

with Potassium Hydroxide Solution and sufficient Iodine Solution to ensure a slight excess. Turpentine Oil is very difficult of detection except when present in large amount.

Preparation.

SPIRITUS JUNIPERI. SPIRIT OF JUNIPER.

Oil of Juniper, 1; Alcohol (90 p.c.), *q.s.* to yield 20. If not bright, filter through Tale. (1 in 20)

Dose.—20 to 60 minims = 1·2 to 3·6 c.c.

It is two and a half times stronger than *B.P.* '85.

Foreign Pharmacopœias.—Official in Jap., 1 in 50; by weight; U.S., 1 in 20; Austr., Ger. and Swiss, 1 fruit in 4, by distillation; Port. and U.S. have a compound spirit. Not in the others.

Not Official.

SPIRITUS JUNIPERI COMPOSITUS.—Oil of Juniper, 0·4; Oil of Caraway, 0·05; Oil of Fennel, 0·05; Alcohol (95 p.c.) 70; Water, *q.s.* to make 100.—*U.S.P.*

This has been incorporated in the *B.P.C.* using 75 of Alcohol (90 p.c.).

Not Official.

KALADANA.

Syn.—PHARBITIS NIL.

The dried Seeds of *Ipomœa hederacea*, Jacq. Cathartic, resembling Jalap in action.

Official in the *Ind.* and *Col. Add.* for India and the Eastern Colonies, as are also the **Compound powder**, Kaladana, 5; Acid Potassium Tartrate, 9; Ginger, 1; dose, 20 to 60 grains = 1·3 to 4 grammes; the **Tincture**, 1 of seeds in 5 of Alcohol (70 p.c.); dose, 30 to 60 minims = 1·8 to 3·6 c.c.; and the **Resin**; dose, 2 to 8 grains = 0·13 to 0·52 gramme.

The Compound Powder, Tincture and Resin have been incorporated in the *B.P.C.*

Not Official.

KAMALA.

Syn.—GLANDULÆ ROTTLERÆ.

A fine, granular, mobile, brick-red powder, consisting of the minute glands and hairs obtained from the surface of the Fruits of *Mallotus Philippinensis*, Mull. Arg.

Solubility.—Almost insoluble in Water, but about 60 p.c. of a sample (containing 6 p.c. of ash) was soluble in Absolute Alcohol, in Chloroform, and in Ether; and was for the most part soluble in Liquor Potassæ.

Anthelmintic and purgative. Successfully given in tænia, in doses in 30 to 120 grains = 2 to 8 grammes.

Prescribing Notes.—The powder is usually given suspended in Gruel, Mucilage, Treacle, or Syrup; or it may be prescribed along with Liq. Ext. of Male Fern. A purgative should precede and, if need be, follow.

Foreign Pharmacopœias.—Official in Austr. and Hung. (10 p.c. of ash), Ger., Ital., Jap., Swed. and Swiss (6 p.c. of ash); Hung. has also Kamala Depuratum; Port., and Russ. (8 p.c. of ash), Mex. Not in the others.

TINCTURA KAMALÆ.—Kamala, 1; Alcohol (60 p.c.), 5.

Dose.—1 to 2 fl. drm. = 3·6 to 7·1 c.c.

KAOLINUM.

KAOLIN.

N.O.Syn.—CHINA CLAY; PORCELAIN CLAY.

A native Aluminium Silicate, powdered, and from which the gritty particles have been removed by elutriation.

A fine white clay, derived from the decomposition of the felspar of granitic rocks; extensive tracts of it occur in Cornwall. When finely ground and washed it is used as a form of Fuller's Earth.

Has been used in Germany for many years as an excipient for pills of the easily reducible salts of metals, such as Gold Chloride, Silver Nitrate, and Potassium Permanganate; but a mixture of Paraffins answers better. See MASSA PARAFFINUM, p. 863. It is also employed for clarifying Wine, Beer, and Syrups.

Official Preparation.—Contained in *Pilula Phosphori*.

Not Official.—*Cataplasma Kaolini*, *Unguentum Kaolini* and *Massa Kaolini*.

Foreign Pharmacopœias.—Official in Austr., Belg., Dutch, Ger., Hung., Jap. and Swiss, (*Bolus Alba*); Dan., Norw., Swed. and U.S., (*Kaolinum*). Not in the others.

