"To 3 Gm. of the oil, gradually add 6 Gm. of sulphuric acid, meanwhile keeping the liquid cool. Upon subsequent agitation the mixture will evolve sulfur dioxide, but will remain of a light yellow color, while the pungent odor of the oil will entirely disappear."

"To 3 Gm. of the oil add 3 Gm. of alcohol in a small flask, and then add 6 Gm. of ammonia water. Upon warming to 50° C., the liquid will at first become clear and will then subsequently deposit crystals of thiosinamine."

UNITED STATES PHARMACOPŒIA.

ABSTRACT OF PROPOSED CHANGES WITH NEW STANDARDS AND DESCRIPTIONS. ELEVENTH REVISION.

PART IV—EXTRACTS, FLUIDEXTRACTS AND TINCTURES—SOLUTIONS, SPIRITS AND SYRUPS—CERATES, OINTMENTS AND MISCELLANEOUS GALENICALS.

The Pharmacopœial Convention of 1930 recommended that "abstracts of changes proposed for the U. S. P. XI and new standards and descriptions" be published before final adoption, that those who are not members of the Revision Committee may have an opportunity for comment and criticism.

In compliance with this recommendation, the following abstracts are submitted. The nomenclature and the exact wording does not necessarily represent that to be finally adopted.

Comments should be sent to the chairman of the Revision Committee.

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Distilled Water.—Distilled water is now used in the Pharmacopœia in all formulas where water was formerly directed.

EXTRACTS, FLUIDEXTRACTS AND TINCTURES.

Only formulas and directions are considered here. Assays are reported elsewhere.

Extracta.—General chapter rewritten—extracts to be evaporated at not over 60° C.

Extractum Belladonnæ.—Maceration of drug for 16 instead of 48 hours. Evaporation under reduced pressure at not over 60° C.

Extractum Fellis Bovis.—Oxgall evaporated to 200 cc., 500 cc. alcohol added, stand 24 hours, decant, mix residue with 250 cc. alcohol, filter, wash filter with 250 cc. alcohol. Evaporate alcoholic liquids to dryness at 80° C.; add starch to make the extract weigh one-eighth the weight of the original Oxgall.

Extractum Glycyrrhizæ Purum.—Percolate is evaporated to one-half its volume by boiling under atmospheric pressure and final evaporation conducted on a water-bath.

Extractum Hyoscyami.—Same as for Extractum Belladonnæ.

Extractum Nucis Vomicæ.—First menstruum consists of 750 cc. alcohol, 10 cc. acetic acid, 240 cc. water. Second menstruum consists of alcohol 3 and water 1. Maceration 24 instead of 48 hours. Evaporated at not over 100° C.

Extractum Stramonii.—Same as for Extractum Belladonnæ.

Fluidextracta.—General chapter rewritten—evaporation to be made at not over 60° C. Dampened drug allowed to stand for 15 minutes instead of 6 hours.

Fluidextractum Belladonnæ Radicis.—Menstruum—alcohol 4, water 1.

Fluidextractum Cascaræ Sagradæ Aromaticum.—Formula changed to the following:

Cascara Sagrada	1000	Gm.
Magnesium Oxide	120	Gm.

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* Permission to reprint for purposes of comment can be had on application to the Chairman of the Board of Trustees, James H. Beal, Fort Walton, Fla.

Pure Extract of Glycyrrhiza	40	Gm.
Saccharin	2	Gm.
Oil of Anise	0.65	cc.
Oil of Coriander	0.15	cc.
Methyl Salicylate	0	cc.
Alcohol	200	cc.
Water, sufficient to make	1000	cc.

Evaporated at not over 100° C.

Fluidextractum Glycyrrhizæ.—Ammonia water is added to the percolate which is evaporated, by boiling, to 1500 cc. filtered, evaporated to 750 cc. and 250 cc. of alcohol added.

Fluidextractum Ipecacuanhæ.—Menstruum, alcohol 3, water 1. Maceration 72 hours. Percolate reduced, at 60° C., to 1000 cc., 2000 cc. water added, stand over night, filtered, evaporated to 600 cc. and 40 cc. of Hydrochloric Acid and 300 cc. of alcohol added.

Fluidextractum Zingiberis.—Official Ginger is now to be the Jamaica variety only. Menstruum alcohol 9, water 1. Maceration over night.

Opium Granulatum.—Dried at 98° C. Powder to pass through a number 16 sieve with not more than 10 per cent through a number 60 sieve.

Opium Pulveratum.—Dried at 98° C.

