

VALERIANÆ RHIZOMA.

VALERIAN RHIZOME.

B.P.Syn.—VALERIAN ROOT.

The dried erect rhizome and roots of *Valeriana officinalis*, collected in the autumn.

That from wild plants growing on dry soil is preferred. It owes its properties to a volatile Oil and a volatile Acid, the salts of which (Valerianates) are not prepared from the root, but synthetically from Amylic Alcohol.

The bulk of the Valerian root used in this country is of foreign growth, and should either be allowed or expressly prohibited in B.P.

Medicinal Properties.—It is a nervine stimulant and antispasmodic. Useful in hysteria, in functional nervous diseases associated with hysteria, and as an adjunct to tonics.

Official Preparation.—Tinctura Valerianæ Ammoniata.

Not Official.—Tinctura Valerianæ, Tinctura Valerianæ Æthera, Oleum Valerianæ.

Foreign Pharmacopœias.—Official in all.

Description.—A short erect rhizome, entire or sliced, dark yellowish-brown externally, and giving off numerous slender brittle roots three or four inches (seven and a-half to ten centimetres) long, of the same colour as the rhizome; rhizome and roots whitish or yellowish internally.

Test.—The odour that is developed in the process of drying is strong, characteristic, and disagreeable; taste unpleasant, camphoraceous, and slightly bitter.

Preparation.

TINCTURA VALERIANÆ AMMONIATA. AMMONIATED TINCTURE OF VALERIAN. (ALTERED.)

Valerian Rhizome, in No. 40 powder, 4 oz.; Oil of Nutmeg, 30 minims; Oil of Lemon, 20 minims; Solution of Ammonia, 2 fl. oz.; Alcohol (60 p.c.), 18 fl. oz. Mix the liquid ingredients, and prepare by the maceration process. = (1 in 5).

Now 1 in 5 instead of 1 in 8; Alcohol (90 p.c.), Oils of Lemon and Nutmeg, and Solution of Ammonia used in place of Sal Volatile.

Dose.— $\frac{1}{2}$ to 1 fl. drm.

Foreign Pharmacopœias.—Official in Port, 1 in 5 by weight; U.S., 1 in 5; not in the others.

Not Official.

TINCTURA VALERIANÆ.—Percolate 1 of Valerian Rhizome, in No. 40 powder, with sufficient Alcohol (60 p.c.) to produce 5 of Tincture.

Dose.—1 to 2 fl. drm.

Foreign Pharmacopœias.—Official in Austr., Belg., Dan., Dutch, Fr., Ger., Hung., Ital., Jap., Mex., Norw., Port., Russ., Span., Swed., Swiss, and U.S., 1 in 5; Mex. and U.S. have also **Fluid Extract**; all by weight, except U.S.

TINCTURA VALERIANÆ ÆTHEREA.

Foreign Pharmacopœias.—Official in Belg., Dan., Ger., Hung., Norw., Span., Swed., and Swiss, Valerian 1, Spirit of Ether 5; Fr., Powdered Valerian 1.

Ether (sp. gr. .758) 5, by percolation; Mex. 1 and 5, Sp. Ether. (sp. gr. .76); Russ., Valerian 1, Alcohol (90°) 4, Ether (.728) 2; all by weight.

OLEUM VALERIANÆ.—A yellow volatile Oil; sp. gr. .930—960.

Foreign Pharmacopœias.—Official in Austr., Belg., Dutch, Hung., Port. and Swed.

Not Official.

VANILLA.

The fruit of *Vanilla planifolia*. The finest quality comes from Mexico, and large quantities also come from Bourbon. It owes its fragrance to **Vanillin**, $C_8H_8O_2$, the aldehyde of Methylprotocatechuic Acid, which on oxidation yields **Vanillic Acid** $C_8H_6O_4$. In some text-books they are stated to be the same substance, but this is not the case. Vanillic Acid is without odour and does not form a crystallisable compound with Sodium Bisulphite.

VAPORES.

These have been deleted from B.P. For those 'Not Official' see Index.

Not Official.

VERATRI VIRIDIS RHIZOMA.

GREEN HELLEBORE RHIZOME.

The rhizome and rootlets of *Veratrum viride*.