Tests.—Kaolin, when fused with Potassium or Sodium Hydroxide or Carbonate, and the fused product, when cold treated with Water, yields a solution, which, neutralised with Hydrochloric Acid, affords a gelatinous precipitate of Silica, and if the liquid be evaporated to dryness, redissolved in Water, and filtered, the filtered liquid yields with Ammonia Solution a white gelatinous precipitate, insoluble in excess of the reagent, soluble in diluted Hydrochloric Acid. Another portion of the filtrate yields with either Potassium or Sodium Hydroxide Solution a white gelatinous precipitate, soluble in an excess of the reagent. The *U.S.P.* mixes the Kaolin with Water and Sulphuric Acid, evaporates the mixture to dryness, and heats the residue until fumes of Sulphuric Anhydride appear. When the residue is treated with boiling Water and filtered, a grey insoluble deposit of impure Silica, remains on the filter. The addition of the Sulphuric Acid to the mixture of Kaolin and Water should cause no effervescence, indicating the absence of Carbonates. The *U.S.P.* includes a test for the absence of more than traces of Iron by mixing 2 grammes of the Kaolin with 10 c.c. of Water and one-quarter of its weight of Sodium Salicylate, and requires that not more than a slight reddish tint shall be produced. The non-volatile residue left on ignition at a red heat should amount to not less than 85 p.c.

Not Official.

CATAPLASMA KAOLINI.—Kaolin, in very fine powder, 577; Boric Acid, 45; Thymol, $\frac{1}{2}$; Methyl Salicylate, 2; Oil of Peppermint, $\frac{1}{4}$; Glycerin, 375; all by weight, *U.S.P.* Heat the Kaolin in a suitable vessel at 100° C. (212° F.) with occasional stirring for one hour, well mix with the Boric Acid, and then incorporate thoroughly with the Glycerin; finally add the Thymol which has been dissolved in the Methyl Salicylate and the Oil of Peppermint, and make a homogeneous mass which should be kept in an air-tight container.

The *U.S. Dispensatory* states that the quantity of Glycerin will be found insufficient for some kinds of Kaolin, and the *B.P.C.* has incorporated this form, making a slight change in the quantity of Kaolin and Glycerin as recommended.

Kaolin, 52.70; Boric Acid, 4.50; Thymol, 0.05; Methyl Salicylate, by weight, 0.20; Oil of Peppermint, by weight, 0.05; Glycerin, by weight, 42.50. Same directions as above, *B.P.C.*

UNGUENTUM KAOLINI.—Soft Paraffin, 1; Hard Paraffin, 1; melt, and add Kaolin, 1; stir till cold.

This has been proposed as a basis for pills containing Silver Nitrate or Potassium Permanganate.—*P.J.* (3) xv. 60.

A very great improvement upon it is the following:—

MASSA KAOLINI.—Soft Paraffin, 2; Hard Paraffin (m.p. 120° F.) 1; Kaolin, 1. This will make a good mass with three times its weight of Potassium Permanganate.

A mixture of Hard Paraffin (m.p. 120° F.), 1; with Soft Paraffin, 1½; answers even better, and will make a good mass with four times its weight of Permanganate. See *MASSA PARAFFINUM*, p. 863.

Both of the above masses have been incorporated in the *B.P.C.*

Not Official.

KAVA-KAVA.

The decorticated, dried and divided Root of *Piper Methysticum*, Forst. Spinal depressant, causing loss of muscular power; diuretic; used in chronic catarrhal conditions of the genito-urinary organs. Used by the inhabitants of the Polynesian Isles in the preparation of an intoxicating liquor.

Official in the *Ind.* and *Col. Add.* for the Australian Colonies.

An **Extract**, prepared with diluted Alcohol, used as a hypnotic, dose 1 to 5 grains = 0.06 to 0.32 gramme; also a **Fluid Extract** (1 in 1), dose 15 to 60 minims = 0.9 to 3.6 c.c.

An **Extractum Kavæ Liquidum** (1 in 1), dose 30 to 60 minims = 1.8 to 3.6 c.c., is official in the *Ind.* and *Col. Add.* for the Australian Colonies.

Not Official.

KERATIN.

