A BIBLIOGRAPHY OF THE GLYCERITES

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Introductory Remarks.

Glycerin was discovered by the apothecary Scheele in 1779 while preparing lead plaster by the action of litharge on olive oil. He designated it "Oelsuess" or the sweet principle of the oil. Although he isolated it from several other fats, he did not realize its importance as a means of explaining the chemistry of the fats. This was recognized by Chevreul during his chemical researches on fatty acids and fats. In theoretical chemistry also, glycerin has played an important role, being recognized as a triatomic alcohol by Berthelot. The role played by glycerin in pharmacy has been more modest though quite extensive. Hence the service that it could render depended in no small part on the cheapness with which it could be manufactured.

Scheele had already pointed out that glycerin differed from sugar in its non-crystallizability and non-fermentability. On these two properties its uses in pharmacy are largely based. As a sweetening and preservative agent it has to some extent replaced the fermentable sugar in syrups and similar preparations. Since it does not crystallize it has been found very

serviceable as an excipient for pills. It has also been added to the menstrua of a number of fluid extracts and similar preparations, but little is as yet known about its selective solvent action. Finally, it is used medicinally for its own sake.

The exclusive use of glycerin as a vehicle for the administration of medicaments appears to have been suggested in 1854 by Cap and Carot.*) Its early use appears to have been restricted, in large part at least, to the administration of substances more or less phenolic in character. Its use as a general solvent for all kinds of medicinal agents, though tried out, does not appear to have become universal, as compared with alcohol.

*) Standard National Dispensatory. See Glycerita, p. 727)

The Glycerites of the U. S. P. and N. F.

From the accompanying tables it becomes apparent that the total number of glycerites in either standard has never been large, not exceeding six in the U. S. P., nor five in the N. F. What is even more noteworthy, is that none of the glycerites has been official in all four of the editions of the U. S. P. since 1870 when glycerites were first introduced. Of the five glycerites introduced in 1870, not one was retained in 1880. Of the five glycerites of the 1890 Pharmacopoeia, only one had been official in 1870, viz, that of tannic acid. Of the 10 glycerites that have been official in the U. S. P. at any time, two (G. amyli and G. acidi tannici) have been official in three editions, four in two editions (viz. G. acidi carbolici, G. boroglycerini, G. hydrastis, and G. vitelli), and four (G. acidi gallici, G. ferri quininae et strychninae phosphatis, G. picis liquidae, and G. sodii boratis) in but one edition. It should, however, be pointed out, that the Glycerite of tar which was dropped from the U. S. P. in 1880, was given a place in the N. F. and remained there. As a matter of fact the position of the glycerites, though fewer in number, has been less fertile in the N. F. than in the U. S. P.

Attention should also be directed to the fact that the Glyceritum Sodii Boratis of the U. S. P. 1870 gave way to the Glyceritum boroglycerini of 1890 and 1900.

U. S. Pharmacopoeias.

Glyceritum	Pa.	N.Y.								
Acidi Carbolici	-	-	-	-	-	-	+	-	+	+
Acidi Gallici	-	-	-	-	-	-	+	-	-	-
Amyli	-	-	-	-	-	-	-	+	+	+
Acidi Tannici	-	-	-	-	-	-	+	-	+	+
Boroglycerini	-	-	-	-	-	-	-	-	+	+
Ferri, Quinine et Strych. Phosphatis	-	-	-	-	-	-	-	-	-	+
Hydrastis	-	-	-	-	-	-	-	-	+	+
Picis Liquidae	-	-	-	-	-	-	+	-	-	-
Sodii Boratis	-	-	-	-	-	-	+	-	-	-
Vitelli	-	-	-	-	-	-	-	+	+	-
Total	0	0	0	0	0	0	5	2	6	6

N. F. Glycerites.

Glycerites.	1888	189-	1906
Bismuthi	-	+	+
Guaiaci	-	-	+
Pepsini	+	+	+
Picis Liquidae	+	+	+
Tragacanthae	+	+	+
Total.....	3	5	4

Universal-Pharmakopöe Table.

