The plant now before us was not noticed in the firſt ed. of *Sp. Pl.* but occurs firſt in the tenth ed. of *Syſtema Naturæ*, and the original ſpecimen marked A, referring to that edition, ſtill preſerved in the Linnæan herbarium, precludes all poſſibility of error. Mr. Lightfoot alone, of all our writers, knew theſe ſpecies rightly.

C. *vulgatum* abounds in waſte and cultivated ground, on walls, banks, and dry ſandy places, flowering in April and May. Its light-green hue, yellowiſh in decay, its broad ovate leaves and ſmaller flowers, diſtinguiſh it from the *viſcoſum*. The ſtems are alſo more erect. The whole herb is hairy and more or leſs viſcid. Petals white, emarginate, ſcarcely longer than the calyx. Stamina all fertile. Capſule cylindrical, a little curved. Seeds tawny, ſtreaked, and roughiſh. The root is conſtantly annual only.

789.

CERASTIUM viscosum.

[illegible] Mouse-ear Chickweed.

CERASTIUM *Pentagynia.*

Gen. Char. [illegible] *Petals* cloven. *Caps.* [illegible] burthing at the top, with 10 teeth.

Spec. Char. Hairy, viscid, spreading. Leaves lanceolate-[illegible]

Syn. Cerastium viscosum. *Linn. Sp. Pl.* 627. *Sm. Fl. Brit.* [illegible]

C. vulgatum. [illegible] *With.* 433. *Hull.* 101. [illegible] *Curt. Lond. fasc.* 2. *t.* 34.

Alsine hirsuta Myosotis. *Ray Syn.* 349.

Myosotis hirsuta alterra viscosa. *Vaill. Par. t.* 30. [illegible]

THIS is equally common with the C. *vulgatum*, growing in pastures, waste places, on walls, and even in moist meadows, but is far more viscid than that, so that Linnæus has not been happy in the specific names of the two species. We must however defend Vaillant, as well as Linnæus, so far as to say in opposition to Mr. Curtis, copied by Dr. Sibthorp, that the plant now under consideration is always viscid, though less so at an advanced age, and in cold weather.

It flowers from May to September, and differs from the preceding in being perennial, as well as in its spreading or procumbent stems, darker green hue, and narrower leaves. The parts of fructification are also larger; petals longer and more conspicuous. Flower-stalks generally longer. Seeds rugged. The stamina are ten, all fertile as in the other, by which both are known from C. *semidecandrum*, *pentandrum* and *tetrandrum*. The last mentioned is described in the present work as a *Sagina*, *t.* 166, but Mr. Curtis's just remarks (in spite of the erroneous criticisms on my botanical phraseology with which they are mixed) have led me to make it a *Cerastium* in the *Fl. Brit.*


Oct. 1. 1800 Sullivan del. et sc. Sowerby Lond.

94.

CERASTIUM semidecandrum.
Little Mouse-ear Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* cloven. *Caps.* superior, of 1 cell, bursting at the top, with 10 teeth.

SPEC. CHAR. Hairy, viscid. Stamina five. Petals but slightly notched.

SYN. Cerastium semidecandrum. *Linn. Sp. Pl.* 627. *Sm. Fl. Brit.* 497. *Huds.* 200. *With.* 435. *Hull.* 101. *Relh.* 178. *Sibth.* 147. *Abbot.* 101. *Curt. Lond. fasc.* 2. *t.* 33. *Dicks. H. Sicc. fasc.* 8. 11.

C. hirsutum minus, parvo flore. *Dill. in Raii Syn.* 348. *t.* 15. *f.* 1.

GATHERED on walls near Battersea church in May last. It occurs frequently in waste ground and barren sandy or gravelly spots among rubbish, flowering in the early spring, after which it soon sows its seeds and withers away.

Root small, fibrous, annual. Habit of the plant most like *C. viscosum*, *t.* 790, but every part is smaller, and the herbage more frequently reddish. The stems spread at the base, and are hairy, most viscid in the upper part. Leaves ovate or oblong, the lower ones generally almost smooth. Flower-stalks longer than the calyx, bent back after flowering, but finally erect. Calyx-leaves with a conspicuous white dilated margin. Petals generally shorter than the calyx, slightly notched at the tip, sometimes cut on the side. Stamina rarely more than 5. Capsule about twice as long as the calyx, somewhat curved. Seeds of a tawny brown, granulated, compressed.

Mr. Dickson's *C. pumilum*, *Curt. Lond. fasc.* 6. *t.* 30, appears to me, from the examination of several living specimens, a variety only of this plant with somewhat larger and more deeply cut petals, and larger fruit, changes to which other plants of this natural order are liable from a barren soil and open sunny situation.