A substance introduced by Dr. Unna for coating pills which are intended to pass the stomach and act in the small intestine. It is made by digesting horn shavings, first in artificial gastric juice (acidified Pepsin solution) until all the albuminous substances have been dissolved, and treating the residue with Ammonia Solution. The ammoniacal solution, when evaporated, yields a gum-like liquid, which can be used for coating pills. The coating, although unaffected by Hydrochloric Acid, is soluble to some extent in Acetic and Citric Acids, which should therefore not be given at the same time.

LIQUOR KERATINI.—Prepared Keratin, 1; Alcohol (90 p.c.), 5; Strong Solution of Ammonia, 5; mix the Alcohol and Ammonia and dissolve the Keratin.

This has been incorporated in the *B.P.C.*

This makes a good coating, and dries quickly. It is better to give the pills a thin coating of Oil of Theobroma, two coatings of Keratin, and then varnish.

KINO.

KINO.

The juice obtained from incisions in the trunk of *Pterocarpus Marsupium*, Roxb., evaporated to dryness. See Descriptive Notes below.

Medicinal Properties.—A powerful astringent. Employed in obstinate diarrhœa and dysentery in the form of compound powder or with chalk; also in passive hæmorrhage. Externally as a styptic.

Dose, in powder, 5 to 20 grains = 0·32 to 1·3 gramme.

Prescribing Notes.—Generally given in the form of the compound powder; it may be administered in the form of cachets. The Tincture is useful in gargles and tooth-washes, the Lozenge for throat affections.

Incompatibles.—Mineral Acids, Alkalis and Carbonates, Metallic salts and Gelatin.

Official Preparations.—Pulvis Kino Compositus and Tinctura Kino. Contained in Pulvis Catechu Compositus.

Not Official.—Trochisci Kino.

Foreign Pharmacopœias.—Official in Jap., Port., Swiss and U.S. Not in the others.

Descriptive Notes.—The official Kino is distinguished in commerce as East Indian, Malabar, or Cochin Kino, it being often shipped from that port. It consists of the juice of the tree dried without artificial heat, but the official article is stated to be the juice obtained from incisions in the trunk of *Pterocarpus Marsupium* evaporated to dryness. But if this implies artificial evaporation, such a drug is not a commercial article. The official drug is in small angular, glistening, reddish-black, brittle, opaque fragments, which in thin splinters have transparent and ruby-red edges. It has no odour, is very astringent, and when chewed tinges the saliva red.

Tests.—Kino is officially stated to be partially soluble in cold Water, and that not less than 80 p.c. should be soluble in boiling Water. Only 88 grains out of 100 grains of Tellicherry Kino are dissolved by cold Water, and 35 grains of Isinglass will precipitate the whole of the astringent matter from the solution. Compared with Pale Catechu it is more soluble in Water, and the solution is more astringent. The *U.S.P.* says slowly soluble in cold Water. The *B.P.* states that it is almost entirely soluble in Alcohol (90 p.c.), and yields little or nothing to Ether; the *U.S.P.* that it is soluble in Alcohol (94·9 p.c.), and nearly insoluble in Ether. The ash varies from 1 to 2 p.c.

Kino Eucalypti (dose, 5 to 20 grains = 0·32 to 1·3 gramme) is official in the *Ind.* and *Col. Add.* for the Australian Colonies.

Butea Gum (Bengal or Madras Kino), the inspissated juice from the stem of *Butea frondosa*, Roxb., is made official in the *Ind.* and *Col. Add.* for use in place of Kino in India and the Eastern Colonies. Kino Eucalypti and Butea Gum have the same uses and doses as E. Indian Kino. It becomes insoluble if long kept.

Butea Seeds and Powder of the same are also included for the same countries as an anthelmintic for ascarides, 10 to 20 grains of the Powder.

Waring (*Ph. Ind.*) gives the dose as 20 grains three times a day for three days, and a dose of Castor Oil on the fourth day, but its use requires care.

Preparations.

PULVIS KINO COMPOSITUS. COMPOUND POWDER OF KINO.
Kino, 15; Opium, 1; Cinnamon Bark, 4. (1 Opium in 20)

Keep it in a well-closed vessel.

Dose.—5 to 20 grains = 0.32 to 1.3 gramme.

TINCTURA KINO. TINCTURE OF KINO.

Kino, in powder, 2; Glycerin, 3; Distilled Water, 5; Alcohol (90 p.c.), *q.s.* to yield 20.

