

A BIBLIOGRAPHY OF
CLAVICEPS PURPUREA FRIES TULSANE

By

BETTY JANE RAY



A Thesis Submitted for the Degree of
BACHELOR OF SCIENCE
(Pharmacy)

UNIVERSITY OF WISCONSIN

1 9 4 6

Perrault, M.

1676

A Strange Sort of Rye, growing sometimes in certain parts of France.

Philosophical Transactions, 11, No. 130, pp. 758; (ibid., Abridged, 2, p. 357. Coxe, Am. Disp. 6 ed. pp. 542; ibid., 7 ed., p. 558; ibid, 8 ed., p. 584; ibid., 9 ed., p. 728).

Relates the presence of a corrupted rye around Cologne, which causes strange sicknesses when eaten.

Baker, G.

1765

An Account of the Disease, called Ergot, in French, from its supposed Cause, vitiated Rye.

Philosophical Transactions, 55, p. 106. (Coxe, Am. Disp. 6 ed., p. 542; ibid., 7 ed., p. 558; ibid., 8 ed., p. 584; ibid., 9 ed., p. 628.)

Discusses a letter from Dr. Tissot, on the subject of a disease called ergot, caused by "vitiated rye".

Stearns, J.

1807

Account of the Rulois Parturiers, a Remedy for quickening Childbirth.

New York Medical Repository, 11, p. 308. (Wood and Bache, Disp. U.S. 2ed., p. 559; ibid., 3 ed., p. 587; ibid., 4 ed., p. 618; 8 ed., p. 315; ibid., 10 ed., p. 328; ibid., 11 ed., p. 342; ibid., 12 ed., p. 370; ibid., 13 ed., p. 383; ibid., 15 ed., p. 562; ibid., 16 ed., p. 576; ibid., 17 ed. p. ; ibid., 18 ed., p. 517; ibid., 19 ed., p. 451; ibid., 20 ed., p. 427; Thacher, Am. New Disp., 1 ed., p. 209; ibid., 3 ed., p. 354; ibid., 4 ed., p. 369.)

The first mention by a member of the medical profession to ergot. Gives the observed effects of ergot upon pregnant women.

Thacher, J. 1810

Secale Cereale.

Am. New Disp., 1 ed., p. 208; 2 ed., p. 337^{*}; ibid., 3 ed., p. 352; ibid., 4 ed., p. 368.

Gives synonyms, description, a brief history, physical properties, medicinal properties, advised dosage uses, and some references.

Bigelow, J. 1812

(Ergot.)

Med. Journ., 5, p. 163. (Thacher, Am. New Disp., 3 ed., p. 356; ibid., 4 ed., p. 372; Mat. Med., p. 332).

(Discusses the effects of ergot poisoning.)

Coxe, J. R. 1818

Secale Corrutum.

Am. Disp., 4 ed., p. 501; ibid., 6 ed., p. 540; ibid., 7 ed., p. 556; ibid., 8 ed., p. 581; ibid., ed., 9, p. 625.)

Gives information as to which pharmacopeia Ergot is official in, botanical source, environmental factors favoring growth, physical properties, medical properties; uses, doses and their effects, instances of use, and effects on animals. Some references are given.

Stearns, J., 1818

(Answer to Dr. Spalding's Letter.)

New Eng. Journ. Med. and Surg., 7, p. 216. (Am. Journ. Pharm., 83, p. 43.)

(Reports his observations on the effects of ergot in specific case responses.)

* Changes name to Secale Corrutum.

- Bigelow, J. 1822
 Secale Corrutum.
 A Treatise on the Materia Medica, etc., 1 ed., p. 331.
 Gives synonyms, botanical origin, physical qualities, effects, uses, and medical exhibition. No references are given.
- (An American Physician) 1827
 Secale Corutum.
 The Eclectic and General Dispensatory, 1 ed., p. 271.
 Gives description, results of dose, and uses in expediting labor. No references are given.
- Randall, J. 1830
 (Ergot.)
 New Eng. Med. Journ., 1, p. 666. (Coxe, Am. Disp., 4 ed., p. 502; *ibid.*, 6 ed., pp. 541; *ibid.*, 7 ed., p. 557; *ibid.*, 3 ed., p. 581; *ibid.*, 9 ed., p. 626; Thacker, Am. New Dip. 2ed., p. 338; *ibid.*, 3 ed, p. 356; *ibid.*, 4 ed., p. 371.)
 (Reports on the use of ergot in hastening childbirth.)
- Wiggers, H. A. 1832
 Untersuchen uber das Mutterkorn.
 Ann. d. Pharm., 1, p. 129. (Am. Journ. Med. Science, 17, p. 21; Am. Journ., 5, p. 258; *ibid.*, 83, p. 148.)
 Gives the results of a chemical analysis of ergot with the constituents is stated.

Burne, J. J.

1833

Cause of Hour Glass contraction.

Lancet, 1833, v. 1, p. 529.

Discusses the usefulness of retarding and of hurrying normal births, with the use of ergot of Rye.

Waterhouse, H. S.

1834

(Ergot.)

New Eng. Med. Journ., 5, p. 247. (Thacker, Am. New. Disp. 4 ed., p. 371.)

(Reports his observations on the characteristics of ergot.)

Wood, G. B. and Bache, F.

1834

Secale Cornutum.

Dispens. U.S., 2 ed., p. 597; *ibid.*, 3 ed., p. 585; *ibid.*, 4 ed., p. 616; *ibid.*, 5 ed., p. 311**; *ibid.*, 6 ed., p. 857; *ibid.*, 7 ed., p. _____; *ibid.*, 8 ed., p. 311; *ibid.*, 9 ed., p. 318; *ibid.*, 10 ed., p. 325; *ibid.*, 11 ed., p. 339; *ibid.*, 12 ed., p. 365; *ibid.*, 13 ed., p. 377; *ibid.*, 14 ed., p. 391; *ibid.*, 15 ed., p. 556; *ibid.*, 16 ed., p. 570; *ibid.*, 17 ed., p. 506; *ibid.*, 18 ed., p. 511; *ibid.*, 19 ed., p. 447; *ibid.*, 20 ed., p. 422; *ibid.*, 21 ed., p. 433; *ibid.*, 22 ed., p. 432.

Gives the botanical origin, physical properties, chemical properties, medical properties and uses, doses, history and compatibilities.

Foederic, —

1835

(Ergot.)

Medical Legale, 4, p. 46. (Coxe, Am. Disp. 6 ed., pp. 542; *ibid.*, 7 ed., p. 558; *ibid.*, 8 ed., p. 584; *ibid.*, 9 ed., p. 628.)

(Reports several cases of pregnancy where ergot was used successfully in the late stages.)

* Changed name to Erfota. Starts giving official preparation.

Collier, R.

1837

Action of Ergot of Rye.

Lancet, 1837, vo 2, p. 7.

Cites cases where the use of ergot has brought unexpectedly normal births in pregnant women.

Muller, W. H.

1838

Remarks on Ergot.

Am. Journ. Pharm., 10, p. 269. (Wood & Bache, Dispens. U.S., 5 ed., p. 314; *ibid.*, 8 ed., p. 314; *ibid.*, 9 ed., p. 321; *ibid.*, 11 ed., p. 340.)

Comments on the discovery of small worms in the grains of ergot.

Kelso, J. J.

1839

On the General Utility of the Ergot of Rye in Obstetric Medicine.

Lancet, 1832, v. 2, p. 462.

Gives a description of cases most suited to the proper use of ergot in midwifery; its effects on the mother and its immediate effects on the life of the child.

Quekett, E. J.

1839

Origin of the Ergot of Rye.

Lancet, 1837, v. 2, p. 542. (Am. Journ. Pharm., 11, p. 237; Wood & Bache, Disp. U.S., 5 ed., p. 312; *ibid.*, 9 ed., p. 319; *ibid.*, 10 ed., p. 326; *ibid.*, 11 ed., p. 340; *ibid.*, 12 ed., p. 366; *ibid.*, 13 ed., p. 378; *ibid.*, 14 ed. p. 392; *ibid.*, 15 ed., p. 556.)

Gives data on the origin of ergot with descriptions of the growth of rye.

Wardleworth, T. H.

1839

Power of Dilating the Mouth of the Womb Possessed
by the Ergot of Rye.

Lancet, 1839, vol 2, p. 5.

Cites cases in which Ergot of Rye has been of use in
administration to pregnant women.

Borjean, J.

1841

Sur le seigle ergote.

Journ. de Chimie Medicale, 7, p. 701. (Pharm. Jour., v. 1,
p. 334; Wood and Bache, Dispens. U.S., 9 ed., p. 320; *ibid.*,
10 ed., p. 326; *ibid.*, 11 ed., p. 340; *ibid.*, 12 ed., p. 367;
ibid., 13 ed., p. 80; *ibid.*, 14 ed., p. 394; *ibid.*, 15 ed.,
p. 558; *ibid.*, 16 ed., p. 572; *ibid.*, 17 ed., p. 508; *ibid.*,
18 ed., p. 513; *ibid.*, 19 ed., p. 449; *ibid.*, 20 ed., p. 424.)

Explains that if gathered on the first day of its
formation, Ergot does not have the poisonous properties which
are present if it is gathered on the sixth day.

Catlett, W.