Tinctura Aconiti.—Menstruum alcohol 3, water 1. p_H adjusted to 3.0.

Tinctura Aurantii Amari.—Menstruum, alcohol 2, water 1. Macerate 12 to 16 hours.

Tinctura Belladonnæ.—Menstruum, alcohol 3, water 1.

Tinctura Cantharidis.—Glacial acetic acid increased to 100 cc. Macerated 4 days before percolating.

Tinctura Capsici.—Menstruum, alcohol 9, water 1. Macerate 3 hours.

Tinctura Cinchonæ Composita.—Menstruum—First—Alcohol 130 cc., diluted hydrochloric acid 15 cc., water 50 cc. Second—Alcohol 2, water 1. Percolate to 925 cc. and add 75 cc. of glycerin.

Tinctura Colchici.—Menstruum, alcohol 2, water 1.

Tinctura Digitalis.—The fat is not extracted from the drug for the new tincture. Formula and directions are otherwise the same.

Tinctura Gentianæ Composita.—Macerate 12 to 16 hours.

Tinctura Hyoscyami.—Menstruum, alcohol 3, water 1.

Tinctura Kino.—Strength raised to 20 per cent. Menstruum, alcohol 9, glycerin 1.

Tinctura Opii.—After exhausting the drug the percolate is evaporated to 400 cc., the concentrate boiled for 15 minutes and then allowed to stand over night. The next day it is heated to 80° C., the paraffin added and the heat increased until the paraffin melts. The mixture is then beaten thoroughly and cooled.

The paraffin is then removed, the liquid filtered, distilled water added to make 750 cc., then 188 cc. of alcohol. The liquid is now assayed and sufficient menstruum added to make each 100 cc. contain 1 Gm. of anhydrous morphine.

Tinctura Opii Camphorata.—Tincture of Opium (40 cc.) replaces Opium (4 Gm.).

Tinctura Stramonii.—Menstruum, alcohol 3, water 1.

Tinctura Veratri Viridis.—Menstruum, first alcohol 200 cc., hydrochloric acid 2 cc., then alcohol; p_H adjusted between 4 and 5.

SOLUTIONS, SPIRITS, SYRUPS.

Liquor Calcii Hydroxidi.—The solution is to be prepared from calcium hydroxide, 3 Gm. per 1000 cc. instead of calcium oxide.

Liquor Ferri Tersulphatis.—The formula and directions are omitted.

Liquor Iodi Mitis.—This is a new antiseptic for first-aid treatment of wounds.

LIQUOR IODI MITIS

Mild Solution of Iodine

Mild Solution of Iodine contains, in each 100 cc., not less than 1.8 Gm. and not more than 2.2 Gm. of I and not less than 2.1 Gm. and not more than 2.5 Gm. of NaI.

Iodine	**20 Gm.**
Sodium Iodide	**23 Gm.**
Diluted alcohol, a sufficient quantity, to make	**1000 cc.**

Dissolve the iodine and sodium iodide in a sufficient quantity of diluted alcohol to make the product measure 1000 cc.

Description and physical properties. A transparent liquid having a reddish brown color and the odor of iodine and of alcohol.

Test for identity. A drop of the Solution added to 1 cc. of starch T.S., diluted with 10 cc. of distilled water, produces a deep blue color.

Assay for sodium iodide. Proceed as directed for potassium iodide under *Liquor Iodi Aquosa.*

Assay for iodine. Proceed as directed under *Liquor Iodi Aquosa.*

Storage. Preserve Mild Solution of Iodine in glass bottles, closed with stoppers resistant to corrosion and in a cool place, protected from light.

Liquor Magnesii Citratis.—The formula of the U. S. P. IX which contained 33 Gm. of Citric Acid instead of the 35 Gm. of the U. S. P. X has been accepted and the following test for citric acid added:

Transfer exactly 10 cc. of Solution of Magnesium Citrate to a 250-cc. beaker. Gently agitate the contents for two minutes, then dilute with 30 cc. of distilled water. Add 3 drops of phenolphthalein T.S. and normal sodium hydroxide until a permanent pink color is just produced and then acidify with 4 drops of normal hydrochloric acid. Add 20 cc. of calcium chloride T.S. and concentrate, by boiling, to about 30 cc., stirring constantly with a rubber-tipped glass rod during the boiling. While hot, transfer the precipitate completely to a filter of from 9 to 11 cm. in diameter with the aid of small quantities of boiling distilled water. Then wash the precipitate five times with boiling distilled water. Collect the filtrate and washings in a 150-cc. beaker. Concentrate the filtrate and washings, by boiling, to about 20 cc. Add ammonia T.S., drop by drop, until a distinct red color is produced and then concentrate to about 10 cc. While hot, transfer the precipitate completely to a filter of from 7 to 9 cm. in diameter with the aid of small quantities of boiling distilled water and wash the precipitate six times with about 5 cc. of boiling distilled water.

