Off.—The inner bark.
CORTEX INTERIOR ULMI CAMPESTRIS. *Ed.*
ULMI CORTEX. *Lond.*
ULMI CORTEX INTERIOR. *Dub.*

THIS tree grows wild in Britain. It flowers in April. The inner bark has a yellowish colour, and a mucilaginous, bitter, astringent taste, without smell.

In decoction it has been highly recommended in the lepra ichthyosis, and has been said to cure dropsies, but it requires a patient trial.

VALERIANA OFFICINALIS. *Ed. Dub.*
VALERIANA OFFICINALIS (Sylvestris). *Lond.*
Willd. g. 75, *sp.* 6. *Smith, g.* 15, *sp.* 3. *Triandria Monogynia.*—Nat. ord. *Aggregatæ.*
Wild valerian.

Off.—The root.
RADIX VALERIANÆ OFFICINALIS. *Ed.*
VALERIANÆ RADIX. *Lond. Dub.*

THIS plant is perennial, and varies in its appearance and sensible qualities, according to the situation in which it grows. In marshes and shadowy places its leaves are broader, on dry heaths and high pastures they are narrower. The roots produced in low watery-grounds have a remarkably faint smell in comparison with the others, and sometimes scarcely any. The roots taken up in autumn or winter have also much stronger sensible qualities than those collected in spring and summer.

The root consists of a number of strings or fibres matted together, issuing from one common head, of a whitish or pale brownish colour. Its smell is strong, like a mixture of aromatics with fetids; the taste unpleasantly warm, bitterish, and subacrid. Neumann got from 480 grains of the dry root 186 alcoholic, and 74 watery extract; and inversely, 261 watery and 5 alcoholic. The distilled alcohol was slightly, the water strongly, impregnated with the smell of the valerian, but no separable oil was obtained.

Medical use.—Wild valerian is a medicine of great use in nervous disorders, and is particularly serviceable in epilepsies proceeding from a debility of the nervous system. Some recommend it as procuring sleep, particularly in fever, even when opium fails; but it is principally useful in affections of the hysterical kind.

The common dose is from a scruple to a drachm in pow-

der; and in infusion, from one to two drachms. Its unpleasant flavour is most effectually concealed by a suitable addition of mace.

As its virtues reside entirely in an essential oil, it should not be exhibited in decoction or watery extract.

VERATRUM ALBUM. *Ed. Lond. Dub.*

Willd. g. 1859, *sp.* 1. *Polygamia Monoecia.*—Nat. ord. *Liliaceae.*

White hellebore.

Off.—The root.

RADIX VERATRI ALBI. *Ed.*

VERATRI RADIX. *Lond.*

HELLEBORI ALBI RADIX. *Dub.*

THIS plant grows spontaneously in Switzerland and the mountainous parts of Germany. The root has a nauseous, bitterish, acrid taste, burning the mouth and fauces. On being wounded it emits an extremely acrimonious juice, which, when inserted into a wound, is said to prove very dangerous. Neumann got from 960 grains 560 watery and 10 alcoholic extract; and inversely, 420 alcoholic and 180 watery. Nothing rose in distillation.

Medical use.—The powder of the dried root, applied to an issue, occasions violent purging; snuffed up the nose, it proves a strong, and not always a safe sternutatory. Taken internally, it acts with extreme violence as an emetic, and has been observed, even in a small dose, to occasion convulsions, and even death. The ancients sometimes employed it in various obstinate cases, and always made this their last resource. According to the very ingenious analysis of Mr Moore, a vinous infusion of white hellebore, with the addition of one-fourth part of laudanum, forms the *Eau Medicinale d'Husson*, so much celebrated as a specific in gout. Mr Moore put his mixture to the test of experiment. He administered it in *four* cases of gout. "In these four cases, the effects of the mixed infusions were precisely the same with equal doses of the eau medicinale. In two of the cases, where two drams were given, vomiting and purging were produced; and in one case, the medicine occasioned constipation, which happens also with the eau medicinale; and the gout in all was relieved."

VERONICA BECCABUNGA. *Dub.*

Willd. g. 44. *sp.* 30. *Smith, g.* 9. *sp.* 8. *Diandria Monogynia.*—Nat. ord. *Personatae.*

Brooklime.

Off.—The herb.

