FAMILIAR WILD FLOWERS

FIGURED AND DESCRIBED BY

F. EDWARD HULME, F.L.S., F.S.A.

"There lives and works
A soul in all things, and that soul is God.
The beauties of the wilderness are His,
That make so gay the solitary place.
He sets the bright procession on its way,
And marshals all the order of the year;
And ere one flowering season fades and dies,
Designs the blooming wonders of the next."

COWPER.

Fourth Series
WITH COLOURED PLATES

*

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SAUVAGE

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SUMMARY.

It should be prefaced that this Summary merely professes to give a brief epitome of each of the plants represented in this volume, and that it is principally a condensation from the writings of Hooker, Lindley, Bentham, or other authorities on the subject.*

CORN MARIGOLD, *CHRYSANTHEMUM SEGETUM. Nat. Ord., Compositæ.*—Calyx adherent, with ovary. Ray-florets conspicuously ligulate. Involucre hemispherical, having imbricated and membranaceous scales. Stamens five; anthers syngenesious. Ovary one. Style one, sheathed by anther-tube, bifid at apex. Stigmas extended on each branch of style. Flower-heads large, on terminal peduncles. Fruit an achene; disk achenes terete. Receptacle without scales. Pappus wanting. Leaves amplexicaul, alternate, glaucous, lobed or serrate, varying in form considerably according to position. Stems branching freely.—Cornfields. June, July, August, September, October. Annual. *p.* 1.

KIDNEY VETCH, *ANTHYLLIS VULNERARIA. Nat. Ord., Leguminosæ.*—Calyx five-toothed, inflated, downy, contracted at mouth. Corolla papilionaceous. Heads of flowers in pairs at end of stems; the flowers numerous and sessile. Stamens ten, monadelphous. Ovary one-celled. Style and stigma one. Legume two-valved, oval, few-seeded, enclosed in calyx. Leaves alternate, stipulate, pinnate. Bracts large and palmate. Whole plant covered with soft hair.—Dry pastures and embankments. June, July, August. Perennial. *p.* 5.

SAINFOIN, *ONOBRYCHIS SATIVA. Nat. Ord., Leguminosæ.*—Calyx five-toothed, the teeth long and slender. Corolla of five petals, papilionaceous, wings short. Stamens ten, diadelphous. Inflorescence

* See Prefatory Note to the Summary, Series I.

racemose, on long axillary peduncles. Ovary one-celled. Style and stigma one. Legume two-valved, indehiscent, sessile, toothed on inner margin, coriaceous, flattened, one-seeded. Leaves stipulate, alternate, pinnate, without tendrils, glabrous; numerous leaflets. Stipules small, finely-pointed.—Open down-land and chalk slopes. June, July. Perennial. *p.* 9.

NIPPLEWORT, *LAPSANA COMMUNIS. Nat. Ord., Compositæ.* —All the florets ligulate and perfect, rather pale yellow, small. Stamens five, their anthers syngenesious. Ovary one. Style one, sheathed by tube of anthers; stigmas in two rows on bifid style. Fruit an achene, slightly compressed, striate. Pappus wanting. Receptacle naked. The involucre small, of about eight or nine nearly equal scales arranged in a single row, and a few much smaller at base, angular. Inflorescence loosely paniculate or corymbose. Leaves few, thin in texture; upper ones small, narrow, sessile, entire or slightly toothed; lower ones large, slightly lobed, stalked, coarsely serrate, lyrate; all somewhat hairy. Stems erect, stiff, slightly branching.—Waste ground and gardens. July, August, September. Annual. *p.* 13.

ROCK ROSE, *HELIANTHEMUM VULGARE. Nat. Ord., Cistaceæ.* —Calyx of five sepals, three large, ribbed, and equal, and two smaller outer ones. Corolla deciduous, five petals, crumpled, broadly spreading. Stamens numerous, hypogynous. Style one, filiform. Stigma simple. Capsule with three valves. Leaves opposite, on short stalks, lanceolate, green above, grey beneath. Stipules linear-lanceolate. Flowers in loose racemes; flower-stems drooping before and after flowering. Stems shrubby, procumbent.—Dry pasturage and hill-sides. July, August, September. Perennial. *p.* 17.

MONEYWORT, *LYSIMACHIA NUMMULARIA. Nat. Ord., Primulaceæ.*—Calyx deeply five-cleft. Corolla regular, deeply five-lobed, cup-like, large, bright yellow. Stamens five. Ovary superior, one celled. Style one. Stigma capitate. Fruit a one-celled capsule opening at the top. Flowers on axillary peduncles. Leaves opposite, shortly stalked, broadly ovate, shining. Stem prostrate, creeping, rooting. —Moist shady banks. June, July. Perennial. *p.* 21.

FIELD SCABIOUS, *KNAUTIA ARVENSIS. Nat. Ord., Dipsaceæ.*—Flowers in dense and flattened heads, on long peduncles. Calyx tube adnate with ovary. Calyx of five bristly sepals, and cup-shaped base. Outer florets large, unequal ; inner florets having equal segments, all lilac, and all four-lobed. Receptacle hairy. Style one. Fruit dry, indehiscent, angular. Radical leaves large, lanceolate, serrate, coarse-looking. hairy. Stem-leaves opposite, small, sessile. slightly-lobed, variable in form.—Pastures and banks. June, July, August. Perennial. *p.* 25.

YELLOW WATER-LILY, *NUPHAR LUTEA. Nat. Ord., Nymphaceæ.*—Calyx of a varying number of sepals, five or six, concave, yellow, fleshy, much larger than the petals. Petals numerous, fragrant, inserted on receptacle, yellow. Stamens numerous. Anthers linear, inserted on receptacle, yellow, often passing into more or less petaloid forms. Stigma peltate, rayed. Fruit baccate, globular or flask-like, crowned by disk of stigma. Leaves cordate, floating. Stems thick and succulent.—Lakes, ponds, and gently moving streams. July, August. Perennial. *p.* 29.

MEADOW SAXIFRAGE, *SAXIFRAGA GRANULATA. Nat. Ord., Saxifragaceæ.*—Calyx of five teeth, spreading. Petals five, pure white, spreading, lanceolate. Stamens ten, inserted at base of calyx. Styles two. Inflorescence paniculate. Ovary two-celled. Capsule two-celled, beaked, many-seeded. Leaves exstipulate; lower leaves on foot-stalks, reniform, lobed ; upper leaves sessile or nearly so, acutely-lobed, small and few in number. Stem erect, with clustering subterranean tubers at base.—Pastures and downs. May, June. Perennial. *p.* 33.

THRIFT, *ARMERIA MARITIMA. Nat. Ord., Plumbaginaceæ.*—Calyx tubular, dry, membranous, teeth short. Corolla regular, of five petals, united at base. Ovary single, one-celled. Stamens inserted on corolla. Styles five, hairy. Stigmas five, filiform. Flowers in dense terminal, globular heads, with bracts, and inverted sheath clothing upper portion of scape. Capsule one-seeded. Leaves long and linear, radical, numerous, one-nerved.—Salt marshes. April, May, June, July, August. Perennial. *p.* 37.

BROOM, *SAROTHAMNUS SCOPARIUS. Nat. Ord., Leguminosæ* or *Papilionaceæ.*—Calyx campanulate, two-lipped, minutely toothed, much shorter than corolla. Flowers large, bright yellow, papilionaceous, axillary. Standard broad. Stamens monadelphous. Ovary one-celled. Style one, very long. Stigma one. Pod or legume flat, much longer than calyx, many-seeded, hairy at margin. Lower leaves on short stalks, composed of three small obovate leaflets; upper leaves stalkless, often single. Stems angled, smooth, green, wiry. Large shrub.—Dry hilly wastes, banks. May, June. Perennial. *p.* 41.

CREEPING BELL-FLOWER, *CAMPANULA RAPUNCULOIDES. Nat. Ord., Campanulaceæ.*—Calyx segments five, conspicuous, deeply cut, recurved. Corolla campanulate, with five deeply-cut segments. Flowers unilateral, drooping, axillary, racemose. Æstivation valvular. Stamens five; filaments dilated at base. Anthers distinct, spreading. Stigma three-cleft, recurved. Fruit a capsule, dry, globular, opening by clefts at base. Leaves alternate, exstipulate; lower leaves large, heart-shaped, on long stalks; upper leaves small, acutely pointed, and stalkless. Stem erect, slightly branching. Root-stock creeping.—Woods and shady hedges. July, August. Perennial. *p.* 45.

MELANCHOLY THISTLE, *CNICUS HETEROPHYLLUS. Nat. Ord., Compositæ.*—Flower-heads large, crimson, growing singly on long peduncles. Bracts of involucre glabrous, lanceolate, imbricate, appressed, acuminate. Involucre flask-like. Stems high, much furrowed, covered with a white cottony down. Leaves on under side downy, green above, clasping the stem, bordered with small teeth, undivided, not prickly, not decurrent.—Damp mountain pasturage. July, August. Perennial. *p.* 49.

COW-WHEAT, *MELAMPYRUM PRATENSE. Nat. Ord., Scrophulariaceæ.*—Calyx four-toothed, tubular, persistent; much shorter than corolla. Corolla monopetalous, irregular, deciduous; upper lip laterally compressed; lower lip thrice-cleft. Flowers axillary, in pairs, turned one way. Stamens four, didynamous. Anthers obtuse. Style one. Stigma two-lobed. Capsule two-celled, oblong. Leaves lanceolate, opposite, sessile. Bracts in pairs, toothed at base. Stem slender, with opposite and spreading branches.—Woods. May, June, July, August. Annual. *p.* 53.

BETONY, *BETONICA OFFICINALIS. Nat. Ord., Labiatæ.*—Calyx tubular, ovate, ten-ribbed, five-toothed. Corolla irregular, tubed, upper lip erect, the lower lobed and spreading. Stamens four, in pairs beneath upper lip, two long, two short. Ovary one, four-lobed. Stigma two-lobed. Fruit a smooth nut. Leaves few in number, opposite, lower ones on long stalks, upper ones on short stalks or sessile, coarsely crenate, veining conspicuous. Stem square, hairy. Flowers in dense whorls arranged in a terminal spike. Bract large.—Woods and hedge-rows. June, July, August. Perennial. *p.* 57.

COMFREY, *SYMPHYTUM OFFICINALE. Nat. Ord., Boraginaceæ.*—Calyx five-partite, valvate in bud. Corolla monopetalous, regular, five-cleft, tubular, largest a little below the middle, purple or yellowish-white. Stamens five, inserted in the tube of the corolla; filaments very short. Style slender; stigma capitate. Scales alternating with stamens. Inflorescence a forked scorpoid cyme; flowers pendulous, on small pedicels. Leaves various; radicals broad and large on long-winged petioles; stem-leaves shortly petioled or sessile, ovate, lanceolate, and very decurrent, rough in texture, hairy, dull green. Stem three feet high, freely branching, angular, rough, winged by the decurrent leaves.—River-banks and moist ground. May, June. Perennial. *p.* 61.

HAIRY ST. JOHN'S WORT, *HYPERICUM HIRSUTUM. Nat. Ord., Hypericaceæ.*—Calyx five-partite, inferior, the sepals lanceolate, acute, with glandular serratures. Petals five, unequal-sided. Stamens numerous, triadelphous. Ovary one. Styles three. Flowers numerous, in a pyramidal panicle, yellow. Capsules many-seeded. Stem erect, hairy. Leaves opposite, stalked, slightly downy, ovate, entire, marked with pellucid dots.—Woods and thickets, more particularly on the chalk. July, August. Perennial. *p.* 65.

FOOL'S PARSLEY, *ÆTHUSA CYNAPIUM. Nat. Ord., Umbelliferæ.*—Calyx adherent with ovary, five minute teeth. Corolla white, of five unequal petals, the outer ones the largest; petals obcordate, with inflected points. Stamens five, inserted on fleshy disk. Styles two, short. Flowers in terminal umbels of about twelve equal rays; involucre wanting; partial involucre unilateral, of three linear, conspicuous, pendant leaves. Achenes two, combined, ovate or globose.

Leaves numerous, alternate, sheathing the stem, compound, glossy, giving unpleasant odour when bruised.—Fields, gardens, waste ground, and rubbish-heaps. July, August. Annual. *p.* 69.

HEDGE MUSTARD, *SISYMBRIUM OFFICINALE. Nat. Ord., Cruciferæ.*—Calyx of four sepals, equal at base, slightly spreading. Petals four, minute, yellow. Stamens six, tetradynamous. Ovary one. Style one. Stigma entire. Pods tapering, pubescent, pressed to main stalk, almost sessile, two-valved. Stem erect, rigid, tough, freely branching. Leaves dull green, very variable in form, deeply pinnatifid, terminal portions often much larger than the laterals; upper leaves hastate, but little divided.—Waste places, roadsides. June, July, August. Annual. *p.* 73.

LILY OF THE VALLEY, *CONVALLARIA MAJALIS. Nat. Ord., Liliaceæ.*—Perianth campanulate, six-cleft, segments recurved at extremities, drooping, fragrant, white, deciduous. Stamens six, inserted on sides of perianth. Ovary three-celled. Style one. Stigma one. Inflorescence racemose. Berry three-celled, globular. Bracts at the base of the pedicels. Peduncle radical, leafless, twisted, semi-cylindrical. Root creeping. Leaves two, radical, large, ovate, united at their bases in a scaly sheath, veining prominent.—Woods. May, June, July. Perennial. *p.* 77.

SUCCORY, *CICHORIUM INTYBUS. Nat. Ord., Compositæ.*—All the florets with ligulate corollas, and having both stamens and pistils; light blue. Stamens five. Ovary one. Style one, bifid. Pappus sessile, scaly. Involucre of eight bracts, having at their base a few smaller ones spreading out. Flower-heads in close sessile cluster along the stems. Achenes numerous, slightly ribbed. Leaves very various in form: lower leaves spreading, pinnatifid, runcinate; upper leaves small, embracing stem, entire or slightly serrate. Stems erect, freely branching, rigid, furrowed. Root large.—Dry waste ground, especially on sand or chalk. July, August, September. Perennial. *p.* 81.

DEVIL'S-BIT SCABIOUS, *SCABIOSA SUCCISA. Nat. Ord., Dipsaceæ.*—Calyx surmounted by four bristles, surrounded by membranaceous involucel. Corolla with oblique limb, four-lobed, purple. Stamens four, distinct, nearly equal; anthers large. Ovary one-celled.

Style one, filiform. Flowers collected into a dense, globular head. The involucre many-leaved. Receptacle scaly. Radical leaves, stalked, ovate, entire, stem-leaves few in number, hairy, opposite, narrow, slightly toothed. Root-stock short and abruptly ending.—Meadows. July, August, September, October. Perennial. *p.* 85.

KNOT-GRASS, *POLYGONUM AVICULARE. Nat. Ord., Polygonaceæ.*—Perianth five-partite, single, coloured, persistent. Stamens inserted into base of perianth. Ovary superior, with three styles. Stigmas entire. Flowers axillary. Achene wingless, triquetrous, striate. Leaves with sheathing, two-lobed, scarious, stipules, lanceolate, alternate, entire. Stem jointed and branched, herbaceous, often prostrate; very variable in appearance.—Waste ground and rubbish-heaps. May, June, July, August, September. Annual. *p.* 89.

CROSS-WORT, *GALIUM CRUCIATUM. Nat. Ord., Rubiaceæ.*—Calyx adherent with ovary. Corolla regular, yellow, small, rotate, four-cleft. Flowers polygamous, the fertile flowers sometimes five-cleft, in small axillary corymbs. Stamens four, inserted on corolla. Style one, bi-partite. Ovary one. Stigmas two, capitate. Fruit dry, a two-lobed pericarp, indehiscent. Stems erect, hairy, square, herbaceous, slender. Leaves four in a ring, ovate, hairy on both sides. —Hedges, banks, and copses. April, May. Perennial. *p.* 93.

WOODRUFF, *ASPERULA ODORATA. Nat. Ord., Rubiaceæ.*—Calyx adherent with ovary. Corolla regular, fugacious, infundibuliform, pure white, four-cleft. Style one. Stamens four. Ovary one. Inflorescence paniculate. Fruit dry, globular. Leaves about eight in a whorl, lanceolate, entire. Stem erect. The whole plant very fragrant when dried.—Woods and copses. May, June. Perennial. *p.* 97.

FUMITORY, *FUMARIA OFFICINALIS. Nat. Ord., Fumariaceæ.* —Sepals two, deciduous, small and scale-like, ovate-lanceolate, acute, toothed. Corolla irregular, tubular, of four more or less united petals, one spurred at base. Stamens six, diadelphous, hypogynous. Style filiform. Stigma lobed. Inflorescence racemose. Fruit globose, one-seeded, dry, indehiscent. Stems weak and brittle, glabrous, pale green. Leaves much divided, glabrous, delicate, having twisted petioles.—Roadsides, gardens, amongst field crops. Flowering all the summer. Annual. *p.* 101.

SMALL WILLOW-HERB, *EPILOBIUM MONTANUM. Nat. Ord., Onagraceæ.*—Calyx tube adnate with ovary, deciduous, limb divided nearly to base. Corolla of four petals, regular, pink, deeply notched. Stamens eight, inserted on calyx, erect. Style filiform. Stigma four-lobed. Capsule slender, four-celled, four-valved, many-seeded ; seeds tufted. Leaves on short stalks, ovate, toothed, glabrous. Stem erect, simple, or very slightly branched.—Banks, roofs, and walls. June, July. Perennial. *p.* 105.

RED VALERIAN, *CENTRANTHUS RUBER. Nat. Ord., Valerianaceæ.*—Calyx adherent to ovary, its border developing with the ripening fruit into a feathery pappus. Corolla five-cleft, spurred, tubular, monopetalous, crimson. Stamen one. Style filiform. Ovary one-celled. Leaves opposite, exstipulate, ovate-lanceolate, entire. Stem smooth, slight bloom on it, and this bloom often extends to the foliage. Plant branching and bushy.—Chalk-pits, old walls, cliffs. June, July, August, September. Perennial. *p.* 109.

BOG ASPHODEL, *NARTHECIUM OSSIFRAGUM. Nat. Ord., Juncaceæ.*—Perianth of six sepals, persistent, spreading, lanceolate, pointed, green below and yellow above. Stamens six, having their filaments thickly clothed with a white wool, inserted in base of perianth. Stigma entire. Capsule three-celled, three-valved ; seeds numerous. Leaves linear, radical, parallel-veined, much shorter than stems, sheathing at base. Pedicels with numerous bracts, stiff, erect, bearing terminal racemes of flowers.—Bogs and moorlands. July, August. Perennial. *p.* 113.

NETTLE-LEAVED BELL-FLOWER, *CAMPANULA TRACHELIUM. Nat. Ord., Campanulaceæ.*—Calyx tube adnate with ovary, five broad, erect, and deeply-cut hairy segments. Corolla campanulate, five-cleft, regular. Æstivation valvular. Stamens five. Style one, its upper half pubescent. Stigma trifid. Flowers variable in inflorescence, sometimes in short axillary racemes, at others solitary. Fruit a dry, turbinate capsule, opening at base by lateral clefts. Leaves alternate, exstipulate : lower leaves large, on long stalks, cordate, coarsely serrate ; upper leaves lanceolate, small, almost stalkless. Stem erect, tough, angular.—Woods. July, August, September. Perennial. *p.* 117.

BLADDER CAMPION, *SILENE INFLATA. Nat. Ord., Caryophyllaceæ.*—Calyx tubular, monophyllous, five-toothed, persistent, inflated, reticulated. Corolla of five petals, clawed, deeply cleft, white. Stamens ten. Ovary one. Styles three. Inflorescence paniculate, flowers slightly drooping. Capsule three-celled, many-seeded, dry, six-toothed, opening at top. Leaves opposite, entire, exstipulate, ovate-lanceolate, glaucous. Stems tumid and fragile at joints, erect, glaucous, glabrous.—Roadsides, hedgerows, meadows. June, July, August. Perennial. *p.* 121.

REST-HARROW, *ONONIS ARVENSIS. Nat. Ord., Leguminosæ.*—Calyx of five narrow segments. Corolla papilionaceous. Standard large and conspicuous; pink. Flowers solitary, on short stalks. Stamens ten. Style simple. Ovary single, one-celled. Fruit a short pod; but few seeds. Stipules leafy. Leaves ternate, lateral leaflets often wanting, serrate. Branches hairy, often spinous, spreading.—Hedge-banks and poor soils. June, July, August. Perennial. *p.* 125.

DEADLY NIGHTSHADE, *ATROPA BELLADONNA. Nat. Ord., Solonaceæ.*—Calyx deeply five-cleft, cup-shaped. Corolla campanulate, regular, monopetalous, five-lobed, hypogynous, deciduous, dull purple. Flowers axillary on short stems or at the forking of stems. Stamens five, shorter than corolla and inserted in it. Style one. Stigma obtuse. Fruit a berry, two-celled, large, globular, poisonous, black, shining. Leaves large, entire, in pairs of unequal size, ovate, stalked, exstipulate. Stems spreading and branching.—Waste places, ruins. June, July, August. Perennial. *p.* 129.

SELF-HEAL, *PRUNELLA VULGARIS. Nat. Ord., Labiatæ.*—Calyx tubular, ovate, closed on fruit; upper lip three-toothed; lower one two-toothed. Corolla monopetalous, hypogynous, irregular; upper lip nearly entire, and arched; lower one three-lobed. Stamens four, ascending, parallel; filaments divided into two near their summits, and one only bearing anther. Ovary one, four-lobed. Style arising from between the lobes, bifid. Stigma two-lobed. Achenes four, within calyx, a solitary seed in each. Flowers in dense whorls, bracte. Leaves opposite, stalked, ovate, ordinarily entire. Stem square.—Moist pastures. July, August. Perennial. *p.* 133.

FOXGLOVE, *DIGITALIS PURPUREA. Nat. Ord., Scrophulariaceæ.*—Calyx five large, deeply-cut, unequal segments, persistent round fruit, the upper segment much narrower than the others. Corolla pendulous, campanulate, inflated, unequal; upper lip slightly divided, lower ones cut into large rounded lobes, hairy; pink, spotted on inner surface. Stamens four, two longer than the other two. Stigma two-lobed. Capsule ovate, two-celled, many-seeded. Inflorescence an elongate, densely-flowered raceme. Pedicels short, one-flowered; bracts leafy. Stems three to five feet high, occasionally branched in the lower portion.—Woods and dry banks. May, June, July, August. Biennial. *p.* 137.

MUSK-MALLOW, *MALVA MOSCHATA. Nat. Ord., Malvaceæ.*—Calyx divided into five broad lobes; a three-leaved involucre. Petals five, regular, twisted in bud, large, rose-coloured, jagged and concave on outer edge. Flowers on peduncles from axils of the upper leaves, clustering. Stamens indefinite, monadelphous. Ovary one. Stigmas several; style-branches numerous. Fruit a ring of carpels. Stipules simple. Upper leaves deeply divided into three or five wedge-shaped segments, which are again freely subdivided and lobed; lower leaves orbicular, or reniform with broad lobes, serrate. Stem erect, slightly branching; the whole plant hairy.—Hedge-banks and pastures. July, August. Perennial. *p.* 141.

NODDING THISTLE, *CARDUUS NUTANS. Nat. Ord., Compositæ.*—Involucre imbricated with spiny scales, outer ones spreading, globular, large, slightly woolly. Florets equal, tubular; crimson. Flower-heads large, drooping, at times solitary; or inflorescence corymbose. Pappus pilose. Leaves deeply pinnatifid, spinous, prickly, decurrent. Stem firm, erect, very slightly branching, more or less covered with cotton-like hairs. Two to three feet high.—Waste ground, in dry and poor soils. All the summer. Biennial. *p.* 145.

CORN CROWFOOT, *RANUNCULUS ARVENSIS. Nat. Ord., Ranunculaceæ.*—Calyx of five spreading sepals. Petals five, small, pale yellow. Stamens numerous. Carpels few, large, flattened, very prickly. Leaves alternate. three-cleft into long narrow segments; these segments either entire or again triply divided; dull green.

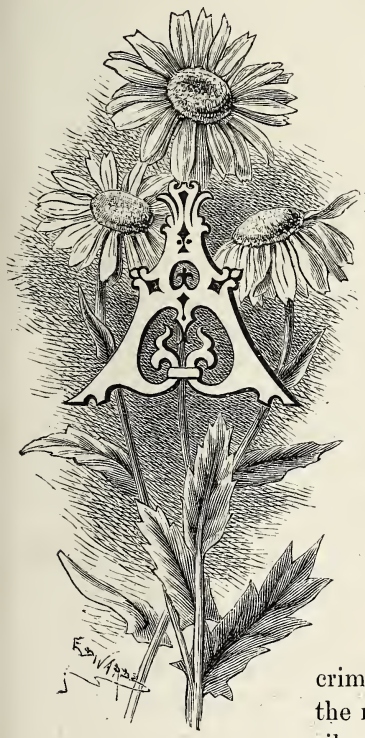
Upper leaves very simple in character, linear. Stem erect, branching, glabrous.—Corn-fields and amongst crops. May, June, July. Annual. *p.* 149.

BROOM RAPE, *OROBANCHE MAJOR. Nat. Ord., Orobanchaceæ.* —Calyx of two or four lanceolate segments, bifid, variously divided, ferruginous, persistent, bract at base. Corolla monopetalous, irregular, ringent, purplish, tube bending downwards, convex; upper lip trifid and curved; lower lip trifid, middle segment the longest. Stamens four, hid under lip, two longer than the others. Style one, downy, purplish, bent downwards. Stigma two-lobed, obtuse. Ovary on a fleshy disk. Seed-vessel a capsule, ovate, oblong, two-valves. Seeds numerous, small, linear, attached to sides of capsule. Inflorescence spicate. Stalk upright, simple, hollow, roundish, channelled, villous, bulbous at base, clothed with dry scales.—Parasitic on leguminous plants. May, June, July. Perennial. *p.* 153.

PURPLE LOOSE-STRIFE, *LYTHRUM SALICARIA. Nat. Ord., Lythraceæ.*— Calyx inferior, tubular, six long and six short segments, persistent. Petals ordinarily six. Flowers in whorls at terminations of branches. Stamens twelve, six long and six short, inserted within tube of calyx. Ovary one. Style one, filiform. Ovary and capsule two-celled. Leaves in pairs or threes, sessile, lanceolate, entire, exstipulate, embracing stem. Bracts conspicuous.—Wet ditches, river-sides. July, August, September. Perennial. *p.* 157.

CORN MARIGOLD.

FAMILIAR WILD FLOWERS.



THE CORN MARIGOLD.

Chrysanthemum segetum. Nat. Ord., Compositæ.