Dry the two filters with the precipitates and incinerate them together in a loosely covered platinum crucible, heating at first at a low temperature until the precipitates are well charred and then removing the cover and raising the temperature until the residue is practically white. If a gas flame is used it must not come in contact with the mass in the crucible. Cool, place the crucible with its contents in a suitable beaker, add about 30 cc. of distilled water, and then exactly 50 cc. of half-normal hydrochloric acid. When the residue has dissolved remove the crucible, rinsing it well with distilled water into the beaker. Add about 100 cc. of distilled water, cover the beaker with a watch glass and boil gently for about ten minutes. Cool and titrate the excess of acid with half-normal sodium hydroxide, using phenolphthalein T.S. as the indicator. Not less than 26 cc. of half-normal hydrochloric acid is consumed.

Liquor Potasii Arsenitis.—The formula is changed to:

Arsenic Trioxide	10 Gm.
Potassium Bicarbonate	7.6 Gm.
Alcohol	30 cc.
Distilled water to make	1000 cc.

The preparation is without color and is not excessively alkaline.

Liquor Sodii Hypochloritis.—This is a new text. It is a solution containing 4 per cent of NaOCl. There is no formula.

Liquor Sodii Hypochloritis Chirurgicalis.—The formula is changed to:

Solution of Sodium Hypochlorite	1000 cc.
Sodium Bicarbonate	
Distilled Water, of each, to make	6000 cc.

Spiritus Anisi.—The following rubric and assay have been added.

Each 100 cc. shall contain not less than 9 cc. and not more than 11 cc. of Oil of Anise.

Assay. Transfer exactly 5 cc. of the Spirit to a Babcock flask. Attach the bottle to a suction pump and, while maintaining a relatively high degree of vacuum, evaporate most of the alcohol by repeatedly but carefully immersing the bottle in hot water and immediately withdrawing it. Throughout the operation the flask must be vigorously rotated. Care must be taken that none of the liquid be drawn out of the flask. When the most of the alcohol has been removed, cool the liquid and add exactly 1 cc. of kerosene from a pipette calibrated to deliver that amount and mix well. Then add sufficient saturated calcium chloride solution, acidified with hydrochloric acid, to almost fill the bulb of the flask. Rotate the flask vigorously to insure thorough mixing, then add sufficient of the calcium chloride solution to bring the separated oil into the neck of the flask. Centrifuge for five minutes and then read the volume of oil in the stem. Subtract 5 divisions for the kerosene added and multiply the remaining volume by 4.2 to obtain the percentage of oil, by volume, in the Spirit.

Spiritus Aurantii Compositus.—The following rubric and assay have been added.

Each 100 cc. shall contain not less than 25 cc. and not more than 30 cc. of mixed Oils.

Assay. Transfer exactly 2 cc. of the Spirit to a Babcock flask, add exactly 1 cc. of kerosene from a pipette calibrated to deliver that amount and mix well. Then add sufficient saturated calcium chloride solution, acidified with hydrochloric acid, to almost fill the bulb of the flask. Rotate the flask vigorously to insure thorough mixing, then add sufficient of the calcium chloride solution to bring the separated oil into the neck of the flask. Centrifuge for five minutes and then read the volume of oil in the stem. Subtract 5 divisions for the kerosene added and multiply the remaining volume by 10.5 to obtain the percentage of oil, by volume, in the Spirit.

Spiritus Cinnamomi.—The following rubric and assay have been added.

Each 100 cc. shall contain not less than 9 cc. and not more than 11 cc. of Oil of Cinnamon For the assay see Spiritus Anisi.

Spiritus Lavandulæ.—The following rubric and assay have been added.

Each 100 cc. shall contain not less than 4 cc. and not more than 6 cc. of Oil of Lavender.

Assay. Transfer exactly 10 cc. of the Spirit into a Babcock flask, add exactly 1 cc. of kerosene from a pipette calibrated to deliver that amount and mix well. Then add sufficient saturated calcium chloride solution, acidified with hydrochloric acid, to almost fill the bulb of the flask. Rotate the flask vigorously to insure thorough mixing, then add sufficient of the calcium chloride solution to bring the separated oil into the neck of the flask. Centrifuge for five minutes and then read the volume of oil in the stem. Subtract 5 divisions for the kerosene added and multiply the remaining volume by 2.2 to obtain the percentage of oil by volume.