HERBA BECCABUNGÆ. *Dub.*

THIS is a low perennial plant, common in little rivulets and ditches of standing water, and flowering in July. The leaves remain all the winter, but are in great perfection in the spring. Their taste is herbaceous, with a very light bitterness. They contain, along with the volatile acrid principle, vegetable albumen and much sulphate of lime.

If any good effects be expected from brooklime, it should be used as food.

VIOLA ODORATA. *Ed. Lond. Dub.*

Willd. g. 446, *sp.* 12. *Smith, g.* 96, *sp.* 2. *Pentandria Monogynia.*—Nat. ord. *Campanaceæ.*

Sweet violet.

Off.—The recent flower.

FLORES VIOLÆ ODORATÆ. *Ed.*

VIOLÆ FLORES. *Dub.*

THIS plant is perennial, and is found wild under hedges and in shady places; but the shops are generally supplied from gardens. It flowers in March and April. Its flowers are so remarkable for their odour and colour, that they have given a name to both. In our markets we meet with the flowers of other species: these may be distinguished from the foregoing by their being larger, of a pale colour, and having no smell.

Medical use.—They impart their colour and flavour to aqueous liquors: a syrup made from the infusion has long had a place in the shops, and is said to be an agreeable and useful laxative for children, but is chiefly valued as a delicate test of the presence of uncombined acids or alkalies, the former changing its blue to a red, and the latter to a green.

VITIS VINIFERA. *Ed. Dub. Lond.*

Willd. g. 453, *sp.* 1. *Pentandria Monogynia.*—Nat. ord. *Hederaceae.*

The vine.

THE vine grows in temperate situations in many parts of the world, and is cultivated very generally for the sake of its agreeable subacid fruit. Before they are ripe, grapes are extremely harsh and acid, and by expression furnish a liquor which is called Verjuice. It contains malic acid, super-tartrate of potass, and extractive, and may be made to furnish

wine by the addition of sugar. As the grape advances to maturity, the quantity of sugar in it increases, while that of malic acid diminishes: it, however, never disappears entirely. When thoroughly ripe, the grape is one of the most agreeable fruits. It is cooling, antiseptic and nutritious, and when eaten in considerable quantity, diuretic and gently laxative. In inflammatory diseases, and all others where acids are indicated, grapes form an excellent article of diet.

Off.—Sun-raisins.

Fructus siccatus vitis viniferæ, *vulgo* Uva passa. *Ed.*

Uvæ passæ sole siccatæ. *Dub.*

Uvæ passæ; baccae præparatæ. *Lond.*

Raisins are grapes which have been carefully dried. By this means not only the water they contained is dissipated, but the quantity of acid seems to be diminished. They become more saccharine, mucilaginous, and laxative, than the recent grape, but are less cooling.

Off.—Sherry.

Vinum album hispanum; fructus succus fermentatus. *Ed.*

Vinum; Vinum album Hispanicum. *Lond.*

Wine is the juice of the grape altered by fermentation. The numerous varieties of wine depend principally on the proportion of sugar contained in the must, and the manner of its fermentation. When the proportion of sugar is sufficient, and the fermentation complete, the wine is perfect and generous: if the quantity of sugar be too large, part of it remains undecomposed, as the fermentation is languid, and the wine is sweet and luscious: if, on the contrary, it be too small, the wine is thin and weak; and if it be bottled before the fermentation be completed, it will proceed slowly in the bottle, and, on drawing the cork, the wine will sparkle in the glass, as, for example, Champaigne. When the must is separated from the husk of the grape before it is fermented, the wine has little or no colour: these are called White wines. If, on the contrary, the husks are allowed to remain in the must while the fermentation is going on, the alcohol dissolves the colouring matter of the husks, and the wine is coloured: such are called Red wines. Besides, in these principal circumstances, wines vary much in flavour.

The following Tables exhibit a comparative view of the contents of different Wines and Spiritous Liquors. The first is ta en from Mr Brande's paper in Phil. Trans. vol. 101. The second is from Neumann.

