Dr. 94, Sept. 179). Also Farr & Wright (Ph. J. & Tr. 94, Aug. 125).

Schwickerath. With more or less modified Prollius' mixture. (Ph. Rdsch. N. Y. 93, 283. Bull. Ph. 93, 536.)

Extractum Taraxaci.

Should not the albuminous matter be removed before evaporation?

Yield. La Wall (A. J. Ph. 96, 371).

Extractum Taraxaci Fluidum.

Commercial. Examination. Haussmann (A. J. Ph. 92, 291. Proc. 95, 565).

Extractum Tritici Fluidum.

Commercial. Examination. Haussmann (A. J. Ph. 95, 291. Proc. 95, 565).

Caspari prefers to digest the finely-cut drug, to repeat this once or twice, concentrate the infusion rapidly, and when cold, mix with alcohol, then proceed as in the Pharmacopœia. (Pharmacy, p. 264.)

Extractum Uvæ Ursi.

Yield. La Wall (A. J. Ph. 96, 371).

Menstruum. Diluted alcohol yields a more satisfactory product. Caspari (Pharmacy, p. 277).

Extractum Uvæ Ursi Fluidum.

Caspari prefers to leave out entirely the glycerin, and to use diluted alcohol. (Pharmacy, p. 264.)

Extractum Veratri Viridis Fluidum.

Of questionable utility, being only 2½ times stronger than the tincture. Caspari (Pharmacy, p. 264).

Assay. Titration better than the gravimetric method. Caspari & Dohme (A. J. Ph. 93, 477 & 478. Proc. 93, 121), and Kebler (Am. Dr. 94, Sept. 179).——Farr & Wright declare titration unsatisfactory. (Ph. J. & Tr. 94, Aug. 125. A. J. Ph. 94, 461.)

Ferri Carbonas Saccharatus.

The exact final weight being 100 Gm., the U. S. P. preparation conforms exactly in strength to that of the Ph. Germ. III. The suggestion made in the U. S. Dispensatory to add sugar or syrup to the two solutions before mixing, seems entirely unnecessary, as in the first precipitation the ferrous carbonate is contained in a liquid charged with carbonic acid, resulting in part from the reaction, and in part from the decomposition of the excess of bicarbonate used, by the hot water. Being thus sufficiently well protected, the addition of sugar would be of no use, as it would be removed by the withdrawal of the first portion of the liquid. It is not easy to understand the motive which led the German Pharmacopœia to use milk sugar instead of cane sugar, unless it be thought that by its stronger reducing action it would protect the ferrous carbonate better. The German preparation has a greenish-gray color, while that of the U. S. Pharmacopœia is greenish-brown. Power (Circ. No. 103, p. 524).

Ferri Chloridum.

The process should be left out, as a pure salt can easily be obtained in commerce. Beringer (A. J. Ph. 93, 596).

It gives a clear solution in ether. Hirsch (Ph. Rdsch. N. Y. 93, 256).

Ferri Citras.

When Ph. Germ. requires 17 to 18 p. c. of iron, it demands more than is usually obtainable in practice. These higher figures were obtained by Schacht, who treated the solution of the citrate of iron with potassium chlorate and hydrochloric acid previous to the addition of potassium iodide, and it is quite probable that sufficient chlorine was left in the liquid to produce this error. As the salt is a ferric citrate, this preliminary oxidation is quite unnecessary. Power (Circ. No. 103, p. 529).

Ferri et Ammonii Citras.

Nomenclature. Power objects to the title, as the salt is by no means a true double salt, as this title would imply.

The proportion by weight of 3 parts of solution of citrate of iron and 1 part of water of ammonia, would correspond to 100 Cc. of the solution and 43.9 Cc. of ammonia. As it is desirable to use round numbers, it would seem best to decrease the amount of ammonia to 40 Cc. Power (Circ. No. 103, p. 531).

Ferri et Quininæ Citras.

Should be omitted, as we have the soluble citrate with practically the same p. c. Beringer (A. J. Ph. 93, 596).

Ferri et Quininæ Citras Solubilis.

"Greenish-golden yellow color" will depend on the relative proportion of metallic iron and citric acid. In working on the large scale, it is better to start from the solution of ferric citrate than from the scaled salt, and to take 12 parts of quinine for every 14 to 14½ parts of iron contained in the solution. The quantity of citric acid will depend on the relative proportions of citric acid and iron in the solution. Handsome scales are obtained by spreading the not too concentrated solution quite thinly, and dry at 35 to 40° C. Sieker (Ph. Rdsch. N. Y. 95, 36. Proc. 95, 948).