AMONGST all the localities that various plants favour, none bear away the palm for brilliancy from our cornfields. Our hedgerows are gay with the pure white blossoms of the sloe or the delicate pink of the rose; the moorland is dotted over with the golden stars of the asphodel, the white tufts of the cotton grass, the brilliant yellow of the furze, or the rich sheet of crimson of the heather-bells; while the river bears on its surface the silver chalice of the water-lily, or reflects in its waters the clusters of purple blossom of the loose-strife; but the cornfield has an intensity of colour all its own, for here we find in perfection the glorious corn-flower, one of our finest blue flowers, the intensely scarlet poppy, and the great golden discs of the corn marigold. Such a nosegay as a good handful of these three flowers would make should form a good test for the

detection of colour-blindness, and their representation not only taxes the powers of the colour-box to the uttermost, but leads us in despair to cast aside our poor pigments as we revel in the splendour and intensity, the wonderful depth and force of colour of any one of the three flowers in the bunch we have gathered. Nature paints with tints no human art can rival, and the nearest approach one can make to the colour of a poppy looks mere brickdust when laid by the silken splendour of the petals of the wayside weed.

Some botanical names do not strike us as being particularly happy in their choice, or as conveying any special meaning or appropriateness, but the scientific title of the corn marigold cannot be included amongst these, for its generic name signifies the golden flower, and its specific title that which pertains to corn-fields. It is the especially golden flower of the harvest field. Some authorities tell us that the English name is really what a glance at it would suggest—that it is the golden flower dedicated in monkish times to the Virgin Mary; but it is probable that this meaning is an afterthought. The marsh marigold derives its name from the Anglo-Saxon words "mersc" and "gealla;" signifying "marsh" and "golden flower," and other bright yellow flowers, like the present species, though they may have no connection with the marsh, receive the name of marigold. Some old writers call the plant merely the golde, and in Wales it is the "Gold yr yd." There is a rich auriferous look about the first word of this name that, even in one's ignorance of Gaelic, gives justification for including the Welsh title amongst the others, and claiming for it a similar intention and meaning. A local name for the plant is the bigold; which Prior, in his

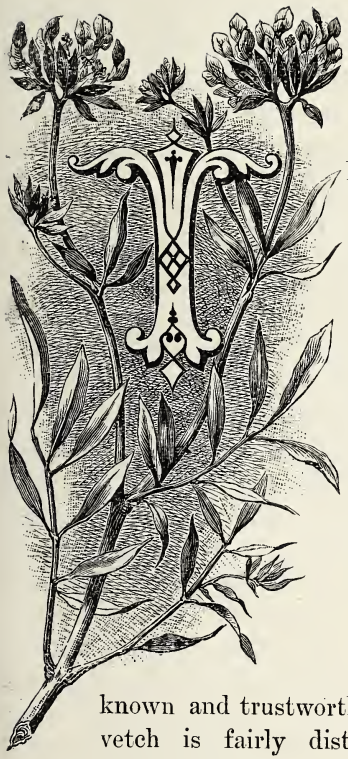
excellent work on the popular names of British plants, tells us signifies tinsel or false gold, applied to the present species because it is not the true golde, or *Calendula officinalis*. The white ox-eye, or *C. leucanthemum*, a plant we have already figured and described, belongs to the same genus, so that our marigold naturally sometimes gets called the yellow ox-eye. Gerarde calls it the golden cornflower, and its association with the true cornflower, or blue-bottle (*Centaurea cyanus*), in the harvest has, in some parts of the country, earned for it the name of yellow-bottle.

The corn marigold is almost everywhere abundant, farmers would say too abundant, and will be found in flower throughout the summer and autumn, until the sharp sickle of the reaper lays it low. On turning over our own botanical notes, we see it recorded that we found a specimen, still well in flower, on December the thirty-first; but June to October, inclusive, would be about the normal state of affairs. Both here and abroad, the strong arm of the law has been invoked for its destruction; Threlkeld tells us that, in Britain, "Mannour courts do amerce careless tennants who do not weed it out before it comes to seed," and we find enactments against those who do not keep it under in their fields, not only in England and Scotland, but in Denmark and Germany.

Gerarde's description is very pithy; it is as follows:— "Corne marigold, or golden corne floure, hath a soft stalke, hollow, and of a greene colour, whereon do grow great leaves, much hackt and cut into divers sections, and placed confusedly, or out of order; vpon the top of the branches stand faire starlike floures, yellow in the middle, and such likewise is the pale or border of leaves that compasseth the soft bal in the middle, of a reasonable

pleasant smel." So many of the composite flowers have a strong and somewhat disagreeable odour, that the fact of our present plant being "reasonable pleasant" is distinctly worth record. Another old writer says of it "Smelling a little sweete;" he again, it will be noticed, being careful not to commit himself too deeply to an expression of approval of its fragrance. Those plants that grow in rich soil assume a soft luxuriance compared to those that by stress of circumstances have had to make a harder fight for existence; the pampered children of fortune having less of the richness of outline that is so pleasant a feature in the foliage of this plant. We have heard of the plant being used as a pot-herb, but have never experimented on it ourselves; it has a soft and succulent look that rather suggests such an application, but, probably, we shall remain content with the suggestion.

KIDNEY-VETCH.



KIDNEY-VETCH.

Anthyllis vulneraria. Nat. Ord., Leguminosæ.

THE genus to which the kidney-vetch belongs is a very small one, and the subject of our illustration is the only British species. What the generic distinctions between this and the bird's-foot trefoil, *Lotus corniculatus*, or other well known pea-flowers, may be, would take us into matters too technical for the present pages to properly elucidate, but all may be found duly set forth in the pages of Hooker and Bentham, and other well-known and trustworthy authorities. The kidney-vetch is fairly distributed throughout Britain, and should be sought for on dry pasturage, railway embankments, and such-like high-lying ground. The plant is more especially common in hilly and mountainous districts, and may there be looked for amongst the rocks that stand exposed to sun and air. It is a perennial, and begins flowering early in June, continuing

in blossom throughout the summer. The stem, unlike that of some of the *Leguminosæ*, such as the meadow vetchling or the tufted vetch, needs no external support, but stands boldly up in sturdy self-reliance to a height of about a foot. Both the stem and the leaves are more or less evidently covered with soft and silky hairs. As these, instead of standing out from the foliage and stems, are closely appressed to the stem, they are not at first sight very obvious, but they are perceptible by their smooth silkiness, and by the grey and bloom-like appearance that strikes the eye. The leaves vary in form according to their position on the plant. All are composed of a terminal leaflet and several pairs of laterals, but in the upper leaves the pairs of leaflets that fringe the leaf-stem are more numerous, and all, both terminals and laterals, are very similar in form and size. In the lower leaves the terminal leaflet is broader, larger, and every way more important-looking than the scanty leaflets associated with it. The lowest of all have only one or two pairs of lateral leaflets, while the highest may have any number from four to eight; and as we examine the plant we see the gradual, but sure, progression from one form to the other. The leaflets are what is termed botanically entire, that is to say, without any marginal lobings or serrations of any kind, and all, as we have already seen, are clothed with soft downy hair. The natural grey tint of the leaves is often exaggerated in effect by the roadside dust that freely covers them. The flower-clusters are ordinarily in pairs on the summit of the stems; this peculiarity may be very well seen in each of the plants we have figured, and each cluster has beneath it a large leaf-like bract, cut into long and numerous segments. The higher of our two figures shows this most clearly, but

we can readily see that were the lower piece turned from us instead of towards us, a similar form would be presented. This form of bract is, in botanical parlance, said to be palmate or digitate, two words of very similar significance. *Palma* is the Latin word for the palm of the hand, while *digitus* is a finger, and the finger-like radiation of the segments from the base of the bract is sufficiently evident. An old country name, suggested, doubtless, by this feature of the plant, is "ladies' fingers."

The flowers are crowded closely together, and are numerous in each bunch. The flower is of the characteristic pea-blossom type, and though ordinarily golden-yellow in tint, it varies at times from a very pale lemon-yellow or cream-colour to a dark red. The rich yellow tint is far the most common and typical, and it has been noticed that when the plant varies from this it is ordinarily in specimens growing near the sea. When they wither the flowers turn a rich reddish-brown; this may be seen in our figure, where several of the blossoms in one of the clusters have faded, and assumed this tint. The calyx is very much inflated about midway, and narrows rapidly above and below, so that it has a cushion-like appearance—an effect greatly increased by the mass of soft grey hairs with which it is closely covered. This soft grey padding is a very curious and striking feature, and one that will go a long way in aiding our readers to identify a doubtful specimen as being truly the flower they are in search of. These delicate downy calyces have been the cause of the bestowal of another common name, the "lamb-toe." On close examination, the five teeth at the mouth of the calyx are readily found. The ten stamens are all united into one sheath, though in most of the pea-flower order we find the following curious

arrangement: nine of the ten united into one brotherhood, and the tenth isolated. The pod is small, only contains some two or three seeds, and is enclosed within the calyx; a little gentle vivisection with a sharp penknife will readily bring it to light when the flowering-time is over, and when we may fairly judge that the plant ought somehow to be in fruit, if we could only find it.

The commonest English name, the kidney-vetch, bears reference to an old belief in the healing-powers of the plant, and in the specific name, *Vulneraria*, from the Latin *vulnus*, a wound, we see an allusion to its supposed vulnerary qualities; probably its soft and downy flower-heads suggested the idea that they might be efficacious in stopping bleeding, and another old name, "staunch," seems to indicate its utility in this direction, but we greatly doubt whether any one ever really used it for such a purpose. The generic name of the kidney-vetch, *Anthyllis*, is Greek in origin, and refers to the down-covered calyces.

SAINFOIN.

SAINFOIN.

Onobrychis sativa. Nat. Ord., Leguminosæ.

SAINFOIN, though it is better known probably to most persons as one of the field-crops of the agriculturist, has a full claim to appear in our pages as a familiar wild flower. It is indigenous to Britain, and should be looked for in its wild state on dry chalky hills, in limestone districts, and on the great open expanses of down so characteristic of some parts of Southern England; while its value to the farmer as a forage-plant has led to its wide distribution almost everywhere, though it thrives to best advantage on dry and high-lying lands, and on soils of similar geological character to those it naturally affects. The plant is a perennial of light and graceful aspect, and those who would seek its pink clusters of pea-like blossoms must search the spots we have indicated during the months of June and July.

The stems of the sainfoin are numerous, at first somewhat

prostrate, but at the flowering-season freely ascending and a good deal branched. The leaves are a very good illustration of what botanists call pinnate or feather-like leaves, where several leaflets are thrown off on either side of a central stem, that bears them all in the same way that the central part of the quill of a feather has its lateral fringing. The leaflets are numerous, six to eight pairs to each leaf being about the average number; all are about equal in size, and the terminal leaflet shows no marked difference in bulk. At the base of each leaf we find small and finely-pointed stipules, but the plant has no tendrils. The flower-stalks are terminal and spring from the axils of the leaves, and being considerably larger than the leaves themselves are at once conspicuous; the cluster of flowers occupies about one-half of their length. The flowers are at first densely packed together, but as the blossoms expand the stalk lengthens and the intervals between them increase considerably. Much of the piece we have figured is yet in the early or bud stage, as it was necessary to show as much as possible of the history of the plant in the limited space available, but even here the elongation and spreading-out of the lower portion is distinctly visible. Where the flower-clusters are thrown out laterally they have often a gentle curvature upwards. The flowers are of a delicate purplish pink tint, the standard being a good deal streaked with a darker tint of the same character.

The sainfoin possesses high economic value as a fodder-plant, and on hard chalky soils no plant can be cultivated to greater advantage; but in rich alluvial valley deposits its near relative, the lucerne, should be substituted, as the sainfoin will not prosper except in dry soils. When once planted it will, if need be, last a dozen years or so. Long

before it was utilised in England the plant was known on the Continent as a valuable one for agricultural purposes; and though it is indigenous the earlier supplies of seed were imported from abroad; hence one of its old names, the French grass, the original sources whence the seed was derived being France and Flanders. It seems to have crept into use by slow degrees about the middle of last century, but not to have been fully established till about its close. In 1640, Parkinson speaks of it as "a singular food for cattle," but it seems to have been little if at all used in England at that date. Henzé asserts that the plant was not introduced into England until the year 1651, and in this same year Hartlib, another writer, blames the English for neglecting it. Two years afterwards, in 1653, we find Blith referring to it as a French grass very little known in England, but as having been sown on some of the chalky uplands of Kent; and later on, in 1671, we find another writer saying that "divers places in England received great benefit from it." Its establishment appears, therefore, to have been very gradual, a fact that may perhaps be accounted for by the fact that though it thrives excellently in the localities that are suitable to it, many districts do not prove adapted to its cultivation, and the wilder uplands where it thrives best are more removed from the influence of new ideas. A small quantity of trefoil should be mixed with the sainfoin seed to assist in making a crop for the first year, as the latter is somewhat thin and feeble at first, but when it is once well cultivated it can well stand alone and rely on its own merits. Its common name is French in its origin, being derived from the words *sain* and *foin*, signifying wholesome hay. It was therefore, by some old writers, called the *Sanum fœnum*, or the *Fœnum*

Burgundiacum. Lyte and some other authors give it as Saintfoin, Hudson as St. Foin, and this was rendered by other old writers as holy hay; but the whole thing is a misconception, that when once started was in harmony with mediæval feeling and usage, and so got readily taken up, though there is no real reason for associating any saintly influences with the plant. *Onobrychis* is from two Greek words signifying the ass and to bray, the idea, of course, being that the animal thus testifies his impatience to partake of so agreeable a provender. Some of the older botanical writers give the sainfoin the sonorous title of *Hedysarum Onobrychis.* The first of these names is from the Greek words for sweet and spice, while the second we have already explained, the grand total signifying that toothsome, sweet, and spicy herb that appeals so strongly to the asinine palate, that the donkey cannot refrain from expressing his feelings and desires, when opportunity offers for their gratification.

NIPPLEWORT.

THE NIPPLEWORT.

Lapsana communis. Nat. Ord., Compositæ.

THOUGH not so attractive as many other plants, the nipplewort, the subject of our present illustration, is so commonly met with that it could scarcely be omitted from our series; and though it cannot compare with the beautiful sprays of wild roses that spread over our hedges in the early summer, or the pure white chalices of the water-lilies as they are gently borne on the surface of some placid stream, it will, in the eyes of the lover of plants, be judged only for what it is, not for what it fails to be. Judged by this standard, by those who consider nothing in all the realm of nature to be beneath their loving regard, the lowly nipplewort will not be found without some beauty of its own, on which the eye may rest with pleasure, either in the delicate branching of its flowering stems, the rich contour of its leaves, or the golden rays of its many blossoms; and as

these pages are probably read by those already appreciative of nature, we make no further apology for introducing the plant, and offer no regret that its commonness forbids its omission.

The nipplewort is the *Lapsana communis*. The generic name is Greek in its origin, and refers to the medicinal effects of the plant, while the specific name emphasises the abundance in which the plant may be found. The common English name points to an old belief in its remedial efficacy, as, indeed, do the names of many other plants, names given at a time when the herbalist's calling was held in high repute, and our wild plants were accounted not only pleasant to the eye, but full of healing virtues. In some cases the value is beyond dispute, while in others the belief had no solid foundation in fact. In arriving at the truth two prejudices must be borne in mind—first, that of the man who sees no use in bringing things over the seas when all kinds of plants are growing almost at our doors; and, secondly, that of the man who thinks but meanly of what can be got with little trouble, but is quite prepared to believe in the efficacy of a remedy that has cost no little pains and expense to procure. When our own plants furnish a potent remedy, there can be no reason for setting it aside; but when the choice of the flora of all the world reveals one still more effectual, it is folly not to avail ourselves of it.

The belief in the medical efficacy of many of our plants may be gathered from the following names, but a few of those that might readily be culled from old herbals—throat-wort, all-heal, eye-bright, fever-few, live-long, mad-wort, tooth-wort, sneeze-wort, self-heal, and wormwood. To these might readily be added many of the old botanical

names, such as *pulmonaria* and *sanicula*, but as it would be necessary to analyse these, and reduce them to the vernacular, it seems scarcely worth while to do more than make the assertion, leaving it to others to work the subject out at more length for themselves, should they care to do so.

The nipplewort is very commonly distributed throughout the whole of Britain. It should be looked for either on patches of waste ground, or in fields, or carelessly-kept gardens. It flowers during June, July, August, and September. The plant is an annual, and in its earlier state appears as a ring of leaves lying close to the ground, and some six or eight inches in diameter. Should this escape the hoe, a stem gradually rises from the midst of this circle of leaves until it reaches a height of some two or three feet. The stem is quite smooth, and in its upper portion branches off very freely into numerous smaller branches, bearing the flower-stalks that carry the flower-heads. The stems have but few leaves, and those of much simpler form than the radical leaves; a gradual progression of form and approximation to the radical foliage may be seen as the leaves are traced downwards; there is no abrupt transition from simple stem-leaves to deeply-divided root-leaves, but a delicate gradation from simplicity to richness of form. The leaves are rather soft and thin to the touch, and generally slightly hairy; the surface has little or no gloss on it. The inflorescence is paniculate or corymbose. The peduncles are very slender, and the flowering heads small, and bright yellow. The involucre is composed of a single row of green scales, ordinarily about eight, and the angles made by their juxtaposition are somewhat clearly defined, thus throwing the involucre rather into a polygonal than

circular form in cross-section. At the base of these larger segments, and exterior to them, are a few much smaller ones.

Though it is questioned by some observers, a second species is ordinarily recognised. It is called the dwarf nipplewort, or *Lapsana pusilla*. The specific name is a Latin word, and signifies little, or mean. The plant only grows to a height of some six or seven inches, its flower-heads are bright yellow, and share in the general diminutive character of the parts. We do not remember to have ever specially noticed the plant, though nippleworts, little and big, have been familiar enough to us for many a long year. Mere smallness is scarcely sufficient to pay much regard to, and the specific features given by those writers that admit it, all appear unimportant. As we do not ourselves know the plant we offer no opinion on the matter, for in such a case nothing but familiarity with the natural form is of any value.

COMMON ROCK ROSE.

COMMON ROCK ROSE.

Helianthemum vulgare. Nat. Ord., Cistaceæ.

CHAUCER, in one of his poems, dwells lovingly on the bright little daisy unfolding its flowers to the vivifying rays of the sun, calling it the "Day's-eye;" and the subject of our present illustration presents us with another striking example of the great law that connects the well-being of the commonest flowers with the glorious sunlight. So markedly does the rock rose open its petals, and display its beauties to the genial light and warmth, that it was by many of the older writers called *par excellence* the sun-flower; and we see the same idea conveyed in the name that science, in the person of M. Tournefort, has bestowed on it, *Helianthemum*, a word compounded from the two Greek words signifying "sun" and "flower." It has, of course, no relationship with the sun-flower of the garden.

"The flower, enamoured of the sun,
At his departure hangs her head and weeps,
And shrouds her sweetness up, and keeps
Sad vigils, like a cloistered nun,
Till his reviving ray appears,
Waking her beauty as he dries her tears."

The rock rose may very frequently be met with, if only its natural habitat be sought out. It delights in high and dry pastures, and especially when the subsoil is chalky or gravelly, and may be seen in perfection on the great breezy chalk-downs of Southern and Western England, dotting the short elastic turf over with its fragile-looking blossoms. It will be found in flower during the summer and early autumn. So promptly does it close after being gathered, that though we brought it home time after time with other flowers, some of which lasted for days before we had leisure to sketch them, we were always foiled in our hopes, and it was only by keeping it in strong light that we at last managed to get a flower sketched in. The flowers in our illustration were begun and finished at once, before we ventured to even draw a stem, a bud, or a leaf. These last are more amenable to artistic requirements, and behave as one expects buds and leaves to do if fairly treated by being put into water as promptly as may reasonably be managed.

The root of the rock rose is perennial, branching freely, and of a somewhat woody nature. From this spring numerous flowering stalks, that almost or quite touch the ground for some little distance before they ascend. They are, in botanical language, procumbent. The lower part of these stems is smooth, the upper part being frequently hairy, and the colour is often more or less reddish: these points may all be very clearly seen in our figure. T

general growth is diffuse and branching, the whole plant being fragile-looking, though as a matter of fact it bears in safety gusts of wind on the open downs against which a man can scarcely stand. The flowering stems vary in height from about four to nine inches. The leaves of the rock rose, sun-flower, or dwarf cistus, are arranged on the stems in pairs. On a first glance at our illustration it would appear that this is hardly the case, as in some instances they seem to be single, and in others an agglomeration of several together. The leaves, however, in a great many plants—and this is one of them—grow irregular in arrangement as they approach the blossoms, and are often smaller and simpler in shape, until they pass at length into what the botanist calls floral leaves, or bracts. The smaller leaf-like bodies that cluster round the bases of the larger leaves are the stipules. The leaves of the rock rose are on very short footstalks, and are oblong-ovate in shape; the margins are often slightly rolled back and curved under. The upper side of the leaf is green, and either smooth or—more frequently—a little hairy, and the lower surface is ordinarily somewhat greyer in colour, from the fine down-like hairs with which it is covered. The stipules are prominent, often almost half the length of the leaf, erect, lanceolate in form, and clothed with hairs. The flowers are arranged in a very loose and open raceme, and the flower-stalks or pedicels are often bent more or less downwards, both before the opening of the bud and on the withering of the blossom; this gives a curious drooping effect that is very characteristic of the plant. The calyx is rather peculiar in its form, from the great irregularity of the parts. It is composed of five sepals, three being large and very pro-

minently ribbed, the space between the ribs being membraneous and semi-transparent, and the whole sepal very concave in form; and between these two others, very small and inconspicuous. The entire thing may be very well seen in the flower that has its back to us in our figure; and we may see again this compound of large and small parts clearly in the buds. The corolla consists of five broadly-spreading and bright-yellow petals, the outer edge being slightly notched, and the texture very suggestive of a soft and silky kind of tissue-paper. The stamens are very numerous, and form a rather compact-looking mass in the centre of the flower.

Those who have any rock-work or a dry sloping bank in their gardens will find the rock rose a very efficient decoration, though it will be necessary, as far as possible, to assimilate the conditions of the soil, with an open sunny aspect, to those enjoyed by the plant in its wild state. The plant varies in the colour of its blossoms more than many wild flowers do, some being almost lemon-colour, while in others the petals have a darker-yellow blotch at their base.

MONEYWORT.

MONEYWORT.

Lysimachia Nummularia. Nat. Ord., Primulaceæ.

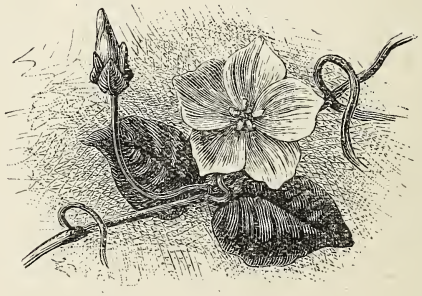
WE have already made acquaintance with the yellow loose-strife, or *L. vulgaris*, and the botanical name of the present species will at once show us that it is a near relative of that beautiful and graceful plant. The money-wort does not tower above the other plants that surround it in the way that its sister species does, but trails along the ground; yet it is by no means inconspicuous, for it often covers a large surface, and in a situation suitable to its well-being the turf is gay with its profusion of golden blossoms. The money-wort should be looked for in rather damp meadows, or near the edges of ditches and water-courses, and under hedges in moist situations. It is very common in most parts of England, but seems to be a comparatively rare plant both in Scotland and Ireland. In a damp situation no plant thrives better in a garden, or requires less trouble to be taken with it. It lasts a

long time in flower, and even when not in blossom its bright green leaves and the way in which it covers a large area with its trailing masses of foliage are amply sufficient to recommend it. It does best on a low bank or rockery, but those who have not the delight of a garden may cultivate it to great advantage as a pot-plant. Many a window-sill in the smoky and stifling air of our great towns is brightened, amidst the squalor and depressing dinginess, by the living green of its long pendulous stems and foliage, and the rich gold of its kindly blossoms. A friend who saw the drawing from which our illustration is taken was very much puzzled because the stem was thickest at the top, and yet when he turned the drawing upside down all the flowers then seemed to be pointing the wrong way; but his difficulties were at an end when we explained the trailing nature of the plant; and it is very interesting to notice how in all such cases, despite the downward direction of the stem, the leaves and flowers that clothe it will always aspire towards the light. A sloping bank well covered with the blossoms of the little moneywort all facing upwards to the sun is a constellation to be enjoyed, and we strongly advise our readers to put themselves in the way of enjoying it as soon as possible. In many places the plant is called the creeping Jenny, and under this name it is sold in Covent Garden and hawked about the streets of London. Far away from the coster's barrow or the salesman's stall slowly runs a river through the rich green meadows; those who would skirt its banks must not be too nervous about damp boots, for great hills rise on either side, and the valley is often more or less flooded. As we pursue our way the water-rat that we have startled plunges with a sudden dash into the stream and breaks

for a moment its calmly-flowing surface, and the kingfisher flashes by us a living gem. We are in a floral paradise, the fragrant meadow-sweet and the pink willow-leaf fringe the stream, and at their feet the turquoise-blue of the forget-me-not and the golden stars of the ragwort blend into perfect beauty. The pure white chalice of the water-lily is absent, but the yellow flowers and great leaves of the other species float on the gently-moving stream, and the leaves of the iris rise abruptly from its depth and slowly wave to and fro as they feel the pressure of the current. All around us, as we tread it, the ground is glowing with the stars of the moneywort, and here, far from the busy flower-market, or the flower-decked window-sill of some pale-faced weaver's lodging, we select from the wealth around us the subject of our illustration.

Commencing with the root of the moneywort, we find that it is perennial and very fibrous; these fibres are simple in character, long, and strike boldly downward—a provision no doubt to enable it to retain firm hold in the soft moist earth in which it is found. The stems are prostrate and very numerous, trailing away often to almost two feet, and often throwing out rootlets at intervals that in turn give a firmer hold for the plant. The leaves are opposite to each other in pairs all along the stalk, and all face in the same direction—outwards if the stem be trailing down, upwards if running along the ground. From the round shape of the leaves, and their growth in pairs, the plant is sometimes called herb-twopence or twopenny-grass. In one of the earliest herbals, that of Turner, A.D. 1548, we find this latter name given, as he says, from the leaves all "standyng together of ech syde of the stalke lyke pence;" and our familiar name moneywort, it

will at once be seen, is based on the same idea. The flower-stalks spring from the axils of the leaves, and are therefore, like the leaves themselves, in pairs: each bears one flower. The corolla is cup-shaped, and deeply divided into five somewhat pointed segments, or lobes. The calyx is cut down almost to its base into five broadly egg-shaped but pointed portions: this may be very well seen in the upper flower and in the bud in our illustration. The stamens, five in number, stand boldly up in the centre of the flower, the anthers being somewhat arrow-headed in shape. The seed-vessel rarely comes to perfection; it frequently happens that plants which increase much in other ways, as by underground stems, suckers, or runners, seldom produce ripe seeds. One may examine a great number of specimens of the moneywort without finding anything approaching to a ripening seed-vessel.