	Strongest.	Medium.	Weakest.
Rum,		53.68	
Brandy,		53.39	
Hollands,		51.60	
Raisin wine,		25.77	
Port,	25.83	23.49	21.40
Madeira,	24.42	22.27	19.34
Marsala,	25.87	21.56	17.26
Currant wine,		20.55	
Constantia,		19.75	
Sherry,	19.83	19.17	18.25
Lisbon,		18.94	
Bucellas,		18.49	
Red Madeira,		18.40	
Cape muscat,		18.25	
—— madeira,		18.11	
Grape wine,		18.11	
Calcavalla,		18.10	
White hermitage,		17.43	
Rousillon,		17.26	
Malaga,		17.26	

	Strongest.	Medium.	Weakest.
Malmsey mad,		16.40	
Sheruaz,		15.52	
Syracuse,		15.28	
Nice,		14.63	
Claret,	16.32	14.44	12.91
Tent,		13.30	
Burgundy,	14.53	13.24	11.95
White champagne,		12.80	
Vin de Grave,		12.80	
Frontignac,		12.79	
Cote roti,		12.32	
Red hermitage,		12.32	
Gooseberry wine,		11.84	
Hock,	14.37	11.62	8.88
Tokay,		9.88	
Elder wine,		9.87	
Cyder,		9.87	
Perry,		9.87	
Ale,		8.88	
Brown stout,		6.80	

The first column in this Table shews the quantity of rectified spirit; the second that of thick, oily, unctuous, resinous matter; the third of gummy and tartareous matter; and the fourth of water in 17280 parts.

	I.	II.	III.	IV.
Malmsey,	1920	2100	1140	12120
Alicant,	1800	2900	100	12840?
Neufchatel,	1560	1920	900	12900
French,	1440	400	60	15380
Frontignac,	1440	1680	320	13830
Muscadine,	1440	1200	480	14160
Salamanca,	1440	1680	960	13200
Sherry,	1440	2880	1080	11880
Tinto,	1440	3120	840	11880
Hermitage,	1380	600	100	15200
Monte Pulciano,	1320	180	160	15620
Carcassone,	1320	250	80	15630
Champagne,	1280	400	60	15540
Canary,	1140	1200	2160	12780

	I.	II.	III.	IV.
Madeira,	1140	1560	960	13620
Moselle,	1080	260	90	15850
Rhenish,	1080	200	94	15906
Tokay,	1080	2100	2400	11700
Burgundy,	1080	240	100	15860
Old rhenish,	960	480	140	15700
Pontac,	960	320	120	15880
White Brandenburgh,	960	420	180	14880?
Vin de grave,	960	360	120	15840
Red Brandenburgh,	840	280	120	16040
Aland,	840	1560	780	14100
Red Tyrol,	720	600	240	15120
Spanish,	600	1200	4560	10920

Medical use.—Wine, taken in moderate quantities, acts as a beneficial stimulus to the whole system. It promotes digestion, increases the action of the heart and arteries, raises the heat of the body, and exhilarates the spirits. Taken to ex-

cess, it produces inebriety, which is often succeeded by headach, stupor, nausea, and diarrhœa, which last for several days. Habitual excess in wine debilitates the stomach, produces inflammation of the liver, weakens the nervous system, and gives rise to dropsy, gout, apoplexy, tremors, and cutaneous affections.

To convalescents, and in all diseases of general debility, and deficiency of the vital powers, wine is the remedy on which we must place our chief dependence. It is contra indicated in all inflammatory complaints, and when it sours upon the stomach.

WINTERA AROMATICA. *Ed.*

Willd. g. 1063. *Polyandria Tetragynia*..—Nat. ord. *Oleraceæ.*

Off.—Winter's bark.

CORTEX WINTERÆ AROMATICÆ, *vulgo* Winteranus cortex. *Ed.*

THIS is the produce of a tree first discovered on the coast of Magellan by Captain Winter, in the year 1567. The sailors then employed the bark as a spice, and afterwards found it serviceable in the scurvy, for which purpose it is at present also sometimes made use of in diet drink. The true Winter's bark is not often met with in the shops, Canella alba being generally substituted for it; and by some they are reckoned to be the same: there is, however, a considerable difference betwixt them in appearance, and a greater in quality. The Winter's bark is in large pieces, of a more cinnamon colour than the canella, and much warmer and more pungent. Its smell resembles that of cascarilla. Its virtues reside in a very hot, stimulant, volatile oil.

ZINCUM. *Ed. Dub. Lond.*

Zinc.

The general properties of zinc have been already noticed. It is always found oxidized,

1. Combined with a greater or less proportion of carbonic acid. Calamine.
2. Combined with sulphur. Blende.
3. Combined with sulphuric acid, generally in solution.

The ores of zinc are rarely worked by themselves, or with the sole intention of extracting zinc, but are generally melted with the lead ores, particularly galena, which they commonly accompany. By this process the zinc is obtained in two