From the appended table of glycerites, listed in Hirsch's Universal-Pharmakopöe, it becomes apparent that the glycerites as a class of pharmaceutical preparations are used more in European countries than in our own. The totals show that the Portuguese pharmacopoeia leads all the rest with 17 glycerites listed. The French, British and Grecian Pharmacopoeias have 10, 8 and 7 glycerites respectively. The Roumanian Pharmacopoeia, with only one glycerite has the smallest number.

The glycerites of carbolic and tannic acids are found in five different pharmacopoeias. The glycerites of extract of bellodonna, extract of opium, potassium iodide, lead, and zinc are each found in three different pharmacopoeias. The glycerites of the alkaloids and their extracts are used quite frequently in European pharmacopoeias, while only one of this class, the glycerite of lead, zinc and potassium iodide are the solutions and inorganic substances which are most frequently made official.

Although there are not many glycerites official in any one pharmacopoeia (except the Portuguese), the fact that 34 different glycerites are official in the various countries shows that a comparatively large number have been given a trial in practical pharmacy.

Hirsch Universal-Pharmakopöe.

Glyceritum	Hisp.	Port.	Gall.	Brit.	Belg.	Graec.	Rom.	Ndls.	U. S.
Acidi Carbolici	+	+	+	+	-	-	-	-	+
Acidi Gallici	-	-	-	+	-	-	-	-	-
Acidi Tannici	-	+	+	+	+	-	-	-	+
Aluminis	-	-	-	+	-	-	-	-	-
Altropini	-	+	-	-	-	+	-	-	-
Bismuti subnitrici	+	+	-	-	-	-	-	-	-
Boracis	-	-	-	+	-	-	-	-	-
Boroglycerini	-	-	-	+	-	-	-	-	+
Camphoratum	-	+	-	-	-	-	-	-	-
Cantharidale	-	-	-	-	-	+	-	-	-
Extracti Belladonnae	-	+	+	-	+	-	-	-	-
Extracti Conii	-	+	+	-	-	-	-	-	-
Extracti Hyoscyami	-	-	+	-	-	-	-	-	-
Extracti Opii	+	+	+	-	-	-	-	-	-
Ferri Sesquichlorati	-	+	-	-	-	-	-	-	-
Ferri Sulfurici	-	+	-	-	-	-	-	-	-
Hydrargyri	-	-	-	-	-	+	-	-	-
Hydrastis	-	-	-	-	-	-	-	-	+
Iodatum	-	-	+	-	-	-	+	-	-
Kalii Iodati	-	+	+	-		-	-	-	-
Kalii Iodati cum Iodo	-	+	-	-	-	-	-	+	-
Kalii Iodati cum Iodo Fortius	-	-	-	-	-	-	-	+	-
Morphini	-	-	-	-	-	+	-	-	-
Opiatum	-	+	-	-	-	-	-	-	-
Picis liquidae	+	+	-	-	-	-	-	-	-
Plumbi	-	+	+	+	-	-	-	-	-
Sinapisatum	-	-	-	-	-	+	-	-	-
Strychnini	-	-	-	-	-	+	-	-	-
Sulfuris	-	+	-	-	-	-	-	-	-
Tragacanthae	-	-	-	+	-	-	-	+	-
Veratrini	-	-	-	-	-	-	+	-	-
Vitelli (?)	-	-	-	-	-	-	-	-	+
Zinci	+	+	+	-	-	-	-	+	-
Total	5	17	10	8	3	7			

The Glycerites of Other Formularies.

Glycerites. (Glyceroles-Glycerine-Glycerates-Glycerin Solutions or Mixtures.)

The glycerites ("glycerins" is the appellation of the British Pharmacopoeia) are preparations made by the use of glycerin. Some of them are solutions, some are mixtures, and others are extractive preparations. Glycerin has wide range as a solvent and is an effective preservative, hence its use in pharmaceutical preparations.

Glycerite of Aloes.

Glycerite of Alum.

Glycerite of Arnica (Glycerole of Arnica.)

Glycerite of Atropine.

Glycerin of Belladonna.

Glycerite of Bismuth.

Glycerite of Borax.

Glycerite of Boric and Tannic Acids.

