

tember. The root is knobbed, woody, and fibrous: the stalk about two feet in height, obscurely quadrangular, erect, shrubby, and branching. The leaves do not exceed an inch in length, and one third of an inch in breadth, are sessile, of a somewhat glaucous deep green colour, elliptical, entire, punctured, and stand in pairs. The flowers are produced on one side, in long half-verticillated terminal spikes, and intermixed with leaves. The calyx is persistent, nearly tubular, divided at the edge into five acute teeth, striated, and of a purplish colour at first, but afterwards green: the corolla is violet-coloured, with a long whitish tube; the upper lip short, round, and notched at the apex; the lower one separated into three segments, the undermost of which is inversely ovate. The filaments are crowned with simple anthers; the style is slender and bifid; and the seeds are four, at the bottom of the calyx.

Qualities. — The leaves of hyssop have an agreeable aromatic odour, and a bitterish moderately warm taste; qualities that appear to depend on a volatile oil of a yellow colour, which can be obtained separate by distillation with water. It is elevated by alcohol also; but soon exhales, and the spirit loses the odour it had when newly distilled.

Medical properties and uses. — Hyssop is stimulant and tonic. It has been recommended in hysteria; and was formerly employed in catarrhal and other pulmonary affections with the view of promoting expectoration; but the stimulant properties of hyssop render its use doubtful in these diseases; and as a tonic it scarcely merits the least attention.

INULA. *Spec. Plant. Willd.* iii. 2089.

Cl. 19. Ord. 2. Syngenesia Superflua. Nat. ord. Compositæ discoideæ Linn. Corymbiferae Juss.

G. 1489. Receptacle naked. Pappus simple. Anthers ending in two bristles at the base.

Species. I. *Helenium*. Elecampane. *Med. Bot.* 2d edit. 64. t. 26.

Smith Flora Brit. 890. *Flora Danica*, t. 728.

Officinal. ENULA CAMPANA; RADIX. *Dub.* Elecampane root.

Syn. Inula Laleniere (F) Alantwurz (G.) Enula Campana (L.) Enula Campana (S.) Usululason (Arab.)

This species of inula is an indigenous perennial, found occasionally in pastures and rich moist soils¹, flowering in July and August, and ripening its seed in September. The root is thick, branched, externally of a brown or grey colour, and internally white. The stem, which rises about three feet in height, is leafy, round, and furrowed; branched near the top and villous. The leaves are large, ovate, serrated, veined, of

¹ Not unfrequent in Essex. *Hudson.* Between Worcester and Ludlow, and Bishop's Castle and Newton. *Smith.* I have seen it near Ewell, Surry.

a deep green colour on the upper surface, and on the under reticulated, tomentose, and whitish: the radical ones are petiolate, but those of the stem sessile and embracing. The flowers are terminal, solitary, large, and of a golden colour. The calyx is scaly; the exterior scales are large, ovate, imbricated, and externally tomentose; the interior are narrow, linear, equal, and chaffy. The florets of the ray are numerous, spreading, twice the length of the calyx, linear, with the apex tridentate. The anthers end in two bristles at the base. The seeds are quadrangular, smooth, slightly curved, and furnished with a somewhat chaffy pappus. The receptacle is reticulate and papillous.

The roots of elecampane found in the shops, are generally obtained from garden plants. They are fit for use in the second year of their growth; and at this age are preferable to the older roots, which become stringy and woody. They should be dug up in autumn.

Qualities.—Elecampane root when dry has an aromatic, yet slightly foetid odour; and when chewed, the taste is at first disagreeable, glutinous, and in some degree resembling that of rancid soap; then aromatic, bitter, and hot. Both water and alcohol extract its virtues: the tincture possessing more of the bitterness and pungency of the root than the watery infusion. The decoction, after standing some hours, deposits a white powder resembling starch in appearance; but its properties show it to be a distinct principle; and it has therefore been named *inulin*.¹ In distillation with water this root yields a concrete flaky substance, which seems to hold an intermediate place between camphor and volatile oil in its nature.²

Medical properties and uses.—Elecampane is usually ranked as a tonic; and supposed to possess deobstruent, diuretic, and expectorant properties. It was formerly regarded as a remedy of great efficacy in dyspeptic affections, flatulencies, palsy, dropsies, uterine obstructions, and pulmonary complaints: but Cullen observed, that its diuretic powers were trifling; and could not discover that it possessed any expectorant properties.³ It is scarcely ever used by the regular practitioner. The dose of the powdered root may be from ʒj to ʒj.

*IRIS.*⁴ *Spec. Plant. Willd.* i. 224.

Cl. 3. *Ord.* 1. Triandria Monogynia. *Nat. ord.* Ensatae *Linn.*
Iridæ Juss.

¹ This substance which was first noticed, and its properties investigated, by Rose; was named by Dr. Thomson, *System of Chemistry*, 4th edit. iv. 697.

² *Newman's Chem. by Lewis*, 2d edit. ii. 216.

³ *Mat. Med.* ii. 459.

⁴ "Iris a celestis arcus similitudine nomen obtinuit." *Dioscorides*.

G. 97. Corolla six-parted; the alternate segments reflected. Stigmas petal-like.

* Bearded with ensiform leaves.