Aug.t Lillie Published by Ja.s Sowerby London.

SAGINA ceraſtoides.

Mouſe-ear Pearl-wort.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* 4-leaved. *Petals* 4. *Capſ.* with 4 cells and 4 valves.

SPEC. CHAR. Stem diffuſe and dichotomous. Leaves ſpatulate or obovate, recurved. Foot-ſtalks of the ripe fruit reflexed.

SYN. Sagina ceraſtoides. *Tranſ. of Linn. Soc. vol.* 2. 343.

MR. James Dickſon, who diſcovered this plant on the ſandy ſhores and rocks about the Firth of Forth in Scotland, flowering in June and July, laid it before the Linnæan Society in October 1791; and from his ſpecimens, both wild and cultivated, Dr Smith has drawn up a full deſcription, printed in the 2d volume of the Society's Tranſactions, juſt about to appear.

The habit of this plant is very like that of a Ceraſtium, but the number of the parts of fructification make it a Sagina, to which genus it therefore muſt be referred, as the genera in this natural order are founded on differences of number alone. Mr Dickſon has obſerved the number of ſtamina to be conſtant; but in the wild plant it muſt oblige us to declare we have in caſt cases very numerous ſpecimens ſometimes found two, though in the ſame flower the petals, calyx-leaves and ſtyles were ſo; but this is ſufficient indication that the fifth ſtamen was at abſolutely numerous.

The root appears to be annual. Stems prostrate, dichotomous, hairy at the upper part. Leaves like thoſe of a Ceraſtium, hairy. Flowers [illegible], on length foot-ſtalks from [illegible] of the ſtem, which foot-ſtalks, as the fruit ripens, become reflexed. Calyx of four leaves, two of which have a membranous margin. Petals ſhorter than the calyx, cloven, white. Stamina full ſhorter. Germen oval. Styles ſhort. Capſule [illegible] and oval. The flowers expand [illegible]

96.

CERASTIUM arvenſe.

Field Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* five-leaved. *Petals* cloven. *Capſule* one-celled, burſting at the top.

SPEC. CHAR. Leaves linear-lanceolate, obtuſe, ciliated at the baſe. Corolla longer than the calyx.

SYN. Ceraſtium arvenſe. *Linn. Sp. Pl.* 628. *Hudſ. Fl. An.* 201. *With. Bot. Arr.* 478. *Relh. Cant.* 179.

Caryophyllus arvenſis hirſutus, flore majore. *Raii Syn.* 348.

FREQUENTLY found in a gravelly ſoil in many parts of England, more rarely in Scotland, on dry banks and waſte ground.

The root is perennial and creeping. Stems very numerous, procumbent at the baſe, and forming thick tufts, riſing to about four or five inches in height, alternately branched, round, leafy, each terminated by two or three large, white, not inelegant flowers, with heart-ſhaped veined petals. The whole plant is often very hairy, always more or leſs ſo, even in Linnæus's own Scanian ſpecimens, though he deſcribes the leaves as ſmooth. The germen is globular; capſule cylindrical, ſlender, ſhorter than the calyx, ſplitting into five narrow valves, pellucid and almoſt membranous.——It produces a profuſion of flowers from May to September.

CERASTIUM alpinum.

Stone Chickweed.

