and more to give preference to an oil of pale amber color, in place of the natural golden yellow or greenish, and the producers of the oil are accordingly driven to removing the color of the oil by artificial means. Citric and tannic acids are both employed for this purpose, especially the latter. If much color is to be removed, about 5 percent. of tannic acid is used; for medium-colored oil, 3 percent. suffices, and for paler oils from 1 to 2 percent. The tannic acid is dissolved in water, the solution added to the oil, and mixed for fifteen minutes; after half hour the mixture is poured into another vessel, and some hours later it is poured back into the first and allowed to stand for three days, when the oil is drawn off. Some oils can be sufficienly decolored by water alone, the oil being broken up into small drops and allowed to fall into water from a height of several metres. This method is most successful in the open air in bright, sunny weather.—Schw. Wschr. f. Chem. u. Pharm. XLIX (1911), No. 34, 476.

REPORT OF THE COMMITTEE ON UNOFFICIAL STANDARDS.

The following portion of the report of the Committee on Unofficial Standards relates to certain crude drugs and chemicals suggested for inclusion in the next revision of the National Formulary, and by order of the Council is published in the JOURNAL in order to afford opportunity for discussion before the standards proposed are finally adopted.

Manufacturers, importers, analysts, and others interested in any of the proposed standards, are requested to send their criticisms and comments to the chairman of the committee, Geo. M. Beringer, 501 Federal St., Camden, N. J.

APPROVED MONOGRAPHS SUBMITTED AS STANDARDS FOR UNOFFICIAL DRUGS AND CHEMICAL PRODUCTS.

(Continued from February issue—page 168.)

FERRI LACTAS.

IRON LACTATE.

Ferrous Lactate.

$Fe(C_3H_5O_3)_2+3H_2O = 288.$

It should contain not less than 97 per cent of pure ferrous lactate. Keep in well-stoppered bottles.

A greenish white crystalline powder or crystalline masses, having a slight characteristic odor and a mild, sweet, ferruginous taste.

Slowly but completely soluble in 40 parts of water, and in 12 parts of boiling water; freely soluble in solution of alkali citrates yielding a green solution; almost insoluble in alcohol.

When strongly heated, the salt froths up, gives out dense white, acrid fumes, chars and finally leaves a brownish red residue.

The aqueous solution has a greenish-yellow color, a slightly acid reaction and gives a deep blue precipitate with potassium ferricyanide T. S. and a light blue precipitate with potassium ferrocyanide T. S.

A 2 per cent aqueous solution of the salt should not afford with lead acetate T. S. nor, after acidulation with hydrochloric acid, with hydrogen sulphide T. S. more than a whitish opalescence (limit or absence of citrate, tartrate, malate, etc., and of foreign metals).

The aqueous solution (1 to 20) acidulated with nitric acid, should not afford more than a slight opalescence with barium chloride T. S. (limit of sulphate) or with silver nitrate T. S. (limit of chloride).

If 25 Cc. of the aqueous solution (1 in 50) mixed with 5 Cc. of diluted sulphuric acid, be boiled for a few minutes, then precipitated by an excess of potassium or sodium hydroxide T. S., the filtrate, mixed with a few drops of alkaline cupric tartrate V. S., and heated to boiling, should not afford a red precipitate (absence of sugar).

If a portion of the salt be triturated with strong sulphuric acid, no offensive odor should be developed (absence of butyric acid), nor should any gas be evolved (ab-

sence of carbonate), and the mixture, after standing for some time, should not assume a brown color (absence of sugar, gum, or other readily carbonizable impurities).

If 1 Gm. of Ferrous Lactate, contained in a porcelain crucible be moistened with nitric acid, and carefully ignited, it should leave a residue of ferric oxide weighing not less than 0.275 nor more than 0.278 gm. This residue should not have an alkaline reaction upon litmus paper, nor yield anything soluble to water (absence of *foreign salts*).

KAVA KAVA.

METHYSTICUM.

Kava Ava.

The rhizome and roots of *Piper methysticum*, Forster (Fam. *Piperaceae*) a shrub indigenous to the Sandwich Islands.