Glycerite of Boroglycerin. (Glycerite of Glyceryl Borate Solution of Boroglyceride-Glycerite of Boric Acid.)

Glycerite of Carbolic Acid. (Glycerite of Phenol-Glycerinum Carbolicum.)

Glycerite of Chloroform.

Glycerite of Gallic Acid. (Glycerinum Gallicum).

Glycerite Guaiac.

Glycerite of Hydrastis. (Glycerite of Golden Seal).

Glycerite of Hypophosphites.

Glycerite of Iodin, Comp. (Glycerole of Iodin).

Glycerite of Iron Chloride.

Glycerite of Kino.

Glycerite of Lead Subacetate.

Glycerite of Licorice.

Glycerite of Ox-Gall.

Glycerite of Pepsin.

Glycerite of Pepsin, Comp. (Glycerite of Pepsin and Wafer Ash.

Glycerite of Phosphates of Iron, Quinine and Strychnine.

Glycerite of Potassium Bromide.

Glycerite of Potassium Chlorate. (Glycerin Solution of Chlorate of Potassium.)

Glycerite of Quinine Sulfate. (Glycerite of Quinine.)

Glycerite of Qhinine Sulfate with Strychnine. (Glycerate of Quinine and Strychnine.)

Glycerite of Rhatany.

Glycerite of Salicylic Acid.

Glycerite of Silver Nitrate.

Glycerite of Sodium Sulfite.

Glycerite of Starch. (Glycerin Ointment-Plasma-Glycamyl-Glyceritum Amyli.)

Glycerite of Tannic Acid. (Glycerite of Tannin.)

Glycerite of Tar.

Glycerite of Tragacanth.

Glycerite of Veratrine.

Glycerite of Yolk of Egg. (Glyconin, Glyceritum Vitelli)

Glycerogelatins.

Glycerogelatin, Iodoform, 10 per cent.

Glycerogelatins, Salicylic Acid, 10 per cent.

Glycerogelatin, Zinc, Firm.

Glycerogelatin, Zinc, Soft.

Ebert & Hiss Standard Formulary. Vol. 1. pp. 196-202.

Stearns, Frederick. 1858.

Glycerole of Lactucarium.

Pennin. & Ind. Med. Journ.,— , p.—. (Proc. A. Ph. A., 7, p. 69).

The author gives a formula for the preparation of this glycerole as a substitute for less agreeable preparations of the same drug.

Bakes, W. C. 1867.

Pharmaceutical Items.

Am. Journ. Ph., 39, p. 120. (Proc. A. Ph. A., 15, p. 155;

The author gives a method for preparing the glycerole of Sumach.

Latour, 1873.

Note sur la preparation du glycere de sucrate de chaux, et de son emploi pour la preparation du liniment calcaire.

Rep. de. Pharm., 1, p. 557. (Pharm. Journ.,— p. 321; Proc. A. Ph. A., 22, p. 74; Am. Journ. Pharm., 45, p. 557.

The author gives formulas and discusses uses for both a concentrated and dilute glycerate of sucrate of lime.

Moore, J. B. 1873.

Glycerite of Ginger.

Pharm. Rec., — , p. 172. (Proc. A. Ph., A., 21, p. 171;

The author gives a method for preparing the above glycerite.

Fairthorpe, R. F. 1874.

Hydrate of Chloral as a Solvent and Suggestions Conerning its Employment.

Am. Journ. Ph., 46, p. 550. (Proc. A. Ph. A., 23, p. 67;

The author gives formulas for and discusses the uses of

Chloral Glycerite of Morphia.

" " " " and Camphor.

" " " Veratria.

Hoffmann, E. 1874.

Ferrum Oxydatum saccharatum solubile.

Eisenzudker - Eisenglycerin.

Arch. d. Pharm., 205, p. 138. (Proc. A. Ph. A., 23, p. 67;)

The author gives a formula for the preparation of Glycerite of Oxide of Iron, by substituting glycerin for sugar in the modified formula for Ferrum Oxidatum saccharatum solubile.

Laub, 1874.

Calcaria Glycerinata.

