

as to pass through filtering paper Mr Davy discovered that it is soluble in excess of gelatine. It is also extremely soluble in ammonia, forming a red solution.

Medical use.—An infusion or decoction of galls may be used with advantage as an astringent gargle; and an ointment of one part of finely powdered galls to eight of any simple ointment is applied with success in hæmorrhoidal affections.

RHAMNUS CATHARTICUS. *Ed. Dub. Lond.*

Willd. g. 405, sp. 1. Smith, g. 105, sp. 1. Pentandria Monogynia.—*Nat. ord. Dumosa.*

Purging buckthorn.

Off.—The berry. The juice of the berries.

SUCCUS BACCARUM RHAMNI CATHARTICI. *Ed.*

BACCÆ RHAMNI. *Lond.*

BACCÆ RHAMNI CATHARTICI. *Dub.*

THIS tree, or bush, is common in hedges; it flowers in May and June, and ripens its fruit in September or the beginning of October. In our markets, the fruit of some other trees, as the blackberry bearing alder and the dogberry tree, have of late been frequently mixed with, or substituted for those of buckthorn. This abuse may be discovered by opening the berries; those of buckthorn have almost always four seeds, of the alder two, and of the dogberry only one. Buckthorn berries, bruised on white paper, stain it of a green colour, which the others do not. Those who sell the juice to the apothecaries, are said to mix it with a large proportion of water.

Medical use.—Buckthorn berries have a faint disagreeable smell, and a nauseous bitter taste. They have long been in considerable esteem as cathartics, and celebrated in dropsies, rheumatisms, and even in the gout; though in these cases they have no advantage over other purgatives, but are more offensive, and operate more severely, than many which the shops are furnished with. They generally occasion gripes, sickness, dry the mouth and throat, and leave a thirst of long duration. The dose is about twenty of the fresh berries in substance, and twice or thrice this number in decoction; an ounce of the expressed juice, or a drachm of the dried berries.

RHEUM.

Willd. g. 803. Enneandria Monogynia.—*Nat. ord. Oleracea.*

Sp. 3. RHEUM PALMATUM. Ed. Lond. Dub.

Palmated rhubarb.

Officinal.—The root.

RADIX RHEI PALMATI. *Ed.*

RHEI RADIX. *Lond. Dub.*

Sp. 2. RHEUM UNDULATUM. *Dub.*

Officinal.—The root.

RADIX RHEI UNDULATI. *Dub.*

BOTH of these species grow spontaneously in China, and endure the cold of our climate.

But it is not ascertained that the Chinese or Russian rhubarb is the dried root of either the one or the other. Pallas thinks that it is obtained indiscriminately from the *rheum undulatum*, *palmatum*, and *compactum*, more especially from the first; while Mr Sievers, an apothecary who was sent by Catherine II. on purpose to obtain the true rhubarb plant, and travelled for several years in the countries contiguous to that whence the rhubarb is brought, is of opinion, that the botanical characters of the plant, which furnishes it, are still unknown, excepting that it is said not to grow to a great size, and to have round leaves, which are toothed on the edges with almost spinous points.

All the rhubarb of commerce is brought from the Chinese town Sini, or Selim, by the Bucharrians. It grows on the neighbouring chain of lofty mountains which stretches to the lake Koko Nor, near the source of the river Chorico, between 35° and 40° north latitude. It is dug up by the poor peasants, cleaned from the earth, cut in pieces, strung with the bark on strings, and exposed to dry under cover in the shade for a whole year, when it is again cleaned and prepared for exportation.

There is a distinction made in commerce between the Russian and Chinese rhubarb, although they both come from the same country.

The Russian is dearer, and always good, as very great attention is paid both in purchasing and transporting it, by order of the government. In Kiachta, on the Russian frontier, it is received from the Bucharrians by a Russian apothecary, who examines it. The bad is immediately burnt, and the good is freed from its bark, woody parts, and every impurity, in the most careful manner. It is then sent to Moscow and to Petersburg, where it is again examined.

It is commonly in round pieces, of a reddish or whitish-yellow colour, feels gritty between the teeth, and is often perforated with so large a hole, that many pieces have the appearance of a mere rind.

