

The resin may be exhibited,

1. In substance, made either into pills, or suspended in water in the form of an emulsion. In this way, from 10 to 30 grains of the resin may be taken in the day.
2. In solution; in alcohol. About half an ounce of the tincture, with three ounces of water, is a sudorific dose for an adult, if he attend to keep himself warm.
3. Combined with an alkali.

HÆMATOXYLON CAMPECHIANUM. *Ed. Dub. Lond.*

Willd. g. 830, sp. 10. Decandria Monogynia.—Nat. ord. Lomentaceæ.

Logwood.

Off.—The wood.

LIGNUM HÆMATOXYLI CAMPECHIANI, v. s. Lignum Campechense. *Ed.*

LIGNUM HÆMATOXYLI. *Lond. Dub.*

THIS tree was introduced from the Honduras into Jamaica, where it is now very common. The wood is firm, heavy, and of a dark red colour. Its taste is sweet, with a slight degree of astringency. It forms a precipitate with a solution of gelatine, very readily soluble in excess of gelatine, and with sulphate of iron it strikes a brighter blue than any other astringent I have tried. It is used principally as a dye-wood, but also with considerable advantage in medicine.

Its extract is sweet and slightly astringent; and is therefore useful in obstinate diarrhoeas, and in chronic dysentery.

HELLEBORUS.

Willd. g. 1089. Smith, g. 256. Polyandria Polygynia.—Nat. ord. *Multisiliquæ.*

Sp. 2. Willd. HELLEBORUS NIGER. Ed. Lond. Dub.

Black Hellebore.

Off.—Radix. The root.

THIS plant, which was formerly called *Melampodium*, is perennial, and grows wild in the mountainous parts of Austria, and on the Pyrenees and Appennines. The earliness of its flowers, which sometimes appear in December, has gained it a place in our gardens.

The roots consist of a black furrowed roundish head, about the size of a nutmeg, from which sort articulated branches arise, sending out numerous corrugated fibres, about the thick-

ness of a straw, from a span to a foot in length, deep brown on the outside, white or yellowish-white within, and of an acrid, nauseous and bitterish taste, exciting a sense of heat and numbness in the tongue, and of a nauseous acrid smell. These fibres only are used in medicine, and the head and decayed parts are rejected. For the roots of the real black hellebore, the roots of the *Adonis vernalis*, *Trollius Europæus*, *Actæa spicata*, *Astrantia major*, *Helleborus viridus fœtidus*, *Veratrum album*, and *Aconitum neomontanum*, are often substituted. The last is a most virulent poison, and may be distinguished by its roots being fusiform, or nearly globular, sending out numerous very brittle fibres, of a greyish-black or brown colour as thick as a man's finger, and repeatedly divided. But the surest way to avoid mistakes, is by the apothecary cultivating the plant itself in his own garden.

Neumann got from 2880 grains 380 alcoholic, and 181 watery extract; and inversely, 362 watery, and 181 alcoholic. Its active constituent seems to be of a volatile nature; for it loses its virtues by keeping, and water distilled from it has an acrid taste.

Medical use.—In large doses, hellebore is a drastic purgative; in smaller doses, it is diuretic and emmenagogue. It is principally used as a purgative in cases of mania, melancholy, coma, dropsy, worms and psora, and as an emmenagogue. But its use requires very great caution, for its effects are very uncertain, and affected by many circumstances.

It is commonly exhibited in the form of extract, although its activity be much dissipated by the preparation. An infusion and tincture certainly promise to be medicines of more uniform powers. Willdenow says, that the black hellebore of the ancients is his fifth species, the *Helleborus orientalis*.

Sp. 6. Willd. ; sp. 2. Smith. HELLEBORUS FÆTIDUS. L. D.
Bears foot. Stinking hellebore. Settiswort.

Off.—The leaves.

FOLIA HELLEBORI FÆTIDI. *Lond.*

FOLIA HELLEBORASTRI. *Dub.*

THIS species is a native of England. It is perennial, grows in shady places, and under hedges, and flowers in March and April. The leaves have an acrid, bitter, nauseous taste, and unpleasant smell, especially when they are fresh. When dried, they are frequently given as a domestic medicine to destroy worms; but they must be used sparingly, being so violent in their operation, that instances of their fatal effects are recorded.