FIELD SCABIOUS.

THE FIELD SCABIOUS.

Knautia arvensis. Nat. Ord., Dipsacaceæ.

SEVERAL species of scabious are more or less abundant almost everywhere; some, as the field scabious, our present plant, are more especially at home in corn-fields and meadows, while not a few are herbs of cultivation, and grace the garden by their beautiful forms and tints. The *Scabiosa succisa*, or devil's-bit scabious, finds a place in our series, and has already been described at length: it is a plant of the open meadows and commons. The *S. Columbaria*, or small scabious, is not so common a species. Its flowers are of a pale purplish blue, and should be searched for in pasture-lands and waste ground.

The species we have here figured is abundant throughout Britain, though we occasionally find districts where it does not occur; and it seems, so far as our experience goes, to flourish best on the chalk. It should be looked for in meadows, in the tangled mass of floral beauty that

bedecks the hedgerows, or amidst the standing corn. The last of these localities is especially characteristic. The field scabious is a perennial, and should be sought in flower towards the end of June and during July and August. Its large blossoms and general habit of growth tend to make the plant one of the more conspicuous denizens of the pasture or the harvest-field, while the delicate beauty of the tint of its flower-heads always renders it one of the most attractive. The general look of the flower-head is very suggestive of the structure of the composite order; and the order to which it really belongs, the Dipsacaceæ, is closely allied to the composite.

The root of the field scabious is perennial, dark in colour, somewhat woody in texture, and by its subordinate rootlets takes such a hold of the ground that it is with great difficulty eradicated. The plant is ordinarily some two or three feet in height. The stems are round in section generally, but slightly branched. They are somewhat coarse to the touch, a good deal clothed with short whitish hairs, and somewhat bare of leaves except near their bases. The leaves vary much in character in different plants, and in different parts of the same plant, some being much more finely divided than others, though there is a quite sufficient general resemblance amongst them to prevent any real difficulty arising in identifying the plant wherever we see it, even when we have not its grand flower-heads to make assurance doubly sure. The leaves grow in pairs on the stems, and share fully in the general hairiness of the plant. The radical leaves, the lowest of all, are stalked, very simple in character; they are lanceolate or lance-headed in shape (a form that may be perhaps better known to our readers in the foliage of the well-

known privet), about five inches long and barely one inch broad, and their margins cut on either side into some seven or eight bold serrations. The leaves that immediately succeed them are of about the same length, but possess the character shown in our illustration, though in many cases the intervals between the lateral lobes are not so great, and in some instances the terminal lobe is decidedly larger than any of the others. The flowers of the field scabious are all terminal, and borne on long stalks. The heads are large, and in general outline convex. The outer florets in the flower-head are large, and have very unequal segments. The inner florets are much smaller, but all are cut into four lobes or segments, those of the inner florets being equal in each floret. The buds—packed tightly yet with beautiful regularity before any of them have expanded—form a very quaint and interesting feature. The character of the supporting ring of floral leaves or bracts beneath the flower-head, which in botanical language is called the involucre, can be very clearly seen in our illustration, as we have purposely turned one of the flower-heads from us to display the appearance of the back or under part of the flower-head. In this view we see only the radiate bracts of the involucre, the form that by the older botanists was in such cases called the common calyx, and the larger segments of the outer ring of florets. In the devil's-bit scabious, the outer florets are scarcely larger than the inner, and in the small scabious the florets are five-lobed. The stamens of each floret of the field scabious are four in number, and, from their length and the size of the anthers, form a conspicuous feature. The fruit is rather large, somewhat four-cornered, and crowned by several short bristly hairs, that radiate fan-like from its

summit. Botanically the plant is either the *Scabiosa arvensis* or the *Knautia arvensis*, the second name being selected by some writers to form a new genus, as the plant, in some few and slight respects, which we need not here discuss, differs from the other scabious flowers in structure. The first generic name has reference to the old belief in the efficacy of the plant in cutaneous affections, while the second, bestowed by Linnæus, is in honourable memory of Christian Knaut, a Saxon botanist of considerable eminence, who flourished in the latter half of the seventeenth century, and died in the year 1716. The field scabious (or field Knautia if we desire to be very accurate indeed), seems to possess no great store of familiar names; the only deviation from the accepted title that we have been able to find is blue-caps, and this cannot be considered a very happy name, as there is nothing cap-like in the form, while in colour it is certainly not blue.

YELLOW WATER-LILY.

YELLOW WATER-LILY.

Nuphar lutea. Nat. Ord., Nymphaceæ.

HEN it was known by our friends and others that we were engaged upon this series of wild flowers, various tastes came very prominently forward. One hoped that we would early include the beautiful blue "corn-flower," while another was enamoured of the brilliant crimson of the pæony, and hoped that that would shortly make its appearance, though as a matter of fact this is only found on an island called Steep Holm, near the mouth of the Severn. The plant that commanded the greatest number of suffrages was the white lily, but we have not the heart to crowd so glorious a thing into the somewhat limited space that our illustrations give us.

The most bigoted admirer of the present plant—and we can hardly imagine any one who enjoys its charms more than ourselves—must perforce admit that the grace and delicacy of the white water-lily are even more attractive;

but when this formidable rival is out of the way, the golden *Nuphar* reigns supreme in the midst of her graceful surroundings.

The yellow water-lily is very commonly distributed throughout Britain. It begins to flower as the haymakers are in the meadows, and continues in blossom all through the summer. It should be looked for in lakes or slowly-running streams, and it may be found, too, in canals, the locking arrangements giving just the conditions both the white and yellow water-lilies like, either swiftly-moving waters or stagnation being equally unfavourable to their well-being.

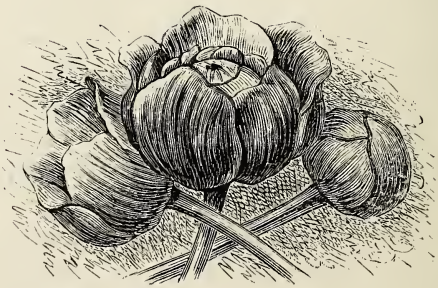
As we were, on a certain occasion, plodding along a country road, knapsack on back, we came to a little bridge, and found that a small stream ran beneath the roadway, and we well remember what a picture at once met our delighted eyes. Instead of the straight white road and its high and dusty hedges on either hand, we looked up stream, and saw the clear and gently-moving river running between high grassy banks. These were clothed with ash and other trees that met overhead and soon shut out our view of the streamlet's course, but as far as we could track it it was profusely covered with the broad leaves of the yellow water-lily, and scores of the golden blossoms lighted up the verdant shade made by the overhanging trees. The particular flowers we have figured in our sketch came from a still more interesting locality. Our readers must picture to themselves a stream only navigable by one's almost lying down full length in the boat to escape the far-reaching branches of the trees that fringe its banks; in places so deep that the pole finds no bottom—and we can then but drift, for rowing is out of the question in this tangled mass

of vegetation—and in others so shallow that we are in momentary expectation of grounding. Presently we emerge from this verdant tunnel, and find that both the stream and the view have opened out. On our right is a broad belt of luscious-looking meadow dotted over with cattle lazily quiescent in the July sunshine, while others have come to the shallow edge of the stream and stand knee-deep in its cooling flow. In the distance, beyond the far-reaching meadow is a long belt of plantation, and above this and far beyond it is a line of blue hills. On our left the banks are higher, and as soon as they have risen above the line of bulrushes and reeds are clothed with fern and crowned with a wood of fir, the dark red trunks and heavy masses of foliage seeming almost black against the summer sky. At intervals we catch sight of an old priory, little more now than a mere mass of flint wall; but its high grey gable attracts the eye, and as we force our way up a narrow side-stream that fed the still-existing fishponds of the old monks we find ourselves all at once in a sort of lake-like expansion, and the water bears on its tranquil bosom countless lily-flowers, both yellow and white. It was from thence the flowers of our illustration were taken. Many have been our rambles in that solemn fir-wood, many an hour have we spent amongst the ruins of that old abbey, and doubtless in our case old associations have gone far to beautify the scene, but we are persuaded that few who could accompany us thither would think our appreciation excessive.

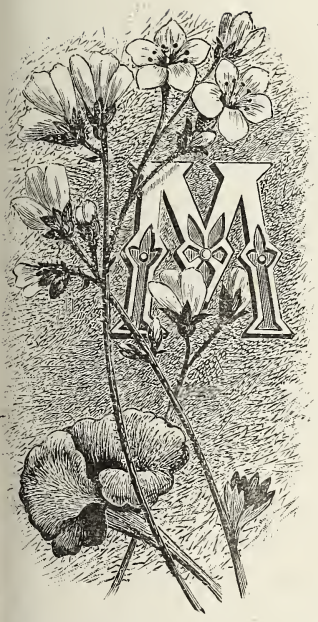
The leaves of the yellow lily are somewhat heart-shaped, and lie flat on the surface of the water. Many of them are considerably larger than the one we have shown in our sketch. The flowers do not rest on the water, as in the case

of the white lily, but are raised by their stems some two or three inches above it. The petals are convex and give the flower a very globular look. The large rayed stigma in the centre of the flower is very conspicuous, and around it stand numerous stamens. The scent of the blossoms is rich and aromatic. In country places the plant is called *can-dock* and *brandy-bottle*—its broad leaves suggesting to the not very exacting rural mind the idea of the dock, while the can is the flagon-shaped seed-vessel. Some persons profess to detect a slight brandy-like odour in the flower, and this, added to the can or flagon-like form, will explain the second name. In Wales it is the "Lili melyn y dwr," and in Ireland the "Cohinih Auhun."

The order to which our water-lilies belong contains many beautiful and interesting species; the famous lotus of the Nile and the perhaps equally renowned Victoria regia of the Amazon are conspicuous examples. Some are white, others a delicate sulphur yellow, azure blue, or glowing crimson; but few exceed in beauty the silver chalice of our own white water-lily.



MEADOW SAXIFRAGE.



MEADOW SAXIFRAGE.

Saxifraga granulata. Nat. Ord., Saxifragaceæ.

MEADOW saxifrage is abundant in many parts of Britain on hedge-banks and in the meadows and pastures, especially where the soil is of a gravelly nature, though some large districts of England and Ireland are without it, and in Scotland it seems almost confined to the southern half of the country. The plant is a perennial. The root-stock has adherent to it a number of clustering, subterranean bulbs and tubers; these are often of a bright red colour, though they are more or less covered with brownish-white scales. When cut open they are found to be hard and solid. Internally they are white in colour, and have an astringent and disagreeable taste, a point that it may at first sight appear no one would take the trouble to ascertain; but the plant, as we shall shortly see, enjoyed at one time a considerable medicinal reputation, and it was on these little granules, or bulbous bodies, that its efficacy was supposed to depend. They give the specific name, too, to

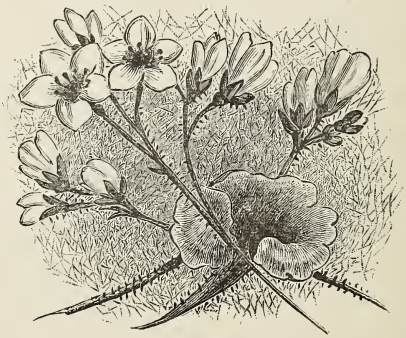
the plant, the title *granulata* being bestowed on the plant from this peculiarity of growth. The stems are few in number and very simple in character, any branching there may be being ordinarily of the very slightest extent, and very frequently entirely absent until we reach the divergent stems that bear the clustering blossoms. The stems of the meadow saxifrage are about a foot in height, and more or less covered with short but closely-set hairs. This hirsute character is more especially marked near the base of the stems: as we travel upwards and near the blossoms the hairiness changes in appearance somewhat, and becomes reddish in colour and glandular in character. The stems look longer than they really are on account of their bare appearance, the leaves being only very sparsely placed on them, and by far the greater part near the base, that part of the plant which, amidst the general verdure of the hedge-bank, is least striking.

The meadow saxifrage seems to have but a very slight attachment to the soil; we have found time after time that the gentle tug that we gave at the flower-heads has sufficed to put us into possession of the whole plant. The leaves which grow near the root spring from long footstalks having broad and sheathing bases; they are what is termed botanically reniform or kidney-shaped, hairy, and divided into numerous blunt-looking lobes. One of these lower leaves we have plucked and introduced in our drawing: it will readily be seen how different in character it is to the stem-leaves that are also figured. The stems are frequently reddish in colour, and very often most of the leaves have a certain tinting of red on their margins. The upper leaves are very small and few in number; as they ascend

the stalk we find their stems getting shorter and shorter in gradual and progressive diminution, until the uppermost are seen to be entirely stemless. The lobes or fingerings into which they are cut are often very acute. The calyx is covered with the glandular hairs that we have also seen are characteristic of the upper part of the stem, and the fine lobes into which its extremity is cleft spread boldly out. These lobes share the reddish tinge we find in the upper part of the stem, and the whole calyx is somewhat viscid to the touch. The corolla is composed of five white spreading petals, their bases and veining being slightly yellowish. The stamens are ten in number, five shedding their pollen before the alternating five: styles two in number, terminating in two expanding and diverging stigmas. The capsule is of a pale brown colour, oval in shape, terminating in two peaks, and filled with numerous black and very minute seeds. Bauhin, one of the older botanists, called the meadow saxifrage the *Saxifraga rotundifolia*, from the rounded character of its lower leaves. It will be remembered that a similar name is bestowed for a like reason on the little harebell, a plant we have already figured. The name of *Campanula rotundifolia* at first glance seems a peculiarly inappropriate one, as all the leaves that ordinarily come under observation are very long and narrow, and it is only as we approach the root we find the rotund form of leaf. As the rotundiform leaves are to the others as about one to half a dozen, the name does not appear in any case a peculiarly happy one, so that the feeling of inappropriateness which we have mentioned as the result of a first glance may possibly continue in some degree after a more lengthy inspection. Clusius, another ancient botanical authority, calls the meadow saxifrage the

Saxifraga tuberosa radice; this name, which clearly refers to the tuberous root, a very marked feature in the plant, is not by any means a bad one. The various species of saxifrage are chiefly dwellers amongst the rocks, and ordinarily flourish in greatest perfection on the high mountain-ranges of Europe, only two or three of the numerous species being found elsewhere; those, therefore, who would seek them in Britain must visit the high mountain regions of Cumberland and Westmoreland, the Welsh mountains, or the Scottish ranges for the greater part of them, and many of them are well worth the seeking.

The word saxifrage is derived from the Latin words signifying a rock, and to break, for it was believed that the penetrating roots of the plants disintegrated the rocks, hence in some old herbals it is called breakstone, and its names in French, German, and Dutch carry a like significance.



THRIFT

THRIFT.

Armeria maritima. Nat. Ord., Plumbaginaceæ.

WHEREVER we get a piece of muddy sea-shore, there we may feel little doubt of finding any quantity of the thrift, or sea-pink. By far the best place to look for it is where some river, after many a devious curve through the lowlands, brings its tribute of muddy water to the clear and bright salt water of our encircling sea. On the shores of such a river large banks of sediment are formed, often creating salt marshes for some distance inland, into which at high tide the sea penetrates by many a winding channel. We remember to have seen such spots on the Sussex Adur, the mouth of the Ribble, in Lancashire, and where the sluggish Axe and Parret bear in the west their contributions of mud and water to the estuary of the Severn; and in all these river deposits the ground was thickly covered with the verdure of the thrift—so covered, indeed, that at a little distance the effect was that of a meadow by the water-side.

In our boyish days we spent many an hour wandering over such marshes. The restless hurry and motion of the sea dies away as its waters penetrate by innumerable channels into the low-lying land, and many a clear pool of salt water holds within its quiet bosom quaint forms of sea-life or the rich colours of the sea-weed. There too we may find the samphire and many another lover of the salt water; but in such a place the soft turfy cushion that receives us as we spring across the water-channels is the dense foliage of the thrift.

The root of the thrift forms perennial tufts from which numerous grass-like leaves ascend. It is a particularly easy plant to transfer to the garden, and it is curious that it should be so, for as Drummond points out that the sweet rose would die if transferred to the salt sea moisture, so we should imagine that the salt air and moisture in which the thrift grows so healthily would be more essential to its well-being than seems to be the case. We have any quantity of the plant in our own garden some sixty miles from the salt sea foam. It makes a very beautiful garden edging, and is full to us of present enjoyment and of happy memories of the past. The plant increases very fast, and can be taken up each year and freely divided at the roots; a long broad edging of it—a mass of verdure below, and above this its countless crimson flower-heads—is a really beautiful feature in the garden. Its charms have appealed to many a generation, for we find Gerarde writing that the plant is "found in the most salt marshes in England, as also in gardens, for the bordering up of beds and bankes, for the which it serveth very fitly;" and when he comes to the usual heading of "the vertues," he is fain to

confess that "their use in physic as yet is not knowne, nor doth any seeke into the nature thereof, but esteeme them onely for their beautie and pleasure." Parkinson, from the general appearance of the plant, included it amongst grasses, and, as he cannot definitely assign it any valuable medicinal qualities, assumes them, rather than disappoint himself and his readers, for he says : "It is generally held that the root of the sea quick-grass is as effectuall as the ordinary or common sort, and therefore for the qualitie I shall referre you to be enformed there where I speake of it, that so I may avoide a double repetition of the same things. This difference between theese and those of the land hath beene observed that cattle will not feede on the leaves of these by reason of their hardnesse, roughnesse, and sharpnesse, whereas they refuse not the other." This latter fact we should have thought would have set the old herbalist on his guard, for we never see any cattle or horses browsing in these sea-meadows, and where they so readily detect that thrift, after all, only has the appearance of grass, and none of its true nature, it is hardly fair to suffering humanity to assume that practically it all comes to the same thing which is used. Can our old author have had a dim suspicion that it did really come to very much the same thing which broken reed his patients trusted to?

It is a very curious thing that this plant, so characteristic of the low-lying salt marshes, and so thoroughly at home there, is equally at home in a very different locality, the breezy summits of some of the highest Scotch mountains.

The flowering stems of the thrift are simple in character, and rise at once from the cushion-like tuft of

verdure. On each plant they are very numerous, and as the thrift blooms from May to September, a constant succession of them is thrown up. They vary somewhat in height, and would ordinarily be a little longer than those we have figured, in some cases half as long again. In some cases these stems are only three or four inches in height, but ordinarily the blossoms appear to be well lifted above the mass of foliage from which they spring. Each stem bears on its summit a globular head of bright pink flowers, having a curious inverted cylindrical sheath beneath, a peculiarity that can be readily noted in the figure. The blossoms vary occasionally in strength of colour, and are sometimes found pure white. As the flowers die they fade into a pale brown, and the harsh, paper-like scales that are intermixed with the flowers in the head become conspicuous. The corolla is formed of five regular petals; the calyx tubular, terminating in five short teeth; the styles and stamens each five in number.

BROOM.

THE BROOM.

Sarothamnus scoparius. Nat. Ord., Papilionaceæ.

LIKE a subsequent flower, the sweet-briar, the subject of our present illustration is one that is not only dear to all lovers of natural beauty, but is also enshrined in the memory of all students of our history and literature. While the sweet-briar suggests to our minds the national emblem, the rose of England, the badge of Yorkist and Lancastrian, and the device of the Tudors at the close of the desolating wars that bore its name, the broom no less recalls to our mind the line of Plantagenet. While we find the praises of the briar sung by our greatest poets, we find, too, that the golden broom shares almost equally their regard.

As a device, the broom was from a very early period the chosen plant of Bretagne. Fulke of Anjou bore it as his personal cognisance; and Henry II. of England, his grandson, as a claimant of that province, also adopted it,

and it was henceforth borne by the rest of his race, its mediæval name, *planta genista,* giving the family title, Plantagenet. It may be seen on the great seal of Richard I., this being what we may term its first recognised and official heraldic appearance. In the chapel of the Tudor Henry VII., at Westminster, we find the broom introduced in the stained glass of the windows, but here it would probably be employed simply from its beauty, apart from any symbolic significance. Another interesting use of it may be seen in the order of knighthood, the "Cosse de Genest," established by St. Louis of France, on the occasion of his marriage, in the year 1234. The collar of the order was composed alternately of the *fleur-de-lys* of France and the broom-flower, the motto being *Exaltat humiles*—"He exalteth the lowly." This order was for a long time held in high esteem; and amongst the foreign potentates who received it we find the name of our own Richard II.

Turning now to the literary side of our subject, to see what measure of appreciation the broom has received, we find in Chaucer the line—

"Amid the broom he basked him in the sun,"

a suggestion of the great open wastes and commons glowing in the sunlight, and golden with the countless blossoms of the gorse and broom; while Shakespeare, on the other hand, finds in the tangled thicket a retreat for shade and solitude, and writes of the

"Broom groves,
Whose shadow the dismisséd bachelor loves."

The delicate odour of the blossom has naturally not escaped notice. Spenser writes, "Sweet is the broom flowre;" and

Wilson, again, dwells on "the fragrance of the yellow broom."

The vigour of its growth on the open moorland, or amidst the rocks of the bleak mountain-side, is often referred to. It is "the thick entangled broom" of Thomson; and we find it again in the graphic descriptions of Scott—

> "And now to issue from the glen
> No pathway meets the wanderer's ken,
> Unless he climb, with footing nice,
> A far projecting precipice.
> The broom's tough roots his ladder made,
> The hazel saplings lent their aid;
> And thus an airy point he won,
> Where, gleaming with the setting sun,
> One burnished sheet of living gold,
> Loch Katrine lay beneath him rolled."

The broom is invariably found on dry situations, such as railway-embankments, high-lying moorland, or hilly and mountainous slopes. Its fondness for high land is noticed by Wordsworth, in the lines—

> "The broom
> Full-flowered, and visible on every steep,
> Along the copses runs in veins of gold."

And Mary Howitt associates the "yellow broom blowing" with "the mountain-side wilds." The image used by Wordsworth, "veins of gold," recalls the lines of Cowper, where he speaks of

> "The broom,
> Yellow and bright as bullion unalloyed."

This richness of colour and the large size of the blossom make it a very conspicuous feature in the wild moorland landscape. It flowers early in the year; Wharton gives its flowering as one of the indications of opening summer—

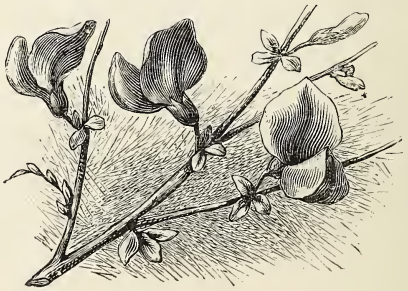
> "O'er the field of waving broom
> Slowly shoots the golden bloom."

The plant bears a profusion of blossoms, and these, in turn, are followed by the large black pods. All who have enjoyed a day of brilliant sunshine on the heathy wastes soon after the broom has finished flowering cannot have failed to hear the mimic artillery all around them as the genial warmth caused the broom-pods to open. After they have shed their seeds they curl up. The blossoms yield an abundant supply of honey: the bees have, indeed, no finer field for their industry than what we ordinarily call waste land, their richest supplies being gathered from the wide expanses covered with broom, heather, and thyme.

Culpepper says of the broom—"To spend time in writing a description hereof is altogether needless, it being so generally used by all the good housewives almost throughout this land to sweep their houses with, and therefore very well known to all sorts of people."

> "The vagrant artist oft at eve reclines,
> And broom's green shoots in besoms neat combines."

The results of the vagrant's art, we need scarcely remind our readers, are often called brooms, from the material of which they are made; and its generic name, *Sarothamnus*, points out this use of the plant, as it is compounded from the Greek words signifying "to sweep," and "a shrub."



CREEPING BELL-FLOWER.

CREEPING BELL-FLOWER.

Campanula rapunculoides. Nat. Ord., Campanulaceæ.

THOUGH the creeping bell-flower is not often met with in a wild state, and some may therefore hardly hold it to be a legitimate addition to our present series, we claim the indulgence of such readers, and base our claim on the fact that the creeping bell-flower, though rarely seen in the hedgerow, is not uncommonly to be met with in the gardens of cottagers, and those who see and admire it there will be interested to know that it claims relationship with its fellow bell-flowers of the meadow and the heath. We have ourselves in Surrey found it growing amongst the dense vegetation of the old-fashioned hedgerows—the old wasteful type that we sometimes meet with—a confused mass of maple, bramble, hawthorn, black bryony, guelder-rose, and twenty other things, in some places two feet high and in others ten, and in thickness almost equally variable.

Such a hedge is, and quite legitimately, the horror of the methodical cultivator with whose balance-sheets such a state of things is in direct antagonism, but it is equally legitimately the delight of the botanist and the artist, who find in its rich confusion a perfect wealth of interest and beauty. The true home of the creeping bell-flower is in the open glades of woods, and in fields that are to some extent shaded by surrounding foliage. When it is once established amidst congenial surroundings, either in the woodland recesses or in the rural garden, its creeping root and general vitality enable it to hold its ground, and as the plant is a perennial, it may with confidence be looked for year after year. An author to whose pages we turned on this subject says that the plant is "difficult of extirpation," but we could hardly imagine any one testing the point practically, as the graceful beauty of the plant renders it a very desirable acquisition, either to the many charms of woodland scenery or to the glowing flower border. The long lines and borderings of scarlet geraniums, calceolarias, and the like, that are made up of dozens or hundreds of similar plants, are a floral heresy that the cottager has hitherto escaped, and which all of botanical tastes and an eye for the picturesque will carefully eschew; and we certainly shall not extirpate our treasured specimen of creeping bell-flower in our own garden to make room for any number of circles in blue, diamonds in red, or zig-zags in yellow, whether compounded of Countess of Ellesmere petunias, Amy Hogg zonate pelargoniums, Prince of Orange calceolarias, or Beauty of Ravensbourne lobelias. Even with those who are snared by an attractive name, our plant again may put in a plea for non-extirpation, for those who find Amy

Hogg poetic or Victor Verdier suggestive of beauty should surely derive some satisfaction from the sonorous roll of *Campanula rapunculoides.*

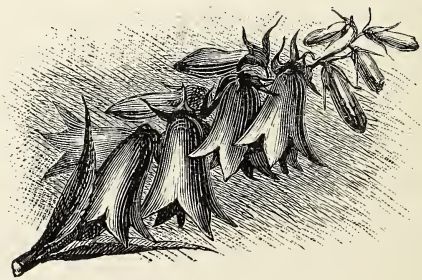
The creeping bell-flower calls for but little description, as our illustration will convey a very fair idea of its general appearance. One point that will at once strike every one is the depth to which the segments of the bell are cut in, as compared with the harebell (*C. rotundifolia*), or most of our other species. The stem is either simple or very slightly branched, and rises to a height of some two feet. It derives its familiar name of creeping campanula from the character of the root. The lower leaves of the plant are somewhat heart-shaped, but more elongated than such typical heart-shaped leaves as those of the violet, and they are placed on long stalks, while the upper leaves are stalkless, and what is termed lanceolate in form—*i.e.*, like a lance-head. All are toothed on the edges, the lower ones coarsely, the upper more finely. The flowers point downwards and grow singly along the stalk, a small leaf being given off at each springing point. All the flowers spring from the same side of the stalk, and make a bevy of blossoms all pointing in one direction, the gradual tapering from the fully expanded flowers to the small terminal buds being a beautiful and noticeable feature in the inflorescence. The calyx segments are conspicuous and deeply cut, and as the flower expands are turned back. In the interior of the flower the stigma, with its three recurving lobes, is very conspicuous, and below this the five anthers encircling the style may be seen. Each anther is supported on a very short and slight-looking filament. The capsules that succeed the blossoms are roundish, almost globular, and surmounted by the five calyx segments. The seeds

are emitted from small lateral clefts; the seeds themselves are small and very numerous.

