

reside chiefly in the cortical part of the dried berry. Water, alcohol, and ether extract its virtues. The watery infusion is of a brown colour, and reddens litmus infusion. With solution of sulphate of iron it immediately strikes a deep black colour, and slowly lets fall a precipitate. Nitrate of mercury precipitates it of a yellowish brown; superacetate of lead of a dirty green; and nitrate of silver of a deep reddish brown colour. It is also precipitated by infusion of yellow cinchona bark. The sulphuric and muriatic acids redden it, and throw down pale rose-coloured precipitates. The nitric acid forms no precipitate, but gives it a yellow hue. The alcoholic tincture is rendered milky, and slowly precipitated by water: the ethereal, when evaporated on water, deposits drops of a greenish yellow volatile oil, a pellicle of a pungent nauseous tasted resin, and some extractive. Hence pimenta appears to contain a volatile oil, resin, extractive, tannin and gallic acid.

Medical properties and uses. — Pimenta is stimulant and tonic. It is useful as an adjunct to bitters in dyspepsia attended with much flatulence, and in arthritic and hysterical affections. The watery infusion of it sweetened with sugar, and with the addition of a little milk, is very readily taken by children; and is an excellent cordial in malignant measles, scarlatina, confluent small-pox, and the other exanthemata, when the fever assumes the typhoid type. But the principal use of pimenta in medicine is to cover the disagreeable taste of other remedies, or to give them warmth. The dose of the berries is from gr. v. to ʒij in powder, or swallowed in their entire state.

Official preparations. *Aqua Pimentæ*. L. E. D. *Oleum Pimentæ*. L. E. D.

NICOTIANA. *Spec. Plant. Willd.* i. 1014.

Cl. 5. *Ord.* 1. Pentandria Monogynia. *Nat. Ord.* Luridæ Linn. Solanææ Juss.

G. 379. *Corolla* funnel-shaped with the border plaited. *Stamens* inclined. *Capsules* two-valved, two-celled.

Sp. 1. *N. Tabacum*.¹ Tobacco. *Med. Bot.* 2d ed. 208. t. 77.

Official. TABACI FOLIA. *Lond.* NICOTIANÆ TABACI FOLIA. *Edin.*

NICOTIANÆ FOLIA. *Dub.* Tobacco leaves.

Syn. Tabac (F.) Taback (G.) Tabacco (I.) Tobaco (S.) Bujjirbhang (Arab.) Tam-bacu (H.) Tamracuta (San.)

Tobacco is an annual plant, a native of America, and par-

¹ This plant was first discovered by the Spaniards in Yucatan in 1520, and was there called *petun* or *petum*. It was afterwards transported to the West Indies and North America; and brought to Europe by Hernandez de Toledo, who came from Florida to Portugal in the beginning of the 16th century. The seeds were sent from Portugal to Catherine de Medicis by Jean Nicot, an agent of Francis II., after whom it received its generic name Nicotiana: the specific appellation being taken either from *tabac*, the name of an instrument used by the natives of America in the preparation of the herb; or *Tabaco*, the name of a Mexican province.

tially cultivated in Europe; flowering in July and August. The root is large and fibrous, and sends up an erect branching stem about four feet in height, round, villous, slightly viscid, and furnished with numerous large, alternate, entire, pointed leaves, the lowermost of which are about two feet long, and four inches broad; they are sessile, a little decurrent, with a strong midrib, and of a pale green colour on the upper surface, and still paler underneath. The flowers are in large terminal panicles, with long linear pointed bractes at the base of each division: the calyx is bell-shaped, obscurely pentangular, villous, slightly viscid, and cleft into five acute erect segments; the corolla is very viscid, its tube twice the length of the calyx, of a pallid greenish hue, and swelling into an oblong cup, which expands into five-pointed, plaited, pale red or rose-coloured segments: the stamens are the length of the tube of the corolla, and support awl-shaped, compressed, oblong anthers: the style, which is the length of the corolla, and crowned with a capitate slightly cleft stigma, rises from a conical germen, that changes to an ovate capsule containing many reniform small seeds, and opening at the apex.

Tobacco was at one period raised to a considerable extent in Yorkshire¹; but the cultivation of it for the purposes of trade has been long prohibited; and this country, as well as the greater part of Europe, is chiefly supplied from Virginia, where the plant is cultivated in the greatest abundance. There are two varieties of this species, known by the name of Virginian tobacco, a broad and a narrow leaved sort; but they do not differ in their medical properties. In Virginia the plant is not allowed to attain its full height, but is topped whenever a certain number of leaves is thrown out. It is cut down in August, and the plants hung up in pairs in sheds to dry, after which the leaves are separated from the stem, bound up in bundles, and packed in the hogsheads in which they are exported.

Qualities.—The recent leaves possess very little odour or taste; but when dried their odour is strong, narcotic, and somewhat fetid; their taste bitter, and extremely acrid. When well cured, their colour is yellowish green. They emit sparks in burning, and give out a suffocating smoke; and when distilled, yield an essential oil of a green colour, on which their medicinal properties are supposed to depend, and which is said to be a very virulent poison.² This oil is dissipated by the

¹ It was first cultivated in England in 1570, according to Lobel's account.