The Chinese or East Indian rhubarb is brought by sea from Canton. It is heavier, harder, and more compact than the other; seldom perforated with holes, and either in long pieces, or with two flat sides, as if they had been compressed. Dr Lewis thinks that this is less aromatic, but stronger, than the Turkey; and that it has required less care in drying, from having been lifted when the root was less watery.

The general characters of good rhubarb are, its having a whitish or clear yellow colour, being dry, solid, and compact, moderately heavy, brittle; when recently broken, appearing marked with yellow or reddish veins, mixed with white; being easily pulverizable; forming a powder of a fine bright yellow, having the peculiar, nauseous, aromatic smell of rhubarb, and a sub-acrid, bitterish, somewhat astringent taste, and when chewed feeling gritty under the teeth, speedily colouring the saliva, and not appearing very mucilaginous. The size and form of the pieces are of little consequence; only we must break the large ones, to see that they are not decayed or rotten within; and we must also observe that they are not musty or worm-eaten. This is the more necessary, as damaged pieces are frequently so artfully dressed up, and coloured with powdered rhubarb, as to impose on the buyer.

The principal constituent of rhubarb is extractive matter, soluble both in alcohol and in water. By gentle decoction, it loses about one-half its weight. Rhubarb also contains some volatile odorous matter, on which its peculiar nauseous smell, and its activity as a purge, depend; for when dissipated, either by age or any preparation to which the rhubarb has been subjected, the powers of the medicine are almost destroyed. It also contains about one-sixth of its weight of oxalate of lime, and some tannin, which resides entirely in the dark-coloured veins, for on wetting the surface with a weak chalybeate solution, these alone are blackened, while the white veins do not change their colour. Neumann got from 480 grains 180 of alcoholic, and afterwards 170 watery extract; and inversely, 350 watery, and only 5 of alcoholic extract.

Various species of rhubarb, especially the palmatum, are cultivated in this country, and sometimes in very large quantities; so that there can be no doubt that the roots, the growth of this country, may be so prepared as to have the appearance, at least, of foreign rhubarb. The greatest difficulty seems to be the drying it properly. Its cultivation is easy. It is sown in spring, in a light soil, and transplanted next spring into a light soil, well trenched, and the plants set at a yard distance from each other each way. The third year some plants begin to flower, but the roots are not lifted till

the autumn of the sixth year. They are first to be washed in a large quantity of water, and after the fibres and small roots are cut off, to be well brushed in fresh water, and cut into pieces of a proper size. The brown bark is then rasped off, and they are again thrown into fresh water for three or four hours, in which they give out a great quantity of gummy matter. They are then taken out, and laid upon twigs to drip till next morning, and it is chiefly in this time that they exude at every part a white transparent gummy matter, resembling jelly. They are lastly placed in a stove, heated to 120° or 140° , till they dry. Twenty-five pounds of the recent root gave only about eight pounds dry. It is not, however, yet fit for sale. All the wrinkles must be rasped and filed out, and the pieces thus dressed put in a barrel fixed on an axis, and rolled about in it for twenty minutes or half an hour, when they get covered by a fine powder, formed by their rubbing against each other. Prepared in this way, Beaumé assures us that it not only has the appearance of foreign rhubarb, but like it could also be immediately powdered. The chief peculiarity in his process is the steeping the roots, after they are cleaned, in water, by which means they are deprived of a great quantity of gummy matter; and without this precaution, even when apparently perfectly dry, the roots cannot be reduced into powder, but become pasty under the pestle, until it be two years old, and even then the powder is apt to concrete into lumps, and to get a dark-brown colour. Four ounces of French rhubarb yielded to Beaumé 1644 grains of extract, and the same quantity of foreign rhubarb 1500. British rhubarb, as it is called, is cultivated in considerable quantities in the neighbourhood of Edinburgh, and sold at nearly the price of foreign rhubarb. It is easily reduced to a very fine powder, although it is merely washed and peeled before it be cut into proper pieces, and dried upon the top of a baker's oven. The leaf-stalks of rhubarb contain a pleasant acid juice, and are used for making tarts, which are very like those of quinces; and Olivier tells us that the Persians have long been in the habit of using the Rheum ribes in the same manner, preserved or raw.