Spiritus Menthæ Piperitæ.—

The leaves are macerated with 900 cc. of alcohol instead of 800 cc. and the oil is added after the mixture is filtered.

The following rubric and assay have been added. Each 100 cc. shall contain not less than 9 cc. and not more than 11 cc. of Oil of Peppermint.

Assay. Follow assay methods as given under Spiritus Aurantii Compositus, except the factor for multiplying the "remaining volume" is 4.2.

Spiritus Menthæ Viridis.—The following rubric and assay have been added.

The leaves are macerated with 900 cc. of alcohol instead of 800 cc. and the oil is added after the mixture is filtered.

Each 100 cc. shall contain not less than 9 cc. and not more than 11 cc. of Oil of Spearmint.

Assay. Follow assay methods as given under Spiritus Aurantii Compositus, except the factor for multiplying the "remaining volume" is 4.2.

Syrupus Pruni Virginianæ.—The drug is macerated for 1 hour, the percolation is allowed to proceed rapidly and 20 cc. of alcohol is added to the preparation. An alternative method for dissolving the sugar by percolation is added.

OINTMENTS AND MISCELLANEOUS GALENICALS.

Emplastrum Adhesivum.—The tension test is omitted. 100 sq. cm. of plaster to contain at least 1.5 Gm. of plaster mass. Zinc oxide, if used, reduced from 20 per cent to 15 per cent.

Emplastrum Belladonnæ.—100 sq. cm. of plaster to contain at least 2.5 Gm. of the belladonna plaster mass consisting of adhesive plaster and an extract of belladonna root.

Emulsum Petrolati Liquidi.—This is a new text as follows:

EMULSUM PETROLATI LIQUIDI.

Emulsion of Liquid Petrolatum.

Emuls. Petrolat. Liq.

Liquid Petrolatum	**500**	**cc.**
Acacia, in very fine powder	**125**	**Gm.**
Syrup	**100**	**cc.**
Vanillin	**0.035**	**Gm.**
Alcohol	**60**	**cc.**
Distilled Water, a sufficient quantity, to make	**1000**	**cc.**

Mix the liquid petrolatum with the powdered acacia in a dry mortar, add 250 cc. of distilled water all at once and emulsify the mixture. Then add, in divided portions and triturating after each addition, a mixture of the syrup, 50 cc. of distilled water and the vanillin, dissolved in the alcohol. Finally add sufficient distilled water to make the product measure 1000 cc.

NOTE: In preparing Emulsion of Liquid Petrolatum other methods of emulsification may be used and the quantity of acacia may be reduced or it may be replaced by agar, gelatin, tragacanth or mixtures of any of these emulsifying agents, provided the resulting emulsion is similar in viscosity and appearance to the emulsion made by the formula suggested above.

AVERAGE DOSE: Metric, 30 cc.—Apothecaries, 1 fluidounce.

Emulsum Olei Morrhuæ.—No change except that other emulsifying agents may be employed if the resulting product retains the characteristics of the emulsion prepared by the formula given.

Glyceritum Acidi Tannici.—Directions changed so that the tannic acid and the sodium citrate are first rubbed up with part of the glycerin, then the balance of the glycerin is added and the mixture is heated on a sand bath until solution results.

Infusa.—The 50-Gm. portion of drug is moistened with 50 cc. of cold distilled water, in a suitable vessel, preferably earthenware, and allowed to stand for 15 minutes. Then 900 cc. of boiling distilled water is poured upon it, the vessel covered, and the drug macerated for a half hour. It is then strained and distilled water added to make 1000 cc.

Linimentum Camphoræ.—The following assay has been adopted:

Assay. Place approximately 5 cc. of Camphor Liniment in a dried and weighed 120-cc. Erlenmeyer flask and weigh accurately. Connect the flask with a U-shaped drying tube, place the flask and tube in an air oven maintained at 110° C. and pass a rapid stream of carbon dioxide through the U-tube into the flask for two hours. The orifice of the gas delivery tube should be about 15 mm. above the surface of the Liniment. Remove the flask and Liniment, blow out the remaining carbon dioxide with dry air, cool the flask in a desiccator and weigh. The loss in weight is not less than 19 per cent and not more than 21 per cent of the weight of Camphor Liniment taken for the assay.

