BIBLIOGRAPHY OF IPOMOEA U.S.P.X.

by

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A Thesis Submitted for the Degree of

GRADUATE IN PHARMACY

UNIVERSITY OF WISCONSIN

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Ledanois, -- 1829

Jalap Male

Jour. de pharm. et de chim., 21, p. 478. (U.S. Dispens., 2 ed., p. 386; Ibid., 3 ed., p. 376; Ibid., 4 ed., p. 388; Ibid., 5 ed., p. 408; Ibid., 6 ed., p. 408; Ibid., 7 ed., p. 408; Ibid., 8 ed., p. 408; Ibid., 9 ed., p. 422; Ibid., 10 ed., p. 424; Ibid., 11 ed., p. 445; Ibid., 12 ed., p. 488; Ibid., 13 ed., p. 503; Ibid., 14 ed., p. 524; Ibid., 15 ed., p. 823; Ibid., 17 ed., p. 759; Ibid., 19 ed., p. 678; Ibid., 20 ed., p. 600; King's Am. Dispens., 18 ed., 3 rev., v. 2, p. 1087; Nat'l. Dispens., 2 ed., p. 792; Ibid., 3 ed., p. 846; Ibid., 5 ed., p. 903; Gusbourt, Historia Abregee des Drogues Simples, 3 ed., v. 1, p. 523; Ibid., 6 ed., v. 2, p. 521; Jour. de Chim. Med., 10, p. 10; Ibid., 9, p. 513; Coxe's Am. Dispens., 8 ed., p. 382.)

Announces the discovery of Male Jalap in Mexico, having strong purgative powers; describes the drug and gives the results of a preliminary test.

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Chevallier, -- 1829

Jalap Male

Revue Medicale, 24 - 27, p. 522. (Coxe's Am. Dispens., 8 ed., p. 382.)

States that he has a letter from Ledanois telling of the new plant and describing it. It is called Jalap Male.

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Smith, D.B. 1830

On the Ipomoea Jalapa

Am. Jour. Pharm., 2, p. 22. (U.S. Dispens., 12 ed., p. 488; Ibid., 13 ed., p. 503; Ibid., 14 ed., p. 524; Ibid., 15 ed., p. 823; Ibid., 19 ed., p. 678; Ibid., 20 ed., p. 600; Ibid., 17 ed., p. 759; Guibort, Histoire Abregee des Drogues Simples, 3 ed., v. 1, p. 523; Ibid., 4 ed., v. 2, sp. tr. p. 343; Ibid., 6 ed., v. 2, p. 521; Jour. de. Chim. Med., 9, p. 513; Ibid., 10, p. 10.)

The author gives a complete description of the drug, together with a colored illustration of the flowering plant. He places it in the Genus Ipomoea but not the species Orizabensis.

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Guibourt, N.J.B.G. 1833

Sur. le Jalap, par D.B. Smith siuvi d'observation par M. Guibourt

Jour. de. Chim. Med., 9, p. 513.

Guibourt gives a French translation of Smith's article and adds comments on the Fusiform Jalap as reported by Ledanois and some others.

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Pelletan, G. 1834

Sur les deaux especes de Jalap du Commerce

Jour. de. Chim. Med., 10, p. 10. (Guibourt, Historia abregee des Drogues Simples, 3 ed., v. 1, p. 523; Ibid., 6 ed., v. 2, p. 521; Ibid., 4 ed., v. 2, sp. tr., p. 343; Tschirch, Handbuk der Pharmakognosie, v. 2, p. 1331; Lond. Med. & Surg. Jour., 6, p. 623; S.G.L. Index, s. 1, v. 7, p. 163.)

He discusses the Male Jalap of Ledanois giving a detailed description of the several parts of the plant and a plate of the flowering branch with 21 figures.

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Wood, G.B. & Bache, F. 1834

Male Jalap

U.S. Dispens., 2 ed., p. 386; Ibid., 3 ed., p. 376; Ibid., 4 ed., p. 388; Ibid., 5 ed., p. 408; Ibid., 6 ed., p. 408; Ibid., 7 ed., p. 408; Ibid., 8 ed., p. 408; Ibid., 9 ed., p. 422; Ibid., 10 ed., p. 424; Ibid., 11 ed., p. 445; Ibid., 12 ed., p. 488.

Male Jalap is mentioned as an adulterant of Jalapa, having been noted in the French literature.

