Chap. XXII. Of Empyreumatic Volatile Oils. 505

many by the name of Artificial musk, where it is often used as a substitute for that expensive drug.

OLEUM CORNU CORVINI RECTIFICATUM. Dub. Rectified Oil of Hartshorn.

Take of

The oil which ascends in the distillation of the volatile liquor of hartshorn, three pounds;

Water, six pints.

Distil the oil, and re-distil it with the water, until it becomes limpid. It ought to be kept in a dark place, and in small phials, completely filled and well-corked.

Animal Oil, thus rectified, is thin and limpid, of a subtile,

penetrating, not disagreeable, smell and taste.

Medical use. - It is strongly recommended as an anodyne and antispasmodic, in doses of from 13 to 30 drops. Hoffman reports, that it procures a calm and sweet sleep, which continues often for 20 hours, without being followed by any languor or debility, but rather leaving the patient more alert and cheerful than before: that it procures likewise a gentle sweat, without increasing the heat of the blood : that, given to twenty drops or more, on an empty stomach, six hours before the accession of an intermittent fever, it frequently removes the disorder: and that it is likewise a very general remedy in inveterate and chronic epilepsies, and in convulsive motions, especially if given before the usual time of the attack, and preceded by proper evacuations. How far empyreumatic oils possess the virtues that have been ascribed to them, has not yet been sufficiently determined by experience, their tedious and troublesome rectification having prevented their coming into general use, or being often prepared. They are liable also to a more material inconvenience in regard to their medicinal use, namely, precariousness in their quality; for how perfectly soever they may be rectified, they gradually lose, on keeping, the qualities they had received from that process, and return more and more towards their original fetid state.

CHAP. XXIII. DISTILLED SPIRITS.

THE flavour and virtues of distilled waters are owing, as observed in a preceding chapter, to their being impregna-

ted with a portion of the volatile oil of the subject from which they are drawn. Alcohol, considered as a vehicle for these oils, has this advantage above water, that it keeps all the oil that rises with it perfectly dissolved into an uniform limpid liquor.

Nevertheless, many substances, which, on being distilled with water, impart to it their virtues in great perfection, if treated in the same manner with alcohol, scarcely give over to it any smell or taste. The cause of this difference is, that alcohol is not susceptible of so great a degree of heat as water. It is obvious, therefore, that some substances may be volatile enough to rise with the heat of boiling water, but not with

that of boiling alcohol.

Thus, if cinnamon, for instance, be committed to distillation with a mixture of alcohol and water, or with proof-spirit, which is no other than a mixture of about equal parts of the two, the alcohol will rise first, clear, colourless and transparent, and almost without any taste of the spice; but, as soon as the more ponderous watery fluid begins to arise, the oil comes freely over with it, so as to render the liquor highly odorous, sapid, and of a milky hue.

The proof-spirit usually met with in the shops is very rarely pure, or free from all unpleasant flavour, which, though concealed by means of certain additions, plainly discovers itself when employed for the preparation of distilled spirits. This nauseous flavour does not begin to arise till after the alcohol has come over, which is the very time that the virtues of the ingredients begin also to arise most pleasantly; and hence the liquor receives an ungrateful taint. To this cause principally is owing the general complaint, that the cordials of the apothecary are less agreeable than those of the same kind prepared by the distiller; the latter being extremely curious in rectifying and purifying the spirits, which he uses for what he calls fine goods, from all unpleasant flavour.

Spiritus CARI CARUI. Ed. Spirit of Caraway.

Take of

Caraway seeds, bruised, half a pound;

Diluted alcohol, nine pounds.

Macerate for two days in a close vessel; then pour on as much water as will prevent empyreuma, and draw off, by distillation, nine pounds.

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Spiritus carui. Dub. Spirit of Caraway.

Take of

Caraway seeds, bruised, half a pound;
Proof-spirit of wine, one gallon;
Water, sufficient to prevent empyreuma.
Draw off one gallon.

Lond.

Take of

Bruised caraway seeds, one pound and a half; Proof-spirit, one gallon;

Water, enough to prevent empyreuma.

Macerate for twenty-four hours; and, with a slow heat, distill one gallon.

In this manner, prepare in the same quantity from

PIRITUS

LAURI CINNAMOMI. Ed. CINNAMOMI. Lond. Dub.

MENTHÆ PIPERITÆ. Ed.

Lond.

MENTHÆ VIRIDIS. Lond.

PULEGII. Lond.

