

## CHAP. VII.

## INFUSA.—INFUSIONS.

**I**NFUSION is a general term, which might be applied to that process by which the soluble parts of any solid are extracted by the action of any fluid kept in contact for some time with the body on which it acts. In Pharmacy it is usually limited to that case where the active matter of vegetable substances is extracted partially or completely by water, though it is sometimes extended to the same process where other liquors, as alcohol, are employed. It is in the former sense, as denoting an aqueous preparation, that the term is used in the Pharmacopœias; and Infusions are solutions of vegetable matter in water obtained by maceration.

Several of the proximate principles of vegetables being soluble in water, they can often, by this operation, be extracted with advantage. But there are others with regard to which it is altogether useless. Thus the purgative quality of rhubarb is extracted by infusion in water: even the cathartic power of senna, though it appears to reside in a principle more peculiarly soluble in alcohol, is still obtained by the action of water, when a large quantity is

employed, and its solvent power is promoted by heat. But the power of jalap is scarcely obtained, the watery infusion of it being comparatively weak. In prescribing infusions, therefore, regard must always be had to the composition of the substances ordered to be infused. In general, mucilaginous plants yield their mucilage readily to water: bitterness and astringency are also usually extracted by water with facility, and the aromatic quality where this resides in an essential oil. With regard to other properties, scarcely any general rule can be delivered.

The quantity and quality of the matter extracted by infusion, are considerably varied by the temperature of the fluid. Infusions made with warm water, are considerably stronger than those made with cold; in some cases, however, especially with respect to bitters, they are less grateful. In the Bitter Infusion, therefore, of the Edinburgh Pharmacopœia, cold water is directed to be used; in all the others, boiling water is ordered to be poured on the materials of the infusion, and the vessel is generally placed near a fire.

It is rather singular, that dried vegetables yield their virtues to water by infusion, more readily than when they are in the recent state, probably from the vegetable matter being more easily penetrated by the water.

Infusions are always injured by keeping. Though at first transparent, they soon become more or less turbid; they deposite a mucous-like substance; lose their peculiar taste, and after some time acquire a putrid smell,—

changes owing to the gradual decomposition of the vegetable matter they hold dissolved. Infusions are therefore never kept ready prepared in the shops; they are to be regarded as extemporaneous preparations, which, in general, require several hours before they can be prepared.

INFUSUM CINCHONÆ OFFICINALIS. Infusion of Peruvian Bark. (*Infus. Cinchonæ, Ph. Lond. Dub.*)

“Take of Peruvian Bark in powder, one ounce; Water, one pound. Macerate them for twenty-four hours, and strain.” The formula, as given in the other Pharmacopœias, is nearly the same, only that boiling water is ordered to be poured on the bark by the London College, while by the Dublin College the maceration is without heat.

By infusion, water is capable of dissolving only a small portion of the active matter of bark, and the preparation therefore cannot be regarded as having much activity. It is used principally as a bitter in dyspepsia, in a dose of two ounces occasionally.

INFUSUM DIGITALIS PURPUREÆ. Infusion of Foxglove. (*Infus. Digital. Ph. Lond.*)

“Take of the dried leaves of Foxglove, one drachm; Boiling Water, eight ounces; Spirit of Cinnamon, one ounce. Macerate for four hours, and strain.”

Infusion is the form under which Dr Withering, who introduced the use of digitalis in dropsy, recommended it to be given, and it is on the whole the best form under

which it can be given, with the view at least to obtain its diuretic operation. The above is the formula of Withering, and it has likewise been received with no essential difference into the London Pharmacopœia. Its dose is an ounce taken twice a-day, and continued until the effects of the remedy appear.

INFUSUM GENTIANÆ LUTEÆ COMPOSITUM, *vulgo Infusum Amarum.* Compound Infusion of Gentian. (Infus. Gentianæ, *Ph. Lond. Dub.*)

“ Take of Gentian Root cut, half an ounce; Dried Orange-Peel bruised, one drachm; Coriander Seeds bruised, half a drachm; Diluted Alcohol, four ounces; Water, one pound. First pour on the alcohol, and after three hours the water; then macerate without heat for twelve hours, and strain.”

This bitter infusion is employed in dyspepsia: a sufficient quantity of alcohol is added to aid the solvent power of the water, and to preserve the infusion from spontaneous decomposition, while there is not so much as to give spiritous pungency. It is therefore better adapted to continued use than the bitter tinctures. Its dose is two ounces occasionally. The Dublin College have a similar preparation, under the same name. The London College omit the alcohol; and in an infusion which may be always extemporaneously prepared, and does not therefore require to be long kept, this is perhaps preferable, as avoiding the pernicious consequences aris-

ing from the stomach being accustomed to the stimulus of ardent spirit.