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Guibourt, N.J.B.G. 1836

Racine de Jalap fusiforme

Historie de Drogues, 3 ed., v. 1, p. 523; Ibid., 4 ed., v. 2, sp. tr., p. 343; Ibid., 6 ed., v. 2, p. 521. (U.S. Dispens., 12 ed., p. 488; Ibid., 13 ed., p. 503; Ibid., 14 ed., p. 524;

Ibid., 15 ed., p. 823; Ibid., 17 ed., p. 759; Ibid., 19 ed., p. 678; Ibid., 20 ed., p. 600; Fluckiger & Hanbury, D., Pharmacographia, 1 ed., p. 401; Ibid., 2 ed., p. ---.)

A summary of the work done on the drug, with a description of the plant and comments on several common names. On p. 522 of 6 ed., he gives 3 figures of the root.

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Johnston, J.F.W. 1837

On the Constitution of Resins

Lond. & Edinb. Phil. Mag., 14, p. 340. (Ibid., 15, p. 327; Ibid., 17, p. 147; Ann. d. Chem. u. Pharm., 51, pp. 84 & 104; Ibid., 83, p. 121; Jour. f. Med. et Chim., 26, p. 145; Buchner, Repert. f. d. Pharm., 81, p. 379; Ann. d. Chem. und Pharm., 116, p. 289.)

The author mentions the resin of Jalap in his discussion on the constitution of various resins.

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Ellis, C., Ecky, J., & Duhamel, A. 1842

Report on False Jalap

Am. Jour. Pharm., 14, p. 289. (U.S. Dispens., 14 ed., p. 523.)

State that the drug they examined was not from Ipomoea Orizabensis.

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Kayser, G.A. 1844

Chemische Untersuchung des Jalappenharzes

Ann. d. Chem. u. Pharm., 51, p. 81. (Pharm. Jour., 47, p. 165; Jour. de pharm. et de Chim., 62, p. 123; Archiv. d. Pharm., 114, p. 160; Ann. d. Chem. u. Pharm., 116, p. 289.)

He differentiates between the two types of Jalap root and the resulting resins which, in the case of Ipomoea he says is a single resin, instead of two as in the ordinary Jalap.

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Wood, G.B. & Bache, F. 1845

Male Jalap.

U.S. Dispens., 13 ed., p. 503; Ibid., 14 ed., p. 524; Ibid., 15 ed., p. 823; Ibid., 17 ed., p. 759; Ibid., 19 ed., p. 678; Ibid., 20 ed., p. 600.

A description of the drug is given, its physical properties, therapeutic uses, and chemical constituents are discussed.

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Holl, F. 1846

Resinae Jalapae

Archiv. d. Pharm., 98, p. 45. (Pharm. Jour., 47, p. 166.)

Sulphuric acid does not identify the true resin of Jalap from that of the false Jalap as guaiac resin gives a similar reaction.

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Sandrock, B. 1850

(Jalap)

Archiv. der Pharm., 114, p. 160. (Pharm. Jour., 47, p. 166.)

Reports in detail his results on the true Jalap root and states that he expects to investigate the Ipomoea Jalap.

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Curric, J.H. 1852

False Jalap

N.Y. Jour. Pharm., 1, p. --. (U.S. Dispens., 19 ed., p. 678.)

Discusses the properties of two varieties of false Jalap, one of which the authors of the U.S. Dispens., 19 ed., p. 678 say is probably Ipomoea Orizabensis.

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Mayer, W. 1852

Ueber das Jalappaharz

Ann. der. Chem. u. Pharm., 83, p. 121. (Pharm. Jour., 47, p. 166; Guibourt, Historie Abregee de Drogues Simples, 6 ed., v.

2, p. 521; Fluckiger & Hanbury, D., Pharmacographia, 1 ed., p. 401; Ibid., 2 ed., p. 446; Tschirch, Die Harz und die Harzhalter, p. 886.)

In reporting his and earlier work of others on the ordinary Jalap resin, mentions that Johnston according to Kayser had worked with the resin of Orizaba Jalap.

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Buchner, A. 1854

Ueber ein einfaches Verfahren zur Erkennung der Aechtheit des Jalapen- und Scammonium- Harzes

Neus Repert. fur Pharm., 3, p. 22. (Pharm. Jour., 14, p. 38.)

Discusses the detection of adulterations of true scammony. States that Ipomoea Orizabensis is sometimes used as an adulterant and gives a method for its detection.

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Mayer, W. 1855

Ueber die sogenanntea Jalappaharze

Ann. der Chem. u. Pharm., 95, p. 129. (Pharm. Jour., 47, p. 166; Ann. der Chim. et de Phys., 216, p. 494; Jour. de pharm. et de chim., 62, p. 123; U.S. Dispens., 13 ed., p. 504; Ibid., 14 ed., p. 524; Ibid., 15 ed., p. 823; Ibid., 17 ed., p. 759; Ibid., 19 ed., p. 678; Ibid., 20 ed., p. 600; Zeitschr. d. Allg. Osterr. Apoth. Ver., 33, pp. 418, 455, 437, 479.)