Medical use.—Rhubarb is a mild cathartic, which operates without violence or irritation, and may be given with safety even to pregnant women and to children. In some people, however, it occasions severe griping. Besides its purgative quality, it is celebrated as an astringent, by which it increases the tone of the stomach and intestines, and proves useful in diarrhoea and disorders proceeding from laxity.

Rhubarb is exhibited,

1. In substance, in the form of powder. It operates more powerfully as a purgative in this form than in any other. The dose for an adult is about a scruple or upwards. On account of its great bulk, it is sometimes unpleasant to take a sufficient dose; its laxative effects are therefore often increased by the addition of neutral salts, or other more active purgatives. In smaller doses it often proves an excellent stomachic.

2. In infusion Rhubarb yields more of its purgative property to water than to alcohol. The infusion is, however, considerably weaker than the powder, and requires double the dose to produce the same effect. It is well adapted for children, but must be always fresh prepared.

3. In tincture. On account of the stimulating nature of the menstruum, this preparation frequently cannot be exhibited in doses large enough to operate as a purgative. Its principal use is as a tonic and stomachic.

The virtues of rhubarb are destroyed by roasting, boiling, and in forming the extract.

RHODODENDRON CHRYSANTHUM. *Ed.*

Willd. g. 867, sp. 7. Decandria Monogynia.—Nat. ord. *Bicornes.*

Yellow-flowered rhododendron.

Off.—The leaves.

FOLIA RHODODENDRI CHRYSANTHI.

THIS small shrub grows in the coldest situations, and highest parts of the snow-covered mountains in east Siberia, and especially in Dauria. The leaves are oblong, rigid, reflected at the edges, rough on the upper surface, smooth, and paler on the lower. When dried, they have no smell, but a rough, astringent, and bitterish taste. They also contain a stimulant narcotic principle; for they increase the heat of the body, excite thirst, and produce diaphoresis, or an increased discharge of the other secretions or excretions, and, in a large dose, inebriation and delirium.

Medical use.—In decoction, it is used in Siberia in rheumatism and gout. About two drachms of the dried shrub are infused in an earthen pot, with about ten ounces of boiling water, keeping it near a boiling heat for a night, and the infusion taken in the morning. Besides its other effects, it is said to produce a sensation of prickling or creeping in the pained parts; but in a few hours the pain and disagreeable symptoms are relieved, and two or three doses generally com-

plete the cure. Liquids are not allowed during its operation, as they are apt to induce vomiting.

RHUS TOXICODENDRON. *Ed. Lond.*

Willd. g. 566, sp. 17. Pentandria Trigynia.—*Nat. ord. Dumosæ.*

Poison oak.

Off.—The leaves.

FOLIA RHI TOXICODENDRI. *Ed.*

TOXICODENDRI FOLIA. *Lond.*

THIS is a deciduous shrub of moderate growth, a native of North America. The leaves are alternate, and stand upon very long leaf-stalks. Each leaf consists of three leaflets. It is said that its juice is so extremely acrid as to cause inflammation, and sometimes even sphacelation, in the parts touched with it.

Medical use.—It was first tried as a medicine by Dr Alderson of Hull, in imitation of the experiments of M. Fresnoi with the *Rhus radicans*. He gave it in four cases of paralysis, in doses of half a grain, or a grain three times a-day, and all his patients recovered, to a certain degree, the use of their limbs. The first symptom of amendment was always an unpleasant feeling of prickling or twitching in the paralytic limbs. We have given it in larger doses, without experiencing the same success. It was not, however, inactive. In one case the patient discontinued its use on account of the disagreeable prickling it occasioned; and in general it operated as a gentle laxative, notwithstanding the torpid state of the bowels of such patients.

RICINUS COMMUNIS. *Ed. Lond. Dub.*

Willd. g. 1720, sp. 2. Monoecia Monodelphia.—*Nat. ord. Tricoccæ.*

Palma Christi.

