

distilled water was first observed by Geoffroy to be milky, and mixed with flocculi of a cineritious concrete volatile oil, partly swimming, and partly sinking in the water. He also ascertained that it was fusible, and compares it to camphor or benzoic acid. Neumann likewise examined it, and considered it as a peculiar substance, having some resemblance to camphor. He found that it melts with a gentle heat, and when cold, appears softer and more unctuous; that it never assumes a crystalline form, but when dry proves opaque and crumbly; that laid on burning coals it totally exhales; that it is soluble in alcohol, but insoluble in water; and that by keeping it gradually loses the smell of elecampane. It has also been discovered by Rose to contain a matter having some analogy with starch, the properties of which have been described under the title of Inulin.

According to Funke's analysis, elecampane root contains, 1. A crystallizable volatile oil; 2. A peculiar feculum; 3. An extractive matter; 4. Free acetic acid; 5. A crystallizable resin; 6. Albumen; 7. Fibrous matter. The ashes contain carbonates of lime and of magnesia, silica, and a trace of iron.

Medical use.—It is a gently stimulating medicine, nearly similar in its action to angelica. The extract is merely a slight bitter, as the essential oil is totally dissipated in the preparation.

JUNIPERUS.

Willd. g. 1841. *Smith, g.* 421. *Dioecia Monadelphica.*—
Nat. ord. *Coniferae*.

Sp. 10. *Willd. sp.* 1. *Sm.* JUNIPERUS COMMUNIS. *Ed. Lond. Dub.*

Common juniper.

Off.—The berries and tops.

a) BACCÆ JUNIPERI. *Lond. Dub.*

BACCÆ JUNIPERI COMMUNIS. *Ed.*

b) CACUMINA JUNIPERI. *Lond.*

THIS is an evergreen shrub, growing on heaths and hilly grounds in all parts of Europe. It flowers in May. The berries are chiefly brought from Holland and from Italy. The Italian berries are in general reckoned the best. Juniper berries have a strong, not disagreeable smell, and a warm pungent sweet taste, which, if they are long chewed, or much bruised, is followed by a bitterish one. Their predominant constituents are essential oil, and a sweet mucilaginous matter.

Medical use.—To the oil they are indebted for their stimu-

lating, carminative, diaphoretic, and diuretic properties. They are most commonly used in the form of infusion, as a diuretic drink in dropsy. The essential oil may be separated by distillation. It possesses the same properties in a higher degree, and imparts them to ardent spirits. The peculiar flavour, and well-known diuretic effects of Hollands, are owing to the oil of juniper. The decoction and extract are very inert preparations of the class of bitters.

Every part of the plant contains the same essential oil; therefore an infusion of the tops is likewise diuretic. The wood, also, was formerly officinal. In warm countries a resin exudes from the juniper-tree. It is called sandarac, and is often mixed with mastich. It is not a pure resin, for, according to Mr Giese, about one-fifth of it is not soluble in water, or in alcohol, but in ether, resembling in these respects copal.

Sp. 6. JUNIPERUS SABINA. Ed. Lond. Dub.

Savine.

Off.—The leaf.

F *FOLIA JUNIPERI SABINÆ. Ed.*

OLIA SABINÆ. Lond. Dub.

THIS is an evergreen shrub, a native of Siberia and Tartary, but not unfrequent in our gardens. The leaves have a bitter, acrid, biting taste, and a strong disagreeable smell: distilled with water, they yield an essential oil in considerable quantity.

Medical use.—Savine is a warm stimulating medicine, capable of producing diaphoresis, and increasing all the secretions, but apt to excite hæmorrhagy, especially from the uterus. It is also recommended as an anthelmintic, and is said to be very efficient in the cure of gout.

Internally, a conserve of the fresh leaves is exhibited in doses of from half a drachm to a drachm.

Externally, the leaves are applied in the form of powder or infusion to warts, carious bones, and old ulcers, and in cases of gangrene, psora, and tinea; an excellent issue ointment is also prepared with the powder. The essential oil is a very active remedy.

Sp. 14. JUNIPERUS LYCIA. Ed. Lond. Dub.

Olibanum.

Off.—A gum resin.

GUMMI-RESINA JUNIPERI LYCIÆ. Ed.

OLIBANUM; gummi-resina. Lond. Dub.

OLIBANUM is principally collected in Arabia, and brought from Mecca to Cairo, from whence it is imported into Europe. It consists of transparent brittle grains of different sizes, not larger than a chesnut, of a red or yellow colour, having little taste and a peculiar aromatic smell. Neumann got from 480 grains, 346 alcoholic, and 125 watery extract, and inversely, 200 watery, and 273 alcoholic. The distilled spirit and oil both smelt of olibanum, but no oil separated. Braconnot says it is composed of a gum and a resin, acquiring peculiar properties by the action of nitrous acid. Olibanum forms a transparent solution with alcohol, and a milky fluid when triturated with water: it is not fusible, but inflammable, and burns with an agreeable smell. It is the frankincense of the ancients; and the diffusion of its vapour around the altar still forms part of the ceremonies of the Greek and Roman catholic churches.

KINO. *Ed. Lond. Dub.*

Succus spissatus eucalypti resiniferæ. *E.*

Resina buteæ frondosæ. *D.*

Arboris, nondum descriptæ, Africanæ, gummi resina. *L.*

Kino, the inspissated juice of the brown gum-tree of Botany Bay. The resin of the *Butea frondosa*. The gum-resin of a non-descript African tree.

KINO was first noticed by Dr Fothergill, who received it from a druggist as a very fine kind of dragon's blood, and described it as the produce of an African tree called the *Pau de Sangué*. In Moor's travels up the Gambia, there is a very imperfect account of the tree from which it exudes, and a copy of directions from the African company to their factors, to collect and purchase this gum: but it seems to have been brought to them only in very small quantities, and mixed with gum Senegal. This kind is no longer to be met with in commerce, and is not even mentioned by Mr Jackson among the exports from Mogodore, or by Mr Winterbottom, in his account of Sierra Leone.

I have found in commerce three kinds of kino, easily distinguished by their external appearance.

The first is in very small jet-black fragments, perfectly opaque, without smell, crackling under the teeth when chewed, not colouring the saliva, after some time imparting only a slight astringent taste, not fusible, and difficultly reduced to powder. Powder dark chocolate-brown. Although this has been the longest known in commerce in this place, I have not been able to trace the place of its origin.

The second is in large fragments, on some of which the