1842

Practical Remarks on Certain Effects of the Ergot
of Rye when administered in Obstetric Practice.

Edinburg Med. Journ., 47, p. 82. (Wood & Bache, Dispens.
U.S., 5 ed., p. 315; *ibid.*, 8 ed., p. 315; *ibid.*, 9 ed., p.
322; *ibid.*, 10 ed., p. 329; *ibid.*, 11 ed., p. 340; *ibid.*,
12 ed., p. 367; *ibid.*, 13 ed., p. 380; *ibid.*, 14 ed., p. 394;
ibid., 15 ed., p. 558; *ibid.*, 16 ed., p. 572; *ibid.*, 17 ed.,
p. 508; *ibid.*, 18 ed., p. 513; *ibid.*, 19 ed., p. 449; *ibid.*,
20 ed., p. 424; Pharm. Journ., 1, p. 336).

Recommends oil of ergot for its beneficial results, and
gives cases of its use.

Legrip, M.

1844

Analyse de l'ergot de seigle.

Journ. de Pharm., 6, p. 215. (Am. Journ. Pharm., 17, p. 39.)

Gives the results of a chemical investigation of ergot.

1845

(Ergot.)

Ann. de therap. p. p. 44. (Wood & Bache, Disp. U.S.,
8 3d., p. 313; *ibid.*, 9 ed., p. 320; *ibid.*, 14 ed., p. 394;
ibid., 15 ed., p. 559.

Gives an analysis of ergot.

Arnal, J.

1848

De l'action du seigle ergote.

Bull. de l'Acad. Roy. de Med., 13, p. 678. (Am. Journ. Pharm., 83, p. 150).

Claims that there is a toxic principle of ergot in the residues after the ethereal and aqueous extract of the drug.

Pratschke, _____

1850

(Ergot.)

Land. Med. Gaz., _____, p. 579. (Wood & Bache, Disp. U.S. 9 ed., p. 322; *ibid.*, 10 ed., p. 328; *ibid.*, 11 ed., p. 342; *ibid.*, 12 ed., p. 370; *ibid.*, 13 ed., p. 383; *ibid.*, 14 ed., p. 397; *ibid.*, 15 ed., p. 561; *ibid.*, 16 ed., p. 575; *ibid.*, 17 ed., p. 511; *ibid.*, 18 ed., p. 517; *ibid.*, 18 ed., p. 517; *ibid.*, 19 ed., p. 451.

(States that the symptoms in a fatal case of ergot poisoning were urgent thirst, burning pains in the feet, uneasiness and oppression, spasms and convulsions, followed by death.)

Stabler, R. H.

1851

Practical Observations.

Am. Journ. Pharm., 23, p. 122.

Emphasizes the importance of keeping ergot from decomposing. Suggests storing camphor with the ergot to preserve it.

Baker, T. R.

1852

An Analysis of Ergot of Rye.

Am. Journ. Pharm., 24, p. 99. (Wood & Bache, Dispens. U.S. 11 ed., p. 341; *ibid.*, 12 ed., p. 368; *ibid.*, 13 ed., p. 381; *ibid.*, 14 ed., p. 395; *ibid.*, 15 ed., p. 559; *ibid.*, 16 ed., p. 573; *ibid.*, 17 ed., p. 509; *ibid.*, 18 ed., p. 514.)

Reports a chemical analysis of ergot, with a comparison of the physical properties of oil of ergot with those of castor oil, concluding that they have similar saponification results and the compositions of the oils are similar.

Christison _____

1852

(Carnates Indica as a Substitute for Ergot.)

Charleston Med. Journ., _____, p. _____. (Am. Pharm. Journ., 24, p. 173.)

(Compares the effects according to time and the medicinal action of Indian hemp with that of ergot.)

King, Jr. and Newton, R. S.

1852

Ergota.

Eclectic Disp., 1 ed., p. 164.

Gives botanical origin, physical description, medicinal properties and uses, and an official preparation with no references.

Laidley, J.

1852

(Ergot.)

Stethoscope, _____, p. _____. (Am. Journ. Pharm., 24, p. 160; Wood & Bache, Dispens. U.S., 10 ed., p. 329; *ibid.*, 11 ed., p. 343.)

(Gives a method of preparation of the Fluidextract of Ergot, with its advantages.)

Walz, G. F.

1852

Das flucktige Alkaloid des Secale Cornutum.

Jahrb. fur prakt. Pharm., 24, p. 242. (Am. Journ. Pharm., 83, p. 150.)

Identifies the volatile base, found in ergot, trimethylamine.

Winckler, H. L.

1853

Ueber das Mutterkorn.

Chem. Cent. Blatt., 24, p. 339. (Am. Journ. Pharm., 25, p. 412; Wood & Bache, Dispens. U.S., 6 ed., p. 851; King, Am. Dispens., 6 ed., p. 861; *ibid.*, 8 ed., p. 762; *ibid.*, 10 ed., p. 762; *ibid.*, 15 ed., p. 762; *ibid.*, 16 ed., p. 762.)

Discusses the physical and chemical characteristics of ergot.

Winckler, H. L.

1853

Ueber die Entstehung und die chemische Constitution des Mutterkornes.

Jahrbuch für praktische Pharmacie, 16, p. 129. (Journ. Pharm. 13, p. 86; King, Am. Dispens., 6 ed., p. 861; *ibid.*, 8 ed., p. 762; *ibid.*, 10 ed., p. 762; *ibid.*, 10 ed., p. 762; *ibid.*, 16 ed., p. 762; Wood & Bache, Dispens. U.S., 6 ed., p. 861; *ibid.*, 11 ed., p. 341; *ibid.*, 12 ed., p. 368; *ibid.*, 13 ed., p. 381; *ibid.*, 14 ed., p. 395).

Gives a process of extracting the active constituents from Ergot, with conclusions on the activity of each.

1853

(Ergot.)

Annales des Sciences Naturelles Botanique 30, p. 5. (Wood & Bache, Disp. U.S., 13 ed., p. 580; *ibid.*, 14 ed., p. 394; *ibid.*, 15 ed., p. 558; *ibid.*, 16 ed., p. 572; *ibid.*, 17 ed., p. 508; *ibid.*, 19 ed., p. 449; *ibid.*, 20 ed., p. 423.)

(Gives the anatomical structure and physical characters of ergot. They are similar to those of a mushroom.)

(Jobert, _____)

1855

(Ergot.)

Gazette des Hopitaux, _____, p. _____. (Am. Journ. Med. Sci., 32; p. 479. (Wood & Bache, Dispens. U.S., 11 ed., p. 339; *ibid.*, 12 ed., p. 365; *ibid.*, 13 ed., p. 377; *ibid.*, 14 ed., p. 391; *ibid.*, 15 ed., p. 556; *ibid.*, 16 ed., p. 570; *ibid.*, 17 ed., p. 506; *ibid.*, 18 ed., p. 512; *ibid.*, 19 ed., p. 447.)

(The ergot growth has properties similar to that of the plant from which it comes. This is true in its relation to wheat.)

Nunn, R. J.

1855

On A Method of Preserving Ergot.

Am. Journ. Pharm., 27, p. 309. (Wood and Bache, Dispens. U.S.A., 6 ed., p. 860; King, Am. Dispens., 6 ed., p. 860; *ibid.*, 8 ed., p. 761; *ibid.*, 10 ed., p. 761; *ibid.*, 15 ed., p. 761; *ibid.*, 16 ed., p. 761.)

Outlines a method to preserve ergot by packing it into tight containers with a solution of camphor.

McGugin, D. L.

1857

(Ergot.)

Iowa Med. Journ., 4, p. 93. (Wood & Bache, Dispens. U.S., 12 ed., p. 365; *ibid.*, 13 ed., p. 377; *ibid.*, 13 ed., p. 391; *ibid.*, 15 ed., p. 556; *ibid.*, 16 ed., p. 570; *ibid.*, 17 ed., p. 506; *ibid.*, 18 ed., p. 512; *ibid.*, 19 ed., p. 447.)

(States that the variety of ergot on wheat is said to have succeeded promptly when that of rye, previously tried, had failed, in cases of pregnancy.)

Mitscherlich, _____

1857

(Sugar of Ergot.)

Chem. Gazette, 16, p. _____. (Am. Journ. of Pharm., 30, p. 346; Wood & Bache, Dispens. U.S., 12 ed., p. 368; *ibid.*, 13 ed., p. 381; *ibid.*, 14 ed., p. 395.)

(Gives a description of physical and chemical characteristics with a formula of Mycose, Sugar of Ergot.)

Procter, W.

1857

Remarks on Ergot.

Proceed. Am. Pharm. Assoc., 6, p. 127. (Wood & Bache, Dispens. U.S., 12 ed., p. 368; *ibid.*, 13 ed., p. 381; *ibid.*, 14 ed., p. 395; Am. Journ. Pharm., 29, p. 540.)

The process of obtaining the alkaloid secaline (secalia) by exhausting ergot with ether, being submitted to the process of percolation 4 times its bulk of alcohol is added; the gummy substance is filtered and mixed with lime. The mixture is distilled. The secalia escapes and is condensed in a receiver with sulfuric acid.

1857

(Ergot.)