He mentions that there are two commercial varieties of Jalap on the German market obtained from Mexican Convolvulus species, one of which is Convolvus Orizabensis. Investigation of the resin does not indicate which Jalap was used.

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Kosmann, C. 1860

De l'action de l'acide sulfurique sur la resine de scammonee

Jour. de Pharm. et de Chim., 71, p. 83. (Pharm. Jour., 20, p. 159.)

He studies the action of sulphuric acid upon the resins of both true and false Jalap and compares

them with the resin of scammony.

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Spirgatis, H. v. 1860

Ueber die Constitution des Scammonium Harzes

Ann. der Chem. u. Pharm., 116, p. 289. (Zeitschr. d. Allg. Osterr. Apoth. Ver., 33, pp. 418, 437, 455, 479.)

He investigated the resin of Scammony and compared it with the results of Johnston and also the latters results on the resin of Ipomoea.

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Andouard, -- 1864

Etudes sur les Convolvulacus purgatives

Thesis l'Ecole de Pharmacie de Paris. (Guibourt, Historie des Drogues Simple, 4 ed., v. 2, sp. tr., p. 343; Ibid., 6 ed., v. 2, p. 522; Am. Jour. Pharm., 55, p. 33; Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1331.)

Reports the resin content of Fusiform Jalap as ranging from 14.5 to 20.1%

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Guibourt, N.J.B.G. 1866

Jalap Male

Jour. de Pharm. et de Chim., 82, p. 98. (Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1331.)

The resin content of Jalap and Ipomoea Orizabensis are discussed.

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Evans, H.S. 1867

The Jalaps of Commerce

Pharm. Jour., 9, p. 329.

Gives the synonym of Male Jalap and notes that it is included in commerce, although its place has largely been taken by Tampico Jalap.

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Proctor, W. Jr. 1868

Notes on a False Jalap

Am. Jour. Pharm., 40, p. 389.

Says that this drug differs structurally from Ipomoea, which has a "distinctly radiating arrangement of the ligneous bundles".

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Pocklington, H. 1872

The Microscope in Pharmacy

Pharm. Jour., 31, p. 1005.

Powdered Ipomoea Orizabensis is often used to adulterate the true Jalap.

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Fluckiger, F.A. & Hanbury, D. 1874

Other Kinds of Jalap

Pharmcographia, 1 ed.,p. 401; Ibid., 2 ed., p. 446. (Pharm. Jour., 72, p. 327; Ibid., 83, p. 338.)

The authors give a very comprehensive description of the physical properties of Ipomoea Orizabensis, stating that it is very similar to the true Jalap. They also give a list of the synonyms of the drug, and its resin content.

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Stille, A. & Maisch, J.M. 1879

Ipomoea Orizabensis

Nat'l. Dispens., 2 ed., p. 792; Ibid., 3 ed., p. 846; Ibid., 5 ed., p. 903.

A short description and a few synonyms of the drug are given.

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(Editor) 1879

Resin of Jalap

New. Rem., 8, p. 155.

States that jalapin is a name that has improperly been given to the glucoside of Ipomoea Orizabensis.

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Wren, W.A. 1882

Resins of Scammony and Jalap

Chem. & Drugg., 24, p. 12.

A short history of Mexican Scammony is given, including the habitat and stating that it is sold as true scammony.

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Bouriez, A. 1882

Recherches sur les jalaps.

Jour. de pharm. et de chim., 115, p. 329. (Pharm. Jour., 42, p. 383; Am. Jour. Pharm., 55, p. 34; S.G.L. Index, s. 1, v. 7, p. 162.)

A very detailed description of the drug with a discussion of its physical and chemical properties.

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Samuelson, I 1884

Ueber das Jalapin und dessen Spaltungsprocluekt durch verdünnt Salzsäure

Dissert. Breslau, 26, pp. --. (Chem. Zeitg., 8, p. 1543; Yrbk. Br. Pharm. Conf., 22, p. 78; Tschirch, Die Harz and die Harzhehalter, p. 887; Zeitschr. d. Allg. österr. Apoth. Ver., 33, pp. 418, 437, 455, 479.)

Gives a chemical formula for Jalapin and some of the typical chemical reactions of the glucoside.

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Maisch, J.M. 1885

Convolvulin and Jalapin

Am. Jour. Pharm., 57, p. 456. (Am. Jour. Pharm., 57, p. 233; Yrbk. Br. Pharm. Conf., 23, p. 220; Tschirch, Die Harze und die Harzbhalter, p. 886.)