CERASTIA *Pentagynia.*

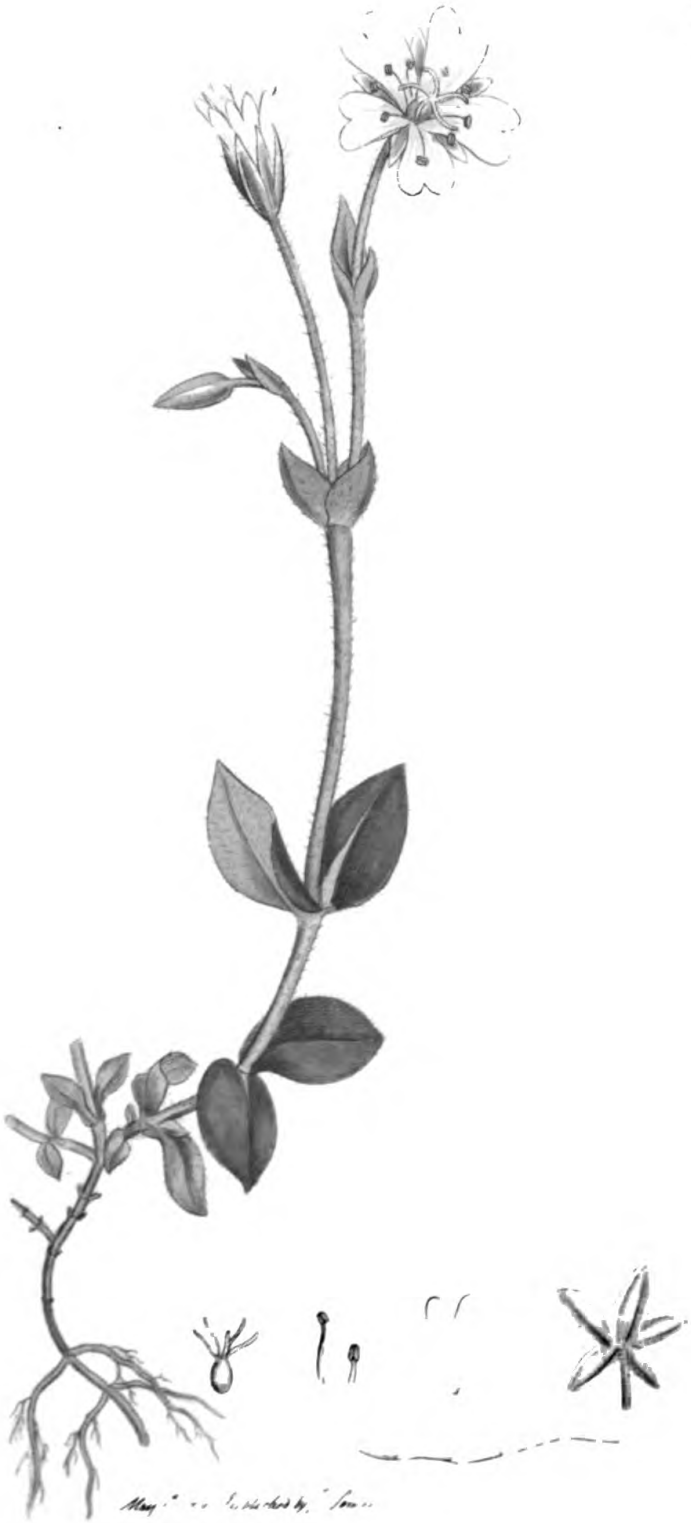
Gen. Char. [illegible] *Petals* cloven. *Capsule* [illegible] opening at the top.

Spec. Char. Leaves elliptical, naked, or clothed with [illegible]. Stems [illegible], of few flowers, furnished with [illegible]. Capsule oblong, curved.

Syn. Cerastium alpinum. *Linn. Sp. Pl.* 628. *Hudf.* [illegible] *Fl. Lapp.* [illegible].
[illegible] *Lapland* [illegible].
[illegible] Lapsana Alpina flore amplo [illegible] *Raii Syn.* 343. *t.* 15. *f.* 2.

[illegible] Scottish plants have been less understood than [illegible]. We have lately received [illegible] specimens of this from Mr. Griffith of Garn, and [illegible] from [illegible] of Edinburgh, and, finding them perfectly [illegible], have endeavoured to ascertain their differences [illegible].

[illegible] has a creeping perennial root, forming tufts [illegible] round, erect, from [illegible] upwards, but terminating generally [illegible] of several flowers; in poor weak [illegible] the flower is solitary. Leaves varying in [illegible], but always more or less elliptical, a little [illegible], [illegible] and little. The herb is sometimes [illegible], sometimes clothed with white hairs, which [illegible] pointing upwards, pointed like a *Conferva*, [illegible]. Lightfoot has well figured it in its most [illegible], though he mistook it as Dr. Withering justly observes for [illegible]. I have gathered it on Ben Lomond, [illegible] figure, and in being then taken for the *latifolium*, [illegible] Rowan's description, made from my specimens, [illegible] by Dr. Withering to that species. Dillenius's figure in Ray's Synopsis gives a totally wrong idea of the pubescence, which is there represented very short. The [illegible] pedunculus is quite smooth, and we have seen [illegible], though generally the plant is more or less [illegible]. The flower-stalks are naturally 2, 3, or more, forming a [illegible] and each of them is accompanied by a pair of [illegible]. The flowers are large, white, and handsome; the calyx edged with a membrane, shorter than the petals. Stamens all perfect. Capsule, as it ripens, lengthened out into a curved horn. This plant flowers from the end of May to August.



CERASTIUM latifolium.

Broad-leaved rough Chickweed.

DECANDRIA *Pentagynia.*

Gen. Char. Cal. 5-leaved. *Petals* cloven. *Capsule* of one cell, bursting at the top.

Spec. Char. Leaves elliptical, clothed with short spreading hairs. Flower-stalks terminal, simple, mostly solitary. Capsule oval.

Syn. Cerastium latifolium. *Linn. Sp. Pl.* 629. *Hudf. Fl. Ang.* 172. *Jacq. Coll. V.* 1. 256. *t.* 20.