Linimentum Chloroformi.—An assay has been added:

Assay. Place 50 cc. of alcohol in a 100-cc. volumetric flask, and measure exactly 10 cc. of Chloroform Liniment at 25° C. into the flask by means of a pipette, placing the tip of the pipette just beneath the surface of the alcohol. Make up a volume of 100 cc. at 25° C. with alcohol and mix thoroughly. By means of the same pipette transfer 10 cc. of the alcoholic solution to a hard glass test-tube of 25 mm. by 200 mm. internal dimensions and containing a cooled mixture of 20 cc. of distilled water and 5 cc. of sulfuric acid. Connect the tube by means of a tin-foil-covered stopper with a well-cooled condenser, the delivery tube of which dips beneath the surface of 50 cc. of an alcoholic solution of potassium hydroxide (3 in 10) contained in a 300-cc. flask, and heat gently until about 10 cc. of distillate has been received. Then withdraw the delivery tube, rinse it with 5 cc. of alcohol, and proceed as directed in the assay under *Spiritus Chloroformi*, beginning with the words "Connect the flask by means of a tin-foil-covered stopper." Each cc. of tenth-normal silver nitrate is equivalent to 0.00398 Gm. of $CHCl_3$.

Massa Hydrargyri.—Honey replaces Honey of Rose.

Mistura Cretæ.—U. S. P. IX formula again accepted.

Compound Chalk Powder	20 Gm.
Cinnamon Water	40 cc.
Water, to make	100 cc.

Mucilago Acaciæ.—An alternative formula is added permitting it to be made extemporaneously from powdered acacia, the usual practice in prescription filling.

Pilulæ Ferri Carbonatis.—The use of water has been eliminated from the original mixture.

Suppositoria Glycerini.—The formula has been changed as follows:

Glycerin	**92 Gm.**
Sodium Stearate	**8 Gm.**
Distilled Water	**5 Gm.**
To make about	**30 rectal suppositories**

Heat the glycerin in a porcelain dish, on a water-bath, to about 95° C., add the sodium stearate and stir the mixture gently with a glass rod, retaining the specified temperature, until the sodium stearate is dissolved. Then add the distilled water, mix thoroughly, and immediately pour the hot liquid into suitable moulds. Remove the suppositories when they are completely cold and preserve them in tightly stoppered glass containers in a cool place.

NOTE: If preferred the sodium stearate for Suppositories of Glycerin may be prepared during the making of the Suppositories by the direct reaction between stearic acid and sodium carbonate or sodium hydroxide, these being taken in correct proportion.

Toxitabellæ Hydrargyri Chloridi Corrosivi.—Two sizes of tablets are recognized.

Small, to contain from 0.1125 to 0.1375 Gm. of $HgCl_2$.

Large, to contain from 0.45 to 0.55 Gm. of $HgCl_2$.

The tablets are to be of a distinctive color, not white; angular or irregular shape, not discoid; if for household use they are to be dispensed in glass containers of a distinctive angular shape having irregular or roughened sides or edges; red poison label on each package and also statement indicating the amount of mercury bichloride in each tablet.

Ointments.—The following statement concerning Ointments is proposed for inclusion in the "Introductory Notices" of the new Pharmacopœia:

> "In the official ointments containing yellow or white wax or paraffin, as stiffening agents, the proportions of these and of the other fatty substances directed in the official formulas may be varied to maintain a suitable consistence under different climatic conditions, provided that the ratio of active ingredients to the total weight of the ointment remains the same and that the essential nature of the fatty vehicle is not materially changed."

Unguentum.—Formula changed to:

Wool Fat	5 Gm.
White Wax	5 Gm.
White Petrolatum	90 Gm.
To make	100 Gm.

Unguentum Acidi Borici.—Formula changed and assay added:

Boric Acid	10 Gm.
White Wax	5 Gm.
Wool Fat	5 Gm.
White Petrolatum	80 Gm.
To make	100 Gm.

To contain not less than 9 per cent and not more than 11 per cent of H_3BO_3.

Assay. Place about 5 Gm. of Boric Acid Ointment in a tared Erlenmeyer flask of suitable capacity and weigh accurately. Add about 30 cc. of hot distilled water and heat for fifteen minutes on a water-bath with frequent agitation. Filter while hot through a wetted filter into a 100-cc. volumetric flask. Wash the flask several times with hot distilled water transferring the washings to the filter. When cool, dilute the filtrate to exactly 100 cc. To exactly 20 cc. of the filtrate, representing one-fifth of the weight of Boric Acid Ointment taken, add 20 cc. of glycerin, previously neutralized to phenolphthalein T.S. Titrate with tenth-normal sodium hydroxide, using phenolphthalein T.S. as the indicator. Discharge the pink color by the addition

of 20 cc. of glycerin, neutral to phenolphthalein T.S. and again titrate until the pink color reappears. Each cc. of tenth-normal sodium hydroxide is equivalent to 0.006192 Gm. of H_3BO_3.