INFUSUM MIMOSÆ CATECHU, *vulgo Infusum Japonicum.*

Infusion of Catechu. (*Infus. Catechu, Ph. Lond.*)

“Take of Extract of Catechu in powder two drachms and a half; Bark of Cinnamon bruised, half a drachm; Boiling Water, seven ounces; Simple Syrup, one ounce. Macerate the extract and bark with the water in a closed vessel for two hours, then strain, and add the syrup.”

The Extract of Catechu is entirely soluble in water. This preparation, therefore, possesses all its virtues unimpaired, and rendered more grateful, by the addition of the cinnamon. Hence it is one of the best forms under which catechu can be prescribed. Its principal use is in diarrhoea: its dose, one ounce every third or fourth hour. A small quantity of tincture of opium is frequently added to it with advantage.

INFUSUM RHEI PALMATI. Infusion of Rhubarb. (*Infus. Rhei, Ph. Lond.*)

“Take of the Root of Rhubarb bruised, half an ounce; Boiling Water, eight ounces; Spirit of Cinnamon, one ounce. Macerate the root with the water in a closed vessel for twelve hours, then, adding the spirit, strain the liquor.”

The infusion of rhubarb is supposed to have more of the purgative than of the astringent power. It is accordingly used as a mild cathartic, in a dose of two or three

ounces. There appears to be an unnecessary waste of rhubarb in the proportions ordered; and the formula in the London Pharmacopœia, in which only a drachm of rhubarb is ordered to eight ounces of water, is preferable, as this will probably afford as much active matter as the water can dissolve, or at least give an infusion sufficiently strong.

INFUSUM ROSÆ GALLICÆ. Infusion of Red Rose.

“Take of the Dried Petals of the Red Rose, two ounces; Boiling Water, five pounds; Sulphuric Acid, one drachm; Refined Sugar, two ounces. Macerate the petals with the boiling water in an earthen vessel, which is not glazed with lead, for four hours; then, having poured on the acid, strain the liquor, and add the sugar.”

This infusion, which has a place in all the Pharmacopœias, is used principally as a moderately astringent gargle, in slight cases of cynanche, or to check salivation. It owes little else than colour, and a pleasant flavour, to the petals of the rose; the astringency depending almost entirely on the sulphuric acid.

INFUSUM TAMARINDI INDICÆ CUM CASSIA SENNÆ. Infusion of Tamarind and Senna. (Infus. Sennæ cum Tamarindis, *Ph. Dub.*)

“Take of the Prepared Fruit of the Tamarind, one ounce; Senna Leaves, one drachm; Coriander Seeds, half a drachm; Unrefined Sugar, half an ounce; Boiling Water, eight ounces. Macerate them in a close earthen

vessel, which is not glazed with lead, shaking frequently, and after four hours strain the liquor. It may be made also with double or triple the quantity of senna." A similar formula is inserted in the Dublin Pharmacopœia, Cardamom being substituted for coriander seeds.

This combination affords a very pleasant purgative, mild in its operation. The whole quantity may be taken at intervals as a dose. If a more powerful cathartic is indicated, it may be made with an increased proportion of senna. The direction of not infusing the materials in a vessel glazed with lead, ought to be attended to, as the acid of the tamarinds acting on the lead, the infusion might receive a noxious impregnation.

THERE are some Infusions peculiar to the London and Dublin Pharmacopœias which may be noticed.

INFUSUM ANTHEMIDIS. Infusion of Chamomile. Ph. Lond.

"Take of Flowers of Chamomile, two drachms; Boiling Water, half a pint. Macerate them for ten minutes in a vessel lightly closed, and strain."

Under the form of infusion, chamomile is used as a bitter in dyspepsia: it is more grateful when prepared with cold water, and is then equal perhaps to any other bitter.

INFUSUM ARMORACIÆ COMPOSITUM. Compound Infusion of Horse-Radish. Ph. Lond.

“Take of Horse-Radish Root, fresh and cut, Mustard Seed bruised, of each one ounce; Boiling Water, a pint. Macerate them for two hours in a vessel lightly closed, and strain; then add, of Compound Spirit of Horse-Radish, a fluidounce.”

Under this form the horse-radish may be prescribed in the diseases in which it is employed, more particularly as a stimulant in chronic rheumatism, paralysis, and some forms of dropsy. Its dose is two ounces twice a-day.

INFUSUM AURANTII COMPOSITUM. Compound Infusion of Orange-Peel. Ph. Lond.

“Take of dried Rhind of the Orange, two drachms; of the fresh Rhind of the Lemon, one drachm; of Cloves bruised, half a drachm; Boiling Water, half a pint. Macerate for a quarter of an hour in a vessel lightly closed, and strain.”

This affords a bitter, grateful, and somewhat pungent, which may be employed with advantage in some forms of dyspepsia. Its dose is two ounces.

INFUSUM CALUMBÆ. Infusion of Colombo. Ph. Lond.