Collected in autumn in U.S. and Canada.

The principal alkaloidal constituent (about half) is **Cevadine**, the same base as is found in Cevadilla; **Jervine** and **Pseudojervine**, in about equal proportions, constituting the remainder.—*P.J.* (3) ix. 986.

Medicinal Properties.—Sedative. Has been given in sthenic forms of fever, and to quiet spinal spasms; should be cautiously prescribed.

In puerperal eclampsia.—*L.* '98, i. 146.

Foreign Pharmacopœias.—Official in Mex., Eleboro Verde; U.S.; not in the others.

Preparation.

TINCTURA VERATRI VIRIDIS.—*B.P.* '85. Green Hellebore Rhizome, in No. 40 powder, 4; Rectified Spirit 20; macerate the Hellebore with 15 of the Spirit forty-eight hours, agitating occasionally, pack it in a percolator, let it drain, pour on the remainder of the Spirit; when it ceases to drop, press, filter, and add sufficient Rectified Spirit to make 20. = (1 in 5).

Dose.—5 to 20 minims.

The best menstruum is Alcohol (70 p. c.), and the best process continuous percolation; the total alkaloid in *root* varies between .16 and 1.2 p. c., and consequently in the *tincture* between .032 and .24 p. c.; **Jervine** constitutes on the average 30 p. c. of total alkaloid.—*C.D.* '92, ii. 651.

Foreign Pharmacopœias.—Official in U.S., American Hellebore, 4 in 10; also a **Fluid Extract** 1 in 1; not in the others.

VERATRINA.

VERATRINE.

An alkaloid, or mixture of alkaloids, prepared from Cevadilla, the dried ripe seeds of *Schænocaulon officinale*.

The nomenclature of the alkaloids contained in this mixture has undergone modification. Wright and Luff assign to the crystallisable portion (called by Merck 'Veratrine') the name of **Cevadine**, as it yields on saponification Cevadic Acid, the name **Veratrine** being reserved for the base described by Couerbe, which yields Veratric Acid. Another base has been called **Cevadilline**, but the bulk of the alkaloid refuses to yield any crystallisable or otherwise definable compounds.

Solubility.—Scarcely soluble in cold Water; 1 in 1000 of boiling Water; 1 in 3 of Alcohol (90 p.c.); 1 in 6 of Ether; 1 in 3 of Chloroform; sparingly in Glycerin; about 1 in 80 of Olive Oil; and readily in diluted Acids.

Medicinal Properties.—A powerful emetic and drastic purgative. Rarely given internally. As an analgesic and antiphlogistic it is used externally in neuralgia, in chronic swellings, stiffening or induration of the joints. It should not be used where the skin is broken.

Official Preparation.—Unguentum Veratrinae.

Not Official.—Oleatum Veratrinae.

Antidotes.—Emetic, stimulants, Coffee, warmth to the extremities. Recumbent position to be strictly maintained.—*Murrell*.

Foreign Pharmacopœias.—Official in all.

O.M.P.—It may be obtained by the following process:—Cevadilla of Commerce, 2 lbs.; Distilled Water, Alcohol (90 p.c.), Solution of Ammonia, Hydrochloric Acid; of each a sufficient quantity. Macerate the Cevadilla with half its weight of boiling Distilled Water, in a covered vessel, for twenty-four hours; remove the Cevadilla; squeeze it; dry it thoroughly in a warm place; then beat it in a mortar, and separate the seeds from the capsules. Reduce the seeds to powder; moisten the powder with the Alcohol; pack firmly in a percolator; pass the Alcohol through the marc until the percolate ceases to be coloured; concentrate the Alcoholic solution by distillation, so long as no deposit forms, and pour the residue, while hot, into twelve times its volume of cold Distilled Water; filter through calico; wash what remains on the filter with Distilled Water, until the filtrate ceases to precipitate with Solution of Ammonia. To the filtrate add Solution of Ammonia in slight excess; let the precipitate completely subside; pour off the supernatant liquid; collect the precipitate on a filter; wash it with Distilled Water until the filtrate passes colourless; distribute the moist precipitate through twelve fluid ounces of Distilled Water; add gradually, with diligent stirring, sufficient Hydrochloric Acid to make the liquid feebly but persistently acid; add sixty grains of the Purified Animal Charcoal of commerce; digest with moderate heat for twenty minutes; filter; allow the liquid to cool; add Solution of Ammonia in slight excess, and, when the precipitate has completely subsided, pour off the supernatant liquid; collect the precipitate on a filter and wash it with cold Distilled Water

until free from Chloride; dry the precipitate, first by imbibition with filtering paper, and then by the application of warmth.