HIRUDO MEDICINALIS. *Dub.*

The leech.

Cl. Vermes. Ord. Helmintheca.

ONLY one species of leech is used in medicine. It has a flat and slimy body, composed of rings, tapering towards the head, which is turbinated, commonly about two or three inches long, and of the thickness of a goose-quill, but capable of elongating or contracting itself very much. Its back is of a dull olive-green colour, divided into three nearly equal parts by four yellow longitudinal lines, the two lateral entire, the two central broken with black. Besides these, between the lateral and central lines on each side, there are two others, resembling a chain of black and yellow. The belly is turkey blue, irregularly marked with yellow spots. It attaches itself to solid substances by either end, being furnished with a circular sucker at the anal extremity, and a horse-shoe one at the head, with a triangular mouth in the centre.

They should be collected in summer, in waters having a clear sandy bottom, as the bite of those found in stagnant waters and marshes is said to cause pain and inflammation. For the same reason, the horse-leech, which is entirely brown, or only marked with a marginal yellow line, is commonly rejected, although they are used frequently in the North of Europe, and during the late scarcity of leeches have occasionally been employed, without any bad consequences, in this country. The vulgar story of their drawing the whole blood out of the body, by evacuating it at one end as fast as they sucked it in at the other, if true, would give them a superiority over the others, as when a sufficient quantity of blood was drawn, there could be no difficulty in making them quit, even without passing a ligature round their necks.

Leeches are best preserved for use in a bottle half filled with pure spring or river water, and covered with gauze or muslin, although they are said not to die even in an exhausted receiver, or in a vessel filled with oil. It is advisable frequently to change the water in which they are kept, although there are instances of their living many months, and even years, in the same water; and it is remarkable that water, in which they are, keeps much longer sweet than by itself. It is scarcely necessary to observe, that whenever the water becomes turbid, or foul, or gets an unpleasant smell, or any of the leeches dies in it; it should be changed. They should always be kept in a moderate temperature, about 50° Fahr. Some recommend throwing a little bran into the water; but it is so well ascertained that they will live for years without any such addition, that it is better not to attempt to feed them, until we are bet-

ter acquainted with their natural food. Though apparently so hardy, leeches are sometimes subject to great mortality, from unknown causes, as in 1798 and 1799. Infection, in some cases, seems evident. To avoid danger from this source, they should be kept rather in several small vessels, than in one large reservoir; and when fresh leeches are procured, they should always be kept by themselves, and their health ascertained, before they are added to the general stock. When they have gorged themselves with blood, they frequently die of indigestion, and cause a great mortality even among those which have not been used. To avoid this danger, leeches, which have recently sucked, should also be kept by themselves, until they have recovered their usual vigour. The treatment of the individuals which have performed their office has been the subject of some controversy. One recommends using no means to make them disgorge the blood they have sucked, but only to immerse them for half an hour in milk-warm water, and to change their water regularly every second day for some time; others advise stripping them, as it is called, that is, taking hold of the tail between the finger and thumb of the left hand, and drawing the animal through those of the right, so as to evacuate the blood; while others, again, apply salt to their heads, until they vomit all the blood they have sucked. Leeches change their skin frequently. At that time they are subject to indisposition, and will not bite. The removal of the old cuticle may sometimes be assisted by wiping them with a bit of soft linen.

Medical use.—Leeches are a very old and useful remedy in every case requiring local blood-letting. They cause less irritation than cupping, and can often be applied nearer to the part.

They are used,

1. In inflammation of all kinds, ophthalmia, phrenitis, cyanche, rheumatism, odontalgia, podagra.
2. In some cases of rubeola and scarlatina.
3. In suppressed natural or habitual hæmorrhagies, especially piles.
4. In plethora of the head, chincough, in mania from suppressed discharges.
5. Dysuria phlogistica.