Dose.— $\frac{1}{2}$ to 1 fl. drm. = 1.8 to 3.6 c.c.

Foreign Pharmacopœias.—Official in Swiss, 1 in 5, by weight; U.S., 1 in 20, *see* below. Not in the others.

Tests.—Tincture of Kino has a sp. gr. of 0.988 to 0.990; contains from 22.0 to 25.0 p.c. w/v of total solids; and about 45 p.c. w/v of Absolute Alcohol. A standard of 5 p.c. w/v of Kinotannic Acid has been proposed (*C.D.* '98, ii. 971) for the Tincture.

As gelatinisation is probably due to an enzyme, the following formula has been proposed: Kino, 2 oz.; Boiling Water, 10 fl. oz. Add the Kino to the Water in a suitable vessel, and maintain the whole at or near the temperature of 100° C. for fifteen minutes, agitating frequently. Allow to cool, replace the Water lost by evaporation, add Alcohol (90 p.c.) 10 fl. oz., and set aside for twelve hours; then strain.—*P.J.* '03, ii. 702.

Rub 5 of Kino and 1 of Purified Talc with 15 of Glycerin and 20 of Distilled Water; transfer to a flask and weigh; heat it on a water-bath for one hour and, after cooling, add Water to make up any loss; then add 65 of Alcohol (95 p.c.), mix and filter through Purified Cotton, and pass through the cotton Alcohol (95 p.c.) *q.s.* to make 100.—*U.S.P.*

Not Official.

TROCHISCI KINO.—Containing 2 grains in each lozenge, with Black Currant paste.

This has been incorporated in the *B.P.C.*

Not Official.

KOLA.

The Seeds of *Cola acuminata*, Schott and Endl., a tree whose habitat is the Western Coast of Africa, between Sierra Leone and the Congo. The Seeds contain 2 to 2.5 p.c. of Caffeine, to which it owes its virtues, also a glucoside Kolanin. Kola is official in the *Fr. Codex* (1908) and is required to contain at least 1.25 p.c. of Caffeine; an **Extract** which is required to contain at least 10 p.c. of Caffeine, and a **Fluid Extract**, which is required to contain at least 1.25 p.c. w/v of Caffeine, are also official. A proprietary article is also sold under this name. Various preparations have been made, *i.e.*, **Kola-chocolate**, **Kola elixir**, **Kola wafers**, **Kola wine**, also **Fluid Extract**.

Exerts an energetic action in cases of fatigue on the natives of those parts of Africa where it is indigenous, whereas preparations of Kola made in Europe from the dried nuts are much less active. The fresh nuts and the extract obtained therefrom contain a phenolic compound, Kolatine, which exerts an action entirely different from that of Caffeine, to which the medicinal properties of Kola in fatigue have hitherto been ascribed.—*L.* '06, ii. 177.

Teinture de Cola (1 to 5 of Alcohol 60 p.c.) is official in *Fr.*; Swiss (**Extractum Colæ Fluidum**) contains 1.5 p.c. of Caffeine and Theobromine, also (**Vinum Colæ**) 5 of Fluid Extract and 95 of **Vinum Meridianum Austerum**; *Span.*, **Alcoholic Extract**, with Alcohol 70 p.c. (**Tintura Alcoholica de Kola**), 1 Kola in 10 with Alcohol 70 p.c., and (**Vino de Kola**) 1 of Kola in 10 of Sherry. All by weight.

B.P.C. has an **Extractum Kolæ Liquidum**, 1 in 1 using Alcohol (60 p.c.); **Elixir Kolæ**, 1 of Liquid Extract, $\frac{1}{15}$ of Vanillin and Syrup to produce 100; also **Vinum Kolæ**, 1 of Elixir of Kola and Detannated Sherry to produce 8.

Descriptive Notes.—Kola nuts are imported from West Africa, and to some extent from the West Indies. The so-called nuts consist of seeds freed from the seed coats, and are sometimes broken up into two cotyledons or into four. These are derived, according to Schumann, from two different species, those having two cotyledons, carmine red when fresh, from *Cola vera*, Schum., and those with four cotyledons, sometimes red and sometimes white when fresh, from *C. acuminata*. The seeds of *C. lepidota*, Schum., are also used by the natives, but there is no evidence that they are exported. The seeds as imported are about $1\frac{1}{2}$ inch (37 mm.) long and $1\frac{1}{4}$ inch (31 mm.) in diameter, irregularly ovate oblong, with a more or less oblique line where the two cotyledons meet, but those imported from Trinidad and the West Indies are often not much more than half this size. Kola seeds are hard, solid, tough, and of a reddish-brown colour. The taste is earthy and somewhat astringent and slightly bitter.