C. tomentosum. *Engl. ed.* 1. 176.

Alsine Myrsinites lanuginosa Alpina grandiflora. *Raii Syn.* 343.

CERASTIUM *latifolium* was sent from Wales and Scotland along with C. *alpinum*, already described under *t.* 472: it flowers at the same time, and is perennial.

The stems form tufts, but are shorter and more thickly set with leaves than in that species; the leaves are broader and more obtuse, clothed (*confusedly* as far as we have observed) with numerous fine rigid spreading hairy hairs, various in position and direction, making a harsh kind of covering, quite different from the silky hairs of C. *alpinum*. They are also in general more thickly jointed. The flower-stalks are terminal, mostly solitary, simple, often as long as the whole stem, clothed with granular spreading hairs, and frequently destitute of bracteæ. The flowers differ but little from that species. It appears that the stem is at length prolonged beyond the insertion of the flower-stalk, and may occasionally bear an autumnal flower, when the first has ripened its seed. The capsule is oval, and is not curved, shorter than that of C. *alpinum*.—We presume there is no doubt of this being the plant of Ray as above quoted, though we have seen no original specimens. It used to be referred, from Mr. Hudson's error, to the *tomentosum* of Linnæus, from which it differs widely.

[illegible] by J. [illegible] London

CERASTIUM aquaticum.

Water Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* cloven. *Capſ.* of one cell, burſting at the top.

SPEC. CHAR. Leaves heart-ſhaped, ſeſſile. Flowers lateral, ſolitary. Fruit drooping.

SYN. Ceraſtium aquaticum. *Linn. Sp. Pl.* 629. *Hudſ.* 202. *With.* 436. *Relh.* 180. *Sibth.* 147. *Curt. Lond. faſc.* 1. *t.* 34.

Alſine major repens perennis. *Raii Syn.* 347.

NOT unfrequent in watery places, particularly the margins of rivers and clear ditches, among reeds and buſhes, by which its weak ſtems are ſupported, flowering in July.

Root perennial, creeping. Stems 2 feet high, weak, procumbent unleſs ſupported, branched or forked, leafy, round, clothed all over with prominent glandular hairs; the bark is very brittle, the woody part tough, elaſtic, and tubular, as in *Stellaria media* and others of this natural family. Leaves oppoſite, heart-ſhaped, pointed, waved, entire, hairy, ſeſſile, except ſome on the younger or radical ſhoots. Flower-ſtalks ſolitary, ſingle-flowered, round, hairy, each ſpringing laterally between the leaves, and from the ſide of the neighbouring joint of the ſtem, rather than from between its branches. Calyx-leaves ovate, hairy and viſcid. Petals about as long as the calyx, or longer, deeply cloven, white. Stamina always 10, and ſtyles as conſtantly 5, blunt, hairy on the inſide. Capſule ovate, ſplitting into 5 teeth rather more deeply than in other ſpecies of *Ceraſtium*. Seeds kidney-ſhaped, rough, pale brown.

Linnæus, as we have already obſerved p. 92, once confounded this and the *Stellaria media* with *Stellaria nemorum*. In habit, deep-cut petals, and even the ſhape of the capſule, though not the number of its valves, this is certainly rather a *Stellaria* than a *Ceraſtium*; but the 5 ſtyles are never found to vary. Scopoli refers ſo many *Arenariæ*, *Spergulæ*, and *Ceraſtia* to his genus of *Stellaria*, that his authority in this caſe is of no weight.

SPERGULA arvensis.

Rough-seeded Corn Spurrey.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, undivided. *Capsule* superior, ovate, of 1 cell and 5 valves.

SPEC. CHAR. Leaves whorled. Stalks of the fruit reflexed. Seeds kidney-shaped, angular, rough.

