

From its effect, in permanently dilating the pupil, Professor Reimarus proposed, and tried with success, the dropping a little of the infusion into the eye, a few hours before performing the extraction for the cataract, with a view of facilitating the operation.

AVENA SATIVA. *Ed.*

*Willd. g. 142, sp. 13. Triandria Digynia—Nat. ord. Gramina.*

Oats.

*Off.*—The husked seed; groats.

AVENÆ SATIVÆ SEMEN. *Ed.*

AVENÆ SEMINA. *Lond.*

THIS is a well-known annual plant, which is very generally cultivated in northern countries, and in many places furnishes their principal subsistence. When simply freed from the husks, this grain gets the name of groats, but it is more frequently ground into meal. Groats are made use of in broths. Oatmeal is baked with salt and water into cakes, or, with the same additions, is boiled to form porridge, two very important articles of food in this country. An infusion of the husks in water, allowed to remain till it becomes acidulous, is boiled down to a jelly, which is called sowins. In all these forms it is nutritious, and easy of digestion.

Vauquelin found in the ashes of oats, phosphate of lime and silica.

*Med. use.*—Gruels or decoctions, either of groats or oatmeal, either plain or acidified, or sweetened, form an excellent drink in febrile diseases, diarrhoea, dysentery, &c. and from their demulcent properties, prove useful in inflammatory disorders, coughs, hoarseness, roughness, and exulcerations of the fauces. Porridge is also frequently applied to phlegmenous swellings, to promote their suppuration.

BITUMEN PETROLEUM, v. s. *Petroleum Barbadosense. Ed.*

PETROLEUM. *Lond.*

PETROLEUM BARBADENSE, s. s. *Bitumen Petroleum. Dub.*

Rock oil. Barbadoes tar.

BITUMEN is now employed as the generic name for several inflammable bodies of different degrees of consistency, from perfect fluidity to that of a brittle but very fusible solid, and of little specific gravity. They are insoluble in alcohol or in water, combine with essential oils and sulphur, decompose only a small proportion of nitrate of potash by deflagration, and on inflammation leave little or no residuum. Bitumen—its

various states, is found in various parts of the world, in the Tauride, at Burmah, Zante, Barbadoes and Trinidad.

*Sp. 1. NAPHTHA.* It is nearly as colourless, transparent, and fluid as water. Specific gravity 0.729 to 0.847, of a highly penetrating, yet not disagreeable smell, somewhat like that of rectified oil of amber, very volatile, and remaining fluid at zero Fahrenheit.

*Sp. 2. PETROLEUM.* Not so fluid, transparent, or colourless, as the former; smell less pleasant. Specific gravity 0.878.

*Sp. 3. MINERAL TAR.* Viscid; of a dark colour; smell sometimes strong, but often faint. Specific gravity 1.1.

*Sp. 4. MINERAL PITCH.—Maltha.* Brittle in cold weather; of a dark colour; opaque. Specific gravity probably 1.07.

*Sp. 5. ASPHALTUM.* Very brittle; fracture conchoidal; glassy lustre; no smell, unless when melted or heated. Specific gravity 1.07 to 1.65. Fusible and inflammable.

According to Mr Kirwan and Mr Hatchett, the first species, by exposure to the air, and gradual decomposition, passes successively through the intermediate states, till at last it is converted into asphaltum. When partially decomposed, the remaining naphtha may be separated by distillation from the superabundant charcoal.

The first species, which is no longer officinal, is found abundant in Persia; but what we receive comes from the Dutchy of Modena in Italy. It is very rarely met with in the shops; the second, mixed with a little of the third, and some subtle oil, is usually sent us instead of it.

*Medical use.*—Petroleum is at present very rarely employed as a medicine; though, if the finer kinds could be procured genuine, they seem to deserve some notice. They are more agreeable than the oil of amber, and milder than that of turpentine, of the virtues of both of which they participate. They are principally recommended by authors for external purposes, against pains and aches, in paralytic complaints, and for preventing chilblains. For these intentions, some of the more common mineral oils have been made use of with good success. An oil extracted from a kind of stone coal has been extolled among the common people, under the name of British oil, for rheumatic pains, &c.; even this is often counterfeited by a small portion of oil of amber added to the common expressed oils.

The Barbadoes tar is found in several of the West-India islands, where it is highly esteemed by the inhabitants as a sudorific and in disorders of the breast and lungs; though in

cases of this kind, attended with inflammation, it is certainly improper; they likewise apply it externally as a discutient, and for preventing paralytic disorders.

BOLETUS IGNIARIUS, v. s. *Agaricus*. Ed.

*Cryptogamia, Fungi*.—Nat. ord. *Fungi*.

Female agaric, or agaric of the oak, called, from its being very easily inflammable, Touchwood or Spunk.

THIS fungus is frequently met with on different kinds of trees in Britain, especially the cherry and plumb; and is said to have been sometimes brought into the shops mixed with the true agaric of the larch: from this it is easily distinguished, by its greater weight, dusky colour, and mucilaginous taste void of bitterness. The medullary part of this fungus, beaten soft, and applied externally, has been much celebrated as a styptic, and said to restrain not only venous but arterial hæmorrhagies, without the use of ligatures. It does not appear, however, to have any real styptic power, or to act otherwise than dry lint, sponge, or any other soft fungous application. It is best when gathered in August or September.