ANISI. Lond.

Myristicæ. Lond.
Myristicæ moschatæ. Ed.
Nucis moschatæ. Dub.
Myrti pimentæ. Ed.
Pimento. Dub.
Pimentæ. Lond.
Rosmarini. Lond.

Cinnamon, bruised, one pound.

Peppermint, dried in flower, one pound and a half.

Peppermint dried, one pound and

a half.

Spearmint, dried, one pound and a half.

Pennyroyal, dried, one pound and a half.

Nutmeg, bruised, two ounces.

Pimento, bruised, half a pound. three ounces.

Rosemary tops, fresh, two pounds. Aniseed, bruised, half a pound.

Spiritus LAVANDULÆ SPICÆ. Ed. Spirit of Lavender.

Take of

Flowering spikes of lavender, fresh, two pounds; Alcohol, eight pounds.

Draw off, in a water-bath, seven pounds.

Spirit of Lavender. Lond.

Take of

Fresh lavender flowers, two pounds;

Rectified spirit, one gallon;

Water, sufficient to prevent empyreuma.

Macerate for twenty-four hours, and, with a slow fire, draw off one gallon.

Dub.

Take of

Fresh tops of lavender, one pound and a half;

Proof-spirit of wine, one gallon;

Water, sufficient to prevent empyreuma. Draw off, by a moderate heat, five pints.

By these directions, and in the same quantity, is prepared,

Spiritus Rorismarini Offi- Rosemary, two pounds.

Spiritus rorismarini. Dub. —— a pound and a half.

It is unnecessary to make particular observations on each of these simple spirits, as their virtues are the same with those of the substances from which they are extracted, united to the stimulus of the alcohol. The alcohol in the spirits of lavender and rosemary is almost pure; in the others, it is diluted with about an equal weight of water.

SPIRITUS ANISI COMPOSITUS. Dub. Compound Spirit of Aniseed.

Take of

Aniseed,

Angelica seed, of each, bruised, half a pound;

Proof-spirit, one gallon;

Water, sufficient to prevent empyreuma.

Draw off one gallon by distillation.

This compound spirit, like the simple ones, is an agreeable cordial; indeed they are too agreeable, for by some they are so often resorted to, on the slightest sensation of flatulence in the stomach, that their use is attended with all the pernicious consequences of dram-drinking.

Spiritus Juniperi compositus. Ed. Compound Spirit of Juniper.

Take of

Juniper berries, bruised, one pound;

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Caraway seeds,

Sweet fennel seeds, each, bruised, one ounce and a half;

Diluted alcohol, nine pounds.

Macerate for two days, and having added as much water as will prevent empyreuma, draw off, by distillation, nine pounds.

Lond.

Take of

Juniper berries, bruised, one pound;

Caraway seeds,

Fennel seeds, of each, bruised, one ounce and a half;

Proof-spirit, a gallon;

Water, enough to prevent empyreuma.

Macerate for twenty-four hours, and distil, with a gentle heat, one gallon.

Dub.

Take of

Juniper berries, bruised, one pound;

Caraway seeds,

Sweet fennel seeds, of each, bruised, an ounce and a half;

Proof-spirit, a gallon.

Macerate for two days, and then add as much water as will prevent empyreuma, and draw off one gallon.

The good and bad effects of this spirit exactly coincide with those of gin. The Edinburgh and Dublin colleges macerate only in the spirit; the London in the spirit and water.

Spiritus Raphani compositus. Dub. Compound Spirit of Horse-Radish.

Take of

Fresh horse-radish root,

Dried outer rind of Seville oranges, each two pounds:

Fresh herb of garden scurvy-grass, four pounds;

Bruised nutmegs, one ounce;

Proof-spirit, two gallons;

Water, sufficient to prevent empyreuma.

Draw off two gallons.

Spiritus armoraciæ compositus. Lond. Compound Spirit of Horse-Radish.

Take of

Fresh horse-radish root, sliced,

Dried orange-peel, of each one pound;

Nutmegs, bruised, half an ounce; Proof-spirit, one gallon;

Water, sufficient to prevent empyreuma.

Macerate for twenty-four hours; and distil, with a slow fire, one gallon.

This is an aromatic acrid spiritous liquor, but has no pretensions to the specific antiscorbutic properties formerly ascribed to it.

ALCOHOL AMMONIATUM FŒTIDUM. Ed. Fætid Ammoniated Alcohol.

Take of

Ammoniated alcohol, eight ounces;

Assa fœtida, half an ounce.