Dissolving quinine, whether dry or freshly precipitated, in the solution of ferric citrate, is a slow operation, requiring prolonged trituration. The previous trituration of the quinine with a little citric acid, and a small quantity of water, greatly facilitates the solution. The amount of ferric citrate has been diminished to the extent of the amount of citric acid thus used. Power (Circ. No. 103, p. 538).

Ferri Hypophosphis.

A test for phosphite of iron would seem to be necessary. Roe (Ph. J. & Tr. 93, Dec. 473).

The quantitative estimation of hypophosphorous acid, proposed by Moerck (A. J. Ph. 91, 270), depending upon the reduction of mercuric chloride to mercurous chloride, does not give satisfactory results. The assay by this method of one sample gave but 45.49 p. c. of ferric hypophosphite, but the reduction was not complete, for upon subsequently boiling the filtrate from the mercurous chloride, a considerable additional amount of the latter was obtained. This and other trials showed conclusively that for the complete reduction of the mercuric chloride much more prolonged boiling than one-half hour, as directed by Moerck, is necessary. Power (Circ. No. 193, p. 541).

Ferri Iodidum Saccharatum.

The reason why this preparation is directed to be kept in a dark place, while the syrup of ferrous iodide is to be kept exposed to the light, is that the powder is merely a mechanical mixture with sugar, while the syrup is a solution. Expose the saccharated iodide of iron to bright sunlight, and crystals of iodine will soon be noticed sublimed on the inner surface of the bottle. Power (Circ. No. 103, p. 544).

The test for the absence of salts of the alkalies, is hardly of any importance. Power (Ibid.).

Ferri Oxidum Hydratum.

The utility of this preparation in its official form seems decidedly questionable, for as an antidote to arsenic it should be freshly prepared. For the plaster and troches it has to be dried, whereby it is converted chiefly into ferric oxide, or at the specified temperature, into $Fe_2O_3.H_2O$, and it would seem quite as well for the last-named purposes that it should be prepared at once in the dry form, and described as such. Power (Circ. No. 103, p. 546).

Ferri Oxidum Hydratum cum Magnesia.

Although this preparation is not absolutely insoluble, and therefore not justly entitled to be called an infallible remedy in arsenical poisoning, it dissolves with difficulty, and is therefore valuable. (Ph. Ztg. 94, 163. Ph. Rdsch. N. Y. 94, 90.)

Ferri Phosphas Solubilis.

Identity. The nitrate of silver test, directed in the U. S. P. 1880, is decidedly unsatisfactory, as pointed out by Stieglitz (A. J. Ph. 91, 585), since the precipitation of argentic citrate renders impossible any sharp discrimination between the phosphate and the pyrophosphate. Power (Circ. No. 103, p. 548). See also remarks under the following title.

Ferri Pyrophosphas Solubilis.

(Fifth paragraph.) "If 1 Gm. of the salt be boiled with 10 Cc. of potassium or sodium hydrate."——Nagelvoort objects to the vague directions as to the quantities of the magnesia mixture and ammonia, stating that an unnecessary excess of either will condemn a pure salt. He claims that 2 Cc. of the magnesia mixture and 5 drops of ammonia will be sufficient. He proposes to change the wording according to Stieglitz, as follows:—"To the colorless filtrate add 5 Cc. of a 10-p. c. solution of ammonium chloride, and drop by drop from 1 to 2 Cc. of a 10-p. c. solution of magnesium sulphate. Agitate the test-tube, or graduate gently, as long as the precipitate re-dissolves." (A. J. Ph. 95, 210. Proc. 95, 927.)

Ferri Sulphas.

Copper. Vandenput states that small quantities of copper will not be detected by ammonia. Dissolve the salt in nitric acid, and place in the solution a bright piece of iron, on which the copper will be precipitated. (A. J. Ph. 92, 572. Proc. 93, 769.)

Free Sulphuric Acid. Shake with alcohol, filter, and evaporate over salicin, which will then be colored red. Ph. Ital. (Ph. Centralh. 93, 33).

Ferri Sulphas Exsiccatus.