Consisting of a large, irregular, knotty crown, often 12 cm. or more in diameter, from which proceed long, cylindrical, tough, nearly simple roots, which tend to fray out into bare separated fibro-vascular bundles; externally dark-brown or blackish, internally white, the crown soft, light, spongy, and granular and very starchy. Odor faint, but characteristic. Taste aromatic and pungent, slightly bitter, more or less local anaesthesia resulting.

Upon incineration Kava Kava should yield about 7 per cent of ash.

KOLA.

KOLA.

Kola (or Cola) Nuts. Soudan Coffee.

The dried cotyledons of several species of *Cola* (Fam. *Sterculiaceae*), corresponding to the following description:

Irregularly plano-convex, broadly oval, or approaching circular, in outline, 2.5 to 5 cm. long, or triquetrous longitudinal sections of such bodies; brown, with the outer surfaces slightly incurved and sharp; heavy, hard and tough; odorless and having a slightly astringent taste.

Upon incineration Kola should yield not over 3 per cent of ash.

When assayed by process of the U. S. P. VIII for Guarana, Kola should yield not less than one per cent caffeine.

KOLA RECENS.

FRESH KOLA NUTS.

The entire and undried seeds of *Cola acuminata* (Beauv). Schott and Endl. and other species of *Cola*. (Fam. *Sterculiaceae*).

Fresh Kola consists of a cartilinaginous testa of a bright purplish to a dull brownish color, and containing 2 to 5 cotyledons.

From 30 to 40 mm. long, nearly as broad and about two-thirds as thick, irregularly ovoid and obscurely triquetrous, with blunt angles; externally varying from bright-purple, or occasionally white, to a dull pale brown; testa thickish, leathery or cartilaginous; exalbuminous, the embryo consisting of 2 to 5 fleshy cotyledons of a whitish or pinkish color and a bitterish and somewhat astringent taste. Upon incineration Fresh Kola should yield not more than 2.5 per cent of ash.

Fresh Kola, when assayed by the process given under Guarana in the U. S. Pharmacopoeia VIII., should yield not less than 9.75 per cent of caffeine.

MAGNESII SULPHAS EXSICCATUS.

DRIED MAGNESIUM SULPHATE.

Magnesium Sulphate dried at 100° C. and corresponding to from 77.5 to 81.5 per cent absolute Magnesium Sulphate $MgSO_4$ = 120.39.

Dried Magnesium Sulphate may be prepared by heating (with stirring) 100 parts of crystallized magnesium sulphate in a tared porcelain dish in a drying oven first at a temperature of 60° C. (140° F.) to 70° C. (158° F.) and then at a gradually rising temperature until the substance has lost from 37 to 40 per cent of its weight.

A fine white powder, without odor, and having a cooling, saline, bitter taste. It is almost completely soluble in water. When exposed to air it absorbs moisture.

An aqueous solution of the salt (1 in 40) should be neutral to litmus paper.

When mixed with ammonium chloride T. S. and ammonia water, the aqueous solution of the salt (1 in 40) yields with sodium phosphate T. S. a white, crystalline precipitate. With barium chloride T. S. the aqueous solution of the salt yields a white precipitate insoluble in hydrochloric acid.

Ten Cc. of the aqueous solution of the salt (1 in 200) should not respond to the time limit test for heavy metals prescribed in the United States Pharmacopoeia VIII. Five Cc. of the aqueous solution of the salt (1 in 40) should not respond to the modified Gutzeit's test for arsenic, United States Pharmacopoeia VIII.

If from 0.200 Gm. to 0.300 Gm. of dried magnesium sulphate be dissolved in 50 Cc.

of water, the solution filtered if necessary, and if 10 Cc. of ammonium chloride test solution and sufficient ammonia water to render the mixture alkaline, be added in the order named, shaking after the addition of each reagent, the mixture allowed to stand for 12 hours, the precipitate collected in a tared Gooch crucible, washed with 1 per cent ammonia water until free from chlorides, dried, heated to low redness for 15 minutes, cooled and weighed, the weight of the resultant magnesium pyrophosphate should correspond to at least 77.5 per cent of pure anhydrous magnesium sulphate ($MgSO_4$).