Gazette Med. de Paris, _____, p. _____. (Wood & Bache, Dispens. U.S., 12 ed., p. 369; *ibid.*, 14 ed., p. 397; *ibid.*, 15 ed., p. 561; *ibid.*, 16 ed., p. 575; *ibid.*, 17 ed., p. 511; *ibid.*, 18 ed., p. 516.)

(Reports a case of ergot poisoning in which the symptoms seemed to be absence of pulse, restlessness, prickling of the limbs, paleness and coldness.)

Bonorden, M.

1858

Observations sur la Formation du Spermogonia Clavus on Seigle Ergote.

Bul. de la Soc. Botan., 4, p. 25. (Rep. de Pharm., 15, p. 149; Am. Pharm. Assoc. Proc., 8, p. 58.)

Gives some observations on the formation of ergot from its earliest stages in the ovary of the rye.

Morland, J.

1858

Reagents for Ascertaining the presence of Ergot.

Pharm. Journ., 17, p. 511. (Am. Pharm. Assoc. Proc., 7, p. 85.)

States that the most characteristic reactions of ergot are with the caustic alkalies as reagents.

Parola, A.

1858

New Remedy for Consumption.

Scientific American, 39, p. 148. (Am. Journ. Pharm., 30, p. 374.)

Boasts of the powers of ergot in curing advanced cases of consumption.

Ludwig, H.

1861

Muttlerkorn.

Arch. Pharm., 156, p. 302. (Am. Pharm. Assoc. Proc., 11, p. 97.)

Calls attention to some alleged variations in the quality of ergot and its mode of collection.

Dujardin-Beaumetz, _____

1862

(Ergot.)

Bull. gen. Therap., 94, p. 236. (Wood & Bache, Dispens. U.S. 15 ed., p. 563; *ibid.*, 16 ed., p. 577; *ibid.*, 17 ed., p. 513; *ibid.*, 18 ed., p. 518; *ibid.*, 19 ed., p. 452.)

(States that the dose of the crystallized ergotine for hypodermic use should be t mg. (7/100 grain).)

Pardue, _____.

1862

(Oil of Ergot.)

Chemical Gazette, 28, p. 495. (Am. Journ. Pharm., 24, p. 105.)

(States that oil of ergot, when extracted by ether, is not saponifiable.)

Schlenzig, H.

1862

Die Einstehungsursache des Mutterkornes.

Buchnaxis Neues Rep. of Pharm., 11, p. 223. (Am. Pharm. Assoc. Proc., 11, p. 98.)

Ascribes the formation of spurred rye to the sting of a small brownish insect, Rhagozycha melanurs.

Gonnermann, A.

1863

Mikroskopische Untersuchung des Mutterkorns von Secale Cereale.

Archiv. of Pharm., 164, p. 106. (Am. Pharm. Assoc. Proc., 11, p. 97.)

Reports on following with a microscope the different stages of ergot of rye (*Claviceps purpurea* Tulasne).

Leperdriel, M. C.

1863

On the Ergot of Wheat.

Pharm. Journ., 22, p. 423. (Wood & Bache, Disp. U.S., 13 ed., p. 377; *ibid.*, 14 ed., p. 391; *ibid.*, 15 ed., p. 557; *ibid.*, 16 ed., p. 570; *ibid.*, 17 ed., p. 507; *ibid.*, 18 ed., p. 512; *ibid.*, 19 ed., p. 448; Am. Pharm. Assoc. Proc., 11, p. 98.)

Compares the physical and medical properties of ergot of wheat and ergot of rye, putting emphasis on the fact that ergot of wheat can be preserved easier and for longer periods of time.

Ludwig, H.

1863

Chemisches über das Mutterkorn (*Secale corrutum*).

Arch. of Pharm., 164, p. 193. (Am. Pharm. Assoc. Proc., 11, p. 98.)

Gives the chemical history of ergot, and the results of a partial analysis by W. Fiedler.

Wenzell, W. T.

1864

An Essay on the Active Constituents of Ergot of Rye.

Am. Journ. Pharm., 36, p. 193. (King, Am. Dispens., 8 ed., p. 763; *ibid.*, 10 ed., p. 763; *ibid.*, 15 ed., p. 763; *ibid.*, 16 ed., p. 763; Wood & Bache, Dispens. U.S., 12 ed., p. 369; *ibid.*, 13 ed., p. 382; *ibid.*, 14 ed., p. 396; *ibid.*, 15 ed., p. 559; *ibid.*, 16 ed., p. 573; *ibid.*, 17 ed., p. 509; *ibid.*, 18 ed., p. 514; *ibid.*, 19 ed., p. 450; *ibid.*, 20 ed., p. 425; Am. Journ. Pharm., 50, p. 335.)

Gives processes for isolating alkaloids from ergot. They were ecbolina and ergotina.

Tichomirow, W.

1865

(Ergot.)

Pharm. Zeit. für Russland, 4, p. _____. (Am. Journ. Pharm., 82, p. 413.)

(Proposes the spectrum of another pigment for the discovery of ergot in flour, by extracting the flour with alcohol and sulfuric acid.)

Jacoby, M.

1866

Ueber die Nachweisung des Mutterkorns im Roggenmehl.

Vierteljh. of Pharm., 14, p. 248. (Am. Pharm. Assoc. Proc., 14, p. 189.)

Gives a method of detecting ergot in rye meal by means of dilute sulfuric acid which develops a rose color.

Mill, J. W.

1867

Ergot.

Am. Pharm. Assoc. Proc., 15, p. 358.

Discusses the question of how the preparations of ergot can be improved.

Attfield, P.

1869

Note on Sulphate of Potassium in Ergot.

Pharm. Journ., 10, p. 513; (Wood & Bache, Disp. U.S., 14 ed., p. 395; *ibid.*, 15 ed., p. 559; Am. Journ. Pharm., 41, p. 246; Am. Pharm. Assoc. Proc., 17, p. 165.)

Reports the discovery of potassium sulfate in an analysis of ergot and also speaks of ways to preserve the crystalline substances.

Herrman, J. C.

1869

Beiträge zur Chemischen Kenntniss des Mutterkorns.

Wittsteins Viertelj. Schr., 18, p. 481. (Am. Journ. Pharm., 42, p. 143; Am. Pharm. Assoc. Proc., 18, p. 273.)

Gives the chemical and physical properties of several constituents of ergot.

Langenbeck, G. R.

1869

Ueber hypodermatische Ergotin-Infektionen bei Aneurysmen.

Berliner Klinische Wochensch, 1, p. 13. (Prostitutioner, 1, p. ___; Am. Journ. Med. Sci., 58, p. 256; Wood & Bache, Disp. U.S., 14 ed., p. 399.)

Reports the successful use of ergot in a case of aneurism of the radial artery.

Schoonbroodt, L.

1869

Ueber den Einfluss des Trockners auf die wirksamen Bestandtheile der Pflanzen.

Wittstein's Vierteljabresschr. für prakt. Pharm., 18, p. 93. (Am. Journ. Pharm., 41, p. 321.)

Reports on the influence of drying on the active principles of ergot and other plants.

Ronayne, C. 1870

(Ergot.)

Medical Press and Circular, 9, p. 267. (Yrbk. Brit. Pharm. Conf., 7, p. 37.)

(Recommends a special process of extracting ergot.)

Brown, J. C. 1871

Ergot of Rye in the Treatment of Mental Diseases.

Lancet, 1871, vi, 2, p. 265. (Am. Journ. of Med. Science, 97, p. 549; Wood & Bache, Disp. U.S., 14 ed., p. 398.)

Gives examples of various cases of mental diseases which were successfully treated with ergot.

Cook, M. C. 1871

The Development of Ergot.

Pharm. Journ., 30, p. 702. (Yrbk. Brit. Pharm. Conf., 8, p. 111.)

Gives a brief survey of the stages in the life history of ergot.

Herrmann, J. C. 1871

Beiträge zur Chemischen Kenntniss des Mutterkorns.

Buchner's News Repertorium für Pharm., 20, p. 283. (New Remedies, 1, p. 238; Wood & Bache, Disp. U.S., 14 ed., p. 395; *ibid.*, 15 ed., p. 559; *ibid.*, 16 ed., p. 573; *ibid.*, 17 ed., p. 509; *ibid.*, 18 ed., p. 514; *ibid.*, 19 ed., p. 450; *ibid.*, 20 ed., p. 425; Yrbk. Pharm. Trans. Conf., 7, p. 123.)

Gives the chemical constituent and physical characteristics of oil of ergot.

Hirschberg, A.

1871

Die Aufbewahrung des Mutterkorns.

Arch. d. Pharm., 148, p. 88. (Am. Journ. Pharm., 43, p. 309;
Proc. Am. Pharm. Assoc., 19, p. 262.)

Recommends selecting unbroken grains of ergot, drying them carefully and preserving them in small, well-sealed vessels.

Michener, E.

1871

On the Use of Ergot.

Journ. Mat. Medica, 10, p. 11. (Coxe, Am. Disp., 6 ed., p. 542; *ibid.*, 7 ed., p. 558; *ibid.*, 8 ed., p. 584; *ibid.*, 9 ed., p. 628.)

Discusses various physiological actions of ergot, and how it may be used on the pregnant uterus.

1871

(Ergot irra.)

Edinb. Med. Journ., 98, p. 511. (Wood & Bache, Disp. U.S., 14 ed., p. 398).

(Reports a case of haematemesis being checked by injection of 3 grains of ergotine.)