Tells how two glucosides can be identified.

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Maisch, J.M. 1886

Materia Medica of the New Mexican Pharmacopoeia

Am. Jour. Pharm., 58, p. 169.

In discussing various Mexican names, says that Yerba de las animas is a common name for Ipomoea Orizabensis Ledenois and also Helenium autumnale, Linne.

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Maisch, J.M. 1887

Jalap Resin and Jalapin

Pharm. Jour., 47, p. 165. (Yrbk. Br. Pharm. Conf., 25, p. 177.)

A lengthy discussion, stating that the pure resin of scammony is identical with that of Orizaba root. A comparison of the two resins is made.

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Hyrano, M.K. 1888

(Pharbitis Triloba as a Source of Jalap)

Mitteilungen aus der medicinischen Facultat der Kaiserlich Japanischen Universitat, v. 1, pt. 2. (Pharm. Jour., 48, p. 220; Yrbk. Br. Pharm. Conf., 26, p. 165; Pharm. Rec., 8, p. 349.)

States that Orizaba root is one of the drugs of commerce and that "Convolvulin" is obtained from the root of Ipomoea Orizabensis.

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Fluckiger, F.A. 1889

Jalape und Jalapenharz

Jour. de Pharmacie von Elsass-Cothringen, 16, p. 283. (Pharm. Jour., 49, p. 546; Drugg. Circ., 34, p. 43; West. Drugg., 14, p. 258; Am. Jour. Pharm., 62, p. 141.)

Ipomoea Orizabensis is mentioned, stating its medicinal use and the habitat.

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Hoffmann, H.H. 1891

Jalapa. Jalap.

Pharm. Era, 6, p. 9.

Ipomoea Orizabensis, Ledanois is here mentioned as an adulterant or a substitute for the true Jalap.

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Poleck, T. 1892

Jalapin

Zeitschr. des. oesterr. Apoth. Ver., 30, pp. 391, 423, 447. (Yrbk. Br. Pharm. Conf., 30, p. 162; Bull. Pharm., 9, p. 247; Tschirch, Die Harze und die Harzbhalter, p. 887; Zeitschr. d. oesterr. Apoth. Ver., 33, pp. 418, 437, 455, 479.)

Confirms the identity of the resinous glucoside of Ipomoea Orizabensis with scammonin and regards it as probably identical with tampicin of Ipomoea simulans.

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Greenish, H.G. 1893

Certain Spurious Drugs

Pharm. Jour., 53, p. 382. (Drugg. Circ., 37, p. 285; Proc. Am. Pharm. Assoc., 42, p. 878; Yrbk. Br. Pharm. Conf., 31, p. 148.)

Discusses the adulteration of true Jalap with the root of Ipomoea Orizabensis.

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Kromer, N. 1895

Chemische Untersuchung einiger Convolvulaceenharze.

Zeitschr. d. oster.. Apoth. Ver. 33, p. 418. (Tschirch, Die Harze u. die Harzebehalter, p. 888; Ann. d. Chem. und. Pharm., 95, p. 129; Ibid., 116, p. 289; Zeitschr. des Allg. oster. Apoth. Ver., 30, No. 19, 20, 21.)

States that the resin of Opomoea Orizabensis, Led. is the same as the resin of Scammony.

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Serre, C.A. 1895

Scammony or Jalap?

Bull. Pharm., 9, p. 247.

States that the glucoside "Jalapin" has been given the name of "Orizabin".

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D--------, G. 1896

Jalap

Br. & Col. Drugg., 1, p. 126. (Am. Drugg. & Pharm. Rec., 28, p. 127.)

Orizaba Jalap is mentioned in the article as being an adulterant of the true Jalap.

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(Editor) 1900

Jalapa

Pharm. Jour., 65, p. 56.

A detailed description of Ipomoea Orizabensis, Leden. is given, with its synonym, Male Jalap.

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Lloyd, J.U. & Felter, H.W. 1900

Orizaba Root

Am. Dispens., 18 ed., 3 rev., v. 2, p. 1087.

The drug is discussed as to its physical and medicinal properties and uses, together with a brief description.

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Weigel, G. 1903

Beitrage zur Kenntis einiger medicinisch wichtiger Convolvulaceinharze

Pharm. Centralh., 44, p. 793. (Pharm. Jour., 22, p. 327; Pharm. Ear, 31, p. 85; Drugg. Circ., 48, p. 59; Yrbk. Br. Pharm. Conf., 48, p. 137; Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1332.)

Reports on the acid value, the saponification value,

and also gives some general chemical properties for the identification of Orizaba resin.