FOLIA VERBASCI.

MULLEIN.

Mullein Leaves. Flannel Leaf. Blanket Leaf. Mullein Dock.

The dried leaves of *Verbascum Thapsus* Linné (Fam. *Scrophulariaceae*).

From 1 to 6 dm. long and 3 to 15 cm. broad, obovate with narrowed base, or varying to oblong or oblong-lanceolate, without true petiole, obtuse or acutish at the summit, very thick, rather tough, light yellowish-gray, densely long-tomentose. Nearly odorless and of a mucilaginous and bitterish taste.

Upon incineration Mullein leaves should yield not over 14 per cent of ash.

OLEUM CARDAMOMI.

OIL OF CARDAMOM.

A volatile oil distilled from the seeds of *Elettaria Cardamom*, White et Maton (Fam. *Zingiberaceae*). It should be kept in well-stoppered amber-colored bottles, in a cool place, protected from light.

A colorless or very pale yellow liquid having the characteristic aromatic, penetrating and somewhat camphoraceous odor of Cardamom and a persistently pungent and strongly aromatic taste.

Specific gravity 0.924 to 0.947.

Very soluble in alcohol and dissolves readily and clearly in 4 volumes of 70 per cent alcohol.

It is dextrogyrate, the angle of rotation varying from +22° to +40° in a 100 mm. tube, at a temperature of 25° C.

FRUCTUS PAPAVERIS.

POPPY CAPSULES.

The dried, fully grown, unripe fruits of *Papaver somniferum* Linné. (Fam. *Papaveraceae*).

Globular or ovoid, usually 3 cm. to 3.5 cm. in diameter, but varying in size, more or less sunken or depressed on the sides and contracted at the base into a sort of neck immediately above a tumid ring at the point of attachment with the stalk; crowned at the apex with the 7 to 15 rayed stigma disk; outer wall of pericarp smooth, hard, grayish-yellow to brownish-yellow, often marked with black spots; interior surface rugose, finely striated transversely and bearing thin, brittle membranaceous placentae, which extend from the sutures toward the center and bear on their faces and edges numerous minute conspicuously reticulated, reniform white seeds; odorless; taste slightly bitter.

Upon incineration Poppy Capsules yield not more than 10 per cent of ash.

For pharmaceutical purposes the seeds are to be separated and rejected.

If 1 Gm. of the powdered capsules be macerated for two hours with 10 Cc. of water containing 1 per cent hydrochloric acid, the filtered liquid should give distinct precipitates with iodine T. S. and Mayer's Reagent.

PARÁ COTO.

PARA COTO.

Para Coto Bark.

The bark of an unidentified tree (Fam. *Lauraceae*) indigenous to Northern Bolivia.

In sections or fragments of large quills, of indefinite length, usually 3 to 6 cm. broad, the bark 5 to 15 mm. thick; of a deep-brown color throughout, the outer surface nearly smooth, lightly transversely fissured, and often very thinly scaley, the inner surface very coarsely striate; hard and heavy, but splitting and breaking readily, the fracture earthy in the outer layer, with an irregular resinous band, coarse splintery in the inner, with large yellowish-brown bast-fibers and stone-cells and darker resin tissue. Odor strong and characteristic. Taste strongly aromatic and pungent, followed by a peppery-biting sensation.

Upon incineration Para Coto yields about 2 per cent of ash.

PHENOLPHTHALEINUM.

PHENOLPHTHALIEN.

$C_{20}H_{14}O_4 = 318.12.$

A dibasic phenol derivative (Dihydroxyphtalophenone. para-phtalein), $(C_6H_4OH)_2 COC_6H_4CO$, obtained by the condensation of phenol and phtalic anhydride.

White, sometimes slightly yellowish or

pinkish, micro-crystalline or amorphous powder, odorless, tasteless and permanent in the air.