KOUSSO. See CUSSO.

KRAMERIE RADIX.

KRAMERIA ROOT.

B.P. Syn.—RHATANY ROOT.

FR., RATANHIA DU PEROU; GER., RATANHIAWURZEL; ITAL., RATANIA;
SPAN., RATANIA.

The dried Root of Para Rhatany, a species of *Krameria*, attributed to *Krameria argentea*, Mart.: or of (2) Peruvian Rhatany, *Krameria triandra*, R. and P.

Medicinal Properties.—A powerful astringent; tonic. Used in chronic diarrhœa; in passive hæmorrhages and mucous discharges, as menorrhagia and leucorrhœa; and generally where Tannin and Catechu are beneficial. The infusion is used as a gargle in relaxed sore throat; one teaspoonful of the tincture in a wineglassful of water is an excellent wash for spongy and inflamed gums, or stomatitis due to Mercury. Locally, in form of suppository with Opium or Morphine, it is used in prolapsus ani, anal fissure, and bleeding piles.

Dose.—20 to 60 grains = 1.3 to 4 grammes, in powder.

Incompatibles.—Alkalis, Lime Water, Iron and Lead salts, Gelatin.

Official Preparations.—Extractum Kramerie, Infusum Kramerie, Liquor Kramerie Concentratus, Tinctura Kramerie, Trochiscus Kramerie and Trochiscus Kramerie et Cocainæ. Contained in Pulvis Catechu Compositus.

Not Official.—Extractum Kramerie Fluidum, Gossypium Kramerie, Infusum Kramerie Concentratum, Suppositorium Kramerie, Syrupus Kramerie and Trochiscus Kramerie et Boracis.

Foreign Pharmacopœias.—Official in Austr., Belg., Dan., Dutch, Fr., Ger., Jap. (Rhatany Root), Norw., Russ., Swed. and Swiss (Ratanhia); Mex. (Crameria); Hung. (Ratanha); Ital., Port. and Span. (Ratania); U.S. (Krameria).

Descriptive Notes.—The roots of two species are official in the *B.P.* Peruvian Rhatany, the root of *Krameria triandra*, Ruiz

and Pavon, is distinguished by having a large woody crown, often 2 or more in. in diameter, giving off several tapering cylindrical roots. These are tough and not easily broken, of a dark brownish-red colour, the rough bark having a splintery fracture, and readily separating from the woody centre, which is of a yellowish colour. Para Rhatany is derived from *Krameria argentea*, Martius; it consists of cylindrical roots, 12 to 18 in. long and $\frac{1}{4}$ to $\frac{1}{2}$ in. in diameter, has a purplish-brown colour, and smooth thick bark, cracked transversely at intervals, with a short fracture, and adhering closely to the reddish-brown wood. The bark of both kinds is very astringent, and when chewed the root tinges the saliva red, but the woody portion is almost tasteless. The powder of Peruvian Rhatany is lighter in colour than that of the Para drug, and is characterised by conical or pear-shaped starch grains, often arranged in a stellate form or in groups of three or four, by the flattened bast fibres, by the prismatic crystals of Calcium Oxalate in the bast parenchyma, and by the arrangement of bast fibres which, instead of forming extended groups, are dispersed irregularly. Formerly a variety known as Savanilla Rhatany was imported, resembling the Para in appearance, but of a paler purplish tint, and thicker bark, being one-third to a quarter of the thickness of the wood. It can be distinguished by thin sections of the root giving a violet colour when moistened with a ferrous salt, those of the Peruvian sort assuming a greyish hue, and those of Para bluish-black. Savanilla Rhatany is derived from *Krameria tomentosa*, St. Hil. A so-called Rhatany Root from Guayaquil was offered in commerce a few years ago. It contains cluster crystals of Calcium Oxalate, which do not occur in the other kinds of Rhatany mentioned above.