Nord. med. Ark., 6, p. 13. (Deutsche Klinik, p. 200; Jahresbericht d. Ph., 9, p. 246; Ztsch. d. Allg. Oest. Apoth. Ver., 14, p. 153; Ph. Centrh., 17, p. 241; Proc. A. Ph. A., 25, p. 80.

The author gives a formula for the preparation of glycerite of lime.

Carles, 1874.

Sur la combinaison de la Chaux de la Glycerine.

Union pharm., — p. — . (Journ. de Pharm. et Chim., 98, p. 461; Jahresbericht de Ph., 9, p. 246; Ztsch. des Allg. Oest. Apoth. Ver., 14, p. 153; Ph. Centrh., 17, p. 241; Proc. A. Ph. A., 25, p. 80.)

The author discusses the effect of glycerine on the solubility of lime in water.

Andrews, F. 1876.

The Solubility of Cinchona Principles in Glycerin.

Yearbook Pharm., 13, p. 558. (Proc. A. Ph. A., 26, p. 109.)

The author gives the results of experiments which show the solvent power of glycernin on the active constituents of cinchona bark. He also gives a formula for Glycerinum Cinchonae.

Squire, B. 1876.

Glycerole of Subacetate of Lead.

Pharm. Journ., 35, p. 881. (Proc. A. Ph. A., 24, p. 77).

The author gives a formula for the above

glycerole and discusses its applications.

Squire, B. 1877.

A Glycerol of Nitrate of Bismuth.

Pharm. Journ., 36, p. —— . (Am. Journ. Pharm., 49, p. 23; Proc. A. Ph. A., 25, p. 80.)

The author discusses the solubility of nitrate of Bismuth in Glycerin.

Urevick, W. W. 1877.

A New Medicinal Solution of Phosphorus.

Yearbook of Pharm., 14, p. 607. (Proc. A. Ph. A., 26, p. 110.)

The author discusses the results of experiments with solutions of phosphorus in glycerin according to suggestions made by Williams before the Br. Ph. Conf. in 1874.

Lloyd, J. U. 1879.

New Rem., —— , p. 199 . (Proc. A. Ph. A., 28, p. 56.)

The author recommends changes in the formula for the preparation of

Glycerite of Starch B. P.

He also recommends

Glycerite of Tar as a substitute for the ointment.

Sayre, L. E. 1879.

Glyceritum Ferri Subsulphatis.

Am. Journ. Pharm., 51, p. 550. (Proc. A. Ph. A., 28, p. 57.)

The author recommends the glycerite of subsulphate of iron as the best liquid preparation of Monsel's salt.

Loos, Jr., F. 1880.

Glycerole of Cinchona.

Am. Journ. Pharm., 52, p. 483. (Proc. A. Ph. A., 29, p. 73.)

The author gives formulas for

Glycerole of Cinchona

Aromatic Glycerole of Licorice, and

Aromatic Glycerole of Cinchona.

Besnier, 1881.

Glycerole of Thymol.

Am. Journ. Pharm., 53, p. 577. (Proc. A. Ph. A., 30, p. 84.)

The editor quotes a formula for the above preparation.

Bareau, A. 1882.

Glycerite of Bismuth.

L' Union Pharm., — , p. — . (Am. Journ. Pharm., 54, p. 116. Proc. A. Ph. A., 30, p. 84.)

The author gives a practical method for preparing the above glycerite.

Dana Jr., E. 1882.

Boracic Acid, Its preparation and Uses.

Proc. A. Ph. A., 30, p. 553.

The author gives a formula for Glycerite of Boracic acid and discusses its uses.

Fairthorpe, R. F. 1882.

Pharmaceutical Notes.

Am. Journ. Pharm., 54, p. 311. (Proc. A. Ph. A., 30, p. 84.)

The author gives a formula for and discusses uses of Glycerol of Myrrh and Borax. (p. 313).

Johnson, E. 1882.

Glycerite of Birch Tar.

Pharm. Zeit. f. Russl., 21, p. — . (Am. Journ. 54, p. 454; Proc. A. Ph. A., 31, p. 82.)

The author gives the formula and recommends its use in eczema.

Vigier, R. 1883.