Almost insoluble in water (1-80000), only slightly soluble in boiling water (1-30000), soluble in about 10 parts alcohol at 25° C. and in about 2 parts of boiling alcohol, soluble in about 45 parts of ether at 25° C. The crystallized variety dissolves in ether with difficulty, while the amorphous goes in solution readily. Soluble in caustic alkalies with a dark red color, showing violet red at the meniscus; the alkaline solution is decolorized on the addition of an excess of acid or on boiling with powdered zinc.

It melts at 253°-254° C., forming a clear liquid of pale brownish color.

On incineration it should not leave more than 0.1 per cent of ash.

In concentrated sulphuric acid it dissolves producing an orange red color.

The solution of 1 part of Phenolphthalein in 50 parts of alcohol should be colorless (absence of resinous substances).

On shaking 1 Gm. of Phenolphthalein with 70 cc. of tenth-normal potassium hydroxide V. S. it should dissolve with a rich red color, without leaving any residue (absence of fluoran).

If 1 Gm. of Phenolphthalein be shaken with 20 Cc. of water and filtered, one-half of the filtrate, acidulated with hydrochloric acid should give no precipitate or turbidity with barium chloride T. S. (absence of sulphates); the other half, acidulated with nitric acid should give no precipitate or turbidity with silver nitrate T. S. (absence of chlorides).

POTASSII GLYCEROPHOSPHAS.

POTASSIUM GLYCEROPHOSPHATE.

A semi-solid, colorless or yellowish mass, having a saline tase, odorless, containing about 75 per cent of absolute Potassium Glycerophosphate $C_3H_7O_3\ PO_3K_2 = 248.26$.

Very soluble in water. Insoluble in alcohol.

When exposed in a thin layer to a temperature of 140° C., until it ceases to lose weight, the loss should be about 25 per cent.

When heated to a higher temperature, it evolves inflammable vapors and at a red heat is converted into potassium pyrophosphate. The residue from ignition of 1 Gm. should weigh about 0.48 Gms. and should impart a violet color to a non-luminous flame.

The aqueous solution (1 in 20) is slightly alkaline to litmus.

On addition of lead acetate T. S. it yields a white precipitate.

Magnesia Mixture T. S., or cold Ammonium Molydbate T. S., should give no precipitate within five minutes (limit of phosphate). On warming, or after long standing, Ammonium Molydbate T. S. produces a yellow precipitate.

If 1 Gm. be thoroughly triturated in a mortar with 20 Cc. of alcohol, the filtrate, when evaporated on a waterbath, should leave not more than 1 per cent residue (absence of glycerin, organic matter, etc.).

The aqueous solution (1 in 20) should not respond to the U. S. P. time limit test for heavy metals.

SEMEN CYDONIAE.

QUINCE SEED.

The dried ripe seeds of *Cydonia vulgaris* Pers. (Fam. *Rosaceae*), with their adhering gum, and with not more than five per cent, by weight, of other matter.

Single, or adhering in irregular masses, usually of from 2 to 10, by their dried, exuded gum, and often enclosed in a mass of such gum; 5 to 8 mm. long, 3 to 5 mm. broad, and almost as thick; ovoid, with rounded base and somewhat pointed summit, one or two sides more or less flattened or even slightly concave; anatropous, the hilum at the pointed end; externally of a deep, purple-brown color, the kernel whitish, exalbuminous, the embryo fleshy, nearly odorless, of a bitterish taste and strongly mucilaginous when chewed.

Upon incineration Quince Seed should yield not more than 6 per cent of ash.

RHAMNUS CATHARTICUS.

BUCKTHORN BERRIES.

Fructus Rhamni cathartici. Bacca Spinae Cervinae.

The dried ripe fruit of *Rhamnus catharticus* Linné. (Fam. Rhamnaceae).

Flattened globoid or ovoid, 4 to 8 mm. in diameter, externally purple-black, wrinkled from shrinking of the mesocarp in drying; 3 to 4 celled, each cell containing a brown triangular-convex, seed-like nutlet; in the fully dried ripe fruit the pedicel is usually lacking; taste first sweetish, then nauseating bitter; colors the saliva purplish-red; odor faint, unpleasant.