Gasner, J. B.

1872

Untersuchung der Bestandtheile des Mutterkornes.

Archiv. of Pharm., 144, p. 195. (N. Rep. Pharm., 20, p. 301; Journ. Chem. Soc., 9, p. 726; Yrbk. Brit. Pharm. Conf., 9, p. 93.)

Discusses the results of research on the constituents of ergot.

Haudelin, E.

1872

Ueber die wirksamen Bestandtheile des Mutterkorns.

Num. Jahrb. f. Pharm., 37, p. 157. (Am. Journ. Pharm., 44, p. 392.)

Describes some of the chemical reactions of the active principles of ergot.

King, J.

1872

Secale cereale - Ergota.

Am. Disp., 8 ed., p. 759; *ibid.*, 10 ed., p. 759; *ibid.*, 15 ed., p. 759; *ibid.*, 16 ed. p. 759.

Gives a description and history of rye, formation of Ergot by a fungus; its microscopic structure, chemical composition, assay, medicinal properties, uses, and some official preparations.

Ritchie, _____

1872

(Ergot.)

Edinb. Med. Journ., 99, p. 750. (Wood & Bache, Disp., U.S., 14 ed., p. 399.)

(Concludes that Ergot is most efficacious for administration when used subcutaneously.)

Vogt, P.

1872

Ueber die Behandlung der Varicen durch subcutane Ergotininjectionen.

Berliner klinische Wochenschrift, 10, p. 115. (New Rem., 16, p. 106; Wood & Bache, Disp. U.S., 14 ed., p. 399.)

Reports on the use of subcutaneous injections of ergotine in curing varicose veins and similar afflictions.

Werrich, A.

1872

Beitrag zum Kenntniss des Ergotinwirkungen.

Arch. f. path. Anat., 56, p. 505. (Am. Journ. Pharm., 46, p. 332; *ibid.*, 83, p. 152; Philad. Med. Times, —, p. 711; Wood & Bache, Dispens. U.S., 14, ed., p. 397.)

Reports that after ergotine administration, the bladders in numerous cases were found distended.

Ficinus, O.

1873

Ueber den Fettgehalt des Mutterkorn.

Archiv. d. Pharm., 203, p. 219. (Am. Journ. Pharm., 45, p. 538; Proc. Am. Pharm. Assoc., 22, p. 96.)

Estimates the amount of fat in ergot to be 30%, and regards it as the cause of the ready decomposition of the powder.

Gobley, M.

1873

Sur la conservation du seigle ergote.

Journ. d. Pharm. Chim. s. 4, v. 17, p. 216. (Wood & Bache, Disp. U.S., 14 ed., p. 396; *ibid.*, 15 ed., p. 561; *ibid.*, 16 ed., p. 575; *ibid.*, 17 ed., p. 511; *ibid.*, 18 ed., p. 516; *ibid.*, 19 ed., p. 451; Yrbk. Pharm. Trans. Brit. Pharm. Conf., 10, p. 116).

Recommends a method for preservation of Ergot by heating it with pitch and then packed with the pitch into small, air-tight containers.

Smith, A. H.

1873

Frequently Recurring Epistaxis Relieved by Ergot.

Med. Record, 8, p. 502. (Wood & Bache, Disp. U.S., 14 ed. p. 398.)

Reports success in stopping severe bleeding of the nose with Ergot after local treatment had failed.

Squibb, E. R.

1873

Note on Ergot and its Preparations.

Proc. Am. Pharm. Assoc., 21, p. 637, (ibid., 22, p. 96.)

Discusses the history of ergot and its preparations, calling attention to its advancement in the medical field.

 1873

(Ergot.)

Bost. Med. & Surg. Journ., 85, p. 91. (Wood & Bache, Disp. U.S., 14 ed., p. 398.)

(Cites cases where ergot was used successfully for cancer of the womb.)

Ducros, H.

1874

Sur la conservatiien du seigle ergote.

Journ. de Chim. med., 8, p. 448. (Zeitsch. Oest. Ap. Ver., 14, p. 8; Proc. Am. Pharm. Assoc., 24, p. 120; Yrbk. Brit. Pharm. Conf., 13, p. 288.)

Recommends that ergot be kept in glass-stoppered bottles covered with a layer of powdered wood charcoal.

Mercein, J. R.

1874

Commercial Ergotine and its Impurities.

The Pharmacist, 7, p. 257. (Proc. Am. Pharm. Assoc., 23, p. 57.)

Draws attention to the inferior character of commercial Ergotine as found in local markets with "Merck's" label. Reports the results of a series of experiments with this product.

Wernick, A.

1874

Einige Versuchsreihen über das Mutterkorn.

Beitr. z. Geburtsch. u. Gynakol., 3, p. 74. (Apothekerzeitung, 17, p. 43; Am. Journ. Pharm., 46, p. 332; *ibid.*, 83, p. 152; Am. Pharm. Assoc. Proc., 22, p. 95.)

Discusses the advantages in using a subcutaneous injection of ergot.

Buchheim, R.

1875

Ueber den wirksamen Bewandtheil des Mutterkorns.

Arch. für Experim. Path. und Pharm., 3, p. 1. (Archiv. Pharm., 206, p. 32; Proc. Am. Pharm. Assoc., 24, p. 117; Zeitschr. d. Oesterr. Apoth. Ver., 21, p. 245; Am. Journ. Pharm., 47, p. 502.)

Discusses an examination of ergot as to its physical properties and constituents.

DaCosta, _____

1875

(Ergot.)

Phila. Med. Times, 11, p. 636. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 583; *ibid.*, 5 ed., p. 621.)

(Gives the use of ergot as a remedy of diabetes insipidus.)

Tanret, C.

1875

Sur la presence d'un nouvel alcaloide, l'ergotinine, das le seigle ergote.

Compt. rend., 81, p. 895. (Journ. Am. Pharm. Assoc., 19, p. 718; Am. Journ. Pharm., 83, p. 153; Proc. Am. Pharm. Assoc., 24, p. 120; *ibid.*, 25, p. 118; *ibid.*, 26, p. 604; Archiv. Pharm., 272, p. 503; Yrbk. Brit. Pharm. Conf., 13, p. 99.)

Reports presence in ergot of an alkaloid ergotinine.

Bulkley, L. D.

1876

On the Use of Ergot in the Treatment of Purpura.

Trans. Med. Soc. of State of New York, p. 176. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 585; *ibid.*, 5 ed., p. 622.)

Reports on the successful use of ergot in treating purpura and in stopping hemorrhages.

Pragendorff, G. & Podwissotzky, V.

1876

Ergot of Rye.

Pharm. Journ., 35, p. 1001. (Proceed. Am. Pharm. Assoc., 24, p. 119; Am. Journ. Pharm., 48, p. 413; *ibid.*, 53, p. 557.)

Report on investigations of ergot, its constituents, chemical properties, and keeping qualities.

Tanret, C.

1876

Observations de M. Taset a propos de la note de M.M. Dragendorff et Podwissotzki.

Journ. de Pharm., 24, p. 273. (Yrbk. Brit. Pharm. Conf., 14, p. 20.)

Supplies evidence to the office that ergotinine does not contain sclererythrine. Also gives the chemical and physical properties of ergotinine.

Pragendorff, V. & Podwissotsky, V.

1877

Ueber die wirksamen und einige andere Bestandtheile des Mutterkorns.

Archiv. für experim. Pathol. und Pharmacol., 6, p. 153. (Am. Journ. Pharm., 50, p. 335; *ibid.*, 83, p. 152; Proc. Am. Pharm. Assoc., 25, p. 118; Jahresb. f. Pharm., 11, p. 54; Proc. Am. Pharm. Assoc., 25, p. 119; Journ. Am. Pharm. Assoc., 3, p. 43.)

Give a review of the active and other constituents of ergot, and trace the activity of ergot to the presence of phosphoric acid.

Mourrut, M.

1877

Sur la conservation de la poudre d'ergot de seigle.

Rep. de Pharm., 5, p. 258. (Am. Journ. Pharm., 49, p. 443; Proc. Am. Pharm. Assoc., 26, p. 178; Yrbk. Brit. Pharm. Conf., 15, p. 326.)

Recommends mixing freshly powdered ergot with 5% of powdered benzoin to preserve the physical and medicinal properties without alteration.

1877

(Ergot.)

Bull. gen. de Thes., 94, p. 90. (Stille & Maische, Nat'l. Dispens., 2 ed., p. 547; *ibid.*, 3 ed., p. 585.)

(Reports the use of sclerotic acid hypodermically in doses of from 1/25 to 1/10 grains.)

Blumberg, T.

1878

("Ein Beitrag zur Kenntniss der Mutterkorn-Alkaloide.")

Dorpat. (Am. Jour. Pharm., 50, p. 335; Proc. Am. Pharm. Assoc., 26, p. 604; *ibid.*, 27, p. 135; Yrbk. Brit. Pharm. Conf., 16, p. 29.)

An inaugural thesis on a contribution to the knowledge of the ergot alkaloids.

Carles, P.

1878

Ergot de seigle et Ergotine.

Rep. de Pharm., 6, p. 145. (New. Rem., 7, p. 341; Proc. Am. Pharm. Assoc., 26, p. 97; Yrbk. Brit. Pharm. Conf., 15, p. 326.)