The application of leeches is sometimes attended with difficulty. When changing their skin, they will not bite, and are averse to it in cloudy rainy weather, and in the evening. When kept out of the water some minutes before they are applied, and allowed to crawl on dry linen, they are said to bite more eagerly. The part to which they are to be applied

should be very well washed, first with soap and water, and afterwards with water, or milk and water, and if covered with strong hairs, should be shaved. When they are not inclined to bite, the part may be moistened with milk, or a little blood drawn from it by a scratch with a lancet. When they fix, they inflict, without causing much pain, a wound of three minute flaps, meeting at equal angles, from which they suck blood until they are gorged, and drop off spontaneously, or are forced to quit their hold by sprinkling on them a little salt. A large leech will draw about an ounce of blood; but the quantity may be much increased by bathing the wounds with tepid water, or applying over them cupping glasses. Sometimes it is even difficult to stop the bleeding; but it will always cease on applying a little lint, and continuing pressure a sufficient length of time.

HORDEUM DISTICHON. Ed. Dub. Lond.

Willd. g. 151, sp. 3. Triandria Digymia.—Nat. ord. *Gramina.*

Barley.

Off.—The seed called Pearl-barley.

SEMINA HORDEI DISTICHI. Ed. Dub.

SEMINA HORDEI. Lond.

BARLEY is an annual plant, cultivated in almost every country of Europe. Linnæus says, that it is a native of Tartary, but without adducing sufficient proof.

Pearl-barley is prepared by grinding off the husk of rough barley, and forming the grain into little round granules, of a pearly whiteness. In this state, barley consists almost solely of amylaceous matter; when boiled it forms an excellent article of nourishment; and a decoction of it, properly acidulated, is one of the best beverages in acute diseases.

Barley meal, according to Fourcroy and Vauquelin, contains a little unctuous coagulable oil, sugar, starch, an animal substance partly soluble in water, and partly in glutinous floculi; phosphate of lime and magnesia, silica, iron, and a little acetic acid.

HUMULUS LUPULUS. Lond.

Willd. g. 1795, sp. 415. Smith, g. 415, sp. 1. Diœcia Pentandria.—Nat. ord. *Scabridæ.*

Hop.

Off.—The strobiles dried.

HUMULI STROBILI. Lond.

THE hop is an indigenous perennial climbing plant, cultivated to a great extent in Kent, and some other counties in

England, for its leafy tops, which are used in the brewing of ale and porter; and as a very considerable revenue arises from the duty imposed on them, the use of all other bitters, such as quassia, &c. is prohibited by act of parliament; as, indeed, hops themselves once were. In the north of Europe, the young shoots are eaten instead of asparagus.

Hops are intensely bitter, aromatic, and astringent. By simple infusion the aroma is extracted; by short boiling the bitter, and by long-continued boiling, the aroma is dissipated, and the astringency predominates. The aroma resides in a volatile oil, and the astringency in a species of tannin, for sulphate of iron is blackened by it. It also contains a resin from which it has its bitterness, and a nauseous mucilaginous extractive, which alcohol precipitates from the infusion. Crystals of nitrate and muriate of potash appear in a long kept extract. The old writers say, that hops are added to malt liquors on account of the lithontriptic virtues which they were supposed to possess; thus Ray affirms, that since the Londoners added hops to their beer, they have been less subject to calculous complaints; and if we were to believe Lobb, a very hard urinary calculus was softened by a decoction of hops. Their evident effects are to impart an aromatic bitter, and to retard the acetous fermentation; for malt liquors keep longer in proportion to the quantity of hops added, and the bitterness decreases as the liquor becomes ripe, and disappears as it verges to acidity. Bergius supposes that the sweetness of the malt would hurt the stomach, were it not corrected by the bitterness of the hop. It also probably communicates a narcotic quality. A pillow stuffed with hops is said to have long been a popular remedy, and recent experiments have confirmed the fact, and led to the employment of various preparations of hops in medicine. The dose of the powder is about three grains, although it may be remarked that it is very difficult to powder. It produced sleep, in the experiments of Dr De Roches, in rheumatic, syphilitic, and pectoral complaints. The tincture seemed to possess the same anodyne virtues, but it was not so uniform in its action. Dr Maton gave it in the form of tincture and extract with the best effects, in articular rheumatisms. He did not observe that it had any influence in relaxing the bowels, but the contrary; and he is disposed to believe that the pulse is reduced in frequency, and increased in firmness, by this medicine, in a very direct manner. An ointment compounded with the hop is said, by Mr Freake, to have eased the violent pain in the last stage of cancer, when all other applications were ineffectual.