“Take of Colombo Root cut, one drachm; Boiling Water, half a pint. Macerate for two hours in a vessel lightly closed, and strain.”

The active matter of colombo is rather imperfectly extracted by water; and this can be regarded only as a bit-

ter infusion, which, like other bitters, may be used in dyspeptic affections. Its dose is two ounces.

**INFUSUM CARYOPHYLLORUM.** Infusion of Cloves. Ph. L.

“Take of Bruised Cloves, a drachm; Boiling Water, half a pint. Macerate for two hours in a vessel lightly closed, and strain.”

The aromatic odour and pungency of the clove are extracted in this infusion: it may be used with advantage as a warm and grateful stimulant in some forms of dyspeptic affection, where a sensation of cold and uneasiness is felt at the stomach,—a state which is often produced where the habit of taking spiritous cordials has been indulged in.

**INFUSUM CASCARILLÆ.** Infusion of Cascarilla. Ph. L.

“Take of Cascarilla Bark bruised, half an ounce; Boiling Water, half a pint. Macerate for two hours in a vessel lightly closed, and strain.”

Cascarilla is a substance little valued in modern practice, and there does not appear to be much propriety in the introduction of this infusion as an officinal preparation. Its dose is two ounces.

**INFUSUM CUSPARIÆ.** Infusion of Angustura. Ph. Lond.

“Take of the Bark of Angustura, bruised, two drachms; Boiling Water, half a pint. Macerate for two hours, in a vessel lightly closed, and strain.”

The same remark nearly applies to this preparation, as

to the preceding one. Under this form, however, angustura may be occasionally used as a remedy in dyspepsia. The dose is two ounces.

INFUSUM LINI. Infusion of Lintseed. Ph. Lond.

“ Take of Lintseed bruised, one ounce; Liquorice Root cut, half an ounce; Boiling Water, two pints. Macerate for four hours, nigh the fire, in a vessel lightly closed, and strain.”

The mucilaginous matter of lintseed is very readily dissolved by tepid water; and this forms a demulcent liquor, often taken with advantage in gonorrhœa, dysuria, and sometimes in catarrh. It is rendered rather more grateful by the addition of a little lemon juice, and of the rhind of the lemon.

INFUSUM QUASSIÆ. Infusion of Quassia. Ph. Lond.

“ Take of the Wood of Quassia cut, one scruple; Boiling Water, half a pint. Macerate for two hours, in a vessel lightly closed, and strain.”

Quassia is a very pure bitter, and its bitterness is extracted by water. Under this form it has been used as a remedy in dyspepsia.

INFUSUM SENNÆ. Infusion of Senna. Ph. Lond.

“ Take of Senna Leaves, an ounce and a half; Ginger, one drachm; Boiling Water, a pint.”

Under this form, senna may be given as a purgative, the dose being three or four ounces. It is how-

ever less grateful than the infusion of senna and tamarinds of the Edinburgh Pharmacopœia. The proportion of senna, too, appears to be considerably greater than what is necessary; and there is no propriety in preparing more of the infusion than what is required for a dose. A similar infusion, in which this is avoided, and in which cardamon seeds are substituted for ginger, has a place in the Dublin Pharmacopœia.

INFUSUM SIMAROUBÆ. Infusion of Simarouba. Ph. Lond.

“Take of the Bark of Simarouba bruised, half a drachm; Boiling Water, half a pint. Macerate for two hours, in a vessel lightly closed, and strain.”

Simarouba yields its bitterness to water; the infusion, however, is inferior to that of quassia, and does not appear to have any particular advantage to recommend it.

INFUSUM TABACI. Infusion of Tobacco. Ph. Lond.

“Take of the Leaves of Tobacco, one drachm; Boiling Water, a pint. Macerate for an hour, in a vessel lightly closed, and strain.”

This infusion is prepared of that strength, proper for giving tobacco under the form of enema, as a narcotic in incarcerated hernia, or to produce evacuation from the intestines, in ileus and obstinate constipation.

INFUSUM MENTHÆ COMPOSITUM. Compound Infusion  
of Mint. Ph. Dub.

“ Take of the Leaves of Spearmint dried, two drachms; Boiling Water, as much as is sufficient to form six ounces of infusion when strained. Digest them for half an hour in a covered vessel; strain the liquor when cold, and add to it, of Refined Sugar, two drachms; Oil of Spearmint three drops, dissolved in half an ounce of compound tincture of cardamon.”

This is a grateful stomachic, which may be used to obviate flatulence, or to cover the taste of unpleasant medicines.

INFUSUM VALERIANÆ. Infusion of Valerian. Ph. Dub.

“ Take of the Root of Valerian, in coarse powder, two drachms; Boiling Water, seven ounces. Digest for an hour, and strain the liquor when it is cold.

Valerian is frequently taken in hysteric affections under the form of infusion, and this will afford a preparation of proper strength. Its dose is from one to two ounces.