Description.—Pale grey, amorphous, without odour, but, even in the most minute quantity powerfully irritating the nostrils, strongly and persistently bitter, and intensely acid; insoluble in Water, soluble in diluted acids, leaving slight traces of an insoluble brown resinous matter.

Tests.—It dissolves in Nitric Acid, yielding a yellow solution. Warmed with Hydrochloric Acid, it dissolves with production of a blood-red colour lasting several days. Treated with fifty or sixty times its weight of Sulphuric Acid, the mixture turns yellow, subsequently acquires a yellowish-green fluorescence which becomes more distinct on the addition of more acid, and slowly changes to bright-red, or, if warmed, violet-red. Heated with access of air, Veratrine melts to a yellow liquid, and at length burns away, leaving no appreciable residue (absence of mineral impurity).

Veratrine with Sulphuric Acid first goes yellow and then bright red, the addition of a drop of Syrup darkens the red and gives it a purple colour; by exposure to air the purple becomes blue. Sulphuric Acid with $\frac{1}{2}$ of its volume of Water is a better reagent.

Preparation.

UNGUENTUM VERATRINÆ. VERATRINE OINTMENT. (ALTERED.)

Veratrine, 10 grains; Oleic Acid, 40 grains; Lard, 450 grains. Rub the Veratrine with the Oleic Acid, and gently warm the mixture until dissolved; add the Lard; mix. = (1 in 50).

Now 1 in 50 instead of 1 in 63, Hard and Soft Paraffins and Olive Oil replaced by Oleic Acid and Lard.

Foreign Pharmacopœias.—Official in U.S., 1 in 25; Russ., 1 in 50; Port. (Pomada), 1 in 50; not in the others.

Not Official.

OLEATUM VERATRINÆ (U.S.)—Veratrine, 2; Oleic Acid, 98; rub together, and heat on a water-bath until dissolved.

Squibb suggests that this should be made 10 p.c. as more likely to give relief in neuralgia.—*Ephemeris*, p. 164.

Not Official.

VIBURNUM.

BLACK HAW.

The bark of *Viburnum prunifolium*.

Distinction between Viburnum barks.—*A.J.P.* '95, 387; '96, 225.

Medicinal Properties.—Strongly recommended as a preventive in cases of threatened abortion; to control menorrhagia and metrorrhagia and in all kinds of pelvic inflammation; brilliant results in dysmenorrhœa.—*M.A.* '95, 192; *B.M.J.* '95, ii. 1562; *L.* '95, ii. 1625.

REFERENCES—*B.M.J.* '85, i. 987; '86, i. 489, 542, 641, 740, 973; '87, i. 1153; *T.G.* '95, 114.

Foreign Pharmacopœias.—Official in Mex.; U.S.; not in the others.

Preparation.

EXTRACTUM VIBURNI PRUNIFOLII FLUIDUM (*U.S.*).—Exhaust by percolation Viburnum (in No. 60 powder), 100 parts, with a mixture of Alcohol 3 and Water 1; reserve the first 85, and evaporate the remainder to a soft extract; dissolve this in the reserved portion, and add enough menstruum to measure 100.

VINA.

WINES.

Medicated wines are of very ancient date, and were admitted into our earliest Pharmacopœias. Two only remain as representatives of the old Pharmacopœias—Vinum Antimoniale and Vinum Ferri; the former was prepared by digesting 4 ounces of the Regulus of Antimony in powder with 3 pounds of 'White' Wine (Pharmacopœia Londinensis, 1655). The latter (Vinum Chalybeatum) was made with Rhenish Wine and Iron filings.