Glycerite of Corrosive Sublimate.

New Remedies, p. 201. (Proc. A. Ph. A., 32, p. 76; Pharm. Centrl. p. 24, p. 163; Deutsch. Med. Zeit, p)

The author recommends this preparation as a substitute for Blue Ointment.

Wiegand, T. S. 1884.

Practical Notes.

Am. Journ. Pharm., 56, p. 8. (Proc. A. Ph. A., 32, p. 75.)

The author gives a formula for and recommends Glycerite of Tar as a medium for liquid preparations of Tar.

Parker, R. W. 1885.

Glycerinum Aluminia.

British Med. Journal,— , p. 178. (Pharm. Journ., 44, p. 613; Proc. A. Ph. A., 33, p. 73.)

The author gives the formula for the above preparation and recommends its use as a powerful astringent.

---------- 1886.

A preliminary draft of the National Formulary of
cial preparations.

Proc. A. Ph. A., 34, p. 195.

A preliminary report is submitted on the following glycerites:

187. Glyceritum Acidi Borici. p. 238.

188. Glyceritum Acidi Borici et Acidi Tannici.

189. Glyceritum Acidi Tannici.

190. Glyceritum Glycyrrhizae.

191. Glyceritum Guaiaci.

192. Glyceritum Hydrastis.

193. Glyceritum Pepsini.

194. Glyceritum Pepsini et Pteleae.

195. Glyceritum Tragacanthae.

Chase, H. P. 1887.

Glycerite of Resorcin.

Peoria Med. Journ.,— p. 87. (Am. Journ. Pharm., 59, p. 397; Proc. A. Ph. A., 36, p. 257;)

The author gives a formula for the preparation of Glycerite of Resorcin.

Mumma, F. G. 1888.

Glycerite of Calendula.

Amer. Journ. Pharm., 60, p. 609. (Proc. A. Ph. A., 37, p, 383.)

The author gives a formula for the preparation of Glycerite of Calendula.

Arthur, Charles. 1889.

Glycerites of Ferrous Salts.

Pharm. Journ., 48, p. 841. (Proc. A. Ph. A., 37, p . 383.)

The author discusses some difficulties with liquid preparations of ferrous salts and recommends formulas for the preparation of

Glyceritum Ferri Iodidi, and

Glyceritum Ferri Bromidi.

Barnouvin, H. 1889.

Glycerite of Salicylic Acid.

Bull. Gen. de Therap., —— , p. —— . (Amer. Journ. Pharm., 62, p. 172; Proc. A. Ph. A., 38, p. 333.)

The author states that if i gm. of salicylic acid be dissolved in 100 gm. of glycerin, a solution results which will dilute with water in all proportions without precipitating the acid.

Arthur 1890.

Glycerites of Ferrous Salts.

Monthly Magazine, —— , p. —— . (Amer. Drugg., 19, p. 92; Proc. A. Ph. A., 38, p. 333.)

The author discusses the stability of Glyceritum Ferri Iodidi and gives a formula for the preparation of Glycerites of Iodide and Bromide of Iron.

Bretter, 1890.

Kreosot-Glycerin.

Hygea, p. —— , (Ztsch. D. allg. Oest. Apt. Ver., 28, p. 138; Proc. A. Ph. A., 38, p. 333.)

The author gives a formula for the preparation of a Glycerite of Creosote and suggests its use as a basis for other kreosote preparations (Vinum, Syrupus, Aqua Kreositi.).

Johnston, Wm. 1890.

Glycerinum Belladonnae.

Pharm. Journ., 49, p. 768. (Proc. A. Ph. A., 38, p. 332.)

The author gives a modification of Martindale's formula for Glyceritum Belladonnae.

ɔmel, A. 1892.

Salolglycerin.

Pharm. Post, 25, p. 955. (Proc. A. Ph. A., 4, p. 424.)

The author gives a formula for a glycerin solution of salol and its use in throat affections.

M. 1893.

Stability of Glycerite of Starch.

Bull. Comm., —— , p. —— . (Am. Journ. Pharm., 65, p. 388; Proc. A. Ph. A., 42, p. 575.)