Off.—The seeds, and the fixed oil obtained from them. Castor oil.

a) *SEMINA RICINI COMMUNIS.* *Ed.*

SEMINA RICINI. *Lond.*

b) *OLEUM FIXUM RICINI COMMUNIS.* *Ed.*

OLEUM RICINI. *Lond. Dub.*

THIS beautiful plant grows in both Indies, Africa, and the south of Europe. It is of speedy growth, and in one year arrives at its full height, which seldom exceeds twenty feet.—

The capsules are prickly and triangular, and contain, under a thin, dry, grey, and black-marbled husk, a white oily kernel. The skin is extremely acrid; and one or two of the seeds swallowed entire operate as a drastic purgative or emetic.

The kernels yield almost a fourth part of their weight of a bland fixed oil, commonly called Castor oil. It is obtained from them either by expression, or by decoction with water. The former method is practised in Europe, the latter in Jamaica. To increase the product, it is common to parch the seeds over the fire, before the oil is extracted from them; but the oil thus obtained is inferior to that prepared by cold expression or simple decoction, and is apt to become rancid.

Genuine castor oil is thick and viscid, of a whitish colour, insipid or sweetish to the taste, and without smell.

Medical use.—As a medicine, it is a gentle and useful purgative: it in general produces its effects without griping, and may be given with safety where acrid purgatives are improper, as in colic, calculus, gonorrhœa, &c.: some likewise use it as a purgative in worm cases. Half an ounce, or an ounce, commonly answers with an adult, and a drachm or two with an infant.

The aversion to swallowing oil is generally considerable. Different modes of overcoming this have been proposed.—Some prefer taking it swimming on a glass of water, or peppermint water, others mixed with coffee, in the form of an emulsion, with mucilage, or with the addition of a little rum.

ROSA.

Willd. g. 997. Smith, g. 232. Icosandria Polygynia.—
Nat. ord. *Senticosæ*.

Sp. 16. Willd. ROSA GALLICA. Ed. Lond. Dub.
Red rose.

Off.—The petals.

PETALA ROSÆ GALLICÆ. *Ed. Lond.*

PETALA ROSÆ RUBRÆ. *Dub.*

THIS has not the fragrance of the succeeding species; but the beautiful colour of its petals, and their pleasant astringency, have rendered them officinal. It must, however, be remarked, that their odour is increased by drying, while that of the damask rose is almost destroyed.

Sp. 15. Willd. ROSA CENTIFOLIA. Ed. Lond. Dub.
Damask rose.

Off.—The petals.

PETALA ROSÆ CENTIFOLIÆ. *Ed. Lond.*

PETALA ROSÆ DAMASCENÆ. *Dub.*

THE native country of this shrub is unknown, but the delightful fragrance of its flowers has rendered it the favourite ornament of every garden. In the former editions of Linnæus, the damask rose was considered as a variety only of the *Rosa centifolia*; but Aiton, Du Roy, and Willdenow have arranged it as a distinct species. This used to be the official rose for the distillation of rose water, but now the more common variety is ordered, as it is highly probable that the petals of all the varieties of the *Rosa centifolia*, or Dutch hundred-leaved rose, are employed indiscriminately for this purpose.

Sp. 31. Willd.; sp. 6. Smith. ROSA CANINA. *Ed. Lond.*
Common dog-rose, wild briar or hep-tree.

Off.—The fruit called Heps.

FRUCTUS RECENS ROSÆ CANINÆ. *Ed.*

PULPA ROSÆ CANINÆ; baccarum pulpa expressa. *Lond.*

THIS shrub is found in hedges throughout Britain, and flowers in June. The pulp of the fruit, besides saccharine matter, contains citric acid, which gives it an acid taste. The seeds, and stiff hair with which they are surrounded, must be carefully removed from the pulp before it can be used.

ROSMARINUS OFFICINALIS. *Ed. Lond. Dub.*

Willd. g. 62, sp. 1. *Diandria Monogynia.*—Nat. ord. *Ver-*
ticillatæ.

Rosemary.

Off.—The herb and flowers.

SUMMITAS FLORENS ROSMARINÆ OFFICINALIS. *Ed.*

CACUMINA ROSMARINI. *Lond.*

HERBA ROSMARINI. *Dub.*

ROSEMARY is a perennial shrub, which grows wild in the south of Europe, and is cultivated in our gardens. It has a fragrant smell, and a warm pungent bitterish taste, approaching to lavender: the leaves and tender tops are strongest; next to these the cup of the flower: the flowers themselves are considerably the weakest, but most pleasant.