Tests.—*Krameria* Root contains from 1 to 2 p.c. of ash.

Preparations.

EXTRACTUM KRAMERIÆ. EXTRACT OF KRAMERIA. *B.P.Syn.*
—EXTRACT OF RHATANY.

Prepared from *Krameria* Root, by exhaustion with Distilled Water and evaporation to dryness.

Dose.—5 to 15 grains = 0.32 to 1 gramme.

Foreign Pharmacopœias.—Official in Austr., Belg., Dan., Dutch, Fr., Jap., Mex., Port., Russ., Span. and U.S.; Hung., crude Extract purified with warm Water; Ital. (aqueous); Swiss, made with boiling Water; Belg., Mex. and U.S. have also a **Fluid Extract**. Not in Ger. or Norw.

INFUSUM KRAMERIÆ. INFUSION OF KRAMERIA. *B.P.Syn.*—
INFUSION OF RHATANY.

Krameria Root, bruised, 1; boiling Distilled Water, 20. Infuse 15 minutes. (1 in 20)

Dose.— $\frac{1}{2}$ to 1 fl. oz. = 14.2 to 28.4 c.c.

This Infusion should be freshly prepared, as it deposits when kept.

Foreign Pharmacopœias.—Official in Fr. and Mex., Tisane, 1 in 50. Not in the others.

LIQUOR KRAMERIÆ CONCENTRATUS. CONCENTRATED SOLUTION OF KRAMERIA.

10 of Krameria Root, in No. 40 powder, percolated with Alcohol (20 p.c.), to yield 20. (1 in 2)

Dose.— $\frac{1}{2}$ to 1 fl. drm. = 1.8 to 3.6 c.c.

Tests.—Concentrated Solution of Krameria has a sp. gr. from 1.010 to 1.020; contains about 10 p.c. w/v of total solids; and about 18 p.c. w/v of Absolute Alcohol.

TINCTURA KRAMERIÆ. TINCTURE OF KRAMERIA. *B.P.Syn.*—TINCTURE OF RHATANY.

4 Krameria Root, in No. 40 powder, percolated with Alcohol (60 p.c.), to yield 20. (1 in 5)

In *B.P.* 1885 it was 1 in 8.

Dose.— $\frac{1}{2}$ to 1 fl. drm. = 1.8 to 3.6 c.c.

Foreign Pharmacopœias.—Official in Austr., Belg., Dan., Dutch, Fr., Ger., Hung., Ital., Jap., Mex., Norw., Port., Russ., Swed., Swiss and U.S., 1 in 5. All by weight except U.S. Not in Span.

Tests.—Krameria Tincture has a sp. gr. of 0.930 to 0.940; contains about 5 p.c. w/v of total solids; and about 56 p.c. w/v of Absolute Alcohol.

TROCHISCUS KRAMERIÆ. KRAMERIA LOZENGE. *B.P.Syn.*—RHATANY LOZENGE.

1 grain of Extract of Krameria in each, with Fruit Basis.

Foreign Pharmacopœias.—Official in U.S. Not in the others.

TROCHISCUS KRAMERIÆ ET COCAINÆ. KRAMERIA AND COCAINE LOZENGE. *B.P.Syn.*—RHATANY AND COCAINE LOZENGE.

1 grain of Extract of Krameria and $\frac{1}{20}$ grain of Cocaine Hydrochloride in each, with Fruit Basis.

Not Official.

EXTRACTUM KRAMERIÆ FLUIDUM.—Krameria, in No. 30 powder, 100; Glycerin, 10; Diluted Alcohol (49 p.c.), *q.s.* to produce 100.—*U.S.P.* 1890. This has been incorporated in the *B.P.C.* using Alcohol (45 p.c.)

GOSSYPIUM KRAMERIÆ.—Tincture of Rhatany, $\frac{1}{2}$ fl. oz.; Glycerin, 10 minims; mix and with it saturate evenly Cotton-Wool, 60 grains, and dry.

INFUSUM KRAMERIÆ CONCENTRATUM.—Krameria, in No. 40 powder, 40; Alcohol (90 p.c.), 25; Dilute Chloroform Water (1 to 1000), *q.s.* to make 100. Prepare by repercolation. Before the addition of the Alcohol to the reserved portion, this should be heated to a temperature of not less than 85° C. and maintained thereat for 5 minutes. Dose.—30 to 60 minims = 1.8 to 3.6 c.c. *Farr and Wright, P.J.* '06, i. 165, and '07, i. 621; *C.D.* '06, i. 252; *Y.B.P.* 1907, 250.