HYDRARGYRUM. *Dub. Lond.*

HYDRARGYRUS. *Ed.*

Mercury. Quicksilver.

The general chemical and physical properties of this metal have been already enumerated. We shall now treat of it more minutely, as forming an important article in the materia medica.

It is found,

1. In its metallic state :

a. Uncombined.

b. Alloyed with silver.

c. Alloyed with copper.

d. Combined with sulphur (Cinnabar).

e. Combined with hydroguretted sulphur (*Æthiops minerale*).

2. Oxidized :

a. Combined with muriatic acid.

b. ————— sulphuric acid.

There are considerable mines of mercury in Hungary and in Spain ; and what is employed in England is principally imported from the former country.

Mercury, taken into the stomach in its metallic state, has no action on the body, except what arises from its weight or bulk. It is not poisonous, as was vulgarly supposed, but perfectly inert ; but, in its various states of combination, it produces decided sensible effects. It quickens the circulation, and increases all the secretions and excretions. According to circumstances, the habit of the body of the patient, the temperature in which he is kept, the nature of the preparation, and the quantity in which it is exhibited, its effects are indeed various : it sometimes increases one secretion more particularly, sometimes another ; but its most characteristic effect is the increased flow of saliva which it generally excites, if given in sufficient quantity. Its particular effects, and means of producing each of them, will be noticed hereafter.

Mercury, or some of its preparations, is exhibited,

1. As an errhine. The sub-sulphate of mercury.

2. As a sialagogue. Mercury, in almost any form.

3. As a cathartic. The sub-muriate of mercury, (calomel).

4. As a diuretic. The oxides, the muriate, and the sub-muriate, combined with other diuretics.

5. As a sudorific. Calomel, conjoined with a sudorific regimen.

6. As an emmenagogue.

7. As an astringent. Muriate of mercury.

8. As a stimulant. Muriate of mercury.
 9. As an antispasmodic.
 10. As an anthelmintic.
- With some of these views, mercury is frequently exhibited,
1. In febrile diseases; in obstinate agues.
 2. In inflammatory diseases; in indolent and chronic inflammations, especially of the glandular viscera, as the liver, spleen, &c.
 3. In exanthematous diseases; variola.
 4. In profluvia: in dysentery.
 5. In spasmodic diseases; tetanus, trismus, hydrophobia, &c.
 6. In cachectic diseases; anasarca, ascites, hydrothorax, hydrocephalus, &c.
 7. In impetigines; scrofula, syphilis, lepra, icterus, &c.
 8. In local diseases; in caligo corneæ, amaurosis, gonorrhœa, obstipatio, amenorrhœa suppressionis, tumours of various kind, herpes, tinea, psora, &c.

Mercury occasionally attacks the bowels, and causes violent purging, even of blood. The effect is remedied by intermitting the use of the medicine, and by exhibiting opium.

At other times it is suddenly determined to the mouth, and produces inflammation, ulceration, and an excessive flow of saliva. In this case, too, the use of the mercury must be discontinued for a time; when, according to Mr Pearson's advice, the patient should be freely exposed to a dry cold air, with the occasional use of cathartics, Peruvian bark, and mineral acids, and the assiduous application of astringent gargles. On the other hand, the sudden suppression of ptyalism is not without danger. It is most frequently caused by cold liquids being taken into the stomach, or exposure to cold and moisture, while under the influence of mercury. The danger is to be obviated by the quick introduction of mercury, so as to affect the gums, with the occasional use of the warm bath.

Sometimes also a morbid condition of the system occurs during a mercurial course, and tends to a fatal issue. Mr Pearson has termed it Erethismus. It is characterized by great depression of strength; a sense of anxiety about the præcordia; frequent sighing; trembling, partial or universal; a small quick pulse; sometimes vomiting; a pale contracted countenance, a sense of coldness, while the tongue is seldom furred, or the vital or natural functions much disordered. In this state, a sudden or violent exertion of muscular power will sometimes prove fatal. To prevent dangerous consequences, the mercury must be discontinued, whatever

may be the stage, extent, or violence of the disease for which it has been exhibited, and the patient must expose himself freely to a dry and cool air, in such a manner as shall be attended with the least fatigue; and in the course of ten or fourteen days, he will sometimes be so far recovered, that he may safely resume the use of mercury.