The following are the Wines of the British Pharmacopœia, the formulas for which will be found under the names of the drugs from which they are prepared:—

Dose.		Proportion of active ingredient in the whole.
10 to 30 minims .	VINUM ANTIMONIALE 2 grains in 1 fl. oz.
As an emetic, 2 to 4 fl. drm.	VINUM AURANTII 10 to 12 p.c. of Ethyl Hydroxide by volume.
10 to 30 minims .	VINUM COLCHICI (dried Corn) 1 in 5.
1 to 4 fl. drm.	VINUM FERRI made with Iron Wire.
1 to 4 fl. drm.	VINUM FERRI CITRATIS 8 grains in 1 fl. oz.
10 to 30 minims .	VINUM IPECACUANHÆ. (Liquid Extract) 1 in 20. as an expectorant; as an emetic, 4 to 6 fl. drm.
$\frac{1}{2}$ to 1 fl. oz. .	VINUM QUININÆ. (Hydrochloride.) 1 grain in 1 fl. oz.
	VINUM XERICUM. 16 p.c. Ethyl Hydroxide by volume.

VINUM XERICUM.

SHERRY.

A Spanish Wine.

Unless good sound Sherry is used, the preparations are apt to spoil by keeping.

For the amount of Alcohol in the several wines most commonly drunk in England, see p. 603.

Official Preparations.—Used in the preparation of Vinum Antimoniale, Vinum Colchici, Vinum Ferri, and Vinum Ipecacuanhæ.

Not Official.—Vinum Xericum Detannatum.

Description.—Pale yellowish-brown, containing not less than 16 p.c. of Ethyl Hydroxide by volume.

Tests.—When a mixture of 50 c.c. of this wine and 50 c.c. of Water, acidulated with 5 c.c. of the Volumetric Solution of Sulphuric Acid is distilled, the distillate, after rejection of the first 10 c.c. shaken with Ether, the ethereal liquid separated and its

Ether removed by evaporation, the residue should not yield a violet coloration when mixed with Test-solution of Ferric Chloride (absence of Salicylic Acid).

For remarks on the above test see *Vinum Aurantii*.

Not Official.

VINUM XERICUM DETANNATUM (*B.P.C.*).—Sherry, 160; Gelatin, cut small, 2; macerate together for fourteen days, and decant.

Not Official.

VINCA MAJOR.

GREATER PERIWINKLE.

An **infusion** made of dried herb 2, boiling Water 20, and strained when cold, is powerfully astringent.

Dose.—A wineglassful drunk as frequently as required will arrest menorrhagia when other remedies have failed.

Foreign Pharmacopœias.—Official in Fr., *Pervenche Grande*; not in the others.

Preparation.

EXTRACTUM VINCE MAJORIS LIQUIDUM.—Made from the expressed juice of the plant of such strength that $1\frac{1}{2}$ fl. drm. are equal to 2 fl. oz. of the infusion.

Dose.—1 to 2 fl. drm. in water.

The Fluid Extract keeps well, and is the best to prescribe.

Not Official.

YERBA SANTA.

The leaves of *Eriodictyon Californicum*.

They contain 30 to 40 p.c. of a gum-resin.

Recommended in acute bronchitis.—*L.M.R.* '82, 47.

Fluid Extract, 1 in 1, made with strong Alcohol; dose, 10 to 60 minims.

Not Official.

ZINCUM.

ZINC.

Zn, eq. 64·91.

Zinc has been transferred to the Appendix of B.P. '98. A bluish-white metal, of peculiar taste and of a perceptible smell when rubbed; laminated, and with a crystalline fracture. Sp. gr. 7·1; fuses at 773° F.

It occurs native, as a Sulphide or as a Carbonate, and is separated from impurities by sublimation.

The Official tests for the presence of Zinc will be found in the Appendix.

Foreign Pharmacopœias.—Official in Ital., Mex., Russ. and U.S.

Incompatibles of Zinc salts are—Alkalis and their Carbonates, Lime Water, astringent vegetable Infusions or Decoctions, and Milk.

Antidotes.—In case of poisoning with the salts of Zinc, Sodium Carbonate or Potassium Carbonate in large quantities dissolved in warm Water, Milk and Eggs freely, Tannic Acid or strong Tea, Laudanum, Linseed Meal Poultices to abdomen.