Proposes a method whereby a good product, identical with Bonjean's ergotin is obtained from ergot.

Dilg, P. H.

1878

Active Constituents of Ergot.

Am. Journ. Pharm., 5, p. 335. (Wood & Bache, Dispens. U.S.A., 15 ed., p. 560; *ibid.*, 16 ed., p. 574; *ibid.*, 17 ed., p. 510; *ibid.*, 18 ed., p. 515; Yrbk. Brit. Pharm. Conf., 15, p. 214.)

As summary of the so-called active constituents of ergot, their properties and method of isolation.

Dragendorff, G.

1878

Ueber die Bestandtheile des Mutterkornes.

Chem. Centralbl., 49, p. 125. (Yrbk. Brit. Pharm. Conf., 15, p. 217.)

Discusses the constituents of ergot.

Hofman, E.

1878

(Nachweise des Mutterkornes in Mehl oder Brod.)

Pharm. Ztg., 84, p. _____. (Am. Journ. Pharm., 51, p. 24; Yrbk. Brit. Pharm. Conf., 16, p. 54; Pharm. Centralh., 19, p. 455; Proc. Am. Pharm. Assoc., 28, p. 52.)

(Recommends Wolff's process for detecting the presence of ergot in flour.)

Luton, _____

1878

(Ergot.)

Bull. de L'Acad. de Med., 26, p. 803. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 584; *ibid.*, 5 ed., p. 621.)

(Comments on the use of ergot in dentistry.)

Boggs, A. 1879

Ergot of Rye in Pleuro-pneumonia with Effusion.

British Med. Journ., 1879; 2, p. 772. (Practitioner, 26, p. 287; Stille and Maische, Nat'l. Dispens., 3 ed., p. 584; *ibid.*, 5 ed., p. 622.)

Reports a case in which ergot, with solution of ammonium acetate, helped cure pleuro pneumonia.

Catillon, A. 1879

(Ergotin.)

Rep. de Pharm., 7, p.441. (Proc. Am. Pharm. Assoc., 28, p. 52; Yrbk. Brit. Pharm. Conf., 17, p. 305.)

(Gives a new method for preparing Bonjean's ergotin.)

Dabney, W. C. 1879

The Topical Uses of Ergot.

Am. Journ. Med. Sciences, 78, p. 101. (Practitioner, 26, p. 292.)

Calls attention to the use of ergot in various affections, as chronic conjunctivitis.

Eldridge, S. 1879

Topical Use of Ergotine in Acne Rosacea. Granular Urethritis, Gonorrhoea and Otitis Media.

New York Emd. Journ., 30, p. 360. (Practitioner, 26, p. 292.)

Reports cases of affections in which the local application of ergot is beneficial.

Garnes, A.

1879

(Ergot.)

These, Paris (Stille and Maische, Nat'l. Dispens., 3 ed., p. 583; *ibid.*, 5 ed., p. 621.)

(Reports or use of ergot in diabetes insipidus.)

Herman, _____

1879

(Ergot.)

Times and Gaz., 2, p. 205. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 583; *ibid.*, 5 ed., p. 620.)

(Gives conclusions drawn from the use of ergot in the treatment of uterine fibroids.)

Stille, A. & Maisch, J. M.

1879

Nat'l Dispens., 1 ed., p. 541; *ibid.*, 2 ed., p. 541; *ibid.*, 3 ed., p. 577; *ibid.*, 5 ed., p. 516.

Give the botanical origin, description, composition, medical action and use of the drug with the dose.

Stoddart, W. W.

1879

The Growth and Development of *Claviceps Purpurea*
(Tulasre.)

Pharm. Journ., 39, p. 194. (Wood & Bache, Dispens. U.S., 17 ed., p. 512; *ibid.*, 18 ed., p. 517; *ibid.*, 19 ed., p. 451; Am. Journ. Pharm., 51, p. 560.)

Discusses the growth and development of ergot and reports on an epidemic being caused among sheep from eating ergotized grain.

1879

(Ergot.)

Times & Gaz., 2, p. 397. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 381; *ibid.*, 5 ed., p. 618.)

(Reports on the production of swelling of the face and arms as a peculiar action of ergot.)

Allen, ____

1880

(Ergot.)

Land. Med. Record, 5, p. 21. (Practitioner, 26, p. 292; Stille & Maische, Nat'l. Dispens., 3 ed., p. 585; *ibid.*, 5 ed., p. 622; Wood & Bache, Dispens. U.S., 18 ed., p. 518; *ibid.*, 19 ed., p. 452.)

(Gives the use of ergot in topical affections, such as chronic conjunctivitis.)

Tells of the different effects of ergot on a person suffering from hemorrhage. Also relates the effects of an overdose on a pregnant woman.

Whittle, G.

1880

(The Administration of Ergot in Labour.)

Dublin Journ. of Med. Sci., 77, p. _____. (Practitioner, 26, p. 371.)

(Gives examples of successful child-births with the use of Ergot.)

Bernbeck, ____

1881

(Mutterkorns.)

Pharm. Zeitung., 26, p. 486. (Proc. Am. Pharm. Assoc., 30, p. 142.)

(Proposes a test for the quality of oil of ergot.)

Lassar, _____ 1881

(Ergotin in Chronic Eczema.)

Chicago Med. Review, _____, p. _____. (Am. Journ. Pharm., 53, p. 475).

(Claims success in using ergotine internally against spasms in patients afflicted with eczema.)

Poychet, _____ 1881

(Ergot.)

Annales d'Hyg. pub., 17, p. 253. (Stille & Maische, Nat'l. Dispens., 5 ed., p. 619.)

(Reports a fatal case of ergot poisoning.)

Rogers, J. G. 1881

The Therapeutic Uses of Ergot in Nervous Diseases.

Med. Record, 20, p. 503. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 584; *ibid.*, 5 ed., p. 622.)

Discusses the use of ergot in quieting insane excitement whenever associated with congestion, even though the patient is anemic.

Schaefer, S. 1881

Das Mutterkorn in wirksamer Form.

Pharm. Centralh., 22, p. 237 (Proc. Am. Pharm. Assoc., 29, p. 118.)

Maintains that the aqueous extract of ergot, sclerotic acid, and scleromucin lose their activity when exposed to the air.

Schmitt, E.

1881

(Ergot.)

Bull. de la Soc. de Pharm. de Bordeaux, 20, p. 40. (Pharm. Journ., 40, p. 23; Yrbk. Brit. Pharm. Conf., 17, p. 219.)

Discusses the chemistry and pharmacy of ergot.

Shoemaker, L.

1881

(Uses of Oil of Ergot in Therapeutics.)

Medical Bulletin, 3, p. _____. (Drug. Circ., 25, p. 7; Yrbk. Brit. Pharm. Conf., 17, p. 184.)

(Discusses the therapeutic values of oil of ergot.)

Werner, H.

1881

(Stability of Ergot When Deprived of fixed oil.)

Pharm. Zeitung, 26, p. 397. (Proc. Am. Pharm. Assoc., 30, p. 142; Journ. Am. Pharm. Assoc., 3, p. 43; Am. Journ. of Pharm., 53, p. 457; Wood & Bache, Dispens. U.S., 15 ed., p. 561; *ibid.*, 17 ed., p. 511; *ibid.*, 18 ed., p. 516; *ibid.*, 19 ed., p. 451; Proc. Am. Pharm. Assoc., 30, p. 142.

(States that when deprived of fixed oil, ergot is much more stable and retains its characteristics and potency for 2 years.)

Zschas, _____

1881

(Methods of Preserving Ergot.)

Pharm. Zeitung (No. 49, p. 51) _____, p. _____. (Wood & Bache, Dispens. U.S., 17 ed., p. 511; *ibid.*, 18 ed., p. 516; *ibid.*, 19 ed., p. 451; Am. Journ. Pharm., 53, p. 457.

(By keeping ergot for 2 years, proved that it can be preserved by removing the fixed oil with ether before powdering.)

1881

(Ergotine).

Bull. et Memoires de la Soc. de Therap., _____, p. 116.
 (Stille & Maische, Nat'l. Dispens., 3 ed., p. 584; *ibid.*,
 5 ed., p. 621.)

(Speaks of using a 1:5 solution of ergotins for prolapsus
 of the rectum.)

DaCosta, J. M.

1882

Ergot Treatment of Diabetes Insipidus.

Med. News, 40, p. 5. (Stille & Maische, Nat'l. Dispens.,
 3 ed., p. 584; *ibid.*, 5 ed., p. 621.)

News of further success in using ergot as a remedy for
 diabetes insipidus, citing specific cases as examples.

Davidson, A.

1882

Fatal Case of Poisoning by Ergot of Rye.

Lancet, 1882, v. 2, p. 526. (Stille & Maische, Nat'l.
 Dispens., 3 ed., p. 583; *ibid.*, 5 ed., p. 621.)

Reports the symptoms of ergot poisoning before death
 occurred, also the results of the post-mortem examination.

Heitzmann, C.

1882

Remarks on the Use of Ergot in Skin Diseases.

Boston Med. and Surg. Journ., 107, p. 252. (Stille & Maische,
 Nat'l. Dispens., 3 ed., p. 585; *ibid.*, 5 ed., p. 622.)

Reports success in using Ergot for certain chronic
 skin diseases, especially the large pustular form of acne.