It would seem preferable not to carry the exsiccation of this salt quite so far as indicated in the U. S. P., but so that it shall contain approximately 1½ molecules of water, which can be accomplished by the heat of a water-bath, and thus avoid the danger of decomposition and ensuing discoloration of the product. It will then conform to the preparation of Ph. Germ. III, but it is best to first allow the salt to effloresce before heating it on the water-bath. If 100 parts of the crystallized salt are reduced to 65 parts, the product will contain 15.86 p. c. of water. If to 64 parts, 14.55 p. c.; if to 61 parts, 10.34 p. c. The salt with 1½ molecules of water will be obtained when 100 parts of the crystallized salt are reduced to about 64.5 parts. Power (Circ. No. 103, p. 551).

Ferri Sulphas Granulatus.

Hirsch proposes to use less water for the solution, as the excess has to be evaporated immediately. (Ph. Rdsch., N. Y. 93, 256).

Ferrum Reductum.

Appel finds that the quality of the reduced iron is largely dependent on the quality of the hydrogen employed. If the hydrogen was not purified, the iron may contain as low as 58 p. c. Fe, while the same ferric oxide and thoroughly purified hydrogen yielded a product of 99 p. c. and over. (Oest. Zts. 92, 395. A. J. Ph. 92, 461. Proc. 93, 779.)

Commercial. Examination. Dohme (Proc. 94, 292).

Iron Sulphide. It is impracticable to obtain perfect freedom from sulphide, when made on a large scale The Germ. Ph. ("Nachtrag") requires the lead acetate paper not to be affected "within 5 minutes." (Merck, Index, p. 137, and Ap. Ztg. 95. 75.)

(Fifth paragraph.) "Litmus paper" should be specified as "red" litmus paper. Germ. Comm. (Ap. Ztg. 93, 349.)

Strength. Ph. Germ. III demands at least 90 p. c. of Fe. Considering the quality of this preparation as found in the market, it does not seem practicable to demand more than 80 p. c. Power (Circ. No. 103, p. 554).

Ficus.

It should be the "dried" fleshy receptacle.

Frangula.

Flueckiger has long ago called attention to the fact that the freshly collected bark can be distinguished from that one year old by moistening it with alcohol and then with lime-water, when the inner surface of the fresh bark will be colored brownish, while the old bark is colored red. (Ap. Ztg. 95, 74.)

Gelsemium.

Properties of gelseminine and gelsemine. Cushny (Berichte. 93, 1725. A. J. Ph. 93, 396. Proc. 93, 850, & 94, 1118).

Assay. Schwickerath. With more or less modified Prollius' mixture. (Ph. Rdsch. N. Y. 93, 284, & 94, 138. Bull. Ph. 93, 537. Proc. 94, 545.)

Geranium.

Should be collected in April or May, when it is richest in tannin. Stolz (A. J. Ph. 94, 255).

Microscopical structure. Bastin (A. J. Ph. 94, 516).

Glycerinum.

Strength. Estimated by the refractive index. Edwards. Table of specific gravities with indices. Lenz & Stohmer (Proc. 93, 153).

Pure. Extemporaneous preparation. To 100 parts of commercial glycerin add 8 parts of zinc sulphate, and heat; after cooling add 27 parts of quicklime, and stir. Put into a filter press. The filtrate will be pure glycerin. (Nat. Dr. 92, 158. Proc. 93, 918.)

Acrolein. On mixing glycerin with an equal volume of fuchsine-sulphurous acid (or a solution of fuchsine decolorized by sulphurous acid), there should not appear, either at once, or on shaking, a purple or dark-red color, and not more than a light-pink on standing for a while. Coblentz (Proc. 94, 184).

Fatty Acids, etc. A mixture of 20 Cc. of glycerin and 2 Cc. of solution of hydrogen peroxide, should not evolve the odor of butyric acid in the cold, nor on heating in a water-bath. Nor should, on prolonged heating to 100° C., a dark-yellow or brown color appear. Welmans (Ph. Ztg. 94, 776. Ph. Rdsch. N. Y. 95, 17. Proc. 95, 1068).

Iron. A test for iron is necessary. Haussmann (A. J. Ph. 95, 85. Proc. 95, 1069).

Arsenic. Nagelvoort combines the methods of Gutzeit and Klein, and conducts the current of hydrogen over potassa and chloride of calcium before it passes through a thin layer of finely powdered nitrate of silver, packed between two layers of glass-wool. (Ph. Rdsch. N. Y. 94, 109. Proc. 94, 1208.)

Aldehyde. A mixture of 1 Cc. each of glycerin and ammonia is heated to not over 60° C., and three drops of solution of nitrate of sil-