Digest, in a close vessel, for twelve hours; then distil off, with the heat of boiling water, eight ounces.

Spiritus ammoniæ fætidus. Lond. Fætid Spirit of Ammonia.

Take of

Spirit of ammonia, two pints; Assa fœtida, two ounces.

Macerate for twelve hours; and distil, with a slow fire into a cooled receiver, one pint and a half.

Dub.

Take of

Spirit of ammonia, two pints;

Assa fœtida, an ounce and a quarter.

Digest, in a close vessel, for three days, with occasional agitation. Pour off the clear liquor, and distil a pint and a half.

Volatile spirits, impregnated with different feetids, have been usually kept in the shops, as anti-hysterics: the ingredient here chosen is the best calculated of any for general use. The spirit is pale when newly distilled, but acquires a considerable tinge by keeping.

Alcohol ammoniatum aromaticum. Ed. Aromatic Ammoniated Alcohol.

Take of

Ammoniated alcohol, eight ounces; Volatile oil of rosemary, one drachm and a half; Volatile oil of lemon-peel, one drachm.

Mix them, that the oils may be dissolved.

SPIRITUS AMMONIÆ AROMATICUS. Dub.
Aromatic Spirit of Ammonia.

Take of

Spirit of ammonia, two pints; Essential oil of lemon, two drachms; Nutmegs, bruised, half an ounce.

Digest in a close vessel, for three days, with occasional agitation, and draw off a pint and a half.

Lond.

Take of

Cinnamon bark, bruised;
Cloves, bruised, of each two drachms;
Lemon-peel, four ounces;
Subcarbouate of potass, half a pound;
Muriate of ammonia, five ounces;
Rectified spirit, four pints;

Water, one gallon. Mix, and draw off six pints.

MEDICINES of this kind might be prepared extemporaneously, by dropping any proper volatile oil into ammoniated alcohol, which will readily dissolve the oil, if the ammonia in the solvent be caustic; for, if it be carbonated, such as it was when prepared according to the former directions of the London college, it does not dissolve the oils here ordered, and is therefore totally unfit for this preparation.

Mr Phillips says, that the oils as imported are commonly adulterated with fixed oil, which renders the aromatic spirit coloured and turbid, and that it is therefore the usual practice of chemists to distil the mixture of oils and spirit.

Medical use.—Ammonia, thus united with aromatics, is not only more agreeable in flavour, but likewise more acceptable to the stomach, and less acrimonious, than when uncombined. The dose is from five to six drops to sixty or more.

Spiritus ammoniæ succinatus. Lond. Succinated Spirit of Ammonia.

Take of

Mastiche, three drachms;
Rectified spirit, nine fluidrachms;
Oil of lavender, fourteen minims;

Oil of amber, four minims; Solution of ammonia, ten fluidounces.

Macerate the mastiche in the alcohol, until it be dissolved. Pour off the clear tincture; then add the other ingredients, and mix them by shaking.

This preparation is intended as a substitute for Eau de Luce, which was formerly imported entirely from Paris. It is now, we believe, prepared also by the chemists and druggists in London; but without some peculiar manipulation, which is kept secret, the above formula does not succeed in giving the liquor that permanent milky opacity, which is deemed essential to good Eau de Luce; for it becomes more or less transparent by keeping. This fancied perfection is, however, in a medical point of view, immaterial; and, whether it be milky or transparent, it is an excellent analeptic remedy, and may be used in the same circumstances, and in the same doses, as the spirit of ammonia itself.

CHAP. XXIV.—INFUSIONS.

We have already explained the sense in which we employ the term infusion. We confine it to the action of a menstruum, not assisted by ebullition, on any substance consisting of heterogeneous principles, some of which are soluble, and others insoluble in that menstruum. The term is generally used in a more extensive, but, we are inclined to think, a less correct, sense: thus, lime-water and the mucilages, which are commonly classed with the infusions, are instances of simple solution, and the chalk mixture is the mechanical suspension of an insoluble substance. When the menstruum used is water, the solution is termed simply an Infusion; but when the menstruum is alcohol, it is called a Tincture; when wine or vinegar, a Medicated Wine or Vinegar. Infusions in water are extremely apt to spoil, and are generally extemporaneous preparations.

AQUA CALCIS COMPOSITA. Dub. Compound Lime Water.

Take of
Guaiac wood, in shavings, half a pound;
Liquorice root, sliced and bruised, an ounce;