ening 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-

ver added. Neither a color nor a brownish-red precipitate should occur within 5 minutes. Ph. Germ. ("Nachtrag." Ph. Rdsch. 95, 92).

Assay. In a glass beaker of 100 Cc. capacity place 10 Gm. of glycerin, keeping the temperature at 11° C., and dissolve in it 6 Cc. of pure phenol. Run into it an aqueous solution of phenol (1:20) until permanent turbidity. The number of Cc. employed equals $\frac{N}{1000}\ \frac{28.15 - N}{0.39}$. Halphen (Ch. & Dr. 93, 417. Proc. 93, 919).

Commercial. Examination. Some brands contain rather large quantities of arsenic. Tegarden (Proc. 94, 182).

Glyceritum Acidi Carbolici.

Caspari recommends to warm the acid and glycerin on a water-bath, and stir. (Pharmacy, p. 230.)

Glyceritum Acidi Tannici.

The tannic acid should be rubbed smooth with the glycerin, before applying the heat. Beringer (A. J. Ph. 93, 597). Also Caspari (Pharmacy, p. 230).

Glyceritum Amyli.

Synonym. "Plasma" or "Plasma Glycerini" might be added.

Is rendered more stable by keeping at an elevated temperature until all starch granules are dissolved. Patel (A. J. Ph. 93, 388. Proc. 94, 575).

A more expeditious way is to rub with water to a smooth paste, and to add to hot glycerin with constant stirring. (Ph. Post, 96, 226.) Also Caspari (Pharmacy, p. 231).

Glyceritum Hydrastis.

Preparation. According to Lloyd, better results are obtained by concentrating the alcoholic tincture to a syrupy consistence by distillation or otherwise, and then pouring this into "ice-cold" water equal in quantity to one-half the weight of the drug. The oily and resinous matter separate readily. Bring the filtrate to 500 Cc. for every 1000 Gm. of the drug by washing the filter with cold water, then add the glycerin, and shake thoroughly. (Caspari, Pharmacy, p. 231.)

Glycyrrhiza.

Cultivation in the United States. Rittenhouse (A. J. Ph. 95, 72. Proc. 95, 865).

"Anatolian" Licorice root. Nickum (A. J. Ph. 95, 306. Proc. 95, 865).

Copper. P. c. (Ph. Ztg. 94, 30. Proc. 94, 566.)

Glycyrrhizinum Ammoniatum.

"Readily soluble in water and in alcohol" . . . Mr. Albert C. Plant, of Messrs. Lehn & Fink, N. Y. City, in a communication addressed to the Committee of Revision, points out that, while the compound is soluble in water and in diluted alcohol, it is insoluble in pure alcohol. In fact, on adding to its solution in equal parts of water and alcohol another volume of alcohol, the glycyrrhizin is precipitated.

Granatum.

Assay. Shake the powder with ammoniated ether-chloroform, evaporate off the ethereal liquid, and titrate with $\frac{N}{10}$ sulphuric acid. Stoeder (Ap. Ztg. 94, 163. Ph. Rdsch. N. Y. 94, 88. Proc. 95, 542).

Grindelia.

Assay. Schneegans (J. Ellsass-Lothr. 92, 133. A. J. Ph. 92, 369. Proc. 93, 638).

Guaiaci Resina.

Constituents. Luecker (Ph. Centralh. 93 . . . Proc. 94, 953).

Rosin. Rub to a very fine powder, and shake it vigorously with 4 to 5 times its bulk of benzin. Filter (any color of the filtrate would indicate the presence of other resins), and shake with an equal volume of solution of cupric acetate (1:1000). A green color indicates rosin. Hirschsohn (Ph. Ztg. Russl. 95, 514).

Guarana.

Assay. Thoms. (Ph. Centralh. 92, 431. A. J. Ph. 92, 525. Proc. 94, 934.)

Ph. Helvet. gives the following directions: Boil a mixture of guarana and calcium hydrate with chloroform, add water, and distil off the chloroform. Filter after cooling, and evaporate to dryness. Guarana should contain at least 3 p. c. of caffeine.

Hamamelis.

Beringer states that under this heading the Dispensatories describe the medicinal properties of the bark, and not that of the leaves. He asserts that most of the fluid extract is made from the bark, and sug-