Unguentum Acidi Tannici.—Formula changed to:

Tannic Acid	20 Gm.
Glycerin	20 Gm.
Wool Fat	3 Gm.
Yellow Wax	3 Gm.
Petrolatum	54 Gm.
To make	100 Gm.

Unguentum Aquæ Rosæ.—The stronger rose water is replaced with 50 cc. of rose water, 140 cc. of distilled water and 0.2 cc. of oil of rose. The ointment is to be preserved in pure tin collapsible tubes.

Unguentum Belladonnæ.—Formula changed to:

Pilular Extract of Belladonna	10 Gm.
Diluted Alcohol	5 cc.
Wool Fat	5 Gm.
Yellow Wax	5 Gm.
Petrolatum	75 Gm.
To make	100 Gm.

A new rubric and assay appear elsewhere.

Unguentum Chrysarobini.—Formula changed to:

Chrysarobin	6 Gm.
Wool Fat	5 Gm.
Yellow Wax	5 Gm.
Chloroform	4 Gm.
Liquid Petrolatum	6 Gm.
Petrolatum	74 Gm.
To make	100 Gm.

Unguentum Gallæ.—Formula changed to:

Nutgall	20 Gm.
Yellow Wax	5 Gm.
Wool Fat	5 Gm.
Petrolatum	70 Gm.
To make	100 Gm.

Unguentum Hydrargyri Ammoniati.—Formula changed and assay added.

Ammoniated Mercury	10 Gm.
White Wax	5 Gm.
Wool Fat	5 Gm.
White Petrolatum	80 Gm.
To make	100 Gm.

Ammoniated Mercury Ointment contains an amount of ammoniated Mercury corresponding to not less than 7.1 per cent and not more than 8.7 per cent of Hg.

Assay. Place in a separator about 1.5 Gm. of Ammoniated Mercury Ointment accurately weighed. Warm it slightly to soften the ointment and while rotating add 50 cc. of ether and then shake the mixture until the ointment base is dissolved. Add 10 cc. of a mixture of equal volumes of hydrochloric acid and distilled water and shake it vigorously until all of the Ammoniated Mercury has dissolved. Filter the aqueous layer that separates into a 250-cc. beaker and wash the remaining ethereal solution with several portions of 10 cc. each of distilled water until the washings produce no turbidity with silver nitrate T.S.

Dilute the hydrochloric acid solution and the combined washings to about 150 cc. and add 5 cc. of hydrochloric acid. Saturate the solution with hydrogen sulfide gas and collect the precipitate in a tared Gooch crucible. Wash the precipitate successively with distilled water, with two 10-cc. portions of alcohol, two 10-cc. portions of carbon tetrachloride, using no suction, and finally wash with 10 cc. of ether. Dry the crucible and contents to constant weight at 100° C. The weight of mercuric sulfide obtained, multiplied by 0.862 indicates the quantity of mercury represented by the ammoniated mercury in the Ointment taken for the assay.

Unguentum Hydrargyri Fortius.—Formula changed:

Mercury	500 Gm.
Oleate of Mercury	20 Gm.
Wool Fat	300 Gm.
White Wax	50 Gm.
Petrolatum	130 Gm.
To make	1000 Gm.

Unguentum Hydrargyri Mite.—Formula changed to:

Strong Mercurial Ointment	600 Gm.
White Petrolatum	380 Gm.
White Wax	20 Gm.
To make	1000 Gm.

Unguentum Hydrargyri Oxidi Flavi.—Formula changed and assay added.

Yellow Mercuric Oxide	1 Gm.
Liquid Petrolatum	1 Gm.
Yellow Wax	5 Gm.
Wool Fat	5 Gm.
Petrolatum	88 Gm.
To make	100 Gm.

Yellow Mercuric Oxide Ointment contains not less than 0.9 per cent and not more than 1.1 per cent of HgO.