Medical use.—Its virtues depend entirely on its essential oil, which seems to be combined with camphor, not only from its peculiar taste, but from its possessing chemical pro-

erties, which depend on the presence of camphor; and from its depositing crystals of camphor when long kept.

RUBIA TINCTORUM. *Ed. Lond. Dub.*

Willd. g. 187, sp. 1. Tetrandria Monogynia.—Nat. ord. *Stellatæ.*

Madder.

Off.—The root.

RADIX RUBIÆ TINCTORUM. *Ed.*

RADIX RUBIÆ. *Lond. Dub.*

MADDER is perennial, and is cultivated in large quantities in England, from whence the dyers are principally supplied with it. It has been said to grow wild in the south of England, but the *Rubia peregrina* was mistaken for it.

The roots consist of articulated fibres, about the thickness of a quill, which are red throughout, have a weak smell, and a bitterish astringent taste. For the use of the dyers, they are first peeled and dried, then bruised and packed in barrels. Madder possesses the remarkable property of tinging the urine, milk, and bones of animals which are fed with it, of a red colour.

Medical use.—It is said to be useful in the atrophy of children, and some believe in its reputed powers as an emmenagogue.

It is given in substance in doses of half a drachm, several times a-day, or in decoction.

RUMEX.

Willd. g. 699. Smith, g. 184. Hexandria Trigynia.—Nat. ord. *Oleraceæ.*

Sp. 18. Willd.; sp. 8. Smith. RUMEX AQUATICUS. Dub.
Great water-dock.

Off.—The root.

RADIX RUMICIS AQUATICI. *Dub.*

THIS is a perennial weed, growing in ditches and by the sides of rivers. It grows to the height of five feet, and flowers in July and August. The root is large, and is manifestly astringent. It evidently is the *Herba Britannica* of the ancients, so much celebrated for the cure of scurvy and cutaneous diseases. Even syphilis, probably some syphilitic affection, has been said to yield to an infusion of water-dock in wine and vinegar.

Sp. 31. *Willd.*; *sp.* 10. *Smith.* RUMEX ACETOSA. *Ed. Lond.*
Common sorrel.

Off.—The leaves.

FOLIUM RUMICIS ACETOSE. *Ed.*

ACETOSE FOLIA. *Lond.*

SORREL is a perennial plant, which grows wild in fields and meadows throughout Britain, and flowers in June. The leaves have a pleasant acid taste, without any smell or particular flavour; their medical effects are, to cool, quench thirst, and promote the urinary discharge: a decoction of them in whey affords an useful and agreeable drink in febrile or inflammatory disorders. All these effects are to be ascribed entirely to the super-oxalate of potass which they contain.

RUTA GRAVEOLENS. *Ed. Lond. Dub.*

Willd. g. 927, *sp.* 1. *Decandria Monogynia.*—*Nat. ord.* *Multisiliquæ.*

Rue.

Off.—The herb.

HERBA RUTÆ GRAVEOLENTIS. *Ed.*

FOLIA RUTÆ. *Lond. Dub.*

THIS is a small shrubby plant, a native of the south of Europe, and cultivated in our gardens.

Rue has a strong ungrateful smell, and a bitterish penetrating taste: the leaves, when in full vigour, are extremely acrid, insomuch as to inflame and blister the skin, if much handled. Neumann got from 960 drains of the dried leaves 330 alcoholic extract, and afterwards 290 watery; and inversely, 540 watery and 40 alcoholic. Both primary extracts are bitter and acrid. Rue also contains a volatile oil, which congeals readily, and is obtained in the greatest quantity by distilling the plant with the seeds half-ripe.

Medical use.—With regard to its medical virtues, like other remedies of which the active constituent is an essential oil, it is heating and stimulating, and hence it is sometimes serviceable in spasmodic affections, and cases of obstructed secretions.

SACCHARUM OFFICINARUM. *Ed. Lond. Dub.*

Willd. g. 122, *sp.* 4. *Triandria Digynia.*—*Nat. ord.* *Gramina.*

Sugar-cane.