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Holmes, E.M. 1904

Mexican Scammony Root

Pharm. Jour., 72, p. 326. (Yrbk. Br. Pharm. Conf., 41, p. 223; Am. Jour. Pharm., 81, p. 105; Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1331.)

A description of its physical properties is given along with the synonyms. Its use is also discussed togetherwith a comparison of the resin of the root and that of scammony resin.

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Deane, H. 1904

False Scammony Root

Pharm. Jour., 72, p. 327. (Yrbk. Br. Pharm. Conf., 41, p. 223; Am. Jour. Pharm., 81, p. 105; Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1331.)

The drug is discussed as to its greater amount of resin over that yielded by true scammony.

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Guiges, P. 1905

Resines de Scammonee

Jour. de pharm. et de chim., 161, p. 241. (Pharm. Era, 34, p. 460; Drugg. Circ., 50, p. 14; Proc. Am. Pharm. Assoc., 54, p. 651; Ibid., 58, p. 1024; Yrbk. Br. Pharm. Conf., 43, p. 108.)

States that the resin of fusiform jalap may be tested with ether, since it contains a soluble and insoluble resin.

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Francis, J.M. 1906

Resina Scammonii

Bull. Pharm., 20, p. 185.

States that Ipomoea Orizabensis yields a larger per-

centage of resin that is identical with that of Convolvulus Scammonia, and it is cheaper.

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Tschirch, A. 1906

Glucoresine

Die Harze und die Harzbehalter, p. 886. (Annalen, 83, p. 121; Am. Jour. Pharm., 57, p. 456; Zeitschrift oster. Apoth. Ver., 33, p. 391.)

Describes the resin of Ipomoea Orizabensis and states that he thinks the Jalapin of Mayer, Orizabin of Fluckiger, Scammonin of Spirgatis, and Tampacin of Spirgatis are all the same resin.

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Guignes, P. 1907

Resin of Scammony - Identification

Pharm. Jour., 78, p. 401. (Proc. Am. Pharm. Assoc., 55, p. 682; Ibid., 58, p. 1024; Yrbk. Br. Pharm. Conf., 44, p. 147.)

The optical rotation of the resin of Ipomoea Orizabensis is compared with that of true jalap and found to be greater.

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Duncan, W. 1907

Scammony Resins

Pharm. Jour., 79, p. 378. (Proc. Am. Pharm. Assoc., 56, p. 204; Pharm. Jour., 83, p. 338; Yrbk. Br. Pharm. Conf., 45, p. 101; Bull. Pharm., 22, p. 392; Am. Jour. Pharm., 81, p. 105.)

Some tests were made on the percent of resins obtained from Mexican Scammony. Attention is also called to the melting point of the resin.

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Cowie, W.B. & Brander, B.M. 1908

The Examination of Mexican Scammony Resin

Br. & Col. Drugg., 54, p. 247. (Yrbk. Br. Pharm. Conf., 48, p. 137; Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1331.)

A detailed examination as to the percent of moisture, ash, ether solubility, acid value, and the saponification value of the resin.

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Cowie, W.B. & Brander, B.M. 1908

Mexican Scammony

Pharm. Jour., 80, p. 366. (Pharm. Jour., 83, p. 338; Proc. Am. Pharm. Assoc., 57, p. 100; Ibid., 58, p. 1024; Drugg. Circ., 53, p. 624; Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1332.)

A tabulated list of results obtained from the examination of several samples of Mexican Scammony is given.

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Duncan, W. 1908

Mexican Scammony

Br. & Col. Drugg., 53, p. 224.

States that since most of the scammony resin on the market is that of Mexican Scammony, the latter should be incorporated into the British Pharmacopoeia.

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Dott, D.B. 1908

Mexican Scammony

Chem. & Drugg., 72, p. 453.

A very detailed description of the drug is given, as physical properties and chemical constituents. Also a comparison of the resins of true scammony and Mexican Scammony is made.

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Cowie, W.B. 1909

Optical Rotation in the Assay of Jalap, Scammony, Orizaba, and Tampico Resins

Pharm. Jour., 82, p. 89.

A comparison of the values obtained for the optical activities of these resins is made, together with the percent of resin obtained from each drug.

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Cowie, W.B. 1909

The Valuation of Scammony Resin. A Comparison

Pharm. Jour., 81, p. 326. (Br. & Col. Drugg., 56, p. 533; Pharm. Jour., 83, p. 802.)

A detailed account of the chemical properties; also the moisture, ash, and resin contents, with its solubilities and acid values.