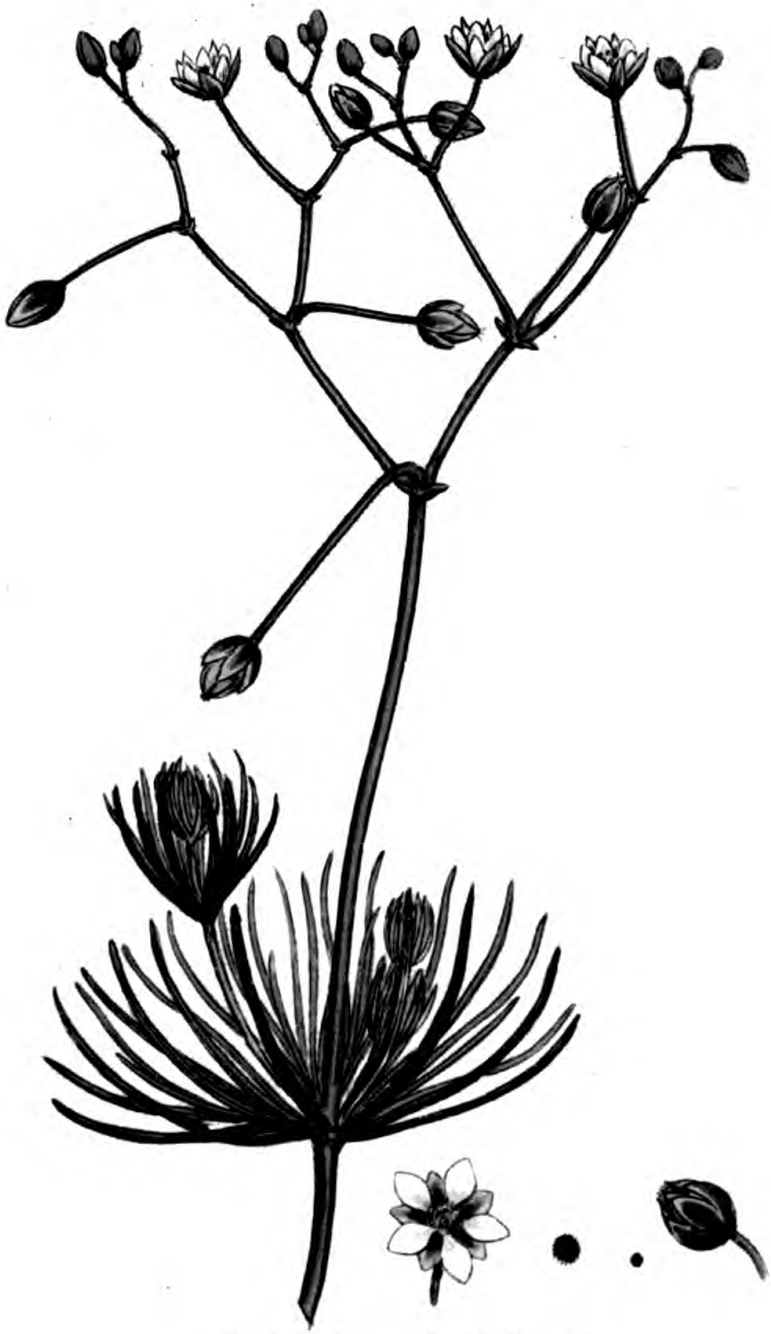
SYN. Spergula arvensis. *Linn. Sp. Pl.* 630. *Sm. Fl. Brit.* 502. *Huds.* 202. *With.* 436. *Hull.* 102. *Relh.* 179. *Sibth.* 148. *Abbot.* 102. *Curt. Lond. fasc.* 5. *t.* 31.

Alsine Spergula dicta major. *Raii Syn.* 351.

VERY common in corn-fields and waste places on a sandy soil, flowering from July to September.

Root annual, small in proportion to the plant. Stems spreading, very various in luxuriance, round, branched, jointed, downy and viscid especially in their upper part. Leaves many in a whorl at each joint, linear, obtuse, occasionally smooth or downy. Panicles terminal, forked, divaricated. Flower-stalks downy, reflexed as the fruit ripens. Calyx-leaves ovate, bluntish, concave, downy at the back, membranous at the edge. Petals ovate, white, entire, scarcely exceeding the calyx in length. Stamina generally 10, sometimes 5, or some intermediate number. Styles 5, short. Capsule almost twice as long as the calyx. Seeds numerous, kidney-shaped or roundish, swelling, angular, with an obsolete (not membranous) border. When ripe they are black, and rough all over with minute tubercles or bristles.

Mr. Curtis mentions that cattle are fed with this herb, and poultry with its seeds, in Flanders, Germany and Norway. With us it is known only as a troublesome weed in sandy ground.



101.

SPERGULA pentandra. var.

Smooth-seeded Corn Spurrey.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, undivided. *Capsule* superior, ovate, of 1 cell and 5 valves.