Assay. Place in a separator about 10 Gm. of Ointment of Yellow Mercuric Oxide, accurately weighed. Warm it slightly to soften the ointment and while rotating add 50 cc. of ether. Shake the mixture until the soluble portion is dissolved. Add 10 cc. of a mixture of equal volumes of hydrochloric acid and distilled water and shake it vigorously until the mercuric oxide has dissolved. Filter the aqueous layer that separates into a 250-cc. beaker and wash the remaining ethereal solution with several portions of 10 cc. each of distilled water until the washings produce no turbidity with silver nitrate T.S. Dilute the hydrochloric acid solution and the combined washings with distilled water to about 150 cc. and add 5 cc. of hydrochloric acid. Saturate the solution with hydrogen sulfide gas and collect the precipitate in a tared Gooch crucible. Wash the precipitate successively with distilled water, two 10-cc. portions of alcohol, two 10-cc. portions of carbon tetrachloride, without suction and finally with 10 cc. of ether. Dry the crucible and contents to constant weight at 100° C. The weight of mercuric sulfide obtained, multiplied by 0.931, indicates the quantity of mercuric oxide in the Ointment taken for the assay.

Unguentum Iodi.—Formula changed and assay added.

Wool Fat, changed to	5 Gm.
Yellow Wax	5 Gm. added
Petrolatum	70 Gm. added

Iodine Ointment contains not less than 6.5 per cent and not more than 7.5 per cent of total I.

Assay. Tare a nickel or silver crucible containing about 2 Gm. of anhydrous potassium carbonate, add about 1 Gm. of Iodine Ointment and reweigh. Cover the Ointment with an additional 2 Gm. of potassium carbonate and heat on a water-bath until the Ointment is fluid. Heat the crucible and contents gently over a Bunsen flame, gradually increasing the temperature,

but not exceeding a dull redness, until the Ointment is completely carbonized. Extract the residue with boiling distilled water and wash on a filter until the washings no longer produce a precipitate with silver nitrate T.S. after acidifying with nitric acid. Heat the combined filtrate and washings, which measure about 75 cc., on a water-bath, and add potassium permanganate T.S. until the hot liquid remains permanently pink. Add just enough alcohol to remove the pink tint, cool to 25° C., then add sufficient distilled water to make exactly 100 cc. Filter the mixture through a filter which has not been previously moistened, rejecting the first 25 cc. of filtrate. To 50 cc. of the subsequent clear filtrate add 10 cc. sodium potassium iodide T.S., acidify with diluted sulfuric acid and titrate with tenth-normal sodium thiosulfate. Each cc. of tenth-normal sodium thiosulfate is equivalent to 0.002115 Gm. of iodine.

Unguentum Phenolis.—Assay added.

Phenol Ointment contains not less than 1.8 per cent and not more than 2.2 per cent of C_6H_5OH.

Assay. Place about 2 Gm. of Phenol Ointment in a tared 150-cc. Florence flask and weigh accurately. Add 75 cc. of distilled water and arrange the flask for steam distillation having connected it with a water-chilled condenser. Distil with steam, collecting 150 cc. of distillate in a 500-cc. glass-stoppered flask: 1 cc. of the subsequent distillate should show no turbidity with 3 cc. of bromine T.S. Add exactly 50 cc. of tenth-normal bromine and proceed with the assay as directed under *Phenol*, line beginning with the words," then 5 cc." Each cc. of tenth-normal bromine is equivalent to 0.001568 Gm. of C_6H_5OH.

Unguentum Sulphuris.—Formula changed and assay added.

Precipitated Sulfur	15 Gm.
Wool Fat	5 Gm.
Yellow Wax	5 Gm.
White Petrolatum	75 Gm.
To make	100 Gm.

Sulfur Ointment contains not less than 13.5 and not more than 16.5 per cent of S.

Assay. Place about 0.5 Gm. of Sulfur Ointment in a tared Erlenmeyer flask of suitable capacity and weigh accurately. Add 5 cc. of nitric acid and 3 cc. of bromine. Heat the mixture gently until the excess of bromine has been dissipated. Add about 50 cc. of distilled water and transfer to a separator. Extract the liquid with three successive portions of ether of 30, 20 and 10 cc., respectively, to remove the soluble ingredients. Wash the combined ethereal washings with about 10 cc. of distilled water and add this to the aqueous solution. Dilute the solution to about 200 cc. with distilled water and acidify with hydrochloric acid. Heat the mixture to boiling and add hot barium chloride T.S. in small portions, until no further precipitation takes place. Heat the mixture on a water-bath for thirty minutes, collect the precipitate on a filter, wash, dry, ignite and weigh it as barium sulfate. The weight of barium sulfate thus obtained, multiplied by 0.1373, indicates its equivalent of S.