On soaking in water the drupe readily as-

sumes its original globular shape, approximately 1 cm. in diameter. The expressed pulp is colored red by acids and yellow by alkalies.

An aqueous extract shaken out with ether or benzole and the latter solution shaken with 5 per cent ammonia water, the ammonia solution assumes a cherry-red color.

The unripe fruit is green to greenish-brown, firm, furrowed, pedicel usually attached; very bitter, colors the saliva greenish-yellow and is to be rejected for preparations of the N. F.

Upon incineration Buckthorn Berries should yield not over 5 per cent of ash.

CROCUS.

SAFFRON.

Saffron. True Saffron. Spanish Saffron.

The stigmas and red parts of the styles of *Crocus sativus* Linné. (Fam. *Irideae*), containing not more than 10 per cent of yellow style-tissue and fragments of stamens and perianth.

Separate stigmas or three attached to the top of the style, about 3 Cm. long, flattish-tubular, almost thread-like, broader and notched above; orange-brown, odor strong, characteristic aromatic; taste bitterish and aromatic, but not sweet.

When pressed between filter paper the latter should not display transparent spots from the absorption of oil. When chewed it tinges the saliva deep orange yellow.

When soaked in water it should not deposit any pulverulent, mineral matter, nor show the presence of organic substances differing in shape from that described.

On agitating 10 mg. of Saffron with 1000 Cc. of water, the liquid will acquire a distinct yellow color. No color should be imparted to benzin agitated with Saffron (absence of picric acid and some other coal tar colors).

On drying 1 Gm. Saffron at 100° C., it should lose not more than 14 per cent of its weight (absence of added water).

When thus dried, and ignited with free access of air, the dry Saffron should leave not more than 7.5 per cent of ash, which should not be fusible (absence of foreign inorganic substances).

If a small portion of the dried Saffffron be powdered and placed upon an object glass, then covered with a cover glass and strong sulphuric acid be allowed to flow in under the cover glass, deep blue radiations which quickly become red and then brownish-red should be seen, under the microscope, to proceed from each of the small particles of the powder (absence of foreign inorganic substances)

Saffron should be kept in closed containers, protected from the light.

TUBERA SALEP.

SALEP.

The tubers of various species of *Orchis* and closely related plants of the group *Ophrydeae* (Fam. *Orchidaceae*) collected while flowering, washed and dried.

Small oval or globular tubers, flattened or wrinkled rarely palmate, exhibiting at the top the scar of the stem bud; of a pale yellowish-brown color, hard, horny, semi-translucent, odorless and of a mucilaginous taste. If one part of Salep in powdered form be boiled with 50 parts of water, a stiff mucilage is formed on cooling, which is colored blue by Iodine T. S.

The powdered Salep should leave on incineration not more than 3 per cent of ash.

VINUM XERICUM.

SHERRY WINE.

An alcoholic liquid made by fermenting the juice of fresh grapes, the fruit of *Vitis vinifera* (Fam. *Vitaceae*), freed from seeds, stems and skins, and fortifying with alcohol or brandy.

The term Sherry Wine was originally limited to that variety produced in the vicinity of Xeres, in Spain. Now, however, the term Sherry Wine means a natural wine, having a color and peculiar nutty flavor generally associated with this wine. For medicinal and pharmaceutical purposes, native wines may be used as Sherry Wine, provided that they correspond to the description and tests given below.

Sherry Wine should be preserved in well-closed casks, filled as full as possible, or in well-stoppered bottles, in a cool place.

A pale yellowsh-brown or amber colored liquid, having a pleasant aromatic odor, free from yeastiness and a fruity, pleasant and characteristic taste, without excessive sweetness or acidity, containing not less than 18 nor more than 21 per cent absolute alcohol, by volume.

The specific gravity at 25° C. should be not less than 0.987 nor more than 0.998.

If 100 Cc. of Sherry Wine be evaporated,

the residue, when dried during 12 hours on the waterbath, should amount to not less than 3 nor more than 5.5 Gm.; this residue, ignited at a low temperature and burned gradually to whiteness, moistened with a small portion of ammonium carbonate T. S. and again carefully ignited, should weigh not less than 0.25 nor more than 0.5 Gm.