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Taylor, F.O. 1909

Scammony Resins

Am. Jour. Pharm., 81, p. 105. (Pharm. Jour., 83, p. 338; Ibid., 83, p. 80; Ibid., 85, p. 729; Proc. Am. Pharm. Assoc., 57, p. 99; Ibid., 58, p. 1024; Ibid., 59, p. 195; Br. & Col. Drugg., 56, p. 533; Yrbk. Br. Pharm. Conf., 46, p. 81; Am. Drugg. & Pharm. Rec., 54, p. 166; Pharm. Centralh., 51, p. 721; Pharm. Jour., 81, p. 365.)

A comparison of the amounts of resin obtained from Mexican and True Scammony is discussed, also comparison of the physical and chemical properties of the two resins.

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Holmes, E.M. 1910

Mexican Jalap Root

Pharm. Jour., 84, p. 789. (Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1332.)

Deals with the rise in price of Mexican Scammony, since it yields a higher percentage of resins and thus forces other jalaps off the market.

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Evans, A. 1910

Mexican Scammony Root

Analyt. Notes, 1910, p. 62. (Yrbk. Br. Pharm. Conf., 48, p. 233.)

Reports the percent of resin and moisture found in the drug.

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Engelhardt, H. & Schmidt, M.L. 1910

Scammony and Resin Scammony

Proc. Am. Pharm. Assoc., 58, p. 1023. (Ibid., 59, p. 194; Yrbk. Br. Pharm. Conf., 48, p. 136.)

A detailed review of the work of Cowie, Brander, Taylor, and Guiges on Mexican Scammony.

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Weigel, G. 1910

Zur Kenntnis des Skammonium und Jalapenharzes

Pharm. Centralh., 44, p. 789. (Pharm. Jour., 85, p. 729; Ibid., 86, p. 333; Proc. Am. Pharm. Assoc., 59, p. 195; West. Drugg., 26, p. 194; Pharm. Centralh., 51, p. 721.)

The author makes a detailed report of the resins of Jalap, Scammony, and Ipomoea.

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Power, F.B. & Rogerson, H. 1911

The Root of Ipomoea Orizabensis

Chem. & Drugg., 79, p. 881. (Pharm. Era, 45, p. 89; Br. & Col. Drugg., 60, p. 493; Tschirch, Handbuch der Pharmakognosie, v. 2, p. 1332.)

Give a description of the physical and chemical properties of the drug, also properties of the extract and the chemical constituents.

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Ballard, C.W. 1912

True Scammony Root and Mexican Scammony Root

Jour. Am. Pharm. Assoc., 1, p. 127. (Pharm. Jour., 88, p. 285; Yrbk. Br. Pharm. Conf., 49, p. 261.)

The microscopical characteristics of Ipomoea Orizabensis and Convolvulus Scammonia are described, compared and illustrated.

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Rusby, H.H. 1912

Scammony

Jour. Am. Pharm. Assoc., 1, p. 503.

The statement is made that some men are agreed that all the scammony on the market is extracted from the "false" or "Mexican Scammony".

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Kebler, L.F. 1913

Ipomoea

Jour. Am. Pharm. Assoc., 2, p. 1096.

States that Ipomoea is found under the name of Mexican Jalap and is probably used for making false resin of Scammony. The ash and water content are given.

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Kebler, L.F. 1913

Scammony Root

Jour. Am. Pharm. Assoc., 2, p. 1104.

States that Mexican Scammony is being sold as true scammony. The percent of resin yield is also given.

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(Committee) 1914

Ipomoea Radix

Brit. Pharmacopoeia, 5, p. 195. (Chem. & Drugg., 85, p. 487.)

"Orizaba Root or Mexican Scammony used for manufacture of scammony resins."

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Tschirch, A. 1917

Orizabawurzel

Handbuch der Pharmakognosie, v. 2, p. 1331.

Lists Orizaba root, giving a description of it and discusses its chemical constituents with references.

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Farwell, O.A. 1918

Brazilian Jalap and Some Allied Drugs

Jour. Am. Pharm. Assoc., 7, p. 854. (Pharm. Era., 52, p. 99; Drugg. Circ., 63, p. 445; Yrbk. Br. Pharm. Conf., 56, p. 117.)

Mexican Scammony is listed as one of the allied drugs, giving its botanical origin, synonyms, and a physical description of it.

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Heinrich, G. 1918

Zur Kenntnis des biologischen Verhaltens Convolvulin und Jalapin

Biochem. Zeitg., 88, p. 13. (Yrbk. Am. Pharm. Assoc., 7, p. 530.)

States that Jalapin is a saponin obtained from Ipomoea Orizabensis, and gives its therapeutic use.