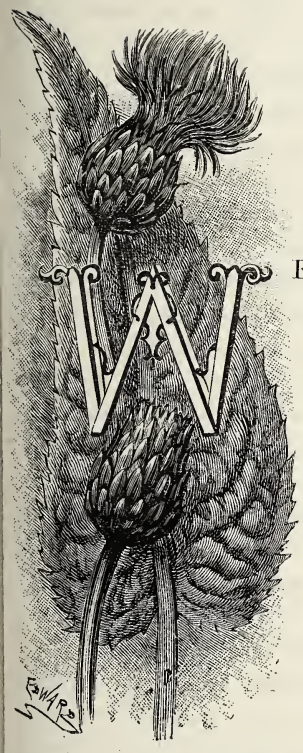
Ten species of campanula are recognised as British, and several other members of the genus, as the well-known Canterbury-bell (*C. medium*), are familiar garden flowers. Of the wild ones we have already figured the harebell—the "azured harebell" of Shakespeare, the "blue harebell" of Ben Jonson, and a favourite with many others from whose works we must now forbear to quote; also the clustered bell-flower. In addition to the present species, we shall hope to introduce to our readers the nettle-leaved bell-flower, which though common also belongs to this attractive and interesting species.

The generic name, as we have already pointed out—though we may here be allowed the repetition, to save reference to a former description—signifies a little bell, and its appropriateness we need scarcely stay to dwell upon, especially as we see the resemblance again insisted on in our common English names for all the species—bell-flowers.

Both Gerarde and Parkinson describe the plant as of a "watchet colour." "Watchet" probably means "of the colour of woad"—that is, bluish.



MELANCHOLY THISTLE.



THE MELANCHOLY THISTLE.

Cnicus heterophyllus. Nat. Ord., Compositæ.

WE are so accustomed to the idea that a thistle must necessarily be fully armed with sharp and piercing spines, and altogether deserving of the motto of the Order of the Thistle, *Nemo me impune lacessit*—which may be freely translated as, "Nobody meddles with me without regretting it," or as the Scots more freely and tersely have it, "Ye daurna meddle wi' me"—that a thistle without this armature seems a thing contrary to nature. The subject of our plate is nevertheless a true thistle, though, as may be readily seen, it altogether lacks so essential a characteristic of its fellow-thistles. It has always appeared to us that its name, the melancholy thistle, is open to misconception, for it seems to cast somewhat of a slur on the plant, implying that it would be as disagreeably poignant as the others if it could, and that it regrets with unavailing grief that it is wanting in the power of making itself unpleasant. This is

not, however, the origin of the name, as the plant is so called from a belief in its virtue as a cure for melancholy. There would appear to have been a lack of the usual faith in these remedies in the present case; for Parkinson, in his Herbal, in speaking of the plant, says, "There are no other properties found out or knowne whereunto any of these thistles may be applyed than such which Dioscorides setteth downe, taken from Andreas, who brought in many figments and untruthes to bee used in physicke, that the roote thereof being bound into the veine in the legge or other parts of the body swollen with melancholy blood, doth quickly helpe and heale it." All who have ever studied our older literature will scarcely have failed to be struck with the frequent mention of "the melancholy" in the good old times of merrie England. In the Herbal to which we have just referred we find forty-one plants mentioned as "good against melancholy, and to purge it," while three plants suffice to "breede melancholy," so rarely does it seem to have been necessary to curb inveterate and irrepressible good spirits and mediæval Mark-Tapleyism.

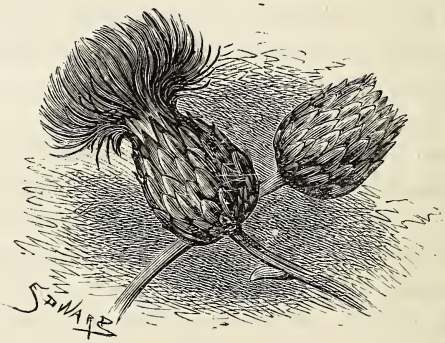
Much scholarship has been expended over the question of the species of thistle adopted as the national emblem of Scotland; but the form is too conventional to enable us now to assign any species in particular as the type. The first real heraldic use of the plant to which we find any reference would appear to be in the inventory of the property of James III. made at his death in 1458, where a hanging embroidered "with thrissils" is mentioned; and as this same drapery has the unicorn, an undoubted emblem of Scotland, introduced, we may fairly assume that the thistles, too, carry a symbolic significance. It was

undoubtedly a national badge in 1503, as in that year Dunbar wrote a poetic allegory entitled, "The Thrissill and the Rois," on the union of James IV. and the Princess Margaret of England. The expressive motto was not added till 1579, when we find it surrounding the thistle that occupies the centre of the coinage of James VI. About the middle of the fifteenth century, in the dawning light of the Reformation, the Town Council of Edinburgh substituted the thistle on their banner for their old patron saint, St. Giles. The melancholy thistle, our present species, was one of the personal badges of the ill-fated House of Stuart. They at other times bore the cotton thistle (*Onopordum Acanthium*).

The melancholy thistle is a plant of the North. It is abundantly met with in moist mountain pastures in Scotland and Northern England, but comes no farther south than the northern counties of Wales. It flowers throughout the months of July and August. The plant is a perennial, and has a long and creeping root. The stems are tall and stout, often deeply furrowed, and more or less covered with a white and cotton-like down. The whole plant rises to a height of some three or more feet, and has a certain lightness and grace that render it decidedly attractive to the lover of plants. The leaves clasp the stem at their bases, and while dark-green above, have their under-surfaces thickly covered with white and down-like hairs. Unlike most of the thistles, the leaves are not continued down the stem at all, and they are very much simpler in form than the ordinary type of thistle-foliage. The edges of the leaves have small bristle-like teeth. The flower-heads are borne singly on long stalks; and the bracts that form the involucre, the cup-like form whence the blossoms spring,

are closely oppressed, but quite destitute of the hard prickly extremities so characteristic of the other kinds of thistle.

In an old botanico-astrological book we find that the plant is considered to be under Capricorn, and therefore beneath the influence of both Saturn and Mars, one, it is held, ridding melancholy by sympathy, and the other by antipathy, though we should have thought that in the latter case the Jovian influence would have been invoked. The author prescribes a decoction of the thistle in wine, adding that it makes a man as merry as a cricket. How far this effect may be produced by the wine, and how far by the thistle, is possibly an open question. Solomon prescribes a very similar remedy, only without the thistle.



COW-WHEAT OR MELAMPYRE.

COW-WHEAT.

Melampyrum pratense. Nat. Ord., Scrophulariaceæ.

ALTHOUGH the specific name, *pratense*, of our present plant would lead to the idea that the cow-wheat was a plant of the meadows, its true home is in the woods. The specific name was bestowed upon the plant by the Swedish botanist Linnæus, and it may possibly be that he may have found its *habitat* in his own country somewhat different from that common in Britain; or we can, without great disrespect to his illustrious memory, conclude that amidst the enormous amount of plant nomenclature for which he is responsible, some few errors would naturally creep in, and set this down as probably being one of these slips. Whichever theory we may adopt, the fact remains that with us the cow-wheat must be searched for in the forest, or in copse-land and thickets. We might, perhaps with advantage, replace "must be searched for" by the expression "will be found," for there are few suitable localities for the plant that will

not furnish numerous specimens. Any one wandering in the open spaces in the woodlands any time between the beginning of June and the end of August will scarcely fail to see its yellow blossoms amongst the general undergrowth. As the stem is only about a foot or so in height it does not force itself on the eyes of the unobservant, but a very slight search for it will scarcely fail to furnish as many examples as one could wish, for when met with at all it seems to be always found freely. The cow-wheat is an annual, but the supply seems unfailing. The stems are slender and erect, and at intervals, from the axils of the lower leaves, slender straggling branches are thrown out in pairs. These lateral shoots spread widely from the central stem, and the whole plant is smooth to the touch, and has not the hairy or downy covering so commonly seen in many plants. The leaves grow in pairs, with a considerable portion of bare stem between each pair, and each of these is at right angles to those that are next to it. The foliage is long and pointed in character, entirely without serration, and each leaf, as we may clearly see in our illustration, stands boldly out from the stem that bears it. The floral leaves are much smaller, much shorter in proportion to their length, and have one or more pairs of projecting lobes or points at their bases. A glance at the figure will show this difference of form far better than any lengthened verbal description.

A variety, which was at one time elevated to specific rank under the title of *Melampyrum montanum*, is found in some mountainous districts of the north; in this variety the plant, as a whole, is smaller, and these floral leaves are what is termed in botanical language entire, that is to say, they show none of the lobing or toothing that is so cha-

racteristic a feature in those parts in the typical plant. The flowers are a bright pure yellow in colour that may be defined as pale gold. It is about intermediate in tint between the delicate colour of the primrose and the full rich yellow of the buttercup. The flowers always spring in pairs from the bases of the leaves, and all are turned in one direction. This curious feature may be readily noticed in the figure, where the two pairs on the one piece and the three pairs on the other all rigidly point in their own direction. The blossoms are somewhat quaint in form, and show the irregularity that is so marked a feature in all the plants of the order; the lower lip, it will be seen, stands sharply out instead of hanging downwards, as we find to be the case in most flowers of like structure. The great majority of our flowers, when attentively considered, will be found to be either multi-symmetrical and composed of several similar parts, as the dog-rose or the apple, or else bi-symmetrical, and only divisible into similar halves. Of this latter the pansy is a good example, and this bi-symmetrical character is a marked feature in the Scrophulariaceæ, as we may very well see by examining the flowers of the speedwells, the mulleins, snapdragon, foxglove, bartsia, eyebright, rattle, or the present plant. Several examples of the order will be found amongst our figures, and our readers will have no difficulty in seeing the point to which we refer. It must not, however, be supposed that this feature is an exclusive distinction appertaining to this order. All flowers that belong to the Scrophulariaceæ show this structure, but all flowers that show this structure are not Scrophulariaceæ. We see it again in the Labiates, for example, the dead nettle, the stachys, the self-heal, and the ground ivy being ready illustrations.

The cow-wheat owes the origin of its generic title to two Greek words signifying "black" and "wheat"; the seeds bearing some little resemblance to that grain. An old name for the plant was the *Triticum vaccinium*, and another English name for the plant that we find in the herbals is the "horse-floure." In Flemish it is the "peerd-bloeme." Linnæus tells us that in fields where this plant is abundant, the butter is peculiarly rich, and in the Middle Ages the somewhat extraordinary belief was held that the small seeds as they fell were turned into wheat. This belief could so readily be disproved that one finds it difficult to imagine how it could ever have obtained credence. Dodonæus tells us that "the seede of this herbe taken in meate or drinke troubleth the braynes, causing headache and dronkennesse;" and certainly those who started the harvest theory troubled their "braynes" with the plant to very little good.

BETONY.

BETONY.

Betonica officinalis. Nat. Ord., Labiatæ.

OUR plant is in some works called the wood betony, to distinguish it from another plant, the water betony. This latter, however, the *Scrophularia aquatica*, is only so called from the similarity in form of the leaves of the two plants; it has no real relationship to the subject of our illustration, which is for all practical purposes the betony pure and simple. It is in Wales the *Criban St. Fraid.*

The betony is very abundantly met with throughout England, but appears to be by no means so common in Scotland. It should be searched for in woods and copses during June and July, and it may occasionally be met with in more open situations, as amongst the tangled growths sometimes found on heath and moorland. It was held in high repute in the Middle Ages, from its value corporally and spiritually, being largely cultivated in the herb gardens of the monasteries, and pieces of it were worn round the neck as a charm and protection against

the power of evil spirits. On this account it was often planted in churchyards; and the piece we have delineated, innocent of all occult influence as it looks, was picked from amongst the grassy mounds of a country churchyard. As the church is a very old one, and in the midst of a population of rustics who, to put the case mildly, are somewhat superstitious, we should hesitate to declare that our plant may not really be the descendant of some carefully-planted predecessor; and we certainly do not hesitate to say that the present plants are as potent as ever, and as efficacious as any that flowered there before them in the centuries that have passed since that quiet resting-place received the first of the many hundreds who now blend their kindred dust therein.

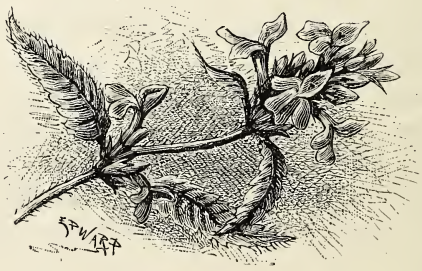
Antonius Musa, physician to the Emperor Augustus, is said to have written a long treatise devoted to the virtues of this plant alone. Culpepper, writing of the betony in the "English Physician" in the year 1652, quotes our classic author, though he Anglicises his name in a rather funny way. He concludes: "These are some of the many virtues Antony Muse, an expert physician—for it was not the practice of Octavius Cæsar to keep fools about him—apportions to betony: it is a very precious herb, that is certain, and most fitting to be kept in a man's house, both in syrup, conserve, oil, ointment, and plaister." Fortified with the knowledge that Dr. Musa had full faith in it, and that his Imperial Patron reposed a like faith in Dr. Musa, a man duly provided with a few handy preparations of betony, a bottle or two of syrup and oil, a pot of ointment, and a plaister or two ready for use, must in the Middle Ages have felt fairly forearmed. The Italians have such faith in it that it

has become a proverb with them, for they counsel a man in the words, "Sell your coat and buy betony;" though personally we think the effect would be more efficacious if he were to put on his coat and go a good long walk into the country, and gather his herb for himself. In the same way, when they desire to extol a person they say of him, "He has more virtues than betony." It is sufficiently evident that this would not be considered a compliment in a community that, on the whole, had lost faith in the plant. We have sometimes in our country walks come upon a man carrying a large bundle of the herb, some wandering collector accumulating the raw material for the herb-doctors who in London and many large towns have a lucrative practice among the poorer classes. We remember, too, seeing a French manuscript of about the end of the fourteenth century, and one of the illuminations was a certain saint discovering the virtues of the betony. An inscription indicated beneath that this was the subject; and we have to record of this old illuminator's handiwork that it was not a bit like the plant—that, in fact, he had got hold of the wrong thing. What, however, we now wish to prove is that this old illumination was one more indication of the belief of the Middle Ages in the efficacy of the betony; and this, we take it, it does, apart from the question of verisimilitude.

The leaves and flowers of the betony, like those of several others of the Labiates, have a certain herbaceous and roughish bitter taste, combined with a weak aromatic flavour, while the root is very acrid and nauseous; the latter is, however, never used in rustic practice now by the herbalists.

The derivation of the botanical name is uncertain. While some see in it a compound of two Celtic words signifying head and good, suggestive of cephalic qualities, others turn to a passage in Pliny—"The Vettones, a people of Spain, were the original discoverers of the plant known as the Vettonica"—and find the transition from this to Betonica a very easy one. The specific name refers to its officinal use.

Betony "helpeth that cannot digest their meate." It was also given in the jaundice, palsy, convulsions, "the goute," dropsy, pain in the head, "yea, although it turn to frenzie." Mixed with honey, it was given for coughs and colds, "shortenesse of breathe," and consumption. For "stitches and pains in the sides and back" there seems to have been nothing better. A decoction with wine eased toothache, and rendered harmless the bite of venomous serpent or rabid dog. Taken beforehand, it hindered drunkenness; taken afterwards, it cleared the head. A little powder of it refreshed those overwearied with labour, and with a little "hogges larde" was a specific for "biles" and wounds. Many other wonderful properties were ascribed to it, but what has been said will suffice to show the value in which it was held.



COMFREY.

THE COMFREY.

Symphytum officinale. *Nat. Ord.*, *Boraginaceæ.*

WHILE not so attractive as many of our wild plants, the subject of our present plate nevertheless possesses many features of interest that amply repay a closer examination than it would, we fear, ordinarily get bestowed upon it, while its commonness would, in any case, fairly entitle it to a place in our pages, for though we have endeavoured, as far as may be, to introduce plants of an attractive character, we do not cease to bear in mind that our real aim is not to subordinate general distribution to mere attractiveness; we therefore neither insert a plant for its beauty merely, nor refuse it admission, common as it may be, because it may not hope to compete with more attractive flowers.

The comfrey is the *Symphytum officinale* of botanical science. The first, or generic, name is derived from the Greek verb to unite, from the supposed vulnerary qualities of the plant. The only other species in the genus that

is indigenous in the British Isles is the tuberous comfrey, or *S. tuberosum*. This latter plant, though to some extent resembling the common comfrey, is, in several respects, very distinct; it is seldom more than a foot high, not branching out, and the flowers, though about the same size individually as those of the *S. officinale*, are in much smaller masses. The common comfrey attains to a height of three feet or even more, and branches very freely. Its leaves are broadly lanceolate in form; the lower ones, which are somewhat like the tobacco plant in shape, are on long stalks, while the upper and more visible and conspicuous are stalkless, and are what is botanically termed decurrent, *i.e.*, a portion of them runs down the stem, the body of the leaf being continued beyond its base and point of attachment with the stem. This very conspicuous feature is one not often met with in plants, and will greatly tend to aid its identification with those unacquainted with it. It may be very well seen in the various species of thistles, but the spiny nature of these is sufficiently decidedly marked to render any hesitation between them and the present plant impossible in any attempt at identification of the comfrey, by means of this feature of its growth. The racemes of flowers are given off in pairs, and are what is known as scorpoid in form, the curve they always assume suggesting, as the word implies, the curve of the tail of the scorpion. The flowers are all placed on one side of the stem, and the gradual tapering from the fully expanded blossom to the final and almost imperceptible bud at the extremity of the curve is a very curious and beautiful point to be noted. This scorpoid form may be very well seen again in the forget-me-not, the subject of another of our

illustrations. The large tubular flowers of the comfrey are generally of a yellowish or creamy white, but they may often be found purple in colour, as represented in our illustration. In some districts the one colour, in others the other, is predominant, but very often the two may be found growing side by side, and it is therefore difficult to assign any satisfactory reason for the variation in colour. It does not arise from greater development or superior advantages of position, nor from geological influences of soil, potent as these often are; the contiguity of the two plants to each other, and the facility thus afforded for comparison, renders any of these theories untenable. The common comfrey is abundantly met with in England, but is rare in Scotland; the tuberous comfrey is commonly found in Scotland, but is seldom met with in England; the one is rarely found above Aberdeen, while the northern counties of England are the extreme southern limit of the other. Except in the narrow zone of country common to both there will, therefore, be no possibility of mistaking the one species for the other.

The southern or common comfrey is the species whose supposed medicinal, or rather surgical, effects have given the name to the genus, and its specific appellation *officinale*, as the word officinal is a further testimony to the old belief in its powers of healing.

The comfrey delights in rich moist ground; it is therefore often met with in the mass of vegetation fringing the sides of our rivers, or in damp, low-lying meadows. The flowers first appear about the fourth week in April, and the plant may after this date be found in blossom throughout the whole of the summer, and late into the autumn. Except those who have really tested the question for themselves few persons realise with what regularity all the

operations of nature are carried on. "He appointeth the moon for seasons; the sun knoweth his going down," and what is true of great things is not less true, though less obvious, in small. All lovers of plants will have noticed how regularly each falls into its appointed time and sequence. The comfrey, we have said, may be expected in the fourth week of April; we have gone over the data of the Marlborough College Natural History Society, and find in the nine years, from 1865 to 1873 inclusive, the following dates of first appearance. All are in April, we need therefore only give the day of the month, viz.:—30th, 28th, 29th, 27th, 16th, 21st, 23rd, 24th, and 20th. These observations, though not absolutely reliable, as it is quite possible the plant may have been in blossom a day or two before being noticed, are, nevertheless, the result of the careful watching of a considerable number of observers, and are at least sufficiently accurate to illustrate the matter referred to. We find that the requisites of our space forbid our saying anything of the medicinal qualities of the comfrey; but as these are now discredited, it is the less necessary to regret the omission. It suffices, therefore, to say that as "an herb of Saturn," it was deemed cold in quality, and applied in consequence to all inflammatory ailments. This division of plants into warm and cold by old writers is exceedingly arbitrary. Probably, in the case of the comfrey, the damp, low-lying localities in which it is found influenced its position in the strange mixture of astrology and botany that was current in the Middle Ages.

HAIRY ST. JOHN'S WORT.

HAIRY ST. JOHN'S WORT.

Hypericum hirsutum. Nat. Ord., Hypericaceæ.

THE hairy St. John's Wort, or *Hypericum hirsutum*, may be commonly met with in woods and in the rank undergrowth of the copse and thicket, though it seems to thrive best when on a soil of chalk. It is a perennial, and those who would see it at its best must visit the localities we have named during July or August, when its slender spine bears its terminal of brilliant yellow blossoms. The root of the hairy St. John's Wort is brown, fibrous, and somewhat woody; the stem thrown up is erect and rigid, and ordinarily about two feet in height, though we may occasionally see specimens that exceed this. It is round in erection, and on being cut through is found to be solid, unlike that of its near relative, the square-stalked St. John's Wort, or *Hypericum quadrangulum*, where the rectangular stalk is a prominent specific feature. The stem of the hairy St. John's Wort is always more or less hairy or downy,

and thus justifies the common English name of the plant; it is often reddish in colour, too, though this is a matter that may or may not be according to the place of growth. We frequently find that plants which grow in somewhat open situations, where the struggle for life is somewhat harder, have tinted stems, while similar plants growing amidst the surrounding vegetation and in the shelter of a wood or hedgerow remain green; our present plant is one of the numerous cases in point. The stem is very stiff and rigid in character, and is either quite simple or very slightly branching. This branching, when it takes place at all, is near the summit. The leaves are a full rich green in colour when the light shines through them, but, like the stems, they are so covered with short hairs that their upper surfaces receive a greyish tinge in consequence. They are rather larger than in some of the species of *Hypéricum*, spring in pairs from the stem, have very short foot-stalks, and are marked with multitudinous, minute, transparent or pellucid dots, a feature that they share in common with several of the other St. John's Worts, and which has earned for them the vulgar name of "thousand holes."

In the leaf axils we ordinarily find two or four small leaves: these may be clearly seen in our illustration. At times these develop into branches, and at others are wholly wanting, but the normal state of things is as we have figured it. The calyx is composed of five narrow segments, its edges being fringed with black glandular dots. Six of the genus exhibit this glandular development: the trailing St. John's Wort, or *Hypericum humifusum*; the flax-leaved St. John's Wort, or *H. Linariifolium;* the slender St. John's Wort, or *H. pulchrum;* the mountain St. John's Wort, or *H. montanum;* the marsh St. John's Wort, or *H. Elodes;* and the

species we here figure. The corolla is composed of five bright yellow petals : it will be noticed that, as in the case of the periwinkle, *Vinca major,* a plant we have already included in our series, the general effect of the corolla is regular and symmetrical, but that if we examine any one of the five petals composing it we shall find it un-symmetrical. A buttercup or a rose petal we could double down the centre and so get two similar halves, as indeed we could with the petal of almost any other flower, but it will readily be seen on turning to our drawing of the periwinkle or in studying the present figure that it would be impossible so to halve their petals. We get, therefore, a symmetrical whole out of a series of unsymmetrical parts. The stamens of the hairy St. John's Wort are numerous, and on dissection of the plant will be found to be in three bundles, hence they are said botanically to be triadelphous. The filaments are very slender and straight, shorter than the petals, within which they form a conspicuous feature. The styles are three in number, simple in character and widely spreading ; and the seed-vessel is an oblong capsule of three cavities and three valves or partitions, forming a very pretty section when a keen-edged knife has made the necessary sharp cut across it. The seeds within are numerous and very minute. The older botanists, not paying much regard to niceties of distinction, appear to have overlooked this species of St. John's Wort. By superficial observers the discrimination between this and the *H. perforatum* is not often observed, but it differs from it in being a taller plant, in being covered with hair, in having a perfectly round stem, and in the glands on the calyx being far more numerous and conspicuous.

By some of the older writers the hairy St. John's

Wort was called the *H. villosum* or the *Androsæmum hirsutum*. Woodville, in his "Medical Botany," published in 1790, tells us that the *H. perforatum* was "in great request with the ancients, who prescribed it in hysteria, hypochondriasis, and mania. They also imagined that it had the peculiar power of curing demoniacs, and thence obtained the name of *Fuga dæmonum*." Hence its blossoms were hung by the peasantry both of England, France, and Germany in their windows to avert the evil eye and the power of the spirits of darkness. "Gathered upon a Friday, in the hour of Jupiter, when he comes to his operation, so gathered, or borne, or hung upon the neck, it nightly helps to drive away all phantastical spirits." As we find that the old writers class many of the species of St. John's Wort together, and fail to discriminate the hairy St. John's Wort at all, we may readily assume that the plant we represent often took the place of other species and shared to the full in all their mystic virtues, some of which were of a less sombre character.

FOOL'S PARSLEY.

FOOL'S PARSLEY.

Æthusa Cynapium. Nat. Ord., Umbelliferæ.