In some particular habits it also produces an exanthematous disease, which sometimes proves fatal, well known by the name of erythema or eczema mercuriale and hydrargyria.

From many motives, both laudable and culpable, mercury has been tortured into a greater variety of forms than any other article of the materia medica. Of these Swediaur has given a complete table, in the last edition of his works on the venereal disease. It is too long for insertion in this place: I shall therefore give a systematic view of those mercurial preparations only which enter at least one of the British Pharmacopœias.

Mercury is exhibited,

I. Purified by distillation.

Hydrargyrum purificatum. *D. L.*

Hydrargyrus purificatus. *E.*

II. Oxidized.

A. Protoxide.

1. By precipitation, from its solution in nitrous acid, by ammonia,

Oxidum hydrargyri cinereum. *E. L.*

Pulvus hydrargyri cinereus. *D.*

2. By trituration,

a. With unctuous substances.

Unguentum hydrargyri. *E. D.*

_____ fortius. *L.*

_____ mitius. *L. D.*

Linimentum hydrargyri. *L.*

Emplastrum ammoniaci cum hydrargyro.

L. D.

_____ hydrargyri. *E. L.*

b. With saccharine substances,

Pilulæ hydrargyri. *L. D. E.*

c. With carbonate of lime,

Hydrargyrum cum creta. *L. D.*

d. With carbonate of magnesia,

Hydrargyrum cum magnesia. *D.*

B. Peroxide.

1. By the action of heat and air.

Oxydum hydrargyri. *D.*

Hydrargyri oxydum rubrum. *L.*

2. By the action of nitrous acid,

Oxidum hydrargyri rubrum per acidum nitricum. *E.*

Oxydum hydrargyri nitricum. *D.*

Hydrargyri nitrico-oxydum. *L.*

Unguentum oxidi hydrargyri rubri. *E.*

———— subnitratu hydrargyri. *D.*

Unguentum hydrargyri nitrico-oxidi. *L.*

III. Oxidized and combined with acids;

A. Potoxide.

1. With nitrous acid:

Unguentum nitratis hydrargyri. *L. E.*

———— supernitratis hydrargyri. *D.*

2. With sulphuric acid:

Sub-sulphas hydrargyri flavus. *E.*

Oxydum hydrargyri sulphuricum. *D.*

3. With muriatic acid:

a. By sublimation.

Sub-murias hydrargyri. *E. L.*

———— sublimatum. *D.*

Pilulæ hydrargyri sub-muriatis. *L.*

b. By precipitation.

Submurias hydrargyri præcipitatus. *E. D.*

4. With acetic acid:

Acetas hydrargyri. *E.*

Acetis hydrargyri. *D.*

B. Peroxide.

1. Muriate.

Murias hydrargyri. *E.*

———— corrosivum. *E.*

Oxymurias hydrargyri. *L.*

Liquor oxymuriatis hydrargyri. *L.*

2. Sub-muriate with ammonia,

Submurias hydrargyri ammoniatum. *D.*

Hydrargyrum præcipitatum album. *L.*

Unguentum sub-muriatis hydrargyri ammoniati.

D.

Unguentum hydrargyri præcipitati albi.

IV. Combined with sulphur.

1. By trituration,

Sulphuretum hydrargyri nigrum. *E. D.*

2. By sublimation,

Hydrargyri sulphuretum rubrum. *L.*

Sulphuretum hydrargyri rubrum. *D.*

HYOSCIAMUS NIGER. *Ed. Lond. Dub.*

Willd. g. 378, sp. 1. Smith, g. 99, sp. Pentandria Monogynia.—Nat. ord. *Solanaceæ.*

Common henbane.