Perret, E.

1882

(Ergot.)

Bull. gen. de Ther., ____, p. 202. (Am. Journal Pharm., 54, p. 242.)

(Outlines the process for preservation of ergot by the use of ether.)

Pohl, ____

1882

(Estimation of Ergot in Flour and Bread.)

Pharm. Ztschr. fur Russl., 2, p. 933. (Am. Journ. Pharm., 54, p. 225; Yrbk. Brit. Pharm. Conf., 19, p. 119.)

Describes a method for estimating the amount of ergot in rye flour and bread.

Arnoldow, ____

1883

(Ergotine in Dilerium Tremers.)

Am. Med. Digest, ____, p. _____. (Am. Journ. Pharm., 55, p. 397; Proc. Am. Pharm. Assoc., 32, p. 125).

(Cites a specific case where the administration of ergotine to a victim of Dilerium tremors made the hemorrhages cease and the symptoms of alcoholism subside.)

Blanc, ____

1883

(Ergot.)

Bull. gen. de Therap., 115; p. 563. (Stille & Maische, Nat'l. Dispens., 5 ed., p. 620.)

(Gives points that ergot hastens involution.)

Conrad, M.

1883

(Ergotine).

Wien. Med. Blätt., ____, p. _____. (New Rem., 12, p. 171;
 Proc. Am. Pharm. Assoc., 31, p. 56; Yrbk. Brit. Pharm.
 Conf., 20, p. 299.)

(Comments in preparation of ergotine for injection into
 the body.)

DaCosta, J. M.

1883

A Case of Diabetes Insipidus Treated successfully by
 Ergolin.

Med. News, 42, p. 72. (Stille & Maische; Nat'l. Dispens.,
 3 ed., p. 584; *ibid.*, 5 ed., p. 621.)

Reports using ergot for diabetes insipidus, with a
 specific case standing as proof.

Dannecy, ____

1883

(Solution of ergotine for hypodermic use.)

Bull. gen. de Ther., ____, p. 214. (Am. Journ. Pharm., 55,
 p. 272.)

(Explains the separation of the active constituent,
 ergotine, from the crude drug, and outlines the process for
 making the solution of ergotine explaining its advantages
 because of greater stability.)

Diehl, C. L.

1883

Ergotine.

Am. Journ. Pharm., 53, p. 557.

Explains how ergotine is extracted and compares the
 advantages of ergotine with those of the Extract of Ergot
 of the German Pharmacopoeia.

Hallberg, C. S.

1883

Preparations of Ergot, Based upon the Latest
Scientific Investigations of its Most Valuable
Medicinal Constituents.

Am. Journ. Pharm., 55, p. 8. (Yrbk. Brit. Pharm. Conf., 20,
p. 247.)

Discusses the importance of ergot of rye, emphasizing
the role it plays in the relief of human suffering.

Hofmeister, F., & Lenz, W.

1883

Specielle Analytische Methodes.

Zeitsch. f. Anal. Che., 27, p. 237. (New Remedies, 12,
p. 365; Wood & Bache, Dispens. U.S., 16 ed., p. 575; *ibid.*,
17 ed., p. 512; *ibid.*, 18 ed., p. 517; *ibid.*, 19 ed., p. 451.)

Describes the detection of 1/10 per cent of ergot in flour
by maceration with ether and diluted sulphuric acid, straining
and shaking with NaHCO_3 , with the development of a violet-
colored solution.

Lacy, C. S.

1883

Three cases of Diabetes Insipidus Successfully
Treated by Ergot.

Med. News, 42, p. 9. (Stille & Maische, Nat'l. Dispens.,
3 ed., p. 584; *ibid.*, 5 ed., p. 621.)

Report on curing cases of diabetes insipidus with ergot,
with notes on the individuals concerned.

Maley, F.

1883

(Ergot.)

Phila. Med. Times, 12, p. 873. (Stille & Maische, Nat'l.
Dispens., 3 ed., p. 585; *ibid.*, 5 ed., p. 622.)

(States that the use of ergot in skin diseases is
progressing.)

Palm, R.

1883

Ueber den Chemischen Charakter des violetten
Farbstoffes im Mutterkorn, sowie dessen Nachweis im
Mehle.

Zeitsch. f. Anal. Chem., 22, p. 319. (New Rem., 12, p. 465;
Proc. Am. Pharm. Assoc., 32, p. 123.)

Reports on the chemical character of the violet color-
ing matter of ergot.

Perret, —

1883

(Ergot.)

Pharm. Zeitung. 28, p. —. (New Rem., 12, p. 271; Proc.
Am. Pharm. Assoc., 32, p. 88.)

(Suggests a new process for the removal of fat from
powdered ergot.)

Podwissotzky, V.

1883

Verbesserte Methode zur Darstellung der Schlerotins-
säure und die medicinische Bedeutung der wirksamen
Bestandtheile des *Secale corrutum*.

Pharm. Zeitsch. f. Russl., 13, p. 393. (New Remedies, 12,
p. 271; Wood & Bache, Dispens. U.S., 16 ed., p. 574; *ibid.*,
17 ed., p. 510; *ibid.*, 18 ed., p. 515; *ibid.*, 19 ed., p. 450.)

Outlines an improved method for preparing Sclerotic acid
from ergot.

Poehl, A. W.

1883

Poison of Ergot.

Am. Journ. Pharm., 55, p. 471. (Proc. Am. Pharm. Assoc.,
32, p. 123.)

Concludes that the poisonous action of ergot is due to
putrefaction products.

Poehl, A. W.

1883

Zur Lehre von den Fäulnissalkalkaloides.

Berichte, d.d. chem. Geseil., 16, p. 1975. (Journ. Chem. Soc., 43, p. 20; Am. Journ. Pharm., 56, p. 158; Proc. Am. Pharm. Assoc., 32, p. 123.)

Discusses the alkaloids found in ergot that had decomposed.

Schilling, M.

1883

Du seigle ergote comme moyen preventif des troubles de oufe occasionnes par le sulfate de quinine et le salicylate de soude.

Prognos. Med., 11, p. 464. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 585; *ibid.*, 5 ed., 622.)

Reports cases where the administration of ergot prevented the aural troubles usually encountered with quinine sulfate and sodium salicylate.

1883

(Ergot.)

Centralbl. f. Therapil. 1, p. 227. (Stille & Maische, Nat'l. Dispens., 3 ed., p. 582; *ibid.*, 5 ed., p. 619.)

Reports that in some diseases the use of ergot has increased the deadliness of the disease.)

1883

(Ergot.)

Phila. Med. Times, 12, p. 140. (Stille & Maisch, Nat'l. Dispens., 3 ed., p. 581.)

(Cites the results of an overdose of ergot on a pregnant woman.)

All, —

1884

Das Mutterkorns.

(A pamphlet). (Wood & Bache, Disp. U.S., 17 ed., p. 511; ibid., 18 ed., p. 516; ibid., 19 ed., p. 450; ibid., 20 ed., p. 425.)

(A discussion on the three physiologically active constituents of ergot: ergotic acid, sphacelic acid, and the alkaloid corrutine.)

Denzel, J.

1884

Secale Corrnutum und dessen wirksame Bestandtheile.

Arch. Pharm., 222, p. 314. (Proc. Am. Pharm. Assoc., 32, p. 122.)

Shows that petroleum ether or benzin is the most suitable substance for extracting the fixed oil from ergot.

Kobert, R.

1884

Ueber den Bestandtheile und Wirkungen dem Mutterkorns.

Arch. fur experiment. Path., 18, p. 316. (Pharm. Centralhalle, 25, p. 607; Pharm. Zeit., 29, p. 886; Arch. Pharm., 222, p. 462; Proc. Am. Pharm. Assoc., 33, p. 103; ibid., 35, p. 100; Yrbk. Brit. Pharm. Conf., 22, p. 193; Am. Journ. Pharm., 57, p. 170; Wood & Bache, Dispens. U.S., 17 ed., p. 511; ibid., 19 ed., p. 450; ibid., 20 ed., p. 425; ibid., 21 ed., p. 436.)

Continues investigations which have proven that in ergot there are 3 physiologically active bodies, Ergotic acid, sphacelic acid and the alkaloid corrutine.

Berrbeck, M.

1885

Zur Mutterkorn-Frage.

Pharm. Zeitung, 30, p. 223. (Am. Journ. Pharm., 57, p. 241; Proc. Am. Pharm. Assoc., 33, p. 103.)

Discusses the properties of the oil of ergot, and methods of preparing ergot for use.

Boissaire, —

1885

(Ergot.)

Bull. gen. de Therap., 98, p. 229. (Stille & Maische, Nat'l. Dispens., 5 ed., p. 619.)

(Discusses the characteristics of ergot poisoning.)

Debierre, B.

1885

(Ergot.)

Bull. gen. de Therap., 106, p. 52. (Stille & Maische, Nat'l. Dispens., 5 ed., p. 618.)

(Gives a review of a case of severe ergot poisoning.)

Hilger, A.

1885

Ueber die Erkennung von Mutterkorn in Mehlsorten.

Archiv d. Pharm., 223, p. 828. (Proc. Am. Pharm. Assoc., 34, p. 371.)

Describes a method for determining the presence of ergot in flour.

Koster, R.

1885

Prüfung des Secale corrutum.