THE light and graceful plant which we have figured in the accompanying illustration may be very commonly met with in fields, on rubbish-heaps, and in the garden, and it may readily and at once be distinguished from all other plants more or less similar to it by the three long, slender, leaf-like strips that spring from beneath each little cluster of flowers. Many of the umbel-bearing order of plants have a strong family likeness that tends to make their identification difficult; but such difficulty need never arise in the present case if the peculiarity we have referred to be borne in mind, as it is a characteristic belonging to this plant alone. One great value of the study of botany is that it enables us rightly to ascertain the natures of plants, enabling us to discriminate between those which are useful

to us as food, and those which experience has taught us are harmful. Two plants may grow in the same soil, possibly in the same bed in the garden, and to the casual glance they are so similar, that the undiscriminating think them alike; yet the one may be a valuable herb for medicine and food, and the other only a deleterious and noxious weed. The plant now before us presents us with an admirable illustration of this, for it is sufficiently like the garden parsley for fatal mistakes to have arisen; and though its name implies that foolish people only would make the mistake, the world will probably, school-boards notwithstanding, have to reckon on a certain percentage of such persons, and it becomes very much the interest of those who might suffer by their folly to enlighten them. Dwellers in the country who have to deal with a certain amount of rustic simplicity, which is nevertheless sufficiently opinionated at times, will do well to plant only the curled-leaved parsley in their gardens, as it is then scarcely possible for mistakes to occur. Some of the old herbalists classed the plant as a deadly species of parsley, but for practical purposes we may point out the following distinctions:—The leaves of the true parsley are of a much more yellowish green; besides, the darker bluish green leaves of the *Æthusa* are much more finely divided, and have a gloss on them that we do not find in the pot-herb. Again if we bruise the leaves of the true parsley we at once get the strong but not disagreeable smell with which most of us must be familiar, while the leaves of the fool's parsley have very little smell at all. When the stranger has thrown up its flower-heads, the bearded clusters form an invariable indication of its nature, but even the comparison we have drawn between the leaves alone should

prove a sufficient safeguard. It flowers during July and August. Haller, in his book on Swiss plants, published at Berne in 1768, quotes many authorities to show that this plant, on being eaten, has been productive of the most violent symptoms, ending in some cases with delirium, stupor, and death. Parkinson calls it the fool's hemlock, but it may readily be distinguished from the hemlock, not only by the pendulous floral leaves to which we have already referred, but as being every way smaller, and not having the strong disagreeable smell that characterises the leaves of the hemlock, though Gerarde, we notice, says "the whole plant is of a naughty smell." Such things are, after all, only relative, however, and our assertion holds good, for though Gerarde's remark is fairly true, the hemlock has a much naughtier smell, and the difference in degree is sufficiently striking to distinguish the one plant from the other. In addition to this, the stems of the hemlock are freely spotted over with dull red markings, a peculiarity that we do not find in the fool's parsley: we have, therefore, two distinct characteristics by which the hemlock and the fool's parsley can be distinguished, not only from each other, but from everything else—the spotted stem of the one, the curious floral leaves of the other. Hill, in his British Herbal, calls our plant the small hemlock, and Gerarde gives it the name of the "wilde hemlocke." This latter term at first view seems a great misnomer, for one plant seems as wild as the other, the true hemlock as the fool's parsley; but incidentally we find an interesting little fact concealed in this name. The reference no doubt is this, that in those old days many indigenous plants were cultivated in the gardens of the herbalists and apothecaries, and the hemlock, dangerous as it is, has

medicinal properties that render it valuable, and therefore brought it into cultivation in such collections of medical plants, while the fool's parsley had no virtues assigned to it, and was consequently valueless and left in its wild state. If we can only once get over a feeling of prejudice against the "nasty poisonous thing," we shall have no difficulty in deciding that there is much delicate grace and beauty in the plant. It is a flower that we are always glad to see springing up in our own garden, though we are free to confess that, having first admired it, we with a certain amount of regret carefully eradicate it. We do not find that it is eaten by any animals; even insects and their larva seem to let it alone. We do not remember to have ever seen any jagged and ragged outline to its foliage, suggesting that some caterpillar has been making a meal. Our own live stock we have never tempted with it, as the risk of seeing one's animals succumbing to its effects is greater than we care for, interesting as it might be to record that a small armful killed a cow in an hour and a quarter.

HEDGE-MUSTARD.

HEDGE-MUSTARD.

Sisymbrium officinale. Nat. Ord., Cruciferæ.

NATTRACTIVE as the hedge-mustard must be considered when we compare it with some of the other plants of our series—the sweet-briar, the broom, or the yellow water-lily—its extreme abundance gives it by right a place amongst the most familiar of our familiar wild flowers. By almost every roadside, and on almost every piece of waste ground, we may reasonably expect to find the hedge-mustard, though its name is so far a misnomer that the plant rarely exchanges these bare and dry localities for a place in the fresh verdure of the hedgerow. The plant is an annual, and flowers during June, July, and August. The hedge-mustard is an excellent illustration of the great diversity of appearance which plants may assume at different periods of their growth. Any one unfamiliar with it, and viewing it first when it was just coming into flower, and then again when its flowering branches had elongated, would scarcely

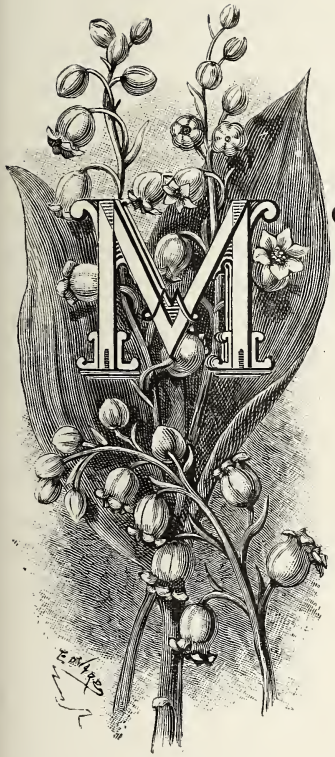
believe that he had seen two stages in the growth of the self-same plant. In our illustration, the flowering state has not long been entered on. Could we have represented that same piece in another month, we should have found the lateral branches thrown boldly out, almost horizontal in direction, but curved upwards at their free extremities and attaining a length of some nine or ten inches. The great number of very thin and widely-spreading flowering stems is a feature that will greatly assist those to whom the plant is unknown in identifying it. The central stem is from one to two feet high, very upright, round in general section, but often more or less furrowed, and, like the lateral stems, very rigid both in appearance and in fact. Any one endeavouring to gather a piece will realise far better for himself than any words of ours can describe how wiry and tough the plant is. The leaves vary greatly according to their position on the plant: the upper ones are long and narrow, deeply cut into lateral segments, or in some cases only notched. These leaves, as may be clearly seen in our illustration, stand boldly out from the stems, and often curve downwards towards the ground. The lower leaves are very much larger and very prominently lobed, the terminal lobe being often conspicuously larger than the others, oblong in the leaves about midway up the stem, and very rounded in the lowest of all. "Rough or hard rugged leaves very much cut in or torne on the edges into many parts, some bigger and some lesser, of a durtie greene colour:"—Parkinson's description of the colour of the foliage is very happy, for partly from the dust of the roadside, and partly from the dull greyish green of the leaves themselves, the general aspect of the foliage as we see the plant growing at the foot of some wall or paling, or

on a roadside rubbish-heap, is certainly "durtie." All the leaves are coarse and rough to the touch, as they are on each side clothed with small hairs; they are arranged in an alternate manner on the stem. The flowers of the hedge-mustard are small and a rather pale yellow, clear and pure in colour, but wanting the golden richness and strength of the celandine or the loosestrife. They blossom "by degrees, so that, continuing long in flower, the stalks will have small round coddes at the bottome, growing upright and close to the stalke, while the toppe flowers yet show themselves," a feature that is clearly seen in our figure, the central stem having at its summit a mass of buds that will be a long time developing into flowers, while the pods, or "coddes," are already beginning to form at the lower part of the stem. The close way, too, in which they stand by the stalk—a point noticed by our old writer—is another very characteristic feature of the growth of the plant. The cruciferous arrangement of the four petals will be observed. As in the great majority of the cruciferæ, the stamens are six in number, two being rather shorter than the others. The pods are small and tapering, downy, and on very short stalks. When they open for the dispersion of the ripened seeds, they do not split all down the sides as in the more familiar example of a pea-pod; but the seeds are on a central membraneous portion, and the outer flaps split away from this at each side, beginning from the bottom, and are finally only adherent at the summit. The seeds are of a dingy yellow colour, "sharp and strong" to the taste.

The generic name, *Sisymbrium*, was bestowed by the ancients upon several plants, and as its literal meaning is "with food," it has been conjectured by more modern

writers that it should most appropriately be applied to plants of the present order, and Linnæus bestowed it on the genus to which our present plant belongs. Those who have been in the habit of taking a little mustard with their beef will see some connection of ideas; but the true mustard is derived from another plant, as we need scarcely remind our readers. The plant has been cultivated as a pot-herb, but its tough stringiness would surely tell against it, and we imagine it would stand little chance in the popular taste against a dish of green peas or asparagus. Birds are very fond of its seeds, and sheep and goats eat it, while cows, pigs, and horses decline to have anything to do with it if they can help it. The specific name refers to the bygone officinal value of the plant in rural practice. Gerarde calls the plant the bank-cress, and in Wales it is the Arfog meddygawl. In the semi-botanical, semi-astrological treatises of the middle ages, the hot and fiery nature of the plant pointed to the evident dominion of Mars over it.

LILY OF THE VALLEY.



LILY OF THE VALLEY.

Convallaria Majalis. Nat. Ord., Liliaceæ.

MOST of our readers probably will be much more familiar with the lily of the valley as a garden flower than as a wild plant; but it is a true native, nevertheless, and may in many places be found in abundance. Our readers will bear in mind that it is a plant of the woods, so that it is only there or in sheltered coppices that there is any reasonable hope of finding it.

We may here, however, advantageously point out that the foliage and general effect of the broad-leaved garlic is very similar to that of the lily of the valley, and as both are found in the same situations at the same period of the year, more than one of our friends have been grievously disappointed by confounding the two. This perhaps is somewhat hard on the garlic, for if our readers will take the trouble to turn to the illustration of it in our

first volume, they will readily agree with us that its pure white clustering starry blossoms are very beautiful in themselves, and have a full claim to be admired for what they are, not scouted for what they fail to be. Londoners will read with interest that in the time of Ray the lily of the valley grew abundantly on Hampstead Heath. In St. Leonard's Forest, near Horsham, in Sussex, where we have seen it in great abundance, the local legend tells us that the patron saint of the district—St. Leonard—waged a mortal combat for many hours with a great and terrible dragon. Though in the end victorious, the saintly dragon-slayer by no means escaped scatheless, and these large masses of snowy blossoms, scattered over the forest, sprang from his blood, shed during that dread encounter. Any one who, in this sceptical age, has doubts, can go and see the flowers for himself.

The lily of the valley is very common in some of our English counties, very local or altogether wanting in others, while in Ireland and Scotland it would appear to be scarcely indigenous. It is sometimes called the May lily, many of the old names of plants, as the pasque-flower, Lent lily, St. John's wort, and numerous others, having reference to the date of flowering. It is in France the *Muguet de mai*, in Germany the *Maiblume*. Its specific name, *Majalis*, or *Maialis*, signifies "that which belongs to May;" hence the old astrological books place the plant under the dominion of Mercury, for Maia, the daughter of Atlas, was the mother of Mercury or Hermes. It is also called convall-lily and lily-constancy by the old herbalists, and in some parts of the country its local name is ladder-to-heaven. Its spotless purity of colour and lowly humility were probably the cause of the bestowal of the last name, a name that has no

doubt descended from mediæval days. The old monkish herbalists often based their nomenclature on associations of a religious character, and united their plant-names with the legends of the saints, or the services of the Church's calendar.

> "To the curious eye
> A little monitor presents her page
> Of choice instruction, with her snowy bells—
> The lily of the vale. She not affects
> The public walk, nor gaze of noonday sun;
> She to no state or dignity aspires,
> But silent and alone puts on her suit,
> And sheds her lasting perfume, but for which
> We had not known there was a thing so sweet
> Hid in the gloomy shade." *

As an ornamental plant few of our species have a greater claim to a place in the garden, for few others can boast of so delicate a beauty, so rich a fragrance. It is most easy of cultivation, requiring only to be placed in a shaded corner.

The generic name, *Convallaria*, is from the Latin word for a valley, and is bestowed in obvious reference to the sheltered woodland dells in which the convall-lily finds a congenial home.

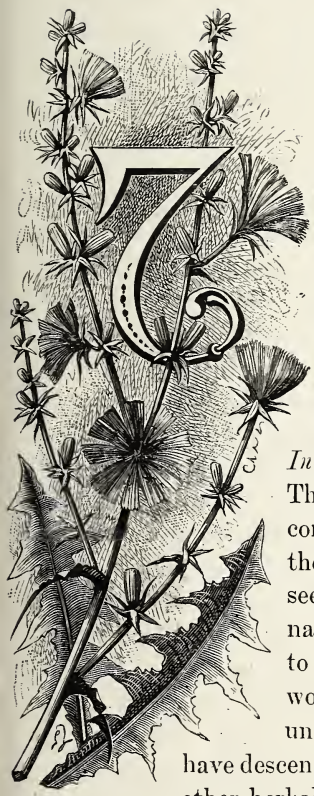
The root of the lily of the valley is fibrous and perennial, extending a little below the surface of the ground, and reaching to a considerable distance. The leaves grow in pairs, their stalks sheathing one within the other. One of these leaves is often larger than the other, and both are very simple in form, and deeply ribbed. The flower-stalk springs from the root, and is about equal in length to the leaves. It bears a loose raceme of drooping, bell-shaped flowers of a pure white; hence, in Beaumont and Fletcher's

* Hurdis.

sonnet on the Spring, we find them referred to as "lilies, whiter than the snow."

In the wild state its blossoms are rarely succeeded by the fruit, but it produces it readily under cultivation. This fruit is a rather large berry, something in size between a fine black-currant and a small cherry, and of a brilliant red. "They write that the water of the flowers of Lyllie conuall, distilled with good strong wine, and drunken in the quantitie of a sponefull, restoreth speech to them that are fallen into the apoplexie, and that it is good for them that have the paulsie and gout. The same water, as they say, does strengthen the memorie, and restoreth it again to his naturall vigor when through sickness it is diminished." Another old writer tells us to take the flowers and put them in a glass, and place it in an ant-hill. At the end of a month "you shall find a liquor that appeaseth the paine and grief of the gout, being outwardly applied, which is commended to be most excellent."

SUCCORY.



THE SUCCORY.

Cichorium Intybus. Nat. Ord., Compositæ.

THE succory, or chicory, is a plant belonging to the same great natural group as the dandelion, the ox-eye, the corn sow-thistle, and the nipplewort. The general form of the flower, it will readily be noticed, is very similar in all of these. It is the *Cichorium Intybus* of botanical nomenclature. Though the plant is perhaps more commonly known as the succory than the chicory, we never remember to have seen any explanation of this common name; we would therefore venture to suggest a derivation—the Latin word *succurrere*, signifying to run under. Many of our common names have descended to us either from the monks or other herbalists of the Middle Ages; the terms used, therefore, are generally either corruptions of the old Latin names or terms based on some old English word, and in either case the allusion is often either to the actual properties of the plant or else to the peculiarity of growth

in some organ of the plant that is of most economic or medicinal value. In the case of the present plant we could well imagine that the long tapering root, a feature conspicuous in itself, and a part of the plant of considerable value, would influence the choice of a name for the herb. The other name, chicory, is, under one modification or another, of widespread range. We see this in its Latin name *cichorium;* in France it is *chicorée;* in Spain, *achicoria;* in Portugal, *chicoria;* in Italy, *cicorea;* in Germany, *chicorie;* in Holland, *cichorei;* in Sweden, *cikorie;* in Russia, *tsikorei;* in Denmark, *cicorie.* These names are curious not only for their similarity but also for their dissimilarity—all are so very much alike in general character, and yet no two of them are the same. It has been suggested that the root of all these names will be found in the Arabic word for the plant, *chikouryeh;* and this may very possibly be the case, as at one time the Arabian physicians and writers were men of great repute, and through the conquest of European Turkey and the occupation of Granada their works exercised a far more than merely local influence. The specific name, *Intybus,* is a modification of another Eastern name for the plant, *hendibeh;* and the endive of the garden, the *C. endivia* of science, an allied but foreign species, derives both its common and specific names from the same word. The endive is a plant of Southern Asia. The endive and the succory are the only two species in the genus *Cichorium.*

The succory is a perennial. The stems attain to a height of some three feet or so. The lateral branches are numerous and spreading; they are given off at a very considerable angle from the central stem, so that the general effect of the plant, though spreading, is not rich and full, since the

branches stretch out to some distance in each direction, and are but sparsely clothed with leaves of any considerable size. The stems, however, bear leaves and flower-heads in great profusion; the spaces of clear stems are very small. The general aspect of the plant is somewhat stiff and angular. The lower leaves of the plant are large and spreading, thickly covered with hairs, and something like the form of the dandelion leaf, except that the numerous lateral segments, or lobes, are, in general direction, about at a right angle with the central stem instead of pointing downwards, as is often the case in the similar portions of the leaf of the dandelion. The terminal piece is large in proportion to the others, and all the segments, terminal and lateral, are coarsely serrated. The upper leaves are very much smaller, much less divided, and are what is termed botanically amplexicaul, a term used when the base of the leaf clasps the stem and partially surrounds it. The flower-heads are very numerous, nestling in the axils of the leaves, and ordinarily in a little cluster of two or three. The flowers are rather large, very fully expanded, and of a delicate tint of blue. The involucres from which they spring have two rings of bracts—an inner one composed of eight parts, and a smaller, outer, and more spreading ring of five parts. The involucre is the part that in a composite flower corresponds to the calyx in flowers of simpler construction. It is composed of a ring of leaf-like forms termed bracts, that, as in the sepals of the ordinary calyx, protect the inner and more delicate parts from injury.

The succory is not uncommonly met with in many parts of England and Ireland, though it is by no means a common plant in Scotland. It is more especially common on the gravel or chalk, and in places where the soil is of a

light and sandy nature. It may in such localities be freely met with on waste land, open borders of fields, and perhaps more commonly than anywhere else, by the roadside, a feature that will probably have brought it under the notice of many of our readers who have little time or opportunity to wander far into the wilder haunts of many of our plants. We have in Surrey seen the succory in lavish abundance on a road that commanded a full view of St. Paul's Cathedral, only some six or seven miles distant.

The leaves of the succory when blanched form a very pleasant salad, and are largely used as such on the Continent. The roots, when dried and ground, furnish the chicory of commerce. It is in Belgium and Germany a rather important field crop, and most of the supply for the English market is derived from thence. The plant is also largely cultivated abroad as fodder for cattle and sheep.

DEVIL'S-BIT SCABIOUS.

DEVIL'S-BIT SCABIOUS.

Scabiosa succisa. Nat. Ord., Dipsacaceæ.

THE devil's-bit scabious is one of the common plants of our meadows and pastures, and as it comes at a time when there are few other blossoms to distract our attention from it, it can scarcely fail to be noticed. Most of the other meadow flowers appear and pass away at an earlier period of the year; the delicate yellow cowslips, the golden buttercups and dandelions, the great ox-eye daisies, have all come and gone before the rich purple globes of blossom of the scabious, or the lighter purple bells of the harebell make their appearance. The peculiarly deep colour of the flowers of the present species of scabious is in itself a feature that attracts attention, as we have few other blossoms of that strength of tint. There is a second common species of scabious, also to be found amongst our illustrations, that has larger flowers, and these are of a delicate

lilac colour. Both species flower in the autumn, and will be found in very similar situations, though the devil's-bit, as far as our experience goes, will ordinarily be found in the open meadow-ground, or on the breezy upland, while the other species is more a plant of the hedgerows.

The root of the species now illustrated is, when fully grown, nearly the thickness of one's finger, and ends in so abrupt a way as almost to suggest the idea that it had been snapped or bitten off, a peculiarity that has given it a place in monkish legend, as we shall presently see. From this short and thick root-stock proceed many long white fibrous roots. In the first year of the plant's existence, the root is very like a diminutive carrot or radish in shape. It then becomes woody and dies away, the upper part excepted; as it decays and falls away, the gnawed or broken look results. The portion left throws out numerous lateral roots, and these compensate for the portion that has perished. The stalks are from a foot to a foot and a half high, nearly or quite upright, and very slightly branching. They are often more or less clothed with rough hairs, giving them a somewhat downy surface. The leaves vary in form, according to their position on the plant, but all are clothed with coarse hairs, and have a rough feeling to the touch. The leaves at the base of the plant are oval or rounded, running a little way down the short stems on which they are borne. They are what is botanically termed entire—or, in other words, their outline is a simple continuous line, without any of the notching or toothing that is so familiar a feature to us in many kinds of foliage. The upper leaves are few in number, without stalks, much longer in proportion to their breadth, and often sparingly toothed or lobed. They grow in pairs on the stem, and have their bases

adherent together. The heads of flowers are almost globular; they are borne on long stalks that rise from the axils of the upper leaves. On a closer examination it will be found that these flower-heads are composed of numerous florets, all very much the same size, the outer and lower ones being perhaps a little larger, but not by any means in so marked a degree as we find in the inflorescence of many flowers built up of a mass of florets. The corolla is all in one piece, like a convolvulus, but divided into four segments or lobes, three being about equal in size, but the fourth, the upper one, a little larger. The four stamens with which each flower is provided are a very conspicuous feature, the anthers being large, and borne upon filaments that are almost as long again as the corolla. The plant is a perennial, and flowers during July, August, September, and October.

To entomologists the plant will have a certain interest, as being the food of the larvæ of some few of our butterflies and moths; of these we need here only mention two. The first of these is the larva of the beautiful Fritillary butterfly, known to the men of science as *Melitæa Artemis*. The perfect insect is a rich orange-red, spotted and chequered with black, and the caterpillar or larva is black, with a lateral band of white spots. It is found on the scabious and plantain during April. The second species is the moth known as *Eupithecia satyrata*. The larva will be found on scabious during June. It is a whitish-grey in colour, a row of rather dull-red triangular spots being its only adornment.

The plant derives its common name from an old belief that "the divell," to quote an old writer, "for the envie that he beareth to mankind, bit it off at the root, because it would else be good for many uses." This legend seems to have been very widely spread abroad, for the plant bears only

this one name, and that, too, not only in England, but on the Continent. With the monks it was the *Morsus diaboli*, while in Germany it is the *Teufels abbiss*, and in France the *Morsure du diable*. The Satanic motive influencing the destruction is accounted for in two different directions, that are rather contradictory. In the "Ortus Sanitatis" Oribasius says that "with this root the devil practised such power that the Mother of God, out of compassion for man, took from him the means to do so with it any more, and in the great vexation that he had that the power was gone from him he bit it off, so that it grows no more to this day." Here it will be seen that the plant was accredited with evil powers; but another version ascribes an entirely different origin to the diabolic malevolence. Gerarde, no believer in the story evidently, says that "old fantasticke charmers report that the divell did bite it for enuie, because it is an herbe that hath so many good vertues, and so beneficiall to mankinde." Parkinson quotes the legend in the same way, but adds, "which is so grosse and senselesse a relation that I merveile at the former times' stupidity to receive as true such a fiction."

KNOT-GRASS.

KNOT-GRASS.

Polygonum aviculare. Nat. Ord., Polygonaceæ.

SOME of our readers may well be excused if they imagine that a mistake has been made in describing the plant figured before us, for whatever else it may be, it cannot certainly be considered a grass: it is, in fact, not grass, if the dignity of our subject will allow of such verbal trifling. However, the plant really bears the name we have ascribed to it; and the explanation of the anomaly may be found in the fact that the wisdom of our ancestors manifested itself, amongst other ways, in calling many plants, such as the present and the clover, grasses, if they were eaten by cattle, or could be used as fodder-plants, though they might bear no similitude to the true grasses, and would have no claim in any way really to rank amongst them.

The knot-grass is one of our most common plants, especially on a sandy or gravelly soil; we find it on banks, by the roadside, in corn-fields, and in fact almost everywhere. Cattle

in general are fond of it, and pigs in particular eat it with great avidity, hence one of its old names is swine's grass. In the "Grete Herball" we see it is called swynel-grass. The "Grete Herball" was published in England in the year 1516, and had so great a measure of popularity that it passed through several editions. It was printed in the old black letter, and illustrated with particularly bald wood-cuts, which in some cases bore no resemblance to anything whatever, and in many the same illustration had to do duty for more than one plant. Our readers will readily see the inconvenience of this to those who would refer to the book, if they will imagine that we, for the saving of a little trouble and expense, had not troubled to draw the knot-grass at all, but had quietly described it, and slipped in an old plate of the primrose instead. Though the botanical merits of the work are naturally not great, botanical science being then practically unknown, it is full of interest as being, with one exception, the very inferior herbal of Macer, the first book, and for a long time, the only book, on the subject in the vulgar tongue.

When a plant of knot-grass grows singly in a favourable soil, and clear of other vegetation, it will often cover a circle of a yard or more in diameter, the stems being almost prostrate on the ground, and the leaves broad and large; but when it has to grow thickly together, and share the accommodation with other plants, the stalks become more upright, and all the parts are frequently smaller. Our specimen is a very fairly typical one. In its natural growth it was evidently in an upright position, and we see this at once on looking at the leaves: had it come from a trailing plant all the leaves would have turned one way—the way in which, when the plant was growing, all had turned

upward to the light. It is a very variable species: its stems are sometimes long and delicate-looking, and the leaves sparsely developed, while in others they branch freely, and are densely crowded with foliage. The plant is an annual, and begins flowering in May; it may be found in blossom any time between then and September or October.

To pass from the general to the particular, we may point out that the root is very fibrous, and takes a strong hold of the earth, so that in hard ground it is with great difficulty eradicated, generally breaking off at the level of the ground when the attempt is made. The stems are numerous, and, as we have already indicated, either trailing or upright in their growth, tough and wiry, and, like all the polygonums, much jointed. When gathered, the stem generally snaps at one of the joints. The leaves vary a good deal in form, for, though they all have the general oval character our figure indicates, in some well-nourished plants they are almost as broad as long, while in the starvelings they become very attenuated. The variation is chiefly in the breadth; they rarely increase much in length beyond what we see in the illustration. They are a bluish green in tint and smooth to the touch. The leaves of this plant, as in all the other species in the genus, are arranged alternately on the stems, and each springs from a membranous, whitish, and sheathing stipule that surrounds the joint, its upper edge being irregularly notched or cut. The flowers are borne in small clusters in the axils of most of the leaves; though small in themselves, they are so numerous that in the aggregate they make a fair show of blossom. The perianth is divided into five segments, varying in colour from a light to a deep pink,

or, more rarely, white. The stamens are eight in number, their yellow anthers being very visible on a closer examination of the flower, and the style is cleft into three parts. The seeds are blackish and three-angled.