² The poisonous effects of this oil are very powerful: Mr. Barrow, speaking of the use which the Hottentots make of tobacco oil for destroying snakes, says, "A Hottentot applied some of it from the short end of his wooden tobacco-pipe to the mouth of a snake, while darting out his tongue. The effect was instantaneous as an electric

long coction of tobacco with water; yet in distillation with ether, water, or alcohol, no oil comes over. By infusion, however, it yields its active principles to both these fluids. Its deflagration shows the presence of nitrate of potash; and Bouillon la Grange discovered muriate of potash in its inspissated juice.¹ According to Vauquelin, tobacco appears to contain albumen or gluten, supermuriate of lime, acetic acid, nitrate and muriate of potash, muriate of ammonia, a red matter, soluble in alcohol and water, a green fecula, and a peculiar substance, on which the properties of the plant appear to depend, and which has been therefore named *nicotin*.²

Medical properties and uses. — Tobacco is narcotic, sedative, emetic, diuretic, cathartic, and errhine, whether it be taken into the stomach, or externally applied. The three first mentioned properties are sufficiently obvious, even from the effects which smoking or chewing it produce on persons unaccustomed to its use.³ These are, very severe sickness, headach, extreme debility, cold sweats, and sometimes, even convulsions. The production of such a state of the habit, however, being useful for relieving violent spasmodic constriction, tobacco is advantageously employed in obstinate constipation, ileus, suppression of urine, and incarcerated hernia, when other remedies fail of affording relief. The smoke is either thrown into the rectum by means of a pair of bellows of a peculiar construction, or an infusion of the leaves is exhibited in the form of enema.⁴ From its narcotic power also, the smoking or chewing tobacco has been found useful in allaying the pain of toothach; and smoking it has been recommended, and in some instances found useful in shortening, and rendering

shock: with a convulsive motion that was momentary, the snake half untwisted itself, and never stirred more; and the muscles were so contracted, that the whole animal felt hard and rigid, as if dried in the sun." *Travels in Africa*, p. 268.

¹ *Journal de Physique*, xxxix. 193.

² This substance is colourless, acrid, has the odour of tobacco, and like it occasions violent sneezing. It is volatile, poisonous, and produces colourless solutions with alcohol and water, from which it is thrown down by tincture of nut-galls. Vauquelin regards it as approaching the volatile oils in its properties. Vide *Ann. de Chimie*, tome lxxi. p. 139.

³ The custom of smoking tobacco was introduced into England by Sir Walter Raleigh; and was at one time extremely prevalent, but is now confined chiefly to the lower class of the people. In some parts of Europe, however, it is still regarded as the greatest solace and pleasure of the luxurious. It is a curious fact, that in England an edict was published against its use; that Urban the viiith anathematised those who used it in churches; and in Constantinople, where its use is now so general, the custom was in the beginning of the 17th century thought so ridiculous and hurtful, that a Turk found smoking was conducted in ridicule through the streets with a pipe transfixed through his nose.

⁴ The native doctors in India apply the leaves to the orifice of the anus. Vide *Ainslie's Mat. Med. of Hindostan*, 4to. p. 48.

more supportable the paroxysm of spasmodic asthma. The infusion has been used as an emetic; but the practice cannot be recommended: and notwithstanding the success of Dr. Fowler¹, who employed it in dropsy and dysury; its general effects are too violent for internal exhibition, and it is not equal as a diuretic either to squill or foxglove, which are more manageable remedies. In dysury, however, as Dr. Pearson has observed, its antispasmodic properties are of advantage, and consequently its use in that complaint is less objectionable.² The external application of a strong infusion of tobacco, or of a cataplasm of the moistened leaves themselves, is sometimes employed as a local stimulant in porrigo, scabies, and some other cutaneous eruptions; but even in this mode of using it, tobacco is apt to induce the same virulent effects as when it is internally administered in large doses.

But tobacco is chiefly employed as a sternutatory, and is the basis of all the kinds of snuff generally used. The powdered leaves, when snuffed up the nostrils of those unaccustomed to the use of snuff, excites vehement sneezing, and promotes a considerable discharge from the nostrils, answering all the purposes for which errhines are employed. As a luxury snuff has been used upwards of two hundred years in Britain, and has been taken in great quantities without any perceptible bad consequence; although it has been asserted that its immoderate use weakens the sight, produces lethargy, and gives a tendency to apoplexy. After the use of it has become habitual, it cannot be relinquished without considerable risk, arising from the suspension of the artificial discharge it produces, as Dr. Cullen observed from his own experience.³

The London College has given a formula for an infusion proper to be used as an enema; as a diuretic, that employed by Dr. Fowler is made with ʒj of the dried leaves, and ʒj of boiling water, and given in doses of ʒlx to ʒlxxx, twice a day. Official preparations. *Infusum Tabaci*. L. *Vinum Nicotianæ Tabaci*. E.

OLEA. *Spec. Plant. Willd.* i. 44.

Cl. 2. Ord. 1. Diandria Monogynia. Nat. ord. Separiæ Linn. Jasmineæ Juss.

G. 36. Corolla four-cleft, with subovate segments. *Drupe* one-seeded. *Species* 1. *O. Europæa*.⁴ European Olive. *Med. Bot.* 2d. ed. 280.

t. 93. *Silthorp Flora Græca*, t. 3.

Official. OLIVÆ OLEUM. *Lond.* OLEÆ EUROPEÆ OLEUM FIXUM. *Edin.* OLEUM OLIVARUM. *Dub.* The oil of the olive.

Syn. Huile d'Olive (F.) Olivenöl (G.) Olio d'Ulive (I.) Azeite (S.)

¹ *Med. Reports on the Effects of Tobacco*, &c.

² *Practical Synopsis*, &c. 229.

³ *Materia Medica*, ii. 437.

⁴ *Ελαια αγραια* Dioscoridis.