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Scoville, W.L. 1919

Substitutes for Scammony

Jour. Ind. & Eng. Chem., 11, p. 335. (Yrbk. Am. Pharm. Assoc., 8, p. 266; Am. Jour. Pharm., 91, p. 388.)

States that the root of Ipomoea Orizabensis is very closely resembled by a drug known as Resina Drastica.

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Hilton, S.L. 1920

Scammony

Jour. Am. Pharm. Assoc., 9, p. 411.

Proposes a definition of Mexican Scammony preparatory to its admission into the U.S.P. X.

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Am. Drug Mfg. Assoc. 1920

Scammony

Jour. Am. Pharm. Assoc., 9, pp. 294 & 411.

The above association strongly recommends the admission of Mexican Scammony into the U.S.P. X.

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Grant, E.H. 1920

New Tests for Some Purgative Drugs

Jour. Am. Pharm. Assoc., 9, p. 763. (Pharm. Era, 53, p. 295.)

States that in tests for identity, the Mexican Scammony and Scammony yield the same results, but differ in odor.

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Holmes, E.M. 1921

Mexican Herbs and Drugs

Chem. & Drugg., 94, p. 40. (Jour. Am. Pharm. Assoc., 10, p. 103.)

Mexican Scammony is mentioned as one of the Mexican drugs that is coming into prominence.

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Deane, H. & Edmonton, W.E. 1921

The Ether-Solubility of Scammony Resins

Pharm. Jour., 106, p. 469. (Pharm. Era, 54, p. 326; Yrbk. Br. Pharm. Conf., 58, p. 316.)

Mexican Scammony root is mentioned as being inferior medicinally to Aleppo Scammony root.

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Kraemer, H. 1923

Educational Department

Pharm. Era, 57, p. 253.

Ipomoea Orizabensis is included in the varieties of Scammony, with its habitat, physical and chemical properties and a description of the drug.

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(Editor) 1929

Jalap

Chem. & Drugg., 106, p. 668.

A description of the root of several forms of Jalap, including Orizaba, is given, together with its synonyms and the habitat.

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UNITED STATES PHARMACOPOEIA (o - X)

(1820 - 1920)

History

of

IPOMEA

U.S.P. - 1920, - p. 200.

Ipomea
Ipomea
Ipom. - Orizaba Jalap Root, Mexican Scammony Root
Ipomea is the dried root of Ipomea Orizabensis Ledenois (Fam. / Convolvulaceae).
Ipomea yields not less than 15 per cent of the total resins of / Ipomea and not more than 3 per cent acid insoluble ash.
Description and Physical properties
Underground Ipomea - Nearly flat, transverse slices, from 2 to 12 Cm. in diameter, / and from 1 to 5.5 Cm. in thickness; externally light to dark brown, very deeply / wrinkled; fracture tough, fibrous; cut surface light brown, showing concen- / tric rings from which coarse fibers protrude; odor distinct, somewhat aro- / matic; taste slightly sweet, becoming somewhat acrid.
Structure - A corky layer consisting of several rows of brownish, thin-walled, / narrow tubular cells; outer cortex of several layers of colorless, thin-walled / cells; a broad cortical layer, made up of thickwalled, tangentially elongated / cells, containing either starch grains or crystals of calcium oxalate and numerous large cells containing brown, resinous latex; alternate rings or zones of col- / lateral fibrovascular bundles separated by broad medullary ray; sieve in / semicylindrical strands outside of the wood wedges; resin cells numerous and / distributed throughout the parenchyma and medullary rays; the parenchyma / cells both in and surrounding the bundles, more or less collapsed and contain- / ing either starch or calcium oxalate crystals.
Powdered Ipomea - Light grayish brown; starch grains from 0.003 to 0.035 mm. in / diameter, mostly single, also 2- to 4- compound and usually with a central / cleft; calcium oxalate crystals numerous, mostly in rosette aggregates, / occasionally in the form of rhombohedra, from 0.010 to 0.045 mm. in length; / fragments of yellowish-brown resin cells; tracheae mostly with bordered pores / and associated with numerous thick-walled wood fibers with simple pores.
Assay - Proceed as directed under Jalapa
Preparation - Resins Ipomoeae

SUMMARY OF U.S.P. DATA OF IPOMOEA.

Official in:

U.S.P., 1920.

Official Latin Title:

Ipomoea, 1920.

Official English Title:

Ipomea, 1920.

Official Abbreviation:

Ipom., 1920.

Official Synonyms:

Orizaba Jalap Root, Mexican Scammony Root, 1920.

Official Family:

Convolvulaceae, 1920.

Scientific Name:

Ipomea Orizabensis, 1920.