Species 7. *I. florentina*. Florentine Iris. *Med. Bot.* 2d edit. t. 262.

Sibthorp Flora Græca. 28.t. 39.

Official. IRIDIS FLORENTINÆ RADIX. *Edin.* The root of Florentine Iris.

Syn. Iris. de Florence (F.) Violenzwurzel (G.) Ireos (L.) Iris (S.)

This species of iris, which is found in a wild state in Carniola, the island of Rhodes, Laconia, and other places of the south of Europe, is cultivated in our gardens¹, flowering in May and June. The root is tuberous, horizontal, somewhat jointed, and sends off many fibres from the under part. The leaves spring directly from the root, spreading in opposite directions, are sheathing, sword-shaped, vertical, nerved, curved inwards at the apex, and of a sea-green colour, yellowish at the base. From amidst them the stem rises upwards of a foot in height, erect, simple, naked, round, and commonly bearing two flowers. The flowers are large, of a pale whitish blue colour, erect, terminal, and odorous, bursting from a ventricose, nerved, floral leaf: the petals are alternate, three larger and three smaller: the larger have thickish claws about an inch long, bordered with a thin edge, green on the outside, and bearded within with yellow-tipped white hairs: the border is an inch in width and longer, reflected, whitish, and striated near the flexure: the smaller are whitish blue, stand erect, are bent inwards with a reflected margin; and have thick attenuated greenish claws. The anthers are white, covered by the stigmas, which have the colour of the corolla, and are cleft at the apex into two acute, serrated, upright segments. The capsules are three-celled, containing many seeds horizontally placed.

The roots of the Florentine iris are brought in a dry state from Leghorn, packed in large casks. They are in irregular knobbed pieces, with the cuticle pared off; of a dirty yellowish white colour, and full of small holes, which mark the places whence the radical fibres issued. The best pieces break with a rough, but not fibrous, fracture.

Qualities. — These roots when recent have a bitterish, nauseous taste, and are very acrid; but this acrimony is lost by drying. In their dry state they are brittle, easily pulverized, have a sweetish bitter taste, with a slight degree of pungency, and the agreeable odour of the violet; for which they are chiefly valued. When chemically examined, they appear to consist principally of fecula, with a portion of mucilage and saccharine

¹ It was cultivated by Gerarde in 1596.

matter: and to contain malic acid, as their infusion strikes a brown colour with sulphate of iron.

Medical properties and uses.—The fresh root is cathartic, and has been recommended in dropsies; the dry is nearly inert: but in neither state does it merit a place in the list of materia medica.

JUNIPERUS. *Spec. Plant. Willd.* iv. 851.

Cl. 22. *Ord.* 13. *Dicæcia* Monadelphia. *Nat. ord.* Coniferæ.

G. 1841. Male. *Amentum* ovate. *Calyx* a scale. *Corolla* 0. *Stamens* 3. Female. *Calyx* three-parted. *Petals* 3. *Styles* 3. *Berry* three-sided, irregular, with the 3 tubercles of the calyx.

Species 6. *J. Sabina.* Savine. *Med. Bot.* 2d edit. 10. t. 5.

Species 10. *J. communis.* Common Juniper. *Med. Bot.* 2d ed. 13.

t. 6. *Smith Flora Brit.* 1085. *Eng. Bot.* 1130.

1. **JUNIPERUS SABINA.**¹

Officinal. **SABINÆ FOLIA.** *Lond.* **JUNIPERI SABINÆ FOLIA.** *Edin.*

SABINA; FOLIA. *Dub.* Savine leaves.

Syn. *Sabinne* (F.) *Sadebaum* (G.) *Sabina* (L.) *Sabina* (S.)

This shrub is a native of the south of Europe and the Levant; but has been long cultivated in our gardens, flowering in May and June. It seldom rises above three feet in height; is covered with a brown bark, and divided into numerous subdivided branches; which are completely invested with very small, erect, firm, opposite, pointed leaves, of a bright green colour, that lie over each other, and terminate the branches in sharp points; giving the whole shrub a very lively aspect. The male and female flowers are on different plants. The male catkin consists of three opposite flowers placed in a triple row, and a tenth flower at the end: and at the base of each flower is a broad scale fixed laterally to a columnar pedicel. There are filaments in the terminal flower only; tapering and united at the base, with simple anthers, which are sessile in the lateral flowers. In the female flowers, the calyx is three permanent scales; the petals are stiff, sharp, and also permanent; and the germen supports three styles with simple stigmas. The fruit is a spurious fleshy berry of a blackish purple colour; marked with tubercles the vestiges of the calyx and petals, and containing three small hard seeds.

Qualities.—The leaves and tops of savine have a strong, heavy, disagreeable odour, and a bitter hot taste, with a considerable degree of acrimony. These qualities depend on an essential oil, which is obtained in considerable quantity by distillation with water. Both water and alcohol extract its active principles; and Lewis found that “on inspissating the spirituous tincture, there remains an extract consisting of two distinct substances, of which one is yellow, unctuous or oily,

¹ *Ægæus* Dioscoridis. There are two varieties of Savine; the variety β is our plant.