Arch. d. Pharm., 223, p. 31. (Am. Journ. Pharm., 57, p. 241; Proc. Am. Pharm. Assoc., 33, p. 103.)

Discusses the chemical and physical properties of ergot constituents.

Moss, J.

1885

Report on Pressed Ergot.

Yearbook Br. Pharm. Conf., 22, p. 410. (Proc. Am. Pharm. Assoc., 34, p. 142; Journ. Am. Pharm. Assoc., 3, p. 43.)

Reports a case of a sample of ergot retained its activity for over 6 years when the oil had been pressed out.

Tanret, C.

1885

Cornutine et ergotinine.

Journ. de Pharm. et de Chimie, S. 5, v. 11, p. 309. (Pharm. Journ. & Trans., 44, p. 889; Wood & Bache, Dispens. U.S., 17 ed., p. 511; *ibid.*, 18 ed., p. 516; *ibid.*, 19 ed., p. 450; *ibid.*, 20 ed., p. 425; *ibid.*, 21 ed., p. 436; Am. Journ. Pharm., 57, p. 170; Proc. Am. Pharm. Assoc., 33, p. 103; Yrbk. Brit. Pharm. Conf., 22, p. 193.)

Proves that ergotinine is not inactive, as had been claimed, but it is a powerful medicinal agent.

Engelmann, M.

1886

Ueber die Zersetzung von Ergotinlosungen.

Deutsche medicinische Wochenschrift, 12, p. 49. (Am. Journ. Pharm., 59, p. 21; Yrbk. Brit. Pharm. Conf., 23, p. 276; Wood & Bache, Dispens. U.S., 17 ed., p. 513; *ibid.*, 18 ed., p. 518; *ibid.*, 19 ed., p. 452.)

Presents conclusions on preservation, decomposition, and action of ergotin.

Holmes, E. M.

1886

Ergot of Diss.

Pharm. Journ. 45, p. 684. (Wood & Bache, Dispens. U.S., 16 ed., p. 570; *ibid.*, 17 ed., p. 507; *ibid.*, 18 ed., p. 512; *ibid.*, 19 ed., p. 448; *ibid.*, 20 ed., p. 422; *ibid.*, 21 ed., p. 434; *ibid.*, 22 ed., p. 433; Am. Journ. Pharm., 58, p. 203; Proc. Am. Pharm. Assoc., 34, p. 371.)

The comparison of the physical properties of ergot of rye with those of ergot of diss, which grows on *ampelodesmos tenax* link.

Kobert, R.

1886

Ueber Mutterkornpräparate.

Central. f. Gynäkol, 10, p. 306. (Pharm. Zeitung, 31, p. 323; Archiv. d. Pharm., 226, p. 597; Wood & Bache, Disp. U.S., 17 ed., p. 511; *ibid.*, 18 ed., p. 516; *ibid.*, 19 ed., p. 450; *ibid.*, 20 ed., p. 425; Journ. Am. Pharm. Assoc., 3, p. 42.)

Expresses the conclusion that sphacelic acid and corrutine cause the activity of ergot. They lose their activity very readily.

(Holdermann, ___)

1887

Secale corrutum sire oleo.

Süddeutsche Apoth. Zeit., 27, p. _____. (Archiv. Pharm., 225 p. 131; Proc. Am. Pharm. Assoc., 35, p. 101.

(Gives the characteristics of ergot powder when freed from the fixed oil.)

Kelly, J.

1887

(Ergot.)

Medical Register, 10, p. _____. (Wood & Bache, Dispens. U.S., 16 ed., p. 576; *ibid.*, 17 ed., p. 512; *ibid.*, 18 ed., p. 517; *ibid.*, 19 ed., p. 452.)

(Advocates using ergot for its effects upon blood vessels during the first stages of pneumonia.)

Potter, F. H.

1887

Proper Use of Ergot in Obsterical Use.

Med. News, 51, p. 538. (Am. Journ. Pharm., 60, p. 53.

Points out the danger and limitations in the use of ergot, and concludes that it should be used only in special cases.

Alpers, F.

1888

Secale corrutum.

Pharm. Zeit., 33, p. 473. (Am. Journ. Pharm., 60, p. 556;
Proc. Am. Pharm. Assoc., 37, p. 430.)

Explains a procedure for the preservation of ergot by thoroughly drying and then storing in corked yellow bottles.

Bombelon, E.

1888

Ergotinin und Corrutin.

Pharm. Zeitung., 33, p. 100. (Wood & Bache, Dispens. U.S., 17 ed., p. 510; Am. Journ. Pharm., 83, p. 161; Yrbk. Brit. Pharm. Conf., 26, p. 65.)

Outlines an improved process for preparing alkaloids, erotine and corrutine from ergot.

Bucquoy, M.

1888

(Ergot.)

Societe de Therap., _____, p. _____. (Stille & Maische, Nat'l. Dispens., 5 ed., p. 621.)

(Reports on the use of ergot in diabetes insipidus.)

Herman, W., ' Fowler, C. O.

1888

Obstetrical Observations.

Lancet, 1888, v. 1, p. 277. (Stille & Maische, Nat'l. Dispens., 5 ed., p. 620.)

Report that the use of ergot setards involution.

Langgaard, A., & Kobert, R.

1888

Ueber die neuesten Untersuchungen des Mutterkorns.

Pharm. Zeitung, 33, p. 7. (Drugg. Circ., 32, p. 81; Proc. Am. Pharm. Assoc., 36, p. 305.)

Discuss the physiological action of ergotic acid, sphacelic acid, corrutine, and other active principles of ergot.

Belzung, E. F.

1889

Récherches sur l'Ergot du Seigle.)

(Am. Journ. Pharm. 61, p. 589.)

Is a thesis on the above subject gives a detailed discussion of the constituents of ergot.

DaCosta, J. M.

1889

Diabetes Insipidus Cured by Ergot.

Med. News, 55, p. 347. (Stille & Maische, Nat'l. Dispens., 5 ed., p. 621.)

Report on the success in curing diabetes insipidus with ergot, with the diagnoses of recovery.

Husband, J. C.

1889

Note on Ergotin.

Pharm. Journ., 48, p. 498. (Yrbk. Brit. Pharm. Conf., 26, p. 170.)

Calls attention to serious variations occurring in the nature and composition of Ergotin.

Tanret, C.

1889

Sur un nouveau principe immedate de l'ergot de seigle l'ergosterine.

Journ. de Pharm. et de Chim., S. v. v. 29, p. 225. (Am. Journ. Pharm., 57, p. 336; Arch. Pharm., 227, p. 468; Proc. Am. Pharm. Assoc., 37, p. 633; Yrbk. Brit. Pharm. Conf., 26, p. 170.)

Reports on a new active constituent, ergosterine, found in ergot. Describes the preparation, the physical and chemical properties of ergosterine.

Kobert, R.

1890

Ergot.

Chem. & Drugg., 37, p. 551. (Wood & Bache Dispens. U.S., 17 ed., p. 511; *ibid.*, 18 ed., p. 516; *ibid.*, 19 ed., p. 450; Proc. Am. Pharm. Assoc., 40, p. 606; Yrbk. Brit. Pharm. Conf., 28, p. 190.)

Discusses a process for preparing corrutine, which will remain unchanged if it is not exposed to light and is kept dry. Also gives the results of various other experiments on ergot.

Roicki, M.

1891

Medical Gleanings: For Chronic Gonorrhoea.

Chem. & Drug., 39, p. 78. (Proc. Am. Pharm. Assoc., 40, p. 435.)

Recommends urethral injections of a 1-in-1000 solution of ergotine in chronic gonorrhoea.

Simmonds, F. L.

1891

The Medicinal and Other Useful Plants of Algeria.

Am. Journ. Pharm., 63, p. 80.

Compares the richness in exgotine of ergot of rye and ergot of diss from Algeria.

Voswinkel, A.

1891

Ueber die Gegenwart von Mannan im *Secale cornutum*.

Pharm. Centralhalle, 32, p. 531. (Wood & Bache, Disp. U.S., 17 ed., p. 510; *ibid.*, 18 ed., p. 515; *ibid.*, 19 ed., p. 450; *ibid.*, 20 ed., p. 425.)

Describes the mannan which was found in ergot.

Pardailhe, L.

1892

(A contribution to the Study of Ergot.)

Thesis, No. 574, Montpellier, France. (Proc. Am. Pharm. Assoc., 41, p. 653.)

(Outlines the history of the study and research done on ergot).

Dohme, A.R.L.

1893

The Pharmacognosy of Ergot.

Pharm. Record, 15, p. 99. (Proc. Am. Pharm. Assoc., 41, p. 652.)

Discusses ergot from the pharmacognosy viewpoint.

Keller, C. C.

1894

Secale Cornutum.

Schweiz-Wochenschr. Chem. Pharm., 32, p. 121. (Chem. Zeit., 35, p. 105; Proc. Am. Pharm. Assoc., 42, p. 884; *ibid.*, 43, p. 542; Yrbk. Brit. Pharm. Conf., 32, p. 151; Journ. de Pharm., 30, p. 67.)

Claims that pikrosclerotin, cornutine, and ergotinine are identical and that ergot contains but one alkaloid. Gives the chemical and physical properties of the alkaloid.

Wiesner, J.

1894

(Mutterkorn).