To neutralize 50 Cc. of Sherry Wine should require not less than 2.5 nor more than 4 Cc. of normal potassium hydroxide V. S. (limit of free acid), litmus T. S. being used as indicator.

If 50 Cc. of Sherry Wine be acidulated with hydrochloric acid, heated, and an excess of barium chloride T. S. be added, the resulting precipitate, when collected on an ash free filter, washed, dried, ignited and weighed, should, in true Sherry Wine, weigh not less than 0.172 Gm. nor more than 0.344 Gm., corresponding to not less than 0.1 gramme nor more than 0.2 gramme of potassium bisulphate, resulting from the practice of treating must with gypsum. Native wines, which, as a rule are not thus treated, should yield not less than 0.017 Gm. nor more than 0.034 Gm. of barium sulphate corresponding to not less than 0.01 gramme nor more than 0.02 gramme of potassium bisulphate, or about 1/10 as much potassium bisulphate as Spanish Sherry Wine.

If 10 c. c. of Sherry Wine be diluted with an equal volume of water and treated with 5 drops of ferric chloride T. S. only a faint, greenish-brown color should make its appearance (absence of more than traces of tannic acid).

If 75 c. c. of Sherry Wine be acidified with 5 c. c. of diluted sulphuric acid (1 to 3), and thoroughly shaken in a separatory apparatus with a mixture of equal parts of petroleum benzin and ether, and the solvent, after separation, be transferred to a porcelain dish, allowed to evaporate spontaneously and the residue dissolved in 3 Cc. of water, the solution should not have a sweet taste (absence of saccharin), nor should it give a violet color upon the addition of a diluted solution of ferric chloride (1 to 200) (absence of salicylic acid).

STRONTII ARSENITIS.

STRONTIUM ARSENITE.

$Sr(AsO_2)_2 = 301.62.$

It should contain not less than 95 per cent of actual strontium arsenite and should be kept in well-stoppered bottles.

A heavy, white powder, odorless and tasteless. On exposure to the air, it is slowly oxidized to arsenate.

Slightly soluble in water and alcohol, soluble in diluted acetic, hydrochloric and nitric acids.

The aqueous solution is alkaline to litmus and phenolphthalein.

For supplying tests of identity and purity, dissolve 2 Gm. of strontium arsenite in a mixture of 35 Cc. of water and 5 Cc. of hydrochloric acid. No distinct effervescence should take place (limit of carbonate).

If a loop of platinum wire be moistened with the solution and held in a non-luminous flame, it should impart to the latter an intense crimson color.

If a portion of the solution be neutralized with ammonia water, addition of potassium chromate T. S. gives a yellow precipitate, soluble in acetic acid.

Addition of hydrogen sulphide T. S. produces a lemon-yellow precipitate, which, when thoroughly washed, should be completely soluble in ammonium carbonate test solution (absence of cadmium, antimony and tin).

If 1 Gm. of Strontium Arsenite be dissolved in a mixture of 10 Cc. of water and 3 Cc. of hydrochloric acid, the solution neutralized with ammonia water, then 1 Gm. of sodium acetate dissolved in the liquid and the solution made slightly acid by the addition of acetic acid, it should not become cloudy within 10 minutes after addition of 5 drops of potassium dichromate T. S. (limit of barium).

If 1 Gm. of Strontium Arsenite be dissolved in a mixture of 10 Cc. of water and 3 Cc. of hydrochloric acid, warming if necessary, ammonia water added slightly in excess, then 3 Gm. of ammonium sulphate added and the mixture heated about 5 minutes on a waterbath, the filtrate should not become cloudy within five minutes after the addition of 5 drops of ammonium oxalate test solution (limit of calcium).