The generic name *Polygonum* is compounded of two Greek words signifying many joints, and the name is certainly a very appropriate one, while the specific title *aviculare* is from the Latin *aviculus,* which is, in turn a diminutive of *avis,* a bird. Great numbers of our smaller birds feed on its seeds, and give a full appropriateness to its title. It is in some old herbals and in provincial parlance called bird's-tongue, or sparrow-tongue, but these names arose from the shape of its little pointed leaves; and it is curious that one of its modern Italian names is similar in meaning to the second of the two we have named. Pink-weed is another old name for the plant that evidently arises from the long lines of delicately-tinted flower-clusters, and ninety-knot no less clearly refers to its numerous joints.

CROSSWORT.

CROSS-WORT.

Galium cruciatum. Nat. Ord., Rubiaceæ.

CROSS-WORT, graceful as it is when examined, does not appeal particularly to the eye when seen growing, for all the forms are so minute and delicate that a mass of it amidst the vegetation only tells as a point of yellowish green colour. Yet the plant is one that we always welcome, for it is one more indication that the winter is over and gone, and that the promise of the spring is maturing into the wealth of summer. The cross-wort is very commonly met with on hedge-banks where it can be somewhat in the shade, in copses, woods, and such like spots, and its blossoms may be found in all their delicacy and frailty from April to June. It is rather curious that though the plant is widely distributed, and in many places abundant in England, it is less so in Scotland, while in Ireland it appears to be wholly unknown.

The root-stock of the cross-wort is perennial, and the flowering-stems that ascend each spring from it stand boldly erect to a height of from six inches to over a foot, a good deal depending upon the thickness of the surrounding vegetation amidst which the plant has to fight its way upward to the air and light. The leaves are arranged at somewhat distant intervals on the stems, in rings of four. The leaves are ovate in shape, and, like the stems, thickly covered with hairs. Each set of leaves is immediately over the ring beneath it; in most other plants the following ring just alternates in direction, and fills in the interval, so that the rings if looked down upon show eight leaves, four above, and a second four coming below and filling up the intermediate spaces; but in the cross-wort all the leaves take the same direction, and if one leaf points due north, all the corresponding leaves on all the rings would point due north too. The numerous flowers are found in crowded clusters in the axils of the leaves, ring after ring of leaves on the stem having nestling within it these flower-clusters. Almost all the flowers in each ring are stamen-bearing only, and have a conspicuously four-cleft corolla; the few fertile flowers are often five-cleft. After flowering-time, and when the blossoms have faded away, the little stems on which they were severally borne bend downwards, and so remain until the plant decays.

The cross-wort is one of the numerous indigenous species of bedstraw, but the markedly cruciform arrangement of both foliage and petals has earned it its special distinctive name. It is in some old herbals called the *crusialis*, and in mediæval French it was the *croise*. In Germany it has the same name as its near relative the woodruff, a plant we shall next figure and describe, but to distinguish it it has

the very appropriate prefix of golden. A common old English name for the plant is the May-wort, a term of the same nature as Lent-lily, pasque-flower, and fair maids of February, and descriptive of the season when the plant may be found in flower. Other old names for it are the mug-wort, mugget, or golden mugwert. The second and third appear like corruptions of the first, but it would appear that they have good claim to an independent existence. A plant was once called moth-wort, and moghe is the old English word for moth; but the plant that bore this name was the wormwood, and it is difficult to see how the corrupted form of mug-wort can have been transferred to the cross-wort. Mugget and mugwert are corruptions of the French *muguet*, a somewhat depreciatory word, signifying a fop, or dandy. Charming as our plant may be, it assumes no offensive airs on the strength of it, and we, on the whole, consider that it is hardly used by such an association of ideas. The same name is in France applied to the graceful lily of the valley. The generic name *Galium* is derived from the Greek word for milk, some of the plants of the genus having been used formerly by the dairy-maid to curdle milk with. Hence another old name for the genus was cheese-rennet, and in France *caille-lait*. The specific name is from the Latin word for a cross. Parkinson calls the plant the *Cruciata vulgaris*, while with Bauhin it is *Cruciata hirsuta*, the hairy nature of the plant making this latter name a happily-chosen one. We have already seen that its familiar name in Germany coincides with that of the woodruff or *Asperula odorata*, plus the distinctive addition of the adjective golden, and in the writings of Lugdunensis we find this same idea reproduced, as we may say, in fac-simile, for he calls the cross-wort the *Asperula*

aurea, the golden woodruff. The madder has whorled leaves, and is sometimes in the olden herbals called the *Rubia cruciata*, or cross-wort madder, but the true cross-wort is the plant we here figure. To this plant the name may most appropriately be ascribed, for its leaves always follow the cruciform arrangement, while the madder varies from four to six leaves in each whorl or ring. Numerous species of the genus *Galium* are indigenous to Britain, one of the commonest, and at the same time most attractive, being the yellow bedstraw, *G. verum*, a plant so slender and graceful in growth that it was by the olden botanists called the ladies' bedstraw. This species and the cross-wort are the only two bedstraws with yellow flowers; all the other species have white blossoms. A strong family likeness runs through them all, owing to the uniformity of colour in their flowers, and to the fact that in all the species the leaves are arranged in rings at intervals on the stems.

WOODRUFF.

WOODRUFF.

Asperula odorata. Nat. Ord., Rubiaceæ.

FEW floral displays are more attractive in the early summer than a large mass of the woodruff in flower. Its rings of leaves cover the ground with a dense mass of living glowing green, and from this rise in plentiful abundance the flower-stalks bearing above this groundwork of tender verdure the thousands of pure white blossoms. It is one of the misfortunes of illustrations that those flowers which are the most pure and delicate in tint lose most by their representation in colour, and those who would see the ox-eye daisy to perfection, realise the delicacy of the lilac of the meadow saffron, or the intense white of the woodruff, must turn to the great book of Nature, and see them amidst their natural surroundings. The beauty of many of our flowers, too, in nature is increased by their aggregation; we gaze not on one, but on

hundreds of blossoms. A primrose anywhere is a thing of beauty; but a hedge-bank in spring one mass of its blossoms is still more beautiful. The hyacinth has a delicate grace and richness of colour that makes even a single specimen a delight; but he who would see wild hyacinths at their best must wander at spring-time into the woods, and find himself in a purple sea of flowers stretching beneath the trees as far as eye can reach.

The woodruff is plentiful in most woods throughout the country, and is conspicuous at any time owing to the form and density of its foliage; but those who would seek it in flower must wend their way to its woodland home in May or June. A large bunch of it should be brought home; it will last for some time in water; but when it begins to show signs of fading, instead of throwing it aside, it should be tied into a bundle and dried, when it will for months give forth a delicious fragrance. Placed between the leaves of a book, its fragrance remains intact for many years, and in some parts of the country it is put away in drawers amongst the clothes, partly because, like lavender, its odour is appreciated, and partly from an idea that it keeps away the moths. It is also in some rural districts made into a tea, but whether it is drunk on its own merits or as a medicine we are unable to say.

Gerarde, we see, suggests that the woodruff should be made up into garlands and "hanged up in houses in the heat of summer, as it doth very well attemper the aire and coole and make fresh the place, to the delight and comfort of such as are therein;" and he farther suggests that it should be put into wine "to make a man merry, and to be good for the heart and

liver." He also commends it as a "vulnerarie herbe," to be applied to cuts and wounds. Other old writers give it all the credit that Gerarde does, and much more. One, we see, commends it as "good against the plague, both to defend the heart and vitall spirits from infection, and to expell the noysome vapours that are received," and another advises its use "in epelepsies and palsies." Every old writer could furnish illustrations, more or less numerous, of its value, and we can therefore only wonder how our ancestors ever came to be put beneath the lichened stones that now form their memorial.

The root of the woodruff is perennial, and puts forth many creeping subterranean stems, which in turn send down into the earth numerous fibres at short intervals along their course, and freely throw up the flowering-stems. Dodonæus says: "In this countrie they plant it in all gardens, and it loveth darke shadowie places, and deliteth to be neare old moyst walles. Woodrowe floureth in May, and then is the smell most delectable." We have ourselves in the shade of the north side of our house a large bed of it that never needs the least attention, and is always a beautiful object. The stems rise to a height of some six or eight inches, are four-cornered in section, and smooth to the touch. The leaves grow in rings round the stem, generally eight in number in each whorl, and above these the stem branches slightly and bears its terminal masses of white blossom. The flowers are cross-shaped, and shatter very readily, and these are succeeded by little globular burr-like seed-bearers, each containing a single large seed.

Amongst old names for it we find *cordialis* and *stellaria* —the first, of course, from its supposed efficacy in heart-

disease, and the second from its star-like foliage and flowers; but ordinarily its names are more or less like that by which we have described it. We find wood-rowell, wood-roofe, wood-reeve, and several others of like character.

In Anglo-Saxon it is *woodderowffe*. Wood-rowell refers to the rings of leaves that suggest in their form and arrangement the rowel of a spur, while our ordinary word woodruff would appear to find a resemblance in the foliage to the mediæval ruff, of which the portraits of Queen Elizabeth always give so noteworthy an illustration. These derivations, interesting as they are, are probably after-thoughts; for the plant had its Anglo-Saxon name bestowed upon it long before ruffs were worn or the word rowel, from the French *rouelle*, a little wheel, was in use. Dr. Bosworth gives *row* as the Anglo-Saxon for sweet, and there can be but little doubt that the literal meaning of the word is the woodsweet.

FUMITORY.

FUMITORY.

Fumaria officinalis. Nat. Ord., Fumariaceæ.

AN old writer has said: "There be divers herbes comprehended under the title of Fumitorie: some wilde, and others of the garden." The common fumitory is an annual; it may be found almost everywhere on dry land, on high-lying fields, and by the roadside, though it seems to prefer fields under cultivation; it often appears in the garden, and, in such situations, it may be found in flower during the whole of the summer and the greater part of the autumn, if it be sufficiently fortunate to escape the weed-cleansing hoe. Small and insignificant as the plant appears, it has won a place for itself in our literature, for we find it referred to by Clare, Shakespeare, and other less well-known writers. In the middle ages the fumitory was boiled in milk and used as a cosmetic by

the belle of the village and her rivals. The fumitory may be considered as a sign of bad husbandry, and it is in this sense that the plant is introduced by Shakespeare. To enforce the idea of the sorrowful plight of King Lear, he is represented by our great poet as

> "Crowned with rank fumitor and furrow weeds,
> With harlocks, hemlock, nettles, cuckoo-flowers,
> Darnel, and all the idle weeds that grow
> In our sustaining corn."

The fumitory, nuisance as it may be in the garden or the fields, is a particularly easy plant to pull up, as its long, slender root may be drawn out on the most gentle handling. We confess that we have great doubts whether we ourselves are quite the sort of person who ought to have a garden at all, for our gardener's assiduity in weeding out all these wild growths only finds faint echo in our own mind; and, on the whole, we prefer the fumitory to many of the substitutes for which it is ruthlessly eradicated. We were just in time to rescue the piece we have figured from the pitiless hoe; and when we carefully carried it indoors for drawing purposes, the gardener's look was more eloquent than his language probably might have been. He thought we were siding with the enemy, evidently.

The stems of the fumitory vary in height from about six inches to eighteen, enlarged at the joints, and spreading a good deal. In some plants the stems stand boldly erect in their own strength, but in others the plant assumes a weak and trailing appearance. The stems are in any case very delicate and fragile-looking. The leaves are arranged alternately on the stem; they are very much subdivided, the leaflets being ordinarily cut into three conspicuous lobes. This feature may be very well seen in our figure.

The leaves are what is termed twice-pinnate. In a pinnate leaf several lateral leaflets are given off on either side of the central leaf-stem, and when these lateral members are in like manner cut up into subordinate leaflets, the form is bi-pinnate, or doubly feathered. The leaflets vary greatly in appearance; in some plants they are long and narrow, and in others flat and broad, and all the foliage is of a pale bluish-green tint. The flowers are arranged in racemes, the flower-bearing stems being either terminal or opposite the leaves. Before development the buds are closely packed together, but as the flowers open the stem elongates, causing a considerable interval between the blossoms. This early crowding and subsequent elongation may be noticed in our illustration. The sepals, two in number, are very small. The four petals of which the quaint-looking corolla is composed are arranged in two pairs, though they are all more or less united; and the curious prolongation or spur of the flower must be duly noted. The stamens, six in number, are arranged in two bundles of three each. The form of the seed-vessel may be seen in our figure; when we open the small globular fruits, we find that each contains a single seed. Some of the old herbalists compare the flowers to little birds, and one of the German names for the plant is the *Taubenkropp*, tauben being the Teuton for doves; while a provincial English name for the fumitory is *wax-dolls*. In Wales it is the *Mwg y ddaear cyffredin*, and in Ireland the *Cuman Scarraigh*. There is a curious uniformity in the meaning of many of its names, and yet when we endeavour to analyse the significance that runs through them all we find a wide divergence. The generic name, Fumaria, is derived from the Latin word *fumus*,

smoke; in many parts of the country the plant is called colloquially earth-smoke; and in France it is the *fume-de-terre*, and in Germany the *Erdranch*, names of like significance. The English word fumitory follows the same idea; it may more readily be detected in its older guise, the fumiterrie. When, however, we would seek the common idea involved in the various names we have given, our difficulties commence. In the "Ortus Sanitatis," published in the year 1485, we find a belief that the plant was produced from the vapour rising from the earth, that it was not propagated by seeds, as other plants, but was a veritable child of the mist. Pliny, who recommends the use of the plant as an eye-wash, tells us that on its first application to the eyes it causes them to smart and water as smoke does. Another writer tells us that the plant is called the fumitory from its smoke-like stem; while others, again, point to the tender spreading mass of grey-green leaves, and ask us to see in them a similitude to a whiff of passing vapour on the earth—a fumiterrie, or earth-born cloud. All ends, alas! as it began, in smoke and misty ambiguity.

SMALL WILLOW-HERB.

SMALL WILLOW-HERB.

Epilobium montanum. Nat. Ord., Onagraceæ.

WE have already included in our series one species of Epilobium, and a much finer plant than the present; the small willow-herb, however, if not so striking a plant as the great willow-herb, the *E. hirsutum*, is quite as familiar a wild flower, and, therefore, claims full recognition at our hands. It has a grace and lightness, too, of its own, that makes it no unfit companion for the large number of beautiful plants with which it here finds itself associated—the silver-starred anemone, the ruddy orpine, the curious milk-thistle, the hardy thrift, the golden stone-crop, the delicate bladder-campion. The small willow-herb is very abundant nearly everywhere in Britain, and, in fact, seems to be almost cosmopolitan. It should be looked for—or rather, we will say, it may be found, for a plant so common needs little searching after—on waste or cultivated ground, the roadside or the garden, often on the thatch of the cottage roof, on old stone walls, or in woods. It is a perennial, and flowers during June and July. Some of the old cottage roofs

become quite gay as the thatch grows old and somewhat furrowed, as there thus becomes a holding-ground and the necessary dampness for the propagation of various seeds that find their way there. How they ever manage to do it is a puzzle. The seeds of the willow-herb, being light and feathery, will find their way anywhere, like those of the thistles, hawk-weeds, and groundsel; but we remember this summer often noticing one particular roof on which, besides the plants we have mentioned, and grasses, and many other things, there were handfuls of poppies and several sturdy wheat-plants. Possibly, an ear or two of wheat may have been retained in the straw after thatching, though in that case we should imagine they would have thrown up their delicate green blades the following season, and would not have waited till lapse of years had made re-thatching one of the immediate questions of the future. And how, in any case, did the poppy-seeds find their way there? The same thing often strikes one in the case of the grand flower-borders that often fringe the summits of the walls of old ruined abbeys and other buildings. In a place that seems inaccessible, and where no foothold seems possible, we may see the wild rose throwing out branches a couple of yards long, and elders with stems as thick as a man's wrist, to say nothing of ox-eye daisies, stone-crop, corn-marigolds, poppies, ivy-leaved toad-flax, snapdragon, wall-flowers, and many another gay adornment of the old flint walls, all thriving where the nourishment is of the scantiest, the drought the most searching, the wind the keenest.

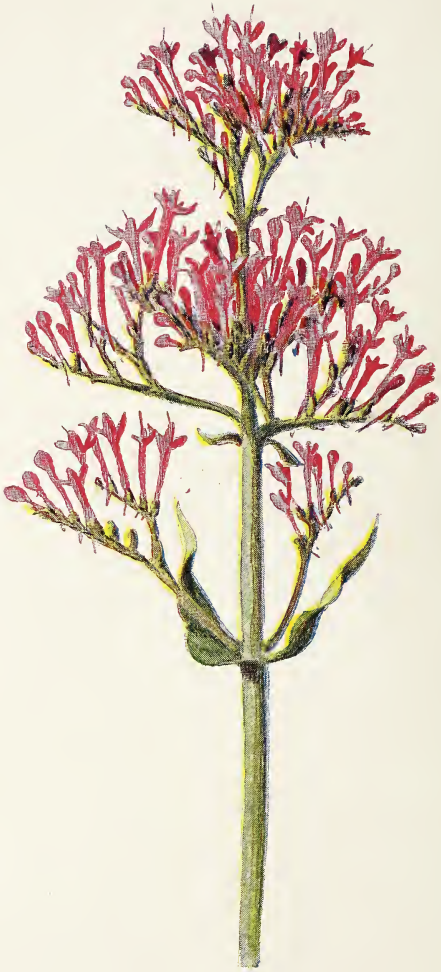
The small willow-herb is a great pest when found in cultivated ground, and when it is once fairly established in a garden, it seems to be impossible to eradicate it. It has two

features that enable it to command the situation—a long and very fibrous root, of which the smallest portions left in the ground possess a wonderful vitality; and an apparently unlimited supply of seeds, all duly provided, like those of the dandelion, with the means of wafting themselves away from the parent plant and scattering themselves far and wide.

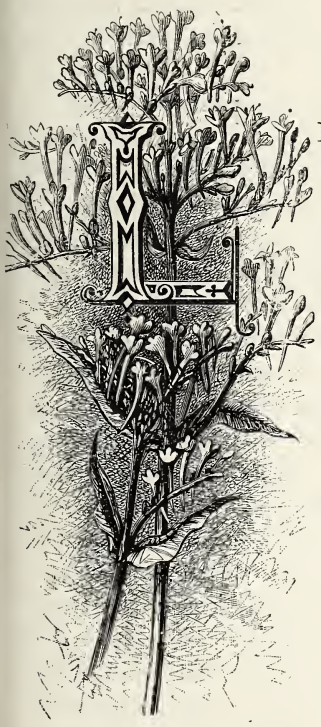
The stem of the willow-herb is upright, and ascends to a height of some two feet, or even a little more if amongst other plants; it is round in section, very slightly downy, often quite simple in character, but occasionally branching a little near the summit. When it branches at all, these branches are in pairs. When the plant grows amongst others in the shelter of a garden, its stems and leaves are alike green; but in more exposed situations the stems are often a deep crimson in tint, and the lower leaves are various tints of brown, crimson, and yellow, gradually passing into the bluish-green of the upper leaves. The leaves are generally in pairs, but we may occasionally find a plant in which they are arranged in threes or fours—a variation to which most of the species of willow-herb seem subject. Most of the leaves are on short stalks, but some of the upper ones will be found almost or entirely stalkless. They are of the form botanically termed ovate, a good deal pointed at their extremities, and having their margins finely notched, like the teeth of a saw. The lines of the veining are rather prominent, and the upper surface of the leaf is often slightly hairy or downy. The calyx crowning the long tapering ovary is deeply cut into four lobes. The corolla is composed of four heart-shaped petals, deeply notched, of a pale purplish-pink tint, and, when fully expanded, spreading widely outward. The stamens are

eight in number, four being considerably longer than the other four; the stigma four-cleft; the lobes spreading, and forming a cross-like form at the summit of the style; the capsular fruit long and slender, splitting open when ripe, and disclosing the numerous small and downy seeds. As the segments of the fruit dry and curl back, the seeds are liberated, and, by means of the tuft of hairs with which they are each terminated, they are dispersed by the wind.

The generic name, *Epilobium*, is a very happy one; it is derived from two Greek words, signifying *upon* and *pod*, from the growth of the flowers on the summits of the pod-like ovaries. *Montanum* is Latin, and signifies pertaining to mountains, a not very appropriate designation for a plant that is abundant almost everywhere. The English names, willow-herb and willow-weed, were suggested evidently by the shape of the leaves, though the leaves of the various species of willow, while partaking of much of the character of the plant we figure, are more slender in proportion to their breadth.



RED VALERIAN.



RED VALERIAN.

Centranthus ruber.
Nat. Ord., Valerianaceæ.

LIKE the ivy-leaved toad-flax, the present plant is not one of our indigenous species, but, like that again, it has got so far established at home with us that it fitly finds a place in our series. It resembles, too, the ivy-leaved toad-flax in another important particular: both are naturally plants of the countries bordering the Mediterranean Sea. It is probable that the red valerian was originally introduced on account of its beauty, as we find it mentioned by many of the older writers as a garden flower. Thus Gerarde, writing A.D. 1633, says, "It groweth plentifully in my garden, being a great ornament to the same;" and Parkinson, A.D. 1640, says, "In our gardens chiefly, for we know not the natural place." Edwards, in his "Flora Britannica," published in 1812, speaks of it as a garden flower, and says that it may readily be propagated by parting the roots and planting

them out in the autumn or spring season where they are to grow. It appears to be a plant that very readily spreads; we have seen large masses of the cliffs in the Isle of Wight crimsoned over with it in spots where no human hand ever would or could plant it, and it may also be found growing on old walls in various parts of the country.

It will be observed that the older writers we quote do not disprove the idea that even then it was naturalising itself amongst us. Gerarde speaks of the plant as a beautiful addition to his garden; but his garden was a botanical one, and included both wild and cultivated species, and nothing is more likely than that he would, if he saw such a plant growing on some old wall, at once gladly transport it to his garden. All lovers of nature are very much alike in sympathy after all, and as we remember the delight with which we transported a great milk-thistle from its home on the hedge-bank to our own ground, we fancy we entirely understand the feeling with which our quaint old Elizabethan worthy would sally forth and bring home his floral prizes. Our readers will also note Parkinson's word "chiefly;" and Edwards, in his "Flora Britannica" (or "Botanic Garden," to give the alternative title), gives hints on the cultivation of many rare exotics and foreigners, such as the Indian sacred bean, of familiar garden flowers like the lilac, and such undoubted natives as the oxlip, globe flower, green hellebore, yellow horned poppy, and flowering rush. Another illustration of the wide diffusion and complete naturalisation of the red valerian is found in the fact that it has a Welsh name, *Triaglog coch*. A plant that is so far known as to have a local name in the land of the Cymri has travelled far

from the stage where it was only known and duly labelled in the botanic garden.

The rich mass of crimson blossom and the spurred character of the flower will always render its identification easy, but to these we may add some few other details of its growth. The root-stock is perennial, and very freely branching, enabling it to take a firm hold in the crevices of which it has once gained possession. The stems are stout, as befits a plant that grows on the cliffs that face the ocean gales, between one and two feet long, and very smooth in texture. The leaves are long and pointed, growing opposite to each other in pairs, and are either entirely without any cutting in of the outline or are very slightly toothed. The flowers are very numerous, and either of a rich crimson colour or much more rarely pure white; the spur is a very marked feature, and may very readily be identified in our illustration of the plant. The fruit that succeeds the blossoms is small and dry; the border of the surrounding calyx forms an elegant feathery rosette or pappus. Each flower only contains one stamen, a very unusual number. The red valerian may be found in flower during the whole of the summer and well into the autumn months, its period of blossoming being from about June to September, the period of course varying somewhat according to the locality, the warm and sheltered character of the southern face of the Isle of Wight naturally leading to an earlier flowering and a longer continuance of blossom than we should find in other localities less favoured.

Though we speak of the plant as a valerian, and Linnæus himself included it in that genus, it has since, for reasons into which we need not here go, been placed in the genus *Centranthus*, this term being derived from the two Greek

words signifying "spur" and "flower." As the true valerians have not got this spur to the corolla, the present species is by some writers called the spur-flowered valerian—an unhappy compromise, for if it has a spur it is not a valerian at all. The old familiar name, red valerian, will do very well, as it is quite sufficiently near the true valerians to make the name hold in popular parlance. The specific name refers to the colour, so that its botanical name is especially descriptive, the crimson spur-flower. The special virtues of the red valerian do not seem to be very marked, but a plant that Gerarde brackets with it "helpeth paines about the backe and hucklebone;" so that if any one feels premonitory symptoms it is quite open to him to experiment on himself, and we can only wish him every success.

BOG ASPHODEL.

BOG ASPHODEL.

Narthecium ossifragum. Nat. Ord., Juncaceæ.

WE can well remember the satisfaction with which, after a long tramp on the Yorkshire moorlands, we first made acquaintance with the bog asphodel. All who have any practical knowledge of the wild moors of the north and the mountains of Wales or Westmoreland will be familiar with the subject of our illustration, as it is in the swampy and marshy bits of ground in these localities that one so often finds that the asphodel flourishes. Those who would gather it must not attach over much importance to such a detail as keeping one's boots dry, or they will have to be content with beholding it from afar, and the beauty of the plant richly deserves a closer inspection. The bone-breaking repute that it carries in its specific name bears record to an old belief that the bones of sheep feeding upon it become brittle and snap; but the plant

carries no such terrible power. Sheep, probably, would not even touch it if they had the opportunity, and a wise shepherd will not give them that opportunity; not, indeed, because he need dread the innoxious asphodel, but because he dreads the place wherein it grows. It is not the plant, but the wet, boggy ground in which it flourishes that proves a bane to the flock.

The star-like perianth of the flower is composed of six spreading and acutely-pointed parts of a brilliant yellow, and within these the anthers form a conspicuous feature. Each stamen, too, will be found to have the greater part of its filament—the slender part bearing the anther, or head—clothed with a thick, wool-like substance; and as this is white in colour, it readily attracts our notice on an inspection of the flower. The flowers form a stiff terminal raceme, rising well above the leaves, and the leaves all stand somewhat rigidly around the flower-stem, rising from near its base, and sheathing it. The foliage is very similar in form to that of the daffodil, but the leaves are much smaller; the whole plant is only a foot or so in height, and the leaves are about half this. The flower scape bears numerous scales. The plant is a perennial, and the roots creep a good deal, so that when the plant is once established it soon takes possession of the ground, and covers it with its golden spires.