It has been analysed by Bouillon Lagrange, who found it to contain, 1. An extractive matter soluble in water, sulphate of lime, and muriate of potass. 2. The residuum incinerated gave phosphates of lime, magnesia, and iron. 3. Alcohol extracted very little resin. The alkalies also indicated the presence of an animal matter, but in less quantity than in the *boletus agaricus*, which also differed in containing a free acid and much resin.

BORAX. See SUB-BORAS SODÆ.

BUBON GALBANUM. Ed. Dub. Lond.

Willd. g. 546, sp. 2.—*Pentandria Digynia*.—Nat. ord. *Umbellate*.

Off.—The gum-resin called Galbanum.

BUBONIS GALBANI GUMMI RESINA, vulgo Galbanum. Ed.

GALBANUM; gummi resina. Dub.

GALBANI GUMMI RESINA. Lond.

THIS plant is perennial, and grows in Africa. It abounds with a milky juice, which sometimes exudes from the joints of the old plants, but is more frequently obtained by cutting them across some inches above the root. The juice which flows from the wound soon hardens, and is the galbanum which is brought to us from Syria and the Levant.

The best sort of galbanum consists of pale-coloured pieces,

about the size of a hazel nut, which, on being broken, appear to be composed of clear white tears, of a bitterish acrid taste, and a strong peculiar smell. But it most commonly occurs in agglutinated masses, composed of yellowish or reddish and clear white tears, which may be easily torn asunder, of the consistence of firm wax, softening by heat, and becoming brittle by cold, and mixed with seeds and leaves. What is mixed with sand, earth, and other impurities, and is of a brown or blackish colour, interspersed with no white grains, of a weak smell, and of a consistence always soft, is bad.

Galbanum is almost entirely diffusible in water, but the solution is milky; nor does wine or vinegar dissolve it perfectly. It is not fusible, but furnishes a considerable proportion of essential oil when distilled with water. Neumann obtained from a pound of galbanum by distillation with water six drachms of oil, besides what remained dissolved in the water. The watery extract amounted to about three ounces. It was somewhat nauseous, but could not have been recognised as a preparation of galbanum. From the same quantity alcohol extracted upwards of nine ounces and a half of a hard, brittle, insipid, inodorous substance (resin?).

*Medical use.*—Galbanum agrees in virtue with gum ammoniacum; but is generally accounted less proper in asthmas, and more so in hysterical complaints. It is exhibited in the form of pills or emulsion, to the extent of about a drachm. Applied externally, it is supposed to resolve and discuss tumours, and to promote suppuration.

*BUTEA FRONDOSA.* Dub.

*Willd. sp. plant. t. 3, p. 917. Diadelphia Monogymia. Roxburgh's Coromandel Plants, vol. 1, p. 22. t. 21. Plaso Rheed. Malab. 6, p. 29, tab. 16, 17. The Maduga of the Telingas.*

Leafy Butea.

*Officinal.*—Kino.

*KINO.* Dub.

I HAVE introduced this article, because the Dublin College have quoted it as furnishing the kino of the shops, though certainly erroneously; for not only is it well known that the greatest part of the kino of the shops is the product of the eucalyptus resinifera of Botany Bay, but Dr Roxburgh, whom they quote as their authority, distinctly mentions that the concrete juice of the maduga differs from kino. To prevent the error from being repeated or propagated, and still more, as the article seems worthy of further examination, I shall quote his own words.

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“ This is a middle-sized, or rather a large tree, not common in the low lands of this coast, but very common among the mountains; casts its leaves during the cold season, which come out again with the flowers about the months of March or April; seed ripe in June and July.

“ From natural fissures and wounds made in the bark of this tree during the hot season, there issues a most beautiful red juice, which soon hardens into a ruby-coloured, brittle, astringent gum; but it soon loses its beautiful colour if exposed to the air. To preserve the colour, the gum must be gathered as soon as it becomes hard, and closely corked up in a bottle. This gum held in the flame of a candle swells, and burns away slowly, without smell or the least flame, into a coal, and then into fine light ashes; held in the mouth it soon dissolves; it tastes strongly, but simply astringent; heat does not soften it, but rather renders it more brittle. Pure water dissolves it perfectly, and the solution is of a deep, clear, red colour. It is in a great measure soluble in spirits, but the solution is paler, and a little turbid; the watery solution also becomes turbid when spirit is added, and the spiritous more clear by the addition of water: diluted vitriolic acid renders both solutions turbid; mild caustic (?) vegetable alkali changes the colour of the watery solution to a clear, deep, fiery blood red; the spiritous it also deepens, but in a less degree; *sal martis* changes the watery solution into a good durable ink.”

“ These are, I think, proofs that it contains a very small proportion of resin; in which it differs from the gum resin called *kino*, or *gummi rubrum astringens Gambiense*, which the Edinburgh College has taken into their materia medica. I have used the recent gum in making my experiments, which may make some difference; but as this can be most perfectly dissolved in a watery menstruum, it may prove of use, where a spiritous solution of *kino* (being the most complete) cannot be properly admitted: consequently it may prove a valuable acquisition.”

The *butea superba*, a very large twining shrub, yields a similar juice.

CALX, recens usta. *Dub.*

CALX; calx viva.

a. Ex lapide calcareo.

b. Ex testis conchyliorum. *Ed.*

Quicklime recently burnt.

THE properties of lime have been already enumerated. It is scarcely found in nature uncombined, but is easily prepared from any of its carbonates, either mineral or animal, by the