The author states that the use of higher temperature renders the above glycerite more stable.

Quinquaud, C. E, 1893.

Glycerite of Oil of Cade.

L ' Union Pharm., — . p. 190. (Am. Journ. Pharm., 65, p. 281; Proc. A. Ph. A., 41, p. 424.)

The author gives a formula for the above glycerite and states its use in the treatment of psoriasis.

Edel, F. 1894.

Some Suggestions Regarding Revision of the National Formulary.

Drugg. Cir. 38, p. 3. (Proc. A. Ph. A., 42, p. 575.)

The author gives a revised formula for the paration of Glycerate of Yerba Santa.

——————— 1895.

Lanolin Glycerit.

Drogisten Zeitung, - , p. — . (Amer. Drug., 26, p. 141; Proc. A. Ph. A., 43, p. 581.)

The editor gives a formula for the preparation of this glycerite for use as an emollient.

Sieker, F. A. 1895.

Glyceritum Hydrastis.

Pharm. Rundsch. 13, p. 236. (Proc. A. Ph., 44, p. 422.)

The author substantiates Thompson's claim (1893) that Berberine and hydrastine are partly lost in the preparation.

Elborne, W. 1896.

Notes.

Chem. & Drugg., 48, p. 85. (Proc. A. Ph. A., 44, p. 422.)

The author comments on the preparation of

Glycerinum, and

Glycerimum plumbi subacetatis.

England, J. W. 1896.

Glycerite of Licorice.

Am. Journ. Pharm., 68, p. 663. (Proc. A. Ph. A., 45, p. 426.)

The author discusses his formula for this preparation.

Pearson, J. H. 1897.

Note on Glycerinum Amyli.

Pharm. Journ., 58, p. 201. (Proc. A. Ph. A., 45, p. 426.)

The author describes how the addition of tragacanth helps to preserve the homogeneity of the B. P. preparation.

Currie, A. 1900.

Glycerite of Codeine.

Pharm. Journ., 64, p. 418. (Proc. A. Ph. A., 48. p. 475.)

The author calls attention to the development of an unpleasant odor when hudrochloric acid is added to glycerite of codeine.

Gilmour, D. 1901.

Glycerin of Boric Acid.

Pharm. Journ., 66, p. 54. (Proc. A. Ph. A., 49, p. 575.)

The author gives reasons why Glycerinum Acidi Borici B. P. should be replaced by a simple solution of boric acid in glycerin.

Jordan, 1902.

Formalin Glycerin.

Zeits. d. allgem. Oest. Apt. Ver., 39, 880. (Proc. A. Ph. A;; 51, p. 629.)

The author discusses the use of a 4 per cent solution of formalin in glycerin for the treatment of sycosis.

Moseley, T. A. 1902.

Preparations of Calendula.

Proc. Missouri Pharm. Assoc., 24, p. 60. (Proc. A. Ph. A., 51. p. 629.)

The author discusses the remedial value of Calendula and gives a formula for "Glycerinated Calendula."

White, Edmund. 1902.

Bismuth Salts in Mixtures.

Yearbook Pharm., 39, p. 472. (Proc. A. Ph. A., 51, p. 628.)

The author gives a formula for the preparation of Glycerinum Bismuthi Carbonatis.

Gilmour, J. P. 1903.

Some officinal adaptations and Economies of B. P. Processes.

Pharm. Journ., 70, p. 93. (Proc. A. Ph. A., 51, p. 628.)

The author comments and gives improvements for B. P. processes in preparing

Glycerimum Acidi Borici

Glycerimum Boracis and

Glycerinum Acidi Tannici

Glycerinum Acidi Carbolici.

Lunan, George. 1903.

Glycerinum Acidi Borici.

Pharm. Journ., 72, p. 7. (Proc. A. Ph. A., 52, p. 538.)

The author gives an improved process for making Glycerinum Acidi Borici. B. P.

Boa, Peter. 1904.

Note on Glycerinum Pepsini. B. P.

Pharm. Journ., 72, p. 84. (Proc. A. Ph. A., 52, p. 539.)

The author gives practical comments on making of Glycerinum Pepsini. B. P.