The generic name, Narthecium, is derived from the Greek word *narthex*, a rod, probably from the straight upward growth of the flower-stem. The earliest botanists gave the name to a quite different species—the fennel, a plant equally characterised by a sturdy upward growth. Linnæus classed it as an Anthericum; and Dr. Hooker points out the curious fact that by an entirely undesigned

coincidence the name of the genus in which it is now placed contains exactly the same letters: the words form an anagram. The word asphodel was applied by ancient Greek writers to a plant that cannot now be satisfactorily identified, but the general balance of evidence would appear to be in favour of the narcissus, and the name of a close relative to this—the daffodil—is itself a corruption of the word asphodel. Why the present plant, which only bears a very distant resemblance to either the daffodil or the narcissus, should have got the name of asphodel, we are unable to say. Parkinson describes two species—a greater and a lesser marsh "asphodill;" but there is no such distinction really, and we can only suppose that two plants sent to him were so unequal in development that he thought they must be really different species, and his illustrations, rude in character as they are, bear out this idea. He says of them:—"Both these sorts have beene found in our owne land, as well as beyond sea, in the marrish and wet gronds, the former not only in Lancashire, as Gerarde hath recorded, but in divers other places, and the last likewise by Egham, not farre from the river side there, and in the west parts of the land also."

The older writers always endeavoured to find a "vertue" for everything; and Gerarde records that in some parts of the country young women used the bog asphodel to dye their hair of a yellowish tint, and called it maiden-hair. He also calls it King's Speare, Asphodelus luteus, and Hastula regia. Though he evidently prefers the name Lancashire Asphodel, and gives an illustration which he entitles Asphodelus Lancastria verus, he is not so utterly beyond conviction that the plant may be found elsewhere, as Parkinson seems to think. He shall, however, conduct his

own defence in his own words on the subject, which are as follows :—"The Lancashire asphodill groweth in moist and marish places neere unto the towne of Lancaster, in the marish grounds there, as also neare unto Maudsley and Martom, two villages not far from thence, where it was found by a worshipfull and learned gentleman, a diligent searcher of simples, and feruent louer of plants, who brought the plants thereof vnto me for the increase of my garden. I received some plants thereof likewise from Master Thomas Edwards, apothecarie in Excester, learned and skilfull in his profession, as also in the knowledge of plants. He found this asphodill at the foot of a hill in the west part of England, called Bagshot Hill, neere vnto a village of the same name." As a plant of the high moors, it is naturally more abundant in the north and west of England than in the south and east, as the former districts have thousands of acres of undrained, uncultivated upland, that supply it with all that is congenial to its well-being.

NETTLE-LEAVED BELL-FLOWER.

NETTLE-LEAVED BELL-FLOWER.

Campanula Trachelium. Nat. Ord., Campanulaceæ.

WE can well remember the delight we ourselves felt on first coming across this beautiful flower, and those of our readers who are familiar with it will fully share our feelings. It appears to be more freely met with in the northern districts of Britain than in the south, though it is pretty commonly distributed throughout the country. The nettle-leaved bell-flower should be looked for in woods, though we have often seen it in sheltered hedgerows, and especially those overhung with trees. Its general habitat is very similar to that of another charming plant, the foxglove, and the large size and rich colour of its blossoms tend to make it very conspicuous. Any one who has at all studied the matter will have been struck by the comparative rarity of blue or purple flowers in our flora, yellow, white,

and pink being the prevailing colours; and it is no doubt partly on this account that we, even involuntarily, admire the more the soft turquoise-blue of the forget-me-not, the deeper blue of the germander speedwell, or the rich empurpled azure of the wild hyacinth.

One old name of the flower is the Canterbury-bell. It is difficult to see why the name of this particular place should be so identified with the plant. On turning to Prior's most valuable work on "The Popular Names of British Plants," we find that he says, "So named by Gerarde, from growing very plentifully in the low woods about Canterbury." On turning to the old herbalist's pages to verify this, it does not in any way appear that Gerarde himself bestowed the name. He simply states that the plant "growes very plentifully in the low woods and hedgerowes of Kent, about Canterbury, Sittingbourne, Gravesend, Southfleet, and Greenehyth;" but he also records it as occurring at Greenwich, and "in most of the pastures about Watford and Bushey, fifteene miles from London." All these localities are in the districts that a man like Gerarde, a resident in the metropolis, might be expected to know well.

To make matters more involved, Gerarde, without any valid reason, calls another species of campanula the Coventry-bell. He seems to have seen these "pleasant bel-floures" growing freely at Coventry and Canterbury respectively, and as the natives gave them the local names, he adopted them without fully considering that plants there abundant might be at least as common in fifty other localities. We have seen the Canterbury-bell in profusion in Yorkshire, and about Kendal the plant is so abundant that it is worth the while of the poorer people to collect the young shoots, and

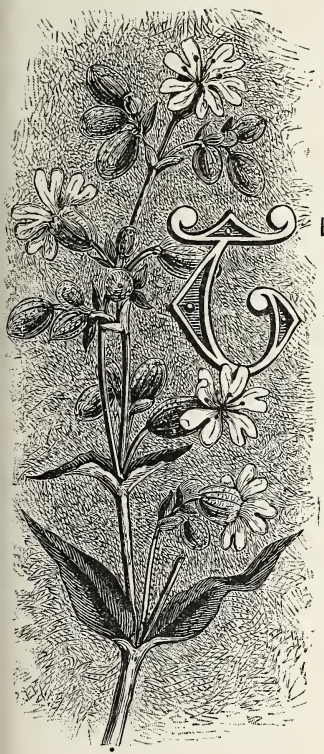
use them as a pot-herb. It has been suggested that at a time when so many of our plants received semi-religious titles, the Canterbury-bell may have been associated with the sainted Thomas à Becket, as thousands of pilgrims flocked yearly to his shrine in the cathedral, and a plant so abundant in the district would be very familiar to them, and would afterwards, whenever and wherever else seen, serve as a memorial flower. Many of the old monkish names are now dying out, but we may just point out, without staying to point out the wherefore, that the bulbous crowfoot was dedicated to St. Anthony, the ragwort to St. James, the hypericum to St. John, the cowslip to St. Peter, while other plants were associated with Saints Barbara, Barnabas, Patrick, Christopher, and many others.

The nettle-leaved bell-flower is a rather variable species, but it will always be readily identified by its foliage and its "rough sharp-pointed leaves, cut about the edges like the teeth of a sawe, and so like the leaues of nettles, that it is hard to know the one from the other, but by touching them." The upper leaves are small, somewhat long in proportion to their breadth, and upon very short foot-stalks, while the lower ones are broad and large, heart-shaped, and having long stems. The flower-stalks are few in number, and spring from the axils of the upper leaves. The corolla is campanulate or bell-shaped, hence the scientific generic name; and the resemblance is so far good that blue-bell, or bell-flower, is the popular name for all the species. The five stiff-looking segments of the calyx, and the five large anthers in the centre, are other prominent features. The plant is a perennial, and flowers during July, August, and September. It attains to a height of some two or three feet,

the stem being erect, rather stiff-looking, and the whole plant more or less clothed with hairs.

Besides the names we have given, the plant is sometimes called the great throat-wort, more possibly from the shape of its flowers suggesting its remedial application than from any inherent medicinal value, though the old authors do not fail to point out its service in "all paines and swellings thereof, being excellent good against the inflammation of the throte, and all manner of cankers and ulcerations of the mouth." As the throat had to be "gargarized" with a decoction of this plant and "allom," we may perhaps assume that the greater part of the virtue lay in the astringency of the latter. Sir Walter Scott, in his poem of "Rokeby," mentions "the throat-wort with its azure bells."

BLADDER CAMPION



BLADDER CAMPION.

Silene inflata. *Nat. Ord. Caryophyllaceæ.*

THERE are several species of campions—among which we have already figured the white lychnis, sea campion, and the pink campion. The ragged robin and the corn cockle we intend to place before our readers shortly. But here we deal with the bladder campion. Each year, at the same spot in our garden hedge, a specimen of this graceful and delicate plant springs up for our admiration; and while the gardener has full liberty in the matter of dandelions, groundsel, and many another wilding that has been so unfortunate as to display its attractions where they are unwelcome, our *Silene* is hedged about by household legislation that protects it from the spoiler. The stems are erect and loosely branching at their base, the few divisions into which they separate all preserving the general upright and slender character of the plant. These stems are ordinarily from one to two feet

high, though on open pasturage and exposed roadsides they sometimes fail to reach the former height, while we have sometimes seen them, when they spring up amidst a sheltering hedge or beneath the shadow of trees, attain to a greater height than the two feet we have given as the outside measurement of average plants.

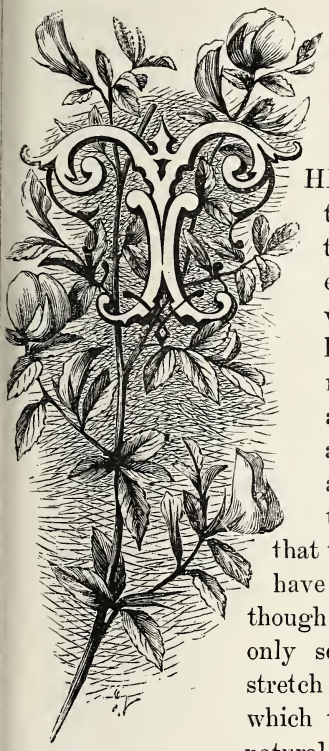
The form of the foliage is simple, and the outlines are merely continuously waved lines; there are no lobes or serrations. The leaves, too, are always in pairs, and the stem thickens at the points whence they are given off. We see this opposite growth of the foliage and swollen stem in all the campions, and, indeed, in all the members of the order. Garden pinks and carnations supply a very good illustration of this. The bladder campion varies somewhat in the size and shape of its leaves, some specimens showing either larger or more attenuated leaves than those we see in our illustration; but the departure from the type is not extreme in character, and those who have our illustration before them will have no difficulty in identifying any specimen of the plant that comes in their way, as it is a very typical piece. The flowers are fairly numerous as they grow in graceful terminal clusters on the summits of the slender stems, and the purity of their colour tends to make them more conspicuous and attractive. It will be noticed that they are ordinarily slightly drooping. The petals are five in number, though each is so deeply cleft that, at a hasty glance, they appear much more numerous. There is often a small scale on each petal at the point where the broad and spreading part terminates, and these form a little ring or crown round the centre of the flower. These little scales may, however, be much better seen in some of the other species, as in the bladder campion they

are always small, and are often entirely absent. The calyx, from its size and inflated character, is a very conspicuous feature; it rapidly increases in size as the buds swell and open and develop into fully-expanded flowers, and these in turn give place to the fruit. The calyx is very light in colour, of a more yellowish green frequently than the rest of the plant, and very prominently veined and reticulated. The whole is of one piece, or what is botanically termed monophyllous, but it bears at its summit five large teeth. The stamens are ten in number and the styles three. The bladder campion should be looked for in pasture-land, on railway banks, waste places, and by the roadside. Its flowering-season is from June to August. It is commonly distributed over Britain.

The word campion is said to be derived from the use of the flower as a wreath for the champions at the public games in the middle ages. This may possibly have been so, but it seems in the last degree unlikely, as the plants would have to be searched for far and wide to procure them in sufficient quantities for any considerable number of chaplets, and all the campions droop very quickly after gathering. Many other and more suitable plants could be obtained for the crowns of the victors. The prefix to our present species refers, of course, to its bladder-like calyx, and the specific title *inflata* scarcely needs translation, so evidently does it bear its meaning on its face. The plant was once called the cucubalus, a word derived from the Greek words signifying a bad or noxious growth. It is evident that the name, first employed by Pliny, has been diverted from the plant to which he applied it, and to which it may have been most appropriate, and has by some

mediæval misconception been given to a plant altogether innoxious. The bladder campion is in some parts of the country called white-bottle. We are told by some authorities that the young shoots of the plant may be used as a substitute for asparagus, but on the whole we should think asparagus as a substitute for campion would be preferable. The leaves, too, are said to be not unpalatable when boiled, but we imagine there is much more theory than practice in these recommendations; we can hardly imagine any one laboriously blanching the young shoots, or filling a basket by slow degrees with the foliage of the plant. The bladder campion, though commonly distributed, is not to be found in abundance in every pasture; and those who would desire to collect its leaves would have to wander throughout a long summer's afternoon before the basket got filled. "It is said to be so effectual against the scorpion, that this herbe cast upon one doth make him of no force to envenome any." A plant so potent may be well content to forego culinary fame.

REST-HARROW.



THE REST-HARROW.

Ononis arvensis. Nat. Ord., Leguminosæ.

THE rest-harrow, like the bush-vetch, the subject of a previous illustration, is one of the numerous examples that may be met with of what are termed botanically papilionaceous flowers. The term is derived from the Latin word *papilio*, a butterfly, since the blossoms of all these plants have an upright and often gaily-coloured petal at the upper portion of each flower that to some people, at least, appears to have suggested one of these insects, though probably most of our readers will only see in this a very considerable stretch of the imagination. The order to which the rest-harrow belongs is a very natural one, as the plants composing it possess several marked characteristics in common that unite them to each other and sever them from other flowers. All the British species have flowers of the butterfly type, and in these the sepals are always so united as to form a calyx that seems like a deep cup; from this springs the corolla, very irregular in form, and consisting of five petals. The upper one of these in the expanded flower,

and that which in the bud covers all the others, is named the standard; it is generally by far the largest of the five. Beneath this spring two lateral forms, ordinarily called wings. Within these, again, are two smaller members, which often unite in a portion of their length and form a V-shaped base to the flower, and are therefore called the keel of the blossom, from the boat-like form they assume. The stamens are always ten in number, and will be found on dissecting the flower to be either monadelphous (one brotherhood) all united into one mass, or diadelphous (two brotherhoods), in which case nine of them are united together while the tenth is above these and free. The fruit is a pod; the peas and beans of our vegetable gardens are a ready illustration of the form. There are nineteen English genera, many of them containing a great many distinct species. The furze, broom, sainfoin, and the different kinds of vetches and clover are good and familiar examples amongst our wild plants, while the lupins of our flower gardens, and the trees often called Acacia, but which are more properly Robinia, are other equally well-known and easily accessible examples.

The rest-harrow, the subject of our present plate, is not uncommonly met with on poor land, by roadsides, and the borders of fields. It is the *Ononis arvensis* of the botanist. It is a plant that is subject to a considerable variation of form; in growth sometimes erect, sometimes weak and trailing; very variable, too, in the spinous character of the stem, as in some plants this is a marked feature, while others are almost unarmed.

The blossoms are generally a delicate rose colour, but may at times be found pure white. On the strength of some of the more marked of these differences, some

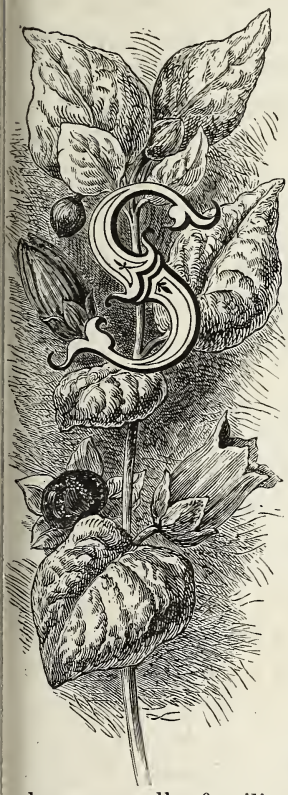
botanists have established a second species, but there seems but little justification for doing so, as the differences, even in their extreme form are but slight after all, and intermediate forms between the extremes that have been taken as specific forms are not at all uncommonly found. A true second species is the small rest-harrow, the *Ononis reclinata ;* it is, however, an exceedingly rare species here, though very common in many parts of Europe, and need not therefore claim more than this passing remark.

The flowers of the rest-harrow rise singly from the axils of the leaves, a somewhat peculiar feature, as in most of the pea-flowers they are grouped together either into globular heads, as in the clover, or arranged in long racemes as in the wood-vetch. The stamens are monadelphous; that is to say, they form one united brotherhood. The leaves are either simple, or, more ordinarily, composed of three leaflets, two laterals and a terminal member, as in the leaf of the common white clover. The pod is very small, and hardly protrudes beyond the enclosing calyx.

The rest-harrow derives its generic name from the Greek word for an ass, because it is said that the plant is eaten by that animal. The idea is very far-fetched, for even assuming the fact to be so, there are many other plants which, from their greater abundance and known attractiveness to the asinine palate, have a far greater claim to the name. We, however, go so far as to dispute the fact *in toto,* for, as our home circle includes one of those useful and much-abused quadrupeds, we several times attempted to get the plant tasted, but though proffered time after time with every blandishment, it was merely sniffed at and declined. It owes its common English name to its toughness, from a belief that when, during the preparation of the field, the

harrow arrives at its wiry and rooting stems it must perforce suffer a check that causes it to rest awhile before the obstacle is overcome. It is only fair here to observe that in some old books it is called the wrest-harrow; the idea involved is, however, much the same—that the toughness of its stems wrests the harrow from its course. It is also called cammock—a name that we cannot at all explain—and wild liquorice. This latter is a book name, not one in popular use. The true liquorice (*Glycyrrhiza glabra*) belongs to the same order; it has pale lilac flowers. It is a native of the south of Europe, but grows freely in the herb-gardens at Mitcham and elsewhere in England.

DEADLY NIGHTSHADE.



THE DEADLY NIGHTSHADE.

Atropa Belladonna. Nat. Ord., Solanaceæ.

STRIKINGLY beautiful as this plant is when the lurid purple bells are succeeded by the long rows of densely black berries, it has, most deservedly, so bad a reputation that it is seldom allowed to grow. The plant naturally has abundant means of increase, and would no doubt be not only widely distributed, but really common, were it not for the constant warfare waged against it. Its character is so distinctive that any one once seeing it cannot fail to recognise it, and as it is well that it should be recognised we are glad to include it amongst our series, though it will never be allowed to become really familiar, for the same reason that a man would not give his children prussic acid to "play shop" with, or let them have a loaded revolver to amuse them because it was too wet to go out. It is a plant that we should gladly see growing in our own garden, but we should dread the responsibility of putting it there, for,

if our younger children came to harm through its temptations, we should expect a jury to return a verdict of constructive homicide. The berries are luscious-looking and sweet to the taste, and have therefore frequently proved the cause of fatal accidents, children especially being attracted by them; and thus it is that Gerarde's advice is so generally complied with:—"If you will follow my counsell, deale not with the same in any case, and banish it from your gardens, being a plant so furious and deadly. Banish, therefore, these pernitious plants from all places neare to your houses where children do resort, which do oftentimes long and lust after things most vile and filthy, and much more a berrie of a bright shining black colour and of such great beautie."

The deadly nightshade should be sought after amongst old ruins and rough stony wastes in the South of England. It has occurred in more northerly localities, but is there probably the remains of a former cultivation of the plant, as, in spite of the great danger attending its use, it was employed medicinally in the Middle Ages. It grows very freely in many of the old chalk-pits in Kent. Gerarde found it in abundance at Highgate, in the north of London; but that particular locality has long since fallen into the hands of the builders. Several of the older writers speak of it as a common plant in the environs of the metropolis.

The root of the deadly nightshade is perennial, its stock very large, branched, and freely creeping. The stalks that spring from it are numerous, the thickness of one's thumb or so at their base, and reaching to a height of some three or four feet. They are longer, however, than they look, as they have a way of spreading outwards, and their upper extremities are almost horizontal for some distance. This

peculiar mode of growth renders the long lines of shining berries that fringe them very conspicuous to any one standing near enough to look down upon the plant. Parkinson says that the plant grows sometimes to the height of a man. This is a very indefinite measurement certainly, but we never ourselves saw the plant over four feet in height. The stems are round in section, branch at intervals, are often somewhat downy, and in open situations will be found to be of a dull purple tint. The leaves of the deadly nightshade are on short stalks, are of a pointed egg-shape, and have no notching or toothing of their margins. The lower leaves of the plant are considerably larger than the upper, and in all of them the veining is prominently marked. The stem leaves grow in pairs, but exhibit one marked peculiarity that would in itself serve to identify the plant, as these pairs always consist of one large and one much smaller leaf. Though the leaves are in pairs the flower-stalks that rise from their axils are always single, and each stalk only supports one blossom. This feature may be very well seen in our illustration. Sometimes a flower-stalk is given off at the forking of the stems. The flower-bearing stalks are always short, generally curved, rather thick-looking, and viscid to the touch. The flowers are bell-shaped, often rather drooping in direction, without odour, of a dingy or lurid reddish purple colour, somewhat viscid, externally glossy in surface, and marked with rather prominent veinings. The mouth of the bell is spreading, and cut into five equal segments. The calyx is slightly angular, and deeply divided into five segments; these are slightly unequal in size, and, like the stems, have a sticky feeling when touched. The stamens, from their length and the light colour of the anthers, are easily seen

on looking down into the flower. The anthers are recurved on the filaments that support them; two of these filaments are rather shorter than the other three. The seed vessel is a large and glossy berry, almost round, but greater in width than height, and when ripe of an intense black. On cutting it across with a sharp knife it is seen to consist of two cavities, and each of these is filled with numerous brown seeds.

The names of the plant are all suggestive of its powerful qualities. In the one we have hitherto used the dark shadow of death and the rest of the grave are not obscurely hinted at. Another name for it is the "dwale." The root of this is possibly the Danish word signifying torpor; or it has been suggested that it is derived from the Anglo-Saxon *dwal,* foolish, in allusion to the stupefying and maddening powers of the poison; or again, that we are to find its meaning in the French *deuil,* mourning. In Germany the plant is the "tollkraut" —*toll,* frantic; *kraut,* herb. In France it is the "morelle mortelle," and in Buckinghamshire the local name is somewhat similar—"devil's cherries." The generic name *Atropa* was bestowed by Linnæus, and refers to Atropos, one of the three Fates of classic mythology.

SELF-HEAL.

SELF-HEAL.

Prunella vulgaris. Nat. Ord., Labiatæ.

FEW of those who have sufficient interest in our wild flowers to take up our book at all will find the self-heal a plant unfamiliar to them, for its heads of purple flowers spring up amidst the long grass in profusion in almost any piece of meadow-land and pasturage. The plant is an annual, and every year there is a bountiful dotting over of rich violet in the long waving grass of the hay-field. The self-heal is ordinarily a sign of poor land, and grows most freely in moist situations, in what one hears farmers call a "cold" soil. Its blossoms should generally be looked for in June and July, but on hedge-banks and other situations where the mower's scythe does not cut short its career it may at times be found flowering throughout August. The root of the self-heal is exceedingly fibrous. The stems creep a good deal, and send down roots from their lower joints, and the flower-branches ascend to a height varying from a few inches to a foot or more. In open and exposed situations the plant is diminutive, while in more sheltered

spots it is larger in all its parts. The specimen we selected was fully a foot in height, but then it grew amidst the long grass of a country churchyard, and so got drawn up to the light in the general struggle for existence. The stems are often deeply grooved and rough to the touch; but here, again, the circumstances of the plant's life largely influence the habit. Like many another denizen of earth, a hard lot furrows and roughens it, while the sunshine of prosperity removes many an angle. The stems, and especially the lower portions of them, are often tinted with reddish-purple, and the whole branches freely, lateral stems being thrown off in pairs at almost every node, and increasing in length the lower their position on the main stems. The leaves are placed in pairs opposite to each other, and are borne on short foot-stalks. In form they are what is termed ovate—oval, with a more pointed extremity. It will be seen in our illustration that they stand boldly out from the stem: a very characteristic feature in the plant. They are often a little harsh and rough to the touch, from a number of little prominent points on their upper surface, and their outline is either one continuous line, as in the example before us, or they are very slightly indented along their margins. Though our British examples are very much of one character, the self-heal on the Continent is found to vary a great deal in many respects, such as size and colour of the flowers, and more especially in the foliage, the leaves in foreign specimens being sometimes deeply lobed. The flower-spikes are terminal on the branches; at first very short, compact, and cylindrical, but presently opening out somewhat. It maintains much the same size throughout its length, and does not show the gradually tapering form that we often see in the inflorescence of many

other flowers. Immediately beneath each spike of blossoms we always find one of the pairs of leaves, sometimes standing out, like the other leaf-pairs, at about a right angle with the stem, but perhaps more frequently thrown downwards, as in the illustration. The flowers are arranged in dense whorls or rings, and a pair of broad floral leaves is associated with each ring, and adds to the compact, tense look of the whole. There are ordinarily six flowers in each whorl, but they by no means come out simultaneously in any one ring, so that a somewhat ragged-looking head of flowers is produced. The calyx is tubular, and composed of two conspicuous parts, the uppermost of which is flat, and terminated by three small teeth, and the lower one rounder, and divided into long and pointed segments. The corolla is ordinarily of a rich violet colour, though we sometimes find it white or of a reddish-purple tint. When the plant is gathered the blossoms are found to shatter very easily. The tubular part of the corolla projects a little beyond the protecting tube of the calyx, and then opens out into two distinct portions. The upper lip is hollow and dome-like, and very simple in form; the lower lip is cut into three conspicuous segments, the central one having its margin finely toothed. The stamens, four in number, are very curious in form, and any one finding a flowering plant should go in for a little amateur dissection of the parts. The filaments are long and tapering, pale violet in colour, and two of them longer than the other two; each is very curiously forked at its summit, and on one of each of these pairs of forks we find the anther, the other fork having no very visible *raison d'être*. The style is thread-like, much shorter than the stamens, and terminating in a bifid or twice-cleft stigma. The calyx, after the flowering-season

is over, closes up in a very curious manner, to preserve the seeds; these are four in number, rather small, smooth, and brown.

The older name of the plant was "Brunella;" we find it thus given by Dodonæus, Rivinus, and the more modern writer Ray; and on taking down our Tournefort—"L'Histoire des Plantes," published in 1732—we find that he, too, adopts the old spelling. Linnæus, Bauhin, Fuchs (the botanist in whose honour the fuchsia is named), and other writers call it "Prunella," preferring the softer sound of the word, but in so doing losing sight of its meaning. Hooker says that the name of the plant is derived from the German word "braüne," the quinsy; and Parkinson tells us, "this is generally called prunella, and brunella from the Germans, who called it brunnellen, because it cureth that disease which they call die bruen, common to soldiers in campe, but especially in garrison, which is an inflammation of the mouth, throat, and tongue." Amongst the old herbalists' names for it we find the carpenter's herb, sickle-wort, hook-heal, and slough-heal.

FOXGLOVE.

THE FOXGLOVE.

Digitalis purpurea. Nat. Ord., Scrophulariaceæ.