Part Used:

Dried root, 1920.

LIST OF JOURNALS CONSULTED

Am(erican) Drugg(ist), v. 13 - 20, 1884 - 1891.

Am(erican) Drugg(ist), v. 73 - 78, 1925 - 1928.

Am(erican) Drugg(ist) & Pharm(aceutical) Rec(ord), v. 22 - 72, 1892 - 1924.

Am(erican) Jour(nal of) Pharm(acy), v. 1 - 100, 1825 - 1928.

Bull(etin of) Pharm(acy), v. 3 - 42, 1889 - 1928.

Chem(ist) & Drugg(ist), v. 1 - 110, 1859 - 1929.

Dig(est) Com(mentaries on the) U.S.P. & N.F., 1905 - 1922.

Drugg(ist) Circ(ular), v. 1 - 73, 1857 - 1929.

Eclec(tic) Med(ical) Jour(nal), v. 1 - 85, 1853 - 1926.

Jour(nal of the) Am(erican) Pharm(aceutical) Assoc(iation) v. 1 - 17, 1912 - 1928.

Jour(nal of) Mat(eria) Med(ica), v. 1 - 20, 1859 - 1880.

New Rem(edies), v. 5 - 12, 1876 - 1883.

Pharm(aceutical) Era, v. 1 - 65, 1887 - 1928.

Pharm(aceutical) Jour(nal), v. 1 - 122, 1841 - 1929.

Proc(eedings of the) Am(erican) Pharm(aceutical) Assoc(iation), v. 1 - 51, 1851 - 1911.

West(ern) Drugg(ist)m v. 4 - 50, 1882 - 1928.

Yrbk. (Yearbook of the) Am(erican) Pharm(aceutical) Assoc(iation) v. 1 - 17, 1912 - 1928.

Yrbk. (Yearbook of the) Br(itish) Pharm(acopoeial) Conf(erence), v. 1 - 65, 1864 - 1928.

LIST OF BOOKS CONSULTED

Buchner, --, Repertorium f. d. Phar., v. 81, 1837.

Clapp, A,, Medicinal Plants of U.S., 1852.

Coxe, J.R., American Dispensatory, 1 ed., 1806; Ibid., 4 ed., 1818; Ibid., 6 ed., 1825; Ibid., 7 ed., 1827; Ibid., 8 ed., 1830; Ibid., 9 ed., 1833.

Fluckiger, F.A. & Hanbury, D., Pharmacographia, 1 ed., 1874; 2 ed., 1879.

Hare, H.A. & Caspari, C., Nat'l. Stand. Dispens., 2 ed., 1909.

Index Catalogue of the Surgeon-General's Library, s. 1, v. 7; s. 2, v. 8; s. 3, v. 6.

Johnson, L., Medical Botany of N.A., 1884.

King, J., American Dispensatory, 1 ed., 1852; Ibid., 5 ed., 1859; Ibid., 6 ed., 1864; Ibid., 8 ed., 1872; Ibid., 10 ed., 1875; Ibid., 15 ed., 1881; Ibid., 16 ed., 1889; Ibid., 18 ed., 3 rev., 1900.

Lloyd, J.U. & C.G., History of Pharmacopoeial Drugs, 1921.

Pritzel, G.A., Iconum Botanicum Index, 2 ed., 1872.

Stearns, F., Medical Plants of Michigan, 1858.

Stille, A. & Maisch, J.M., National Dispensatory, 2 ed., 1879; Ibid., 3 ed., 1884; Ibid., 5 ed., 1894.

Thacher, J., New Dispensatory, 1 ed., 1810; Ibid., 2 ed., 1813; Ibid., 4 ed., 1821.

Tschirch, A., Handbuch der Pharmakognosie, v. 2, 1917.

Williams, S.W., Medical Plants of Massachusettes, 1849.

Williams, W.C., Thesis, University of Wisconsin, 1926.

Wood, G.B. & Bache, F., U.S. Diapensatory, 2 ed., 1834; Ibid., 3 ed., 1836; Ibid., 4 ed., 1839; Ibid., 5 ed., 1843; Ibid., 6 ed., 1845; Ibid., 7 ed., 1847; Ibid., 8 ed., 1849; Ibid., 9 ed., 1851; Ibid., 10 ed., 1854; Ibid., 11 ed., 1858; Ibid., 12 ed., 1865; Ibid., 13 ed., 1870; Ibid., 14 ed., 1879; Ibid., 15 ed., 1883; Ibid., 17 ed., 1894; Ibid., 19 ed., 1907; Ibid., 20 ed., 1918; Ibid., 21 ed., 1926.

Approved by

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Title

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