Dyer, R. E. 1905.

Glycerophosphates Superior to Hypophospites.

Pract. Druggist., 17, p. 265. (Proc. A. Ph. A., 54, p. 632.)

The author gives a formula for the preparation of Glycerole of Glycerophosphates.

Ebert, A. E. 1905.

Working Formulas.

Meyer Bros. Druggist, 26, p. 197. (Proc. A. Ph. A., 54, p. 631.)

The author gives a formula for the preparation o Glycerite of Creosote.

Hommell, P. E. 1905.

Glyceritum Ulmi.

Proc. N. J. Ph. A., 35, p. 59. (Proc. A. Ph. A., 54. p. 633.)

The author gives a formula for the above preparation and advocates its advantageous use as a vehicle for ergot, hydrastis, etc.

Lothian, John. 1905.

Glycerin of Lead Subacetate.

Pharm. Journ., 74, p. 582. (Proc. A. Ph. A., 53, p. 569.)

The author gives an improved formula for the preparation of B. P. Glycerin of Lead Subacetate.

Apple, F. M. 1907.

Glyceritum Tonicum Compositum.

Proc. Pa. Pharm. A., 30, p. 115. (Proc. A. Ph. A., 56, p. 89.)

The author gives a formula for the preparation of

Glyceritum Tonicum Compositum.

Nitardy, F. W. 1908.

Formulas recommended for introduction into the N. F.

Proc. A. Ph. A., 56, p. 1034.

The author gives a formula for the preparation of a compound Glycerite of Hydrastine.

Apple, F. M. 1909.

Glyceritum Iodi.

Procl A. Ph. A., 57, p. 1132. (Proc. A. Ph. A., 58, p. 8.)

The author recommends Glyceritum Iodi as a main ingredient in the preparation of Iodine Ointment, U. S. P.

Dyson, T. H. 1909.

Stray Notes from a Pharmacy.

Pharm. Journal, 83, p. 700. (Proc. A. Ph. A., 58, p. 88.)

The author gives precautions which are to be observed in the preparation of

Glycerinum Acidi Borici.

He also recommends a modification of B. P. formula for Glycerinum Plumbi Subacetatis.

Index to Bibliography.

Boracic Acid	1882	Dana
Borax	1882	Fairthorne
	1903	Gilmour
Boric Acid	1909	Dyson
	1901	Gilmour
	1903	Gilmour
	1903	Lunan
Bromide of Iron	1889	Arthur
	1890	Arthur
Cade, oil of	1893	Quinquaud
Calcaria	1874	Laub
Calendula	1902	Moseley
	1888	Mumma
Camphor	1874	Fairthorne
Carbolic Acid	1903	Gilmour
Carbonate of Bismuth	1902	White
Chloral	1874	Fairthorne
Cinchona	1876	Andrews
	1880	Loos
Codeine	1900	Currie
Corrosive sublimate	1883	Vigier
Creosote	1890	Bretter
	1905	Ebert

Eisenglycerin	1874	Hoffmann
Eisenzucker	1874	Hoffmann
Elm	1905	Hommell
Ergot	1905	Hommell
Ferri Bromidium	1889	Arthur
Ferri Iodidium	1889	Arthur
Ferri Subsulphas	1879	Sayre
Ferrous salts	1889	Arthur
Ferrum Oxydatum Saccharatum	1874	Hoffmann
Formalin	1902	Jordan
Ginger	1873	Moore
Glycerate of Sucrate of Lime	1873	Latour
Glycerate of Yerba Santa	1894	Edel
Glycerin of Lead Subacetate	1905	Lothian
Glycerinated Calendula	1902	Mosely
Glycerinum Acidi Borici	1909	Dyson
	1903	Gilmour
	1903	Lunan
Acidi Carbolici	1903	Gilmour
Acidi Tannici	1903	Gilmour
Aluminis	1885	Parker
Amyli	1896	Elborne
	1897	Pearson