FEW, perhaps, of our plants excel in beauty the graceful foxglove, the subject of the present plate, and it may fairly be considered a general favourite; for though tastes proverbially differ, there are yet some points on which there is a very general similarity that amounts almost to unanimity. Whatever plants may be the special objects of admiration in the diverse minds and tastes of our readers, all will, we think, place the present plant, if not actually on the throne as queen of all, at least in a position very near to it. It is, practically, a better position to stand second in the regard of a numerous body of admirers, than in the first place in the estimation of but few: the latter may be but the result of caprice, the former testifies

to general admiration—an admiration that the stately dignity and grace of the flower fully merit. One very fair test of the appreciation in which a plant is popularly held, is that its admirers transfer it from its native home that they may be able, in their gardens, to have more frequent opportunity of enjoying its beauty. This test is not of universal application, as some plants are too fragile to bear removal kindly, or too much wedded by nature to their wild homes to thrive in alien soil; but it may be accepted in a general way. Amongst the plants thus transplanted, we frequently find the foxglove; we, only this summer, saw a large garden in which there were hundreds of them in full blossom, and very beautiful they looked, rising in rows and masses behind the smaller plants in the borders and shrubberies. It appears to bear removal better than most plants, though any one who would see the foxglove in perfection, must see it as it rises from amongst the rocky *débris* on the mountain-side. In some parts of Wales and Devonshire we have seen it growing in such profusion, that hundreds of its long flowering stems could have been gathered in a space so limited, that to mention it would lay one open to a charge of gross exaggeration from those who have never had the good fortune to see a sight so beautiful. It may also commonly be met with in woods and on the hedge-banks throughout the greater part of Britain, though in some districts it is rarely or never met with in a wild state. The foxgloves in the garden that we have already referred to were the more prized because, though they throve excellently well, they were unknown in a natural state for miles and miles round. It appears to us curious that the plants should thrive and blossom abundantly in a

garden in a thoroughly rural district, and yet that in the hedgerows around they should be so entirely absent.

The foxglove is the *Digitalis purpurea* of the botanist. The genus contains but this one indigenous species in our flora, though several other species are found abroad, and some of these occasionally find their way into our gardens. The generic name is a Latin word, and signifies that which pertains to the *digitus*, or finger; and in some parts of the country the plant is called finger-flower. The specific title indicates its colour, though, like most purple flowers, it occasionally varies to white. It is a plant of many names; but as these are mostly of local and provincial bestowal, we need scarcely stop to mention them, nor attempt to analyse their meaning. Thimbles, fairy's dresses, the mouths of tigers, lions, and dragons, and many other objects, have been pressed into the service, from the rustic desire to find some appropriate similitude.

The foxglove ordinarily throws up one or more flowering stems; these are, on an average, from three to four feet high, though even this may at times be exceeded. These flowering stems give off a few leaves, that gradually diminish in size from below upwards; these are on the lower portion of the stem, the upper being occupied by the long line of graceful bell-like flowers. The radical leaves spread out like a large rosette; they are on long stalks, and of considerable size. The veins are a very prominent feature in all the leaves. The plant is ordinarily a biennial; in the first year, therefore, it forms the large tuft of broad and rugged radical leaves, and in the second year, at the appropriate season, the flower-stem is formed. It will sometimes continue to blossom for two or three years. It flowers from May to August. The blossom is

campanulate in form, but its under surface is considerably dilated. The interior of the flower is very curiously spotted. The calyx is composed of five unequal pieces; four of these are broad, the fifth and upper one much narrower than the others. As the blossoms of the main stem gradually fall away, smaller lateral stems are often thrown out from the axils of its leaves, and these may be seen fully in flower when the central stem shows little else but the relics of bygone beauty. These lateral stems are also promptly thrown up if by any mischance the central and principal stem sustains any serious injury.

The foxglove has long been held in esteem for its medicinal properties. The leaf is the part employed, those of the second year of the plant's life being selected and gathered during the period the blossoms are out. It figures as the main ingredient in several preparations in the modern pharmacopœia.

MUSK-MALLOW.

THE MUSK-MALLOW.

Malva moschata. Nat. Ord., Malvaceæ.

THE musk-mallow, the subject of our present illustration, while not so abundantly found as the plant which we shall shortly figure, and which by pre-eminent right is called the common mallow, is nevertheless not uncommonly met with in England and Ireland. Like its near ally the common mallow, it is only found in Scotland in the south; in the northern counties of Scotland it is wholly unknown.

In our remarks on the common mallow the many features that are common to all our species in the order *Malvaceæ* are pointed out, and we need not, therefore, here anticipate them. The musk-mallow is a perennial. From its root proceed several light and delicate-looking stems, erect in general direction, very slightly branching, and covered frequently with numerous hairs. The plant is ordinarily from one to two feet high; it may at times be found even higher, but this is exceptional, and will generally

be found to be the result of being drawn up from want of air and light, or some other disturbing cause, as it is on the average a decidedly smaller plant than the commoner species. The leaves vary a good deal in form according to their position on the plant. The lower leaves are reniform and divided into five or seven broad lobes that do not penetrate very deeply into the body of the leaf; those on the stem, on the contrary, are very deeply divided, and the segments are themselves narrow and much cut into and subdivided, a feature that at once serves to distinguish this from our other indigenous species. The flowers are large, and the form of the petals is rather peculiar, appearing almost as though the end of each had been bitten off in a somewhat ragged and deeply curved line. The colour is a delicate pink, varying at times to pure white. The blossoms spring either singly or in pairs from the axils of the leaves, but occur almost entirely at or near the ends of the stems, so that the general effect produced is that of a stem clothed with graceful and finely-cut bright green foliage, and crowned with a mass of large rose-coloured blossoms. The involucral bracts on the exterior of the calyx are very narrow in proportion to their length. The musk-mallow is the *Malva moschata* of the botanist. It owes its name to a slightly musky smell that is perceptible when the leaves are passed through the hand; the odour is very slight, however, and suggests but little of the fragrance of the plant after which it is called. The plant may be found in flower during July and August, and should be looked for in pasture-land and roadside wastes and hedgerows. Its masses of delicate pink blossoms, and their large size, are sufficient to make it very conspicuous, but it is much more commonly found in some districts than others.

The tree-mallow, or *Lavatera arborea*, is a fine allied species. The stems are often five feet high; the blossoms are large and of a rich purplish-rose colour. It is only found on maritime and insulated rocks, and is very local even under these limited circumstances. The name was given to the plant in honour of the two Lavaters, men of note in the scientific world as botanists in the earlier days of the science.

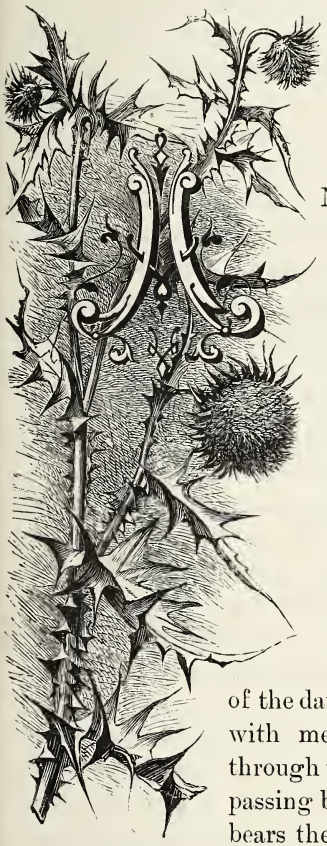
The dwarf mallow, or *Malva rotundifolia*, is very commonly met with by the roadside and other waste ground. It is altogether a much more diminutive plant than the common mallow, though in most other respects it is very similar to it. It was by the older botanists called the *M. vulgaris* or *M. neglecta*, names that need no translation, and amply testify alike to its commonness, and the ordinary consequences thereof in accordance with the old wise saw that so closely links together familiarity and contempt.

The marsh-mallow is the only remaining species on which we need dwell at all, as the hispid mallow is too rarely met with to be at all likely to come within the reach of any of our plant-seekers: it has been carried into some few places among other seeds, and appears to have fairly established itself in one or two places in Kent, but it has not the slightest claim really to a place in our flora. The marsh-mallow is the *Althæa officinalis* of science. It is often in common parlance confused with the musk-mallow, from a certain resemblance in the names. The generic name is from the Greek verb signifying to cure, while the specific name in like manner alludes to its officinal value. It flowers during August and September with a pale rose-coloured blossom, and must be looked for in marshy districts, not far removed from the sea. The plant grows

some three feet high or so, and is covered all over with a velvety down. The marsh-mallow has long been valued as affording a desirable remedial agent. Classic, mediæval, and modern authorities are unanimous in extolling it. The roots abound in a mucilaginous matter that is of great service in pectoral complaints; they are thick and fleshy, and much resemble those of the parsnip, and yield nearly half their weight of this valuable mucilage. Preparations of the marsh-mallow are included in our pharmacopœia, and instructions are therein given for the preparation of decoctions, syrups, and lozenges from the plant. Their action is demulcent and emollient.

Some of our readers may recall a passage in the book of Job, where it speaks of those who through want were fain to flee into the wilderness and cut up mallows for their support. It is always open to question in such matters how far our translators have correctly divined the herb intended, but we have good authority for saying that the poor in Palestine, in the present day, largely use a plant of this genus to eke out their scanty diet. The leaves of the common kind are at times used in our own country districts as an article of food.

NODDING THISTLE.



THE NODDING THISTLE.

Carduus nutans. *Nat. Ord., Compositæ.*

ANY one who has been in the habit of observing the plants of any rural district through which he has been passing, or in which it may have been his lot to live, will scarcely have failed to notice not only how very numerous the thistles are everywhere, but also how considerable is the variety of form that may be noticed amongst them. Their commonness arises from the fact that each of the very numerous flower-heads they bear produces an enormous number of seeds, and these, like those of the dandelion or groundsel, are furnished with means that enable them to float through the air for long distances. Every passing breeze liberates them in scores, and bears them far and wide. It is therefore a most difficult class of plants to keep in check, and it is unfortunately not only the careless agriculturist himself who suffers through the choking of his crops by the vigorous

growth of these usurpers, but his apathy inflicts no less serious damage on his luckless neighbours. All such plants should be carefully cut down and removed before the seeds develop. In old times many severe laws were passed requiring all such things to be rigorously extirpated, and it would surely even now be no less an advantage to more painstaking and careful landholders, if some similar check were in force. There is in some country districts an old proverb, often quoted, "One year's seeding makes seven years of weeding;" and we recall to mind at this present time as we write, a small plot of ground near to us, that in the hands of a careless farmer has been allowed to produce a vast crop of hurtful plants that will make their influence felt all round the district for years to come. Thorns and thistles are by many good people regarded as a necessary curse, associated with the first fall from primeval innocence, but there is certainly no warrant for any listless folding of the hands. Undoubtedly they contribute their share to the necessity for labour, but good wholesome work is very far from being a curse. All possibility of evil lies in wait for the idle; a boundless possibility of blessing awaits those who follow the Divine law, and become in some humble but true sort fellow-workers of Those of whom it is written, "My Father worketh hitherto, and I work."

Amongst the numerous kinds of thistles that may readily be met with, the spear plume thistle and the present species are perhaps the finest, regarding them simply as ornamental plants. In each species the general growth is bold and vigorous, the flower-heads large and rich in colour, and when seen in a situation where the circumstances of growth are propitious to them, they

form somewhat striking plants as they tower above their lowlier neighbours.

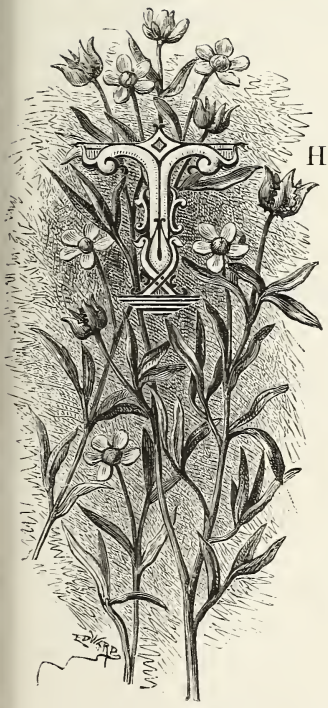
The nodding thistle, or musk thistle, as it is sometimes called, is more especially found on wide open wastes, on bleak stony moorlands, or the broad expanses of chalk downs of the south and west of England. Almost all lovers of plants will recall with pleasure the occasion when they first made the acquaintance of some new species, or saw some old favourite under exceptionally favourable conditions. To ourselves, the sight of the white water-lily especially recalls the memory of a quiet pool on the Wey, where, fringed all round with dark solemn firs, the stream itself was one mass of the large floating leaves and creamy white cups of this lovely flower. Meyringen is ever in our mind a key-word to recall the boundless profusion in its mountain pastures of the gay meadow saffron; and the present plant is a pleasant memory of a long walk once taken through a district that for miles was full of this stately thistle and that culminated in our first sight of Stonehenge.

The nodding thistle is the *Carduus nutans* of science. It has been suggested that the generic name is derived from the Celtic *card,* the spiny points of some of the flower heads of the thistle having possibly been used as a means of carding wool; or that it is a corruption from the Celtic *ard,* a sharp point, a feature that the thistles certainly possess to a somewhat painful degree. Neither of these derivations, we confess, appears to us quite satisfactory; but we are unable to suggest a better, and must perforce leave the question in the hands of our philological readers. The specific term *nutans* simply means nodding. Our English name for the various plants

of the genus is almost literally the same as that used by our Anglo-Saxon forefathers, *thistel*. The flowers of the present species have a very peculiar but fragrant scent, though we should hardly have thought of comparing it ourselves to musk, or calling the plant the musk thistle, on the strength of the resemblance in odour.

The nodding thistle is a biennial, and will ordinarily be found in blossom from about the end of May to the beginning of October. The plant grows from two to three feet high; the stems are stout and but little branched, and give the thistle a sturdy self-assertive appearance, that is no doubt really the result of the necessities of its position, as no plant of feeble growth could stand against the force of the winds as they sweep across the open moorland. The leaves are long and very deeply cut, their bases are prolonged some little distance down the stem, giving it a very prickly character. The flower-heads are large, the largest of all our thistle blooms, and very handsome both in form and colour. The involucre from which they spring—the part corresponding in position to the calyx in flowers of simpler type—is very large and prickly, and has a peculiar webbing of hairy or woolly lines.

CORN CROWFOOT.



CORN CROWFOOT.

Ranunculus arvensis. Nat. Ord., Ranunculaceæ.

THE corn crowfoot, like the scarlet poppy or the corn marygold, is one of the flowers that are to be specially searched for in corn-fields, though, like the flowers we have named, it may occasionally be found growing up amongst other crops. Hence one old writer terms it "the crowfoot of the ploughed fields," and another "the crowfoot of the fallowed field"; and its specific name *arvensis* and the old herbal name *Ranunculus arvorum* each point in the same direction and carry the same significance. Unlike many of our English plants, it seems to have no alternative names, but is always and everywhere the corn crowfoot, with the exception of the very local name of hedgehog, a name derived from the prickly ball of seeds. Our readers will on inspection of our illustration feel with us no doubt that the name is not by any means a bad one, and shows

a little more observation and sense than many of the names bestowed by country folk on the plants around them.

The corn crowfoot is an annual; it flowers during May, June, and July, and its seeds ripen soon after. It is one of those plants that, from the length of their flowering duration, may be found in all stages simultaneously; the opening bud, the fully-expanded flower, and the ripened seed may all be seen at the same time. The roots of the corn crowfoot are simple and fibrous, so that the plant could easily be eradicated; but the shattered seed readily vegetates, and the next season sees the plant in as full possession of the ground as ever. The stems of the plant are in general direction upright, a foot or so in height, and rather freely branching or forking. Before flowering the branches are somewhat nodding, but become rigid and erect afterwards. The general colour of the stems is a pale green, but near the joints they are often empurpled. The whole plant is smooth in texture. The leaves are mostly alternate in arrangement on the stems, though some of the upper ones are opposite; the upper leaves are on short stalks, the lower ones on longer ones. The forms of the leaves, too, vary according to their position on the plant, for while all are deeply cut into narrow segments, the upper ones show this in a still more marked degree than those near the base of the plant. On a closer examination of any of the leaves, they will be found to consist of three plainly-marked divisions, and these again are each more or less cut up into finer strap-like parts. Except for the colour, the general effect of the foliage is not unlike some of our common species of sea-weed. The leaves have not the rich clear green tint we ordinarily associate with vegetation, but are dull in colour, "resembling," as Gerarde

says, "the leaves of sampire, but nothing so greene, but rather of an overworne colour." This last adjective, though quaint, is a peculiarly happy and descriptive one, and very aptly describes the dull and somewhat faded-looking colour of the foliage. The flowers of the corn crowfoot are of rather a pale yellow; they have neither the rich golden hue nor the large size of the blossoms of most of its brother crowfoots or buttercups. By the way, we may here remark that in all the old herbals the plural of crowfoot is crowfeet. The corolla consists of five ovate petals, glossy on their inner surfaces, and rather conspicuously veined on the outer. The spreading calyx, made up of five sepals, is whitish yellow —in fact, in almost all the ranunculuses we find it a sort of faint colour echo of the corolla, instead of the decided green tint that we expect to see in most flowers. The stamens are comparatively few in number. The large and flattened carpels that form the fruit of the plant are a very curious and interesting feature, the prickles with which they are covered on each side tending to render them noticeable. In the small-flowered ranunculus, *R. parviflorus,* the carpels are covered with small tubercles, but the feature is by no means so conspicuous as in the present plant. In our remarks on preceding species of the genus we have explained the significance of the generic name, a significance far more appropriate in the case of many of the other crowfoots than in the present instance, as our plant is no lover of the damp low-lying meadow-lands, or the ditches and streams that are the home of most of the other members of the genus. The specific name is from the Latin word *arvum,* a ploughed field, and exactly describes the habitat of the plant. All these plants are called crowfoot from a fancied resemblance between a bird's foot and the form of the foliage,

The mediæval writers received in full faith much that the still earlier authorities asserted, hence their writing is a good deal taken up with endeavours to identify the plants enumerated by such authors as Pliny and Dioscorides, and described by them not so much from a botanical point of view as a medicinal. The ancient writers ascribed the most wonderful healing powers to the various plants, and it became therefore a matter of no small importance to duly discriminate and identify them in order that full benefit might be taken of the wealth of remedial virtue thus revealed. As Pliny has a *pes galli* and Dioscorides a *pes corvi*, we may easily see how such names obtained a footing with our early writers.

The corn crowfoot is the most potent of a potent genus. Three ounces of its juice given to a dog killed it in four minutes, and though animals as a rule instinctively avoid the plant, sheep have been killed through eating it. Fortunately it is not a plant of the pastures, and as it grows chiefly amidst the corn and amongst crops where cattle have no business to be, its deleterious qualities do no harm.

BROOM-RAPE.

BROOM-RAPE.

Orobanche major. Nat. Ord., Orobanchaceæ.

THE extraordinary-looking plant here presented to us is by no means uncommon, though the singularity of the colouring would lead one at first sight to suppose that it is merely some dead and withering plant amongst the surrounding verdure, and thus it would naturally get overlooked. A closer examination will, however, amply repay us, as the plant is full of quaint interest, and what at first glance seemed a mere dingy brown mass will reveal itself as a long line or spike of grotesquely-shaped flowers. Another curious feature is that the plant does not grow directly from the earth, but is parasitic on the roots of other plants. The plant on which it more especially grows is the common broom, but it may also be found on the furze and other leguminous or pea-flower plants. The stem of the broom-rape is from a foot to a foot and a half

high, very upright, unbranched, hollow in the interior, round in general section, but a good deal channeled on the exterior, and of a dull purplish-brown or rusty-red tint. It is freely clothed with dry and withered-looking scales, a feature that may be clearly seen in our illustration, and at its base it expands into a bulbous-looking mass, closely clothed and covered with numerous overlapping scales. As the stem ascends these gradually become less crowded together. The plant has no true leaves. The flowers, like the stems, vary in tint from a dull purplish brown to one of a more reddish tinge, a tint that all our readers who own a colour-box will readily recognise when we call it a burnt sienna; there is often a purplish bloom too that adds to the beauty, and altogether the dry and withered-looking thing will on closer view prove wonderfully varied in quiet gradations of yellow, red, brown, and purple, and by no means unworthy of the pencil of many who would probably cast it aside. On picking off one of the members we find it in all its parts a true flower, duly furnished, like the golden broom which waves above it, with calyx, corolla, stamens, and all else that is essential to a typical blossom. The corolla is irregular in form, and with a widely-opened mouth. The tube of the corolla curves considerably, and gives a quaintly grotesque look to the plant, that may be more readily seen in our figure than appreciated by any verbal description. The mouth of the flower is deeply cut into two prominent lips; the upper of these is concave and slightly cut into three segments, while the lower and larger lip is similarly cut, but the cuts are much deeper. Of the three lobes or segments thus formed, the central one is considerably the largest. All the segments are very much waved and

crinkled, so that the forms are somewhat difficult to trace, and the flower is consequently by no means an easy one to draw.

The literal translation of the Greek word *Orobanche* is "strangle-tare." The term was originally used by Theophrastus, and we find it again applied by Pliny and Dioscorides to another plant. What the plant of the first of these writers could be we have now no certain means of knowing, though the words he employs to describe it clearly indicate a climbing plant; but the *Orobanche* of the other two old writers agrees entirely in its description with the plant we have figured, and leaves little or no doubt on our minds that the name has been borne by the same plant for more than a thousand years. From its habit of living on other plants, and weakening them for its own support, it was called in some parts of Italy, we are told by Matthiolus, the wolf-plant. Its pernicious effects are confirmed by a later Italian writer, Micheli, who mentions its being proscribed in Tuscany by public edict. The English name is derived from the Latin *rapa*, a turnip. The tuberous mass of scales at the base of the stems is supposed to resemble a turnip, but the resemblance is of the slightest possible character. It is a fairly globular mass at the base of the stem, and that is really all that can be said; in colour, size, and almost every other respect, it is wholly unlike it. The mediæval title, *Rapum genistæ*, is evidently only a translation into Latin of the common English name. Curtis says that the strong astringency of the plant makes it a useful vulnerary, but the plant has a slightly uncanny look that would probably make many people rather chary of meddling with it. Both Parkinson and Gerarde refer incidentally to it when the broom comes

under their notice, and give a fairly good drawing of the broom plant and this parasite adherent to its roots. Parkinson speaks of it as follows: "From the rootes hereof in many places (but more often where no broome growethe, namely, by fields and hedgesides, and upon heathes) growethe another plant whose stalke is of the bignesse of a finger or thumbe, having a show of leaves on them and many flowers at the toppe, somewhat like unto the flowers of orchis, but larger, and of a deadish yellow colour." He commends the stems as a substitute for asparagus, but says they are far more bitter, and it appears, according to him, to be "a singular good helpe" for divers complaints. His reference to the broom-rape being more often than not found away from the broom, does not invalidate its name, but only indicates that it is parasitic on several species of leguminous plants.

PURPLE LOOSE-STRIFE.

PURPLE LOOSE-STRIFE.

Lythrum Salicaria. Nat. Ord., Lythraceæ.

ALMOST every one who has any experience of the country will have noticed the beautiful purple spikes of flowers which the purple loose-strife so plentifully throws up during the latter part of summer, and which render it so conspicuous an ornament on the banks of rivers and ponds. We have often wondered that our landscape painters have not more extensively availed themselves of such characteristic wild growths as the present to give an added charm to their work, and furnish it with another proof of its truthfulness to nature. The water-lilies, both yellow and white, and the great reeds and bulrushes are often introduced, and the fine large leaves of the butterbur are given very effectively; but we can only recall a very few instances of the introduction of the graceful and brilliantly-coloured purple loose-strife into representations of the tangled mass of vegetation that fringes the stream. The necessarily small

space at our disposal, if our book is to become, as we hope it may, the companion of our readers in their country rambles, only enables us to do scant justice to the plant. The loose-strife attains to a height of some four feet, and throws up numerous spikes, most of these being at least as long again as the specimen with which the exigencies of our space have compelled us to be contented. Each plant may possibly show an average of some half-dozen of these "long purples" flowering simultaneously.

The root-stock of the purple loose-strife is perennial, so that when the plant has once established itself it may be looked for regularly year after year, as the localities the plant affects escape the action of the plough or the sharp sickle of the reaper. The root is thick and branched, and widely extends itself. The stems are thrown up to a height of three or four feet, and are more or less branched. Any side-branches that may spring from the central stem preserve its general direction. The general aspect may be described as more aspiring than bushy. The stems are ordinarily four-cornered, but at other times hexagonal, the difference depending upon the arrangement of the leaves. The angles of the stems are sharply defined, and rough to the touch. The lower branches always spring in pairs or threes, but the upper ones seem less bound by law. The leaves are ordinarily opposite, in which case the stem is square in section, but we often find the foliage, as in our illustration, springing in threes; when this is the case, the stem section is hexagonal. The leaves are stalkless, and their bases more or less clasp the stem. In form they are lanceolate, and their outline is smooth, like that of the privet or the box; they are ordinarily about three inches long. The

upper surfaces are of a clear fresh green, the lower somewhat greyer, from the slight downy hairs over them.

The spikes of flowers are terminal and cylindrical. In our illustration we have been obliged to choose one in an early stage of development, so as to show the whole of it, and the result is, the flowers and buds are rather densely packed. As the spike develops it elongates, and it is then seen to consist of rings or clusters of flowers, separated by a slight interval of stalk, each cluster consisting of some six or eight blossoms. The corolla is composed of six petals, and the tubular calyx, into which they are inserted, is divided into twelve segments, six long and six short. A dissection of the flower shows us the twelve stamens; at the bottom of the tube are six short ones, and rising between these are six others about as long again. The anthers of the small ones are yellow, and of the others purple.

In speaking of the plant it is always necessary to particularise the colour, or confusion will arise between this and the yellow loose-strife, a plant quite different botanically, and one which we have already figured. Both are equally common, both are found in the same localities, and both are called loose-strife, and there the resemblance ends. The reason why it is called loose-strife has already appeared in describing the other species, as it was with that one that the name originated, and then got transferred without any special reason to the present plant. A certain conspicuous yellow plant, for a more or less satisfactory reason, received the name of yellow loose-strife; so it seemed reasonable to our forefathers that another conspicuous plant often found with it should be called the purple loose-strife. Our present plant is in Ireland the *Irebull caitin*,

and in Wales the *gwyarllys*, or sometimes the *Llys y milwr*.

The generic name *Lythrum* is from the Greek *lythron*, blood; a name that, it is supposed, was bestowed on it from the rich crimson of the flowers, but it certainly is not of the tint its name suggests, as there is a strong purplish tinge in the colour. De Haen suggests a medical use of the plant that is much more likely to have earned it its name. *Salicaria* is derived from the Latin *Salix*, a willow, and alludes to its willow-like leaves. It was by the older botanists classed among the willow-herbs; one, we see, calls it the *Salicaria vulgaris purpurea*, and another, in the lengthy fashion of those days, the *Salicaria foliis lanccolatis*. It was at one time held to be very valuable as an application to the eyes, strengthening them and preserving the sight.

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