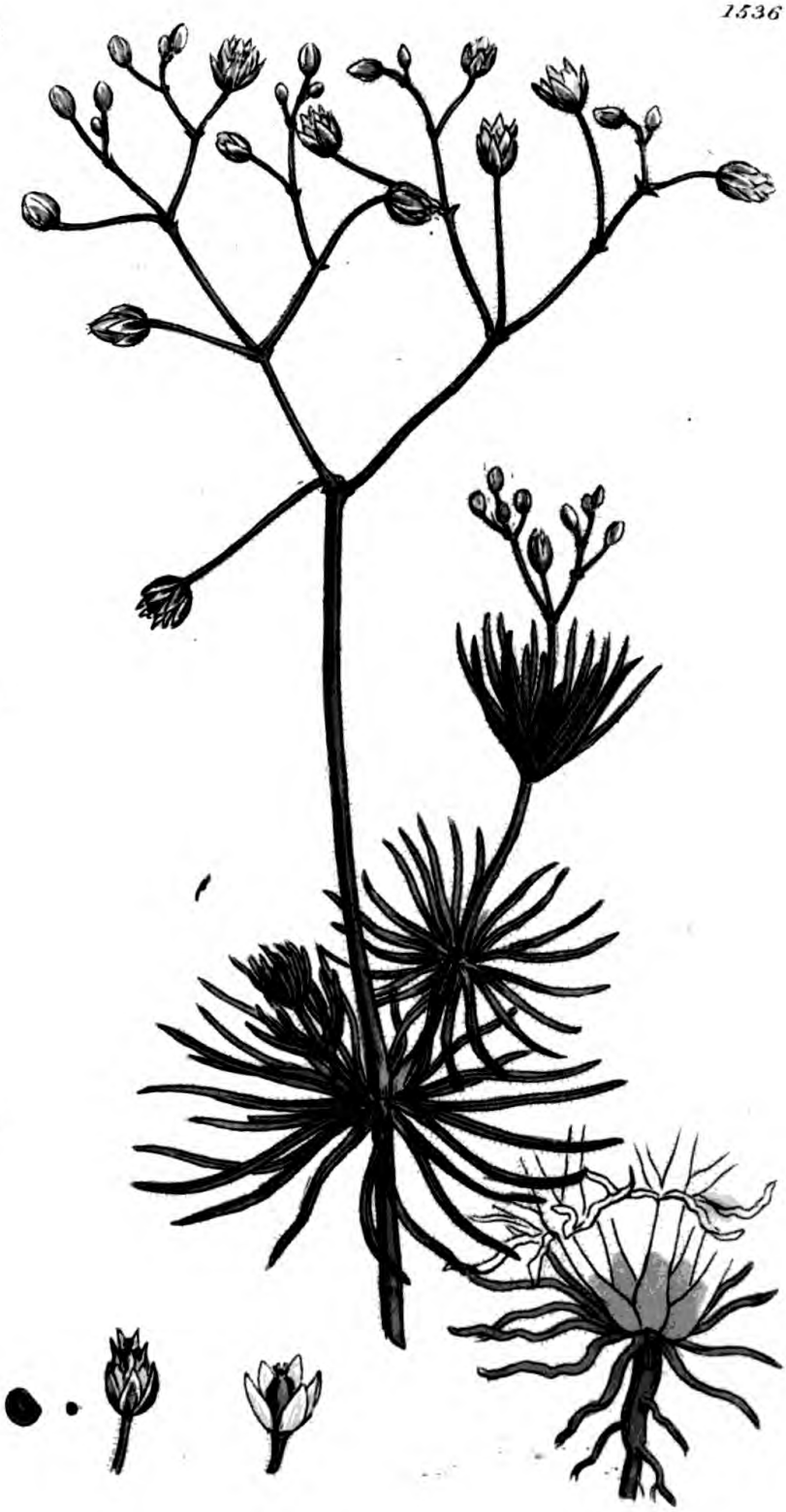
SPEC. CHAR. Leaves whorled. Stalks of the fruit reflexed. Stamina five. Seeds lenticular, smooth, with a membranous border.

SYN. Spergula pentandra. *Linn. Sp. Pl.* 630. *Abbot.* 102. *Roth. Fl. Germ. v.* 2. 505.

S. annua, semine foliaceo nigro, circulo membranaceo albo cincto. *Dill. in Raii Syn.* 351.

WE are obliged to Mr. John Shepherd, the able Curator of the Liverpool garden, for pointing out this plant to us in August last on several sandy spots near that town, where it grows intermixed with *S. arvensis,* from which it is not to be known till the flowers and seeds are examined. We do not find any difference in the size of the plants, or number of the leaves. Perhaps the flowers of this are rather smaller, and their stamina are naturally 5, scarcely ever more. The most remarkable difference is in the seeds, which are compressed and lenticular, always smooth, and bordered by a very conspicuous whitish membrane. In this respect it differs from *S. arvensis* just as *Arenaria marina* does from *rubra.* How far such differences are permanent, future inquiries must determine, but they appear decisive.

This species is mentioned with doubt in the *Fl. Brit.*, and described according to the best lights I had then to guide me. It is very doubtful whether Mr. Hudson had seen more than the pentandrous variety of *arvensis,* and Mr. Curtis ingenuously expresses his own uncertainty on the subject. For these reasons Mr. Shepherd's discovery gave me peculiar pleasure.



Decr. 1 1805 Published by J. Sowerby London

SPERGULA nodosa.