Dissolve about 0.2 Gm. of strontium arsenite in a little warm water with the aid of a few drops of hydrochloric acid, dilute to about 25 Cc. with water, add diluted sulphuric acid until no further precipitate is produced, neutralize with sodium bicarbonate and dissolve in the liquid 2 Gm. more of sodium bicarbonate; titrate with tenth-normal iodine V. S. Multiply the number of Cc. tenth-normal iodine V. S. consumed by 0.7541

and divide this product by the weight of strontium arsenite taken. The quotient represents the percentage of absolute strontium arsenite.

THUJA.

ARBOR VITAE.

Yellow Cedar. Fine White Cedar. Tree of Life. Feather-leaf Cedar.

The recently dried young twigs of *Thuja occidentalis* Linné. (Fam. *Pinaceae*).

Twigs leafy, fan-shaped, flattened, bearing the scale-like leaves appressed in four rows; leaves of the edges boat-shaped, the intermediate flat, those at the tips of the twigs very broad, the lower elongated, all bearing conspicuous glands on the back. Odor strongly balsamic, aromatic and pungent, taste camphoraceous, terebinthinate and bitter.

Upon incineration Thuja yields about 7 per cent of ash.

PINUS ALBA CORTEX.

WHITE PINE BARK.

Pine Bark.

The dried inner bark of *Pinus Strobus* Linné. (Fam. *Pinaceae*).

In flat pieces of very variable size and about 1 to 3 mm. thick; outer surface varying from a pale pinkish white, when fresh, to a light or rather deep yellowish brown, according to freshness, occasionally with small patches of the gray-brown periderm adhering, more or less fuzzy, and often showing small scattered pits, inner surface either lighter or darker than the outer, finely striate; fracture tough-fibrous, transverse section an outer yellowish and an inner whitish band. Odor slight, terebinthinate. Taste slightly mucilaginous, bitter-sweet and astringent.

Upon incineration White Pine Bark should yield not more than 2 per cent of ash.

ZINCI DIOXIDUM.

ZINC DIOXIDE.

Zinc Peroxide.

A partly hydrated form of zinc dioxide (ZnO_2) containing not less than 45 per cent of pure zinc dioxide, when estimated by the method given below.

A heavy yellowish powder, stable in dry air; almost insoluble in water and readily soluble in diluted acids with the formation of hydrogen dioxide.

A solution of 0.1 Gm. of zinc dioxide in 5 Cc. of diluted hydrochloric acid, rendered slightly alkaline with ammonia water and re-acidulated with acetic acid, yields a voluminous precipitate upon the passage of hydrogen sulphide through the mixture.

QUANTITATIVE ESTIMATION OF ZINC DIOXIDE.

Agitate a weighed quantity, about 0.4 Gm. of zinc dioxide with 25 Cc. of water and to effect the solution of the substance add 25 Cc. of diluted sulphuric acid (1 in 5). Then add gradually tenth-normal potassium permanganate V. S. from a burette, until a permanent pink color remains after agitation. Multiply the number of Cc. of the tenth-normal potassium permanganate V. S. consumed, by 0.004833, and divide this product by the weight of the zinc dioxide taken; the result multiplied by 100 represents the percentage of pure zinc dioxide present.

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COMMITTEE ON NATIONAL FORMULARY.

The following is the fifth installment of some of the new formulas that have been suggested for inclusion in the forthcoming edition of the National Formulary. The Committee is desirous of having them thoroughly tried by pharmacists in different sections of the country so as to avoid as much as possible unfavorable comment after the final publication of the book. Comments and criticisms based on practical experiences will be welcome. All communications should be addressed to the Chairman of the Committee,

PROF C. LEWIS DIEHL,
932 Cherokee Road,
Louisville, Ky.,

who will submit the comments to the Subcommittee having the matter in charge.

FLUIDEXTRACTUM BAPTISIAE.

Fluidextract of Baptisia.

Process A (see N. F. III, p. 56), No. 40 powder.

Menstruum: Alcohol .....3 volumes
Water .....1 volume

FLUIDEXTRACTUM CHIONANTHI.

Fluidextract of Chionanthus.

Process A (see N. F. III, p. 56), No. 40 powder.

Menstruum: Alcohol .....3 volumes
Water .....1 volume