Unguentum Zinci Oxidi.—Formula changed and assay added.

Zinc Oxide	20 Gm.
Liquid Petrolatum	10 Gm.
White Wax	5 Gm.
Wool Fat	5 Gm.
White Petrolatum	60 Gm.
To make	100 Gm.

Zinc Oxide Ointment contains not less than 19 per cent and not more than 21 per cent of ZnO.

Assay. Weigh accurately in a tared porcelain dish about 2 Gm. of Zinc Oxide Ointment, heat it slowly until melted and continue the heating, gradually raising the temperature until the mass is thoroughly charred. Cool, break up the charred mass with a stout glass rod, add 10 cc. of distilled water and 5 cc. hydrochloric acid and heat on the water-bath for one-half hour. Filter and wash the filter thoroughly with distilled water. Dilute the filtrate to 150 cc., add ammonia T.S. until the precipitate first formed is redissolved and then pass hydrogen sulfide through the

mixture until the zinc is completely precipitated. After allowing it to stand for about one hour, filter the precipitated zinc sulfide and wash it a few times with water containing a little ammonium sulfide. Dissolve the precipitate of zinc sulfide from the filter by pouring over the edges of the filter hot diluted hydrochloric acid in small portions at a time. Wash the filter thoroughly with small quantities of hot distilled water, receiving the filtrate and washings in a tared porcelain dish. Evaporate the filtrate on the water-bath to about 2 cc. then add to it 3 Gm. of yellow mercuric oxide, previously mixed with about 15 cc. of distilled water. Evaporate the mixture to dryness and carefully ignite the residue under a hood to constant weight. The weight of the zinc oxide thus obtained, corrected for any non-volatile matter contained in 3 Gm. of the mercuric oxide, corresponds to not less than 19 per cent and to not more than 21 per cent of the weight of the Ointment taken for the assay.

REPORT ON THE UNITED STATES PHARMACOPŒIA, ELEVENTH REVISION.*

BY E. FULLERTON COOK, CHAIRMAN OF THE U. S. PHARMACOPŒIA COMMITTEE, ELEVENTH REVISION.

The work of revision upon the U. S. P. XI of necessity must soon come to a conclusion if the new Pharmacopœia is to appear within a reasonable time. The galley proofs, after an exacting review by the members of the Revision Committee, and the insertion of many alterations, have been sent back to the printer for issuance as page proof. While it will be necessary to make a few additional changes, these cannot be of a drastic character, since page proof, when once made up, does not permit of extensive revision.

This means that admissions and deletions are settled for this printing, although the Convention has authorized the admission of new titles, should this prove desirable, through the issuance of "Supplements."

The question of "Scope" always will be one of the major problems of the Revision. Members of the Sub-Committee responsible for these decisions have most earnestly and conscientiously studied this problem. Their deliberations cover about 500 pages of Bulletins, and, in a number of instances, they have called for information and advice from the Sub-Committee on Therapeutics, in which Committee's Bulletins will be found many more pages of discussion.

The Sub-Committee on Scope has proceeded on well-defined principles. Its objective has been to include as official in the Pharmacopœia, a comprehensive and dependable list of therapeutic agents meeting most of the needs of the medical profession. Insulin will be a striking example of omission, for, though approved, it could not be admitted due to its control by patent. As soon as this expires, it will promptly be admitted by the Supplement route.

The newly admitted substances are as follows:

ARTICLES ADDED TO THE U. S. P. XI.

Acriflavina	Ephedrina
Acriflavinæ Hydrochloridum	Ephedrinæ Hydrochloridum
Æthylenum	Ephedrinæ Sulfas
Æthylhydrocuprinæ Hydrochloridum	Erythrol Tetranitrate
Æthylis Oxidum	Extractum Hepatis
Antitoxinum Scarlatinæ Streptococcicum	Ferri et Ammonii Citrates Virides
Bismuthi et Potassii Tartras	Fluoresceinum Solubile
Calcii Creosotas	Histaminæ Phosphas
Calcii Gluconas	Hydrargyri Succinimidum
Calcii Hydroxidum	Iodophthaleinum Solubile
Carbo Activatus	Liquor Ergosterolis Irradiati
Carbonii Dioxidum	Liquor Hepatis
Chlorobutanol	Liquor Hepatis Purificatus
Digitalis Pulverata	Liquor Histaminæ Phosphatis
Emulsum Petrolati Liquidum	Liquor Parathyroidei

* Read at the 1935, A. PH. A. meeting, Portland, Oregon.