Knotted Spurrey.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, undivided. *Capsule* superior, ovate, of 1 cell and 5 valves.

SPEC. CHAR. Leaves opposite, awl-shaped, smooth; the upper ones clustered. Calyx without nerves.

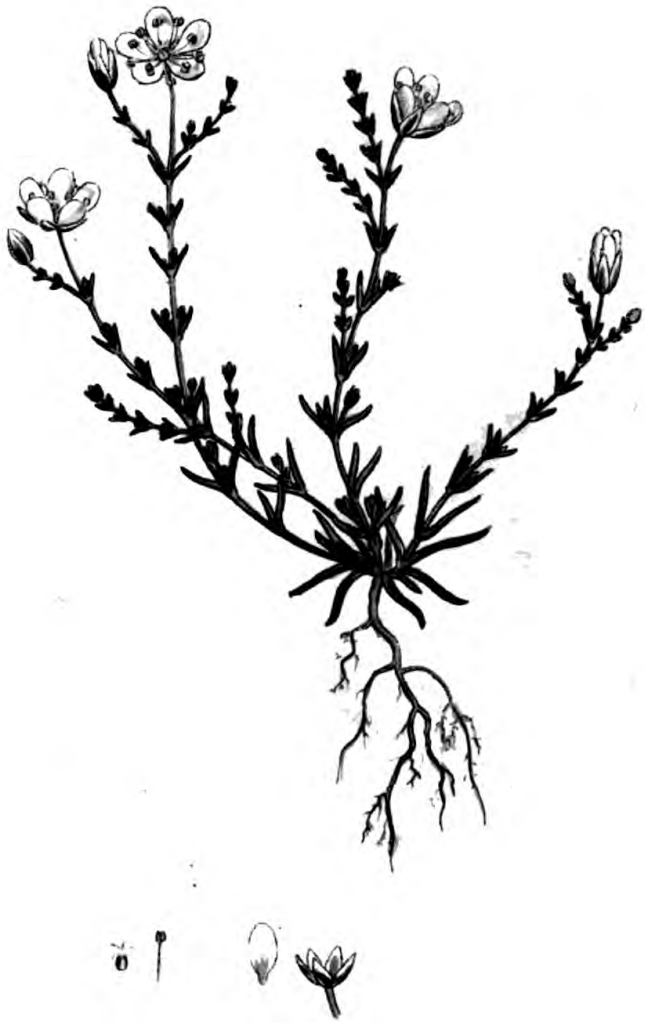
SYN. Spergula nodosa. *Linn. Sp. Pl.* 630. *Sm. Fl. Brit.* 503. *Hudf.* 203. *With.* 437. *Hull.* 102. *Relh.* 181. *Sibth.* 148. *Abbot.* 103. *Curt. Lond. fasc.* 4. *t.* 34.

Alsine palustris foliis tenuissimis, seu Saxifraga palustris anglica. *Raii Syn.* 350.

THIS pretty plant is found in wet spots upon sandy heaths and commons, but not very frequently. It is perennial, flowering in July and August. The seeds are not always perfected.

Root fibrous. Herb very smooth. Stems spreading, and generally prostrate, numerous, slender, but little branched, clothed with many pairs of awl-shaped united leaves, which produce from their bosoms tufts of much smaller leaves, especially the uppermost. Sometimes the larger ones are slightly fringed at their base. The flowers grow on stalks at or near the extremities of the stems, and are large in proportion to the plant, of a pure brilliant white, and elegant in their appearance. The 5 styles and 5 valves of the fruit alone separate this plant from the genus of *Arenaria*, to which it is in other respects closely allied, as may indeed be said of almost every *Spergula*.

The first discoverer of the S. *nodosa* in England was Mr. John Goodyer in 1626, as appears from his own statement in the 2d edition of Gerarde's Herbal, *p.* 568; to which work he was a great contributor, and his communications are remarkable for accuracy of observation and clearness of expression.



SPERGULA saginoides.

Smooth Awl-shaped Spurrey.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, undivided. *Capsule* superior, ovate, of 1 cell and 5 valves.

SPEC. CHAR. Leaves opposite, awl-shaped, pointless, naked. Flower-stalks solitary, very long, smooth.

SYN. Spergula saginoides. *Linn. Sp. Pl.* 631. *Sm. Fl. Brit.* 504. *Hull. ed.* 2. 136.

Alsine foliis gramineis sæpè fasciculatis, glabris, pedunculis longis nudis unifloris. *Gmel. Sib. v.* 4. 157. *Herb. Linn.*

WE received this from the late Mr. J. Mackay, who gathered it on Ben Lawers in 1794. Mr. G. Don appears to have found it previously on Mal-ghyrdy.