Off.—The herb and seeds.

a) HERBA HYOSCIAMI NIGRI. *Ed.*

FOLIA HYOSCIAMI. *Lond.*

HERBA HYOSCIAMI. *Dub.*

b) SEMINA HYOSCIAMI NIGRI. *Ed.*

SEMINA HYOSCIAMI. *Lond.*

HENBANE is an annual plant, which grows in great abundance in most parts of Britain, by the road sides, and among rubbish, and flowers in July. Its smell is strong and peculiar, and, when bruised, something like tobacco, especially when the leaves are burnt; and, on burning, they sparkle, as if they contained a nitrate: when chewed, however, they have no saline taste, but are insipid, mild, and mucilaginous. Henbane, in a moderate dose, often produces sweat, and sometimes an eruption of pustules, and generally sound sleep, succeeded by serenity of mind, and recruited vigour of the body; but like the other narcotics, instead of these, it sometimes gives rise to vertigo, headach, and general uneasiness. With particular individuals, it occasions vomiting, colic pains, a copious flow of urine, and sometimes purging. In excessive doses, its effects are fatal; general debility, delirium, remarkable dilatation of the pupils of the eyes, convulsions, death. Upon the whole, like opium, it is a powerful anodyne; and, like cicuta, it is free from any constipating effect, having rather a tendency to move the belly.

Med. use.—From the writings of Dioscorides and others, it appears, that different species of henbane have been long used in the practice of medicine. By Celsus it was applied externally as a collyrium in ophthalmia; for allaying the pain of the toothach; and he gave it internally as an anodyne.

Its use, however, was for a long period entirely relinquished, until revived by Dr Störk of Vienna, in those cases where an anodyne is requisite, and where there are objections to the use of opium. It is employed in wandering rheumatic pains, in indurations of the mammæ from retained milk, painful swellings, whether scirrhus or not, scrofulous and cancerous ulcers, inflamed piles, and spasms of the bowels from increased irritability; under the form of a cataplasm of the bruised leaves, with bread and milk; of an ointment, made of the powder of the leaves, with wax and oil; of a simple powder, sprinkled on the sore, or of a decoction in milk as an injection. An infusion prepared by digesting the bruised leaves in olive oil, is also usefully applied in inflammation of the bowels, kidneys, testicles, urethra, painful retention of urine, and in blind piles.

An extract from the leaves, or from the seeds, is the form in which it is given internally; and it has been used with advantage in a variety of nervous affections, as mania melancholia, epilepsy, hysteria, trismus, and spasms from injured nerves, in rheumatism and arthritis, in glandular swellings, in obstinate ulcerations, and in every case where it is desirable either to allay inordinate action, or to mitigate pain.

its dose may be gradually increased from half a grain. Col- in pushed it to the length of 30 grains for a dose.

The extract of henbane has been lately much used by ocu- lists for dilating the pupils of the eyes, in order to facilitate the extraction or breaking down of the cataract, to diminish sensibility, to destroy adhesions, to reduce protrusions of the iris, and to dilate contraction of the pupil. The mode of ap- plication is by dropping a few drops of solution of the extract into the eye, or applying them with a camel's hair brush. The greatest effect is produced in about four hours, and it is generally over in twelve. Vision is not impaired during its action.

HYSSOPUS OFFICINALIS. *Ed. Dub.*

Willd. g. 1096, sp. 1. Didynamia Gymnospermia.—Nat. ord. *Verticillata.*

Hyssop.

Off.—The herb and leaves.

HERBA HYSSOPI OFFICINALIS. *Ed.*

FOLIA HYSSOPI. *Dub.*

HYSSOP is a perennial herb which grows wild in Germany. Its leaves have an aromatic smell, and a warm pungent taste. Their virtues depend entirely on an essential oil which rises in distillation both with water and with alcohol. Besides the general virtues of aromatics, they were formerly recommend- ed in humoral asthmas, coughs, and other disorders of the breast and lungs, and were said to promote expectoration.

INULA HELENIUM. *Dub.*

Willd. g. 1489, sp. 1. Smith, g. 369, sp. 1. Syngenesia superflua.—Nat. ord. *Compositæ radiata.*

Elecampane.

Off.—The root.

RADIX ENULÆ CAMPANÆ. *Dub.*

THIS is a very large downy perennial plant, sometimes found wild in moist rich soils. It flowers in July and Au- gust. The root, especially when dry, has an agreeable aro- matic smell: its taste, on first chewing, is glutinous, and, as it were, somewhat rancid; in a little time it discovers an aro- matic bitterness, which by degrees becomes considerably acrid and pungent.

Neumann got from 480 grains of the dry root, 390 watery, and 5 alcoholic extract; and inversely, 150 alcoholic, and 300 watery. In distillation, alcohol elevated nothing, but the