Glycerinum Belladonnae	1890	Johnston
Bismuth Carbonatis	1902	White
Boracis	1903	Gilmour
Cinchonae	1876	Andrews
Pepsini	1904	Boa
Plumbi Subacetatis	1909	Dyson
	1896	Elborne
Glycerol of Borax	1882	Fairthorne
Glycerol of Myrrh	1882	Fairthorne
Glycerol of Nitrate of Bismuth	1877	Squire
Glycerole of Cinchona	1880	Loos
, Glycerophosphates	1905	Dyer
Lactucarium	1858	Stearns
Licorice	1880	Loos
Subacetate of Lead	1876	Squires
Sumach	1867	Bakes
Thymol	1881	Besnier
Glycerite of Birch Tar	1882	Johnson
Bismuth	1882	Bareau
Boracic Acid	1882	Dana
Calendula	1888	Mumma
Codeine	1900	Currie
Corrosive Sublimate	1883	Vigier
Creosote	1890	Bretter
Creosote	1905	Ebert

Glycerite of ferrous salts		1889	Arthur
		1890	Arthur
	Formalin	1902	Jordan
	Ginger	1873	Moore
	Hydrastine	1908	Nitardy
	Lanolin	1895	-------
	Licorice	1896	England
	Lime	1874	Laub
	Morphia	1874	Fairthorne
	& Camphor	1874	Fairthorne
	Oil of Cade	1893	Quinquaud
	Oxide of Iron	1874	Hoffmann
	Resorcin	1887	Chase
	Salicylic Acid	1889	Barnouvin
	Salol	1892	Suchomel
	Starch	1879	Lloyd
		1893	Patel
	Subsulphate of Iron	1879	Sayre
	Tar	1879	Lloyd
		1884	Wiegand
Glyceritum	Acidi Borici	1901	Gilmour
	Belladonnae	1890	Johnston
	Ferri Bromidi	1889	Arthur
		1890	Arthur

Glyceritum	Ferri Iodidi	1889	Arthur
		1890	Arthur
	Ferri Subsulphatis	1879	Sayre
	Hydrastis	1895	Sieker
	Iodi	1909	Apple
	Tonicum Compositum	1907	Apple
	Ulmi	1905	Hommell
Glycerophosphates		1905	Dyer
Hydrastine		1908	Nita
		1895	Sieker
Hydrastis		1905	----
		1895	Sieker
Hypophosphites		1905	Dyer
Iodine		1909	Apple
Iodide of Iron		1889	Arthur
		1890	Arthur
Iodine, ointment of		1909	Apple
Iron, oxide of		1874	----
Kreosote		1890	Bretter
Lactucarium		1858	Stearns
Lanolin		1895	-------

Lead, subacetate	1909	Dyson
	1896	Elborne
	1876	Squires
Licorice	1896	England
	1880	Loos
Lime	1874	Carles
Lime, Glycerite of	1874	Laub
Sucrate of	1873	Latour
Liniment Calcaire	1873	Latour
Minsel's Salt	1879	Sayre
Morphia	1874	Fairthorne
Morphia & Camphor	1874	Fairthorne
Myrrh	1882	Fairthorne
Nitrate of Bismuth	1877	Squires
Oil of Cade	1893	Quinquaud
Oxide of Iron	1874	Hoffmann
Pepsin	1904	Boa
Phosphorus	1877	Urwick
Plumbi Subacetas	1909	Dyson
	1896	Elborne
Resorcin	1887	Chase.

Salicylic Acid	1889	Barnouvin
Salol glycerin	1892	Suchomel
Starch	1879	Lloyd
Starch, Stability of glycerite	1893	Patel
Subacetate of Lead	1909	Dyson
	1896	Elborne
	1905	Lothian
	1876	Squires
Sublimate, corrosive	1883	Vigier
Subsulphate of iron	1879	Sayre
Sucrate of lime	1873	Latour
Sumach	1867	Bakes
Tannic Acid	1903	Gilmour
Tar	1879	Lloyd
	1884	Wiegand
Tar birch	1882	Johnson
Thymol	1881	Besnier
Tonicum Compositum	1907	Apple
Ulmi	1905	Hommell
Veratria	1874	Fairthorne
Yerba Santa	1894	Edel

APPROVED BY

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Professor (in charge)

June 11, '43.

(date)