This appears in the *B.P.C.*

SUPPOSITORIUM KRAMERIÆ.—Extract of Rhatany, 8 grains; Morphine Hydrochloride, $\frac{1}{10}$ grain; Stearin, 10 grains.

Foreign Pharmacopœias.—Official in Fr. and Span., 1 gramme of Extract = 15.5 grains in each.

SYRUPUS KRAMERIÆ.—Fluid Extract of Krameria, 45; Syrup, 55.—*U.S.P.*

This has been incorporated in the *B.P.C.*

Foreign Pharmacopœias.—Official in Belg., Fluid Extract 1, Syrup 9; Fr., Extract 25, Water 50, Simple Syrup 975, concentrate to 1000 by weight; Ital., Extract 2, Water 5, Syrup 98, concentrate to 100 by weight; Mex., Extract 25, Syrup 975; Swiss, 1 of Extract in 100.

Not Official.

LACHNANTHES TINCTORIA.

A North American plant, known colloquially as Red Root or Spirit Weed, a native of the United States. A homœopathic remedy for checking the cough of phthisis, and for treating pneumonia and typhus. Did not exert any inhibitory action on the progress of tuberculosis, but rather seemed to hasten it.—*B.M.J.* '01, ii. 747, 912, 1124, 1868, 1874; '02, i. 59, 101, 113; '02, ii. 146; *L.* '01, ii. 1605; '02, ii. 72; *Pr.* lxxvii. 493; *P.J.* '02, i. 103.

Dose.—2 to 10 minims of a 1 to 10 Tincture made with Alcohol (45 p.c.).
A solid and a fluid extract are also known commercially.

Not Official.

LACTUCA.

Lettuce is the Flowering Herb of the wild indigenous plant, *Lactuca virosa*, L.

Medicinal Properties.—A sedative in irritable cough, either in the form of Extractum Lactuce or as Lactucarium.

Dose.—5 to 15 grains = 0.32 to 1 gramme.

LACTUCARIUM.—The juice from the incised flower-stalk of *Lactuca virosa* and other species, collected and dried.

Dose.—2 to 6 grains = 0.13 to 0.40 gramme.

Foreign Pharmacopœias.—Official in Dutch, Hung., Mex., Port., Span. and U.S.: Not in the others.

SYRUPUS LACTUCARII.—Tincture of Lactucarium, 10; Glycerin, 20; Citric Acid, 0.1; Orange-Flower Water (*U.S.P.*), 5; Syrup, *q.s.* to produce 100. Mix the Tincture with the Glycerin, add the Orange-Flower Water in which the Citric Acid has been previously dissolved, filter if necessary, add the Syrup and make up to 100.—*U.S.P.*

Average Dose.—2 fl. drm. = 7.1 c.c.

This has been incorporated in the *B.P.C.*

TINCTURA LACTUCARII.—Lactucarium, 50; Glycerin, 25; Alcohol (95 p.c.); Purified Petroleum Benzin, Diluted Alcohol (49 p.c.), Water, of each a sufficient quantity to make 100. Powder the Lactucarium with coarse sand and add 200 of Purified Petroleum Benzin, after macerating for 48 hours with frequent agitation pour the mixture on a double filter and allow to drain, wash the residue by gradually adding 150 of Purified Petroleum Benzin, and let the Lactucarium dry by exposure to air. Powder the dried Lactucarium using more sand if necessary, and pack it moderately in a percolator; mix the Glycerin with 20 of Water and 50 of Alcohol (95 p.c.), and moisten the powder with 50 of the mixture and macerate for 24 hours, then let the percolation proceed slowly, gradually adding first the remainder of the menstruum, and then Diluted Alcohol (49 p.c.) until the Lactucarium is exhausted; reserve the first 75 of percolate, evaporate the remainder to 25, mix with the reserved portion, filter, and make up to 100 with Diluted Alcohol (49 p.c.).—*U.S.P.*

Dose.— $\frac{1}{2}$ to 1 fl. drm. = 1.8 to 3.6 c.c.

This has been incorporated in the *B.P.C.*