The root is fibrous and perennial. Whole plant quite smooth, in which last respect, and the want of a bristly point to the leaves, it essentially and constantly differs from *S. subulata, t.* 1082. The stems are decumbent at their lower part, then erect, mostly branched, leafy, round, with rather tumid joints. Leaves awl-shaped, acute, joined at their base. Flower-stalks terminal, solitary, erect, round, naked, very smooth, often as long as the stems, each bearing a rather drooping white flower, somewhat larger than those of *S. subulata*. Calyx-leaves ovate, obtuse, even, with hardly any ribs, gibbous at their base. Petals roundish, scarcely so long as the calyx. Stamens 10, about as long as the petals. Capsule ovate, of 5 valves, twice as long as the calyx. Seeds roundish kidney-shaped, brown, smooth, not bordered.

Professor Swartz describes but 5 stamens in his *S. saginoides*. Whether ours be the same or not, we are certain it is that of Linnæus.

Jan. 1. 1811. published by J. Sowerby, London.

SPERGULA ſubulata.

Ciliated Awl-ſhaped Spurrey.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, undivided. *Capſule* ſuperior, ovate, of 1 cell and 5 valves.

SPEC. CHAR. Leaves oppoſite, awl-ſhaped, fringed, tipped with a briſtly point. Flower-ſtalks ſolitary, very long, ſomewhat hairy.

SYN. Spergula ſubulata. *Sm. Fl. Brit.* 505. *With.* 436. *Hull.* 102. *Swartz. Act. Holm. ann.* 1789. 45. *t.* 1. *f.* 3.

S. laricina. *Hudſ.* 203. *Lightf.* 244.

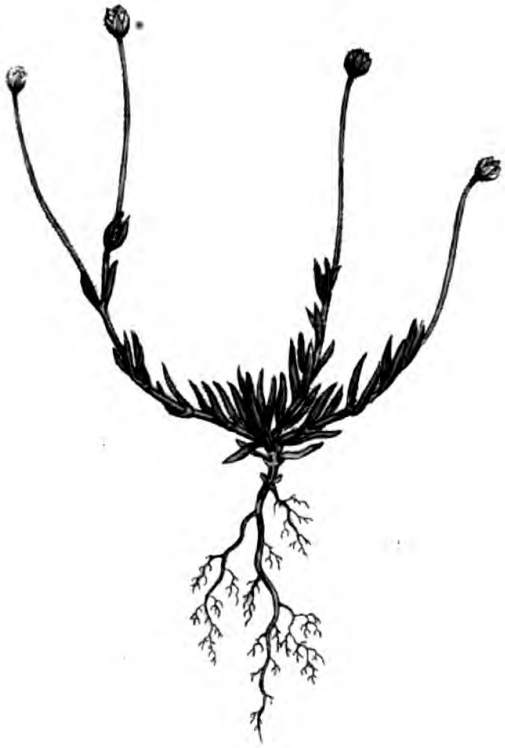
S. ſaginoides. *Curt. Lond. faſc.* 4. *t.* 35.

Sagina procumbens β. *Linn. Sp. Pl.* 185.

Saxifraga graminea puſilla, foliis brevioribus craſſioribus et ſucculentioribus. *Raii Syn.* 345.

IT appears from original authorities that Linnæus confounded this plant with *Sagina procumbens*; hence it is not to be found properly characterized in any of his own publications.—Mr. Hudſon, led by the ſpecific character of *Spergula laricina*, miſtook it for that ſpecies, how erroneouſly may be ſeen by the *Plant. Ic. ex Herb. Linn. t.* 18. Dr. Swartz and Profeſſor Wildenow have at length properly defined it.

This ſpecies grows on ſandy barren heaths, flowering from June to Auguſt. Mr. W. Borrer favoured us with ſpecimens. The root is fibrous and perennial. Stems ſeveral, ſpreading, and taking root, leafy, ſmooth, or rarely a little pubeſcent. Leaves oppoſite, joined at the baſe, linear, tapering to a point, tipped with a little briſtle, and fringed with glandular hairs, by which two laſt marks this is certainly diſtinguiſhed from *S. ſaginoides*, a plant otherwiſe greatly reſembling it, but much more rare. Flower-ſtalks terminal or axillary, ſolitary, long, more or leſs clothed with glutinous, ſhort hairs, as is likewiſe the calyx. Petals obovate, obtuſe, entire, white, the length of the calyx. Stamina moſt generally 5, ſometimes 10. Capſule ovate, ſcarcely exceeding the calyx in length, burſting into 5 valves. Seeds minute, kidney-ſhaped, compreſſed, pale-brown, encircled with a black line, but not with a dilated membranous margin.



Oct.r 1. 1802. Published by Ja.s Sowerby. London.