Sitzb. Akademie der Wissenschaften Wien, 103, p. _____. Chem. Zeit, 18, p. 105. (Wood & Bache, Dispens. U.S., 18 ed., p. 515; *ibid.*, 19 ed., p. 450.)

Gives the physical properties and a color reaction with sulfuric acid of the alkaloids of ergot.

Ayd, J.

1895

(The sizability of extracting the fixed oil of Ergot.

Pros. Maryland State Pharm. Assoc., 13, p. 42. (Proc. Am. Pharm. Assoc., 44, p. 528.)

(Calls attention to the value of extracting the fixed oil from ergot.)

Dohme, A. R.

1895

The Assay of Ergot.

Am. Journ. Pharm., 67, p. 487. (Yrbk. Brit. Pharm. Conf., 33, p. 140.)

Compares the relative alkaloidal values, the percentage of the cornutine of Keller, in Spanish, German, and Russian ergot.

Geneter, M.

1895

Nachweis von Mutterkorn in Mehl und Brod.

Pharm. Centralh., 36, p. 697. (Arch. f. Hyg., 24, p. 228; Proc. Am. Pharm. Assoc., 44, p. 528.)

Describes a microscopic method for the detection of ergot in flour and bread.

Umney, C.

1895

Ergot of Rye from the Canary Islands.

Pharm. Journ., 55, p. 546. (Proc. Am. Pharm., 44, p. 528; Yrbk. Brit. Pharm. Conf., 33, p. 139.)

Calls attention to a variety of ergot which reached London from the Canary Islands, and claims that it is especially adapted for the preparation of ergotin.

Aymonier, L.

1897

Conservation due seigle ergote.

Journ. de Pharm. et de Chim., 145, p. 359. (Pharm. Journ., 60, p. 24; Proc. Am. Pharm. Assoc., 46, p. 771; Yrbk. Brit. Pharm. Conf., 35, p. 167.)

Recommends that for the preservation of ergot, it be immersed in an ethereal solution of tolu Balsam, takes out, dried, and placed in a stoppered bottle.

Beckurts, H.

1897

Zur Werthbestimmung des Mutterkorns.

Zeitschr. des oesterr. Apoth. Ver., 35, p. 3. (Yrbk. Brit. Pharm. Conf., 34, p. 169.)

Estimates the percentages of cornutine and of fat in 2 samples of Swedish ergot.

Jacobs, C.

1897

Das Sphacelotoxin, der specifisch wirksame Bestandtheil des Mutterkornes.

Arch. f. exp. Path., 39, p. 85. (Apoth. Zeit., 12, p. 494; Pharm. Journ., 59, p. 84; Proc. Am. Pharm. Assoc., 46, p. 770.)

Discusses ergot and its specifically active constituents, sphericotoxin.

Jakoby, C.

1897

Neuve Arzneimittel.

Pharm. Centralh., 38, p. 58. (Proc. Am. Pharm. Assoc., 45, p. 479; Wood & Bache, Dispens. U.S., 18 ed., p. 514., *ibid.*, 19 ed., p. 450; Yrbk. Brit. Pharm. Conf., 35, p. 167.)

Discusses the isolation from ergot of three chemically different bodies, chrysotoxin, secalintoxin, and sphacelotoxin, which are therapeutically similar.

Keller, C. C.

1897

Neue Studien über *Secale cornutum*, Ergotinin
Cornutin, Spasmotin.

Schweiz. Wochenschr. für Chem. und Pharm., 34, p. 65. (Yrbk. Brit. Pharm. Conf., 34, p. 169.)

Concludes that ergot contains only a single base.

Mjöen, J. A.

1897

Zur Kenntnis des in *Secale cornutum* enthaltenen fetten
Oels.

Archiv. der Pharm., 234, p. 278. (Yrbk. Brit. Pharm. Conf., 34, p. 168.)

Reports on experiments to determine the constituents of the fatty oil of ergot.

Houghton, E. M.

1898

Ergot Aseptic.

Therapeutic Gazette, 22, p. 433. (Wood & Bache, Dispens. U.S., 20 ed., p. 426; *ibid.*, 21 ed., p. 437.)

Reports the use of biological reactions on cocks combs for determining the quality of ergot on a commercial scale.

Meulenhoff, J. S.

1899

Secale Cornutum.

Pharm. Centralh., 40, p. 656. (Proc. Am. Pharm. Assoc., 48, p. 573.)

Discusses the chemical constituents of ergot.

Meulenhoff, J. L.

1899

(Ergot.)

Nederl. Tijdschr. v. Pharm. (Phar. Rundsch, 26, pp. 738-772. Journ. Am. Pharm. Assoc., 3, p. 43.)

States that ergot retains considerable activity after 5 years if kept under suitable conditions.)

Pees, _____

1899

(Conservirung des Mutterkorns.)

Bull. Commerce, Sci., _____ p. _____. (Am. Drugg. & Pharm. Res., 35, p. 229; Apoth. Zeit. 44, p. 85; Proc. Am. Pharm. Assoc., 47, p. 504; *ibid.*, 48, p. 573; Yrbk. Brit. Pharm. Conf., 37, p. 142.)

(proposes that carefully selected ergot be preserved in an atmosphere of Formaldehyde.)

Dohme, A. R. & Crawford, A. C.

1900

The Active Principle of Ergot.

Proc. Am. Pharm. Assoc., 50, p. 479. (Wood & Bache, Dispens. U.S., 18 ed., p. 516; *ibid.*, 19 ed., p. 451; Am. Journ. Pharm., 74, p. 503.)

Discuss the series of experiments carried out to discover the active constituents of Ergot.

- Musset, F. 1900
 Zur Cornutinbestimmung.
 Pharm. Centralhl., 40, p. 396. (Yrbk. Brit. Pharm. Conf., 37, p. 142.)
 Proposes a method for the assay of ergot, by its cornutine content.
- McWalter, J. C. 1901
 The Preparations of Ergot.
 Yrbk. Brit. Pharm. Conf., 38, p. 417. (Proc. Am. Pharm. Assoc., 50, p. 813.)
 Discusses the importance of ergot in pharmacy and medicine, and speaks of its preparations of the B.P.
- Keller-Fromme, _____ 1902
 Kornutin-Bestimmung im Mutterkorn.
 Apoth. Zeit., 17, p. 183. (Chem. and Drugg., 61, p. 88; Yrbk. Brit. Pharm. Conf., 40, p. 212.)
 Gives a process for the determination of exnutine in ergot of rye.
-
- _____ 1902
 (The Adulteration of Ergot of Rye.)
 The Paint, Oil & Drug Reporter, March, p. _____. (Am. Journ. Pharm., 74, p. 141.)
 (Tells of the adulteration of ergot of rye largely with ergot of wheat and barley to the extent of from 30 to 40 per cent.)

Fromme, G. 1905

Secale Cornutum.

Pharm. Zeitung, 50, p. 772. (Proc. Am. Pharm. Assoc., 54, p. 724.)

Recommends a chemical method for the assay of ergot by the determination of the cornutine.

Sollman, T. & Brown, E. 1905

Intravenous Injection of Ergot.

Journ. Am. Med. Assoc., 45, p. 229. (Journ. Am. Pharm. Assoc., 3, p. 43.)

Discuss the uses of ergot in intravenous injection.

Vahlen, E. 1905

Ueber einer neuer, wirksamen, Wasserloslichen Bestandteil des Mutterkorns.

Deut. Med. Wchschr., 31, p. 1263; (Pharm. Journ., 69, p. 554; Proc. Am. Pharm. Assoc., 54, p. 723.)

Comments on the physical and chemical characteristics of clavine a new active constituent of Ergot.

Barger, L., & Carr, F. H. 1906

Note on Ergot Alkaloids.

Chem. News, 94, p. 89. (Journ. Am. Pharm. Assoc., 19, p. 718; Yrbk. Am. Pharm. Assoc., 12, p. 191; Yrbk. Brit. Pharm. Conf., 44, p. 60.)

Discuss the chemical reactions of ergotinine and compare its physiological activity with other ergot alkaloids.

- Dale, H. H. 1906
On Some Physiological Actions of Ergot.
Journ. of Physiology, 34, p. 163. (Chem. News, 94, p. 89.)
Describes many of the typical effects of ergot, and concludes that a few milligrams of ergotoxine will produce all of these effects.
- John, A. 1906
Mutterkorn-Abnormitäten.
Pharm. Centralh., 47, p. 943. (Proc. Am. Pharm. Assoc., 55, p. 756.)
Comments on varieties of abnormal ergot found in the commercial drug.
- Kraft, F. 1906
Ueber das Mutterkorn.
Arch. Pharm., 244, p. 336. (Journ. Am. Pharm. Assoc., 19, p. 719; Proc. Am. Pharm. Assoc., 55, p. 756.)
Reports on the results of experiments with ergot and its active constituents and their physiological effects.
- Osborne, O. T. 1906
The therapeutic Value of Ergot.
New York Med. Journ., 84, p. 53. (Wood & Bache, Dispens. U.S., 20 ed., p. 428; *ibid.*, 21 ed., p. 439; *ibid.*, 22 ed., p. 438.)
Comments on the extremely strong sedative effect of ergot upon the central nervous system and its aid in several diseases of nervous nature.

Tanret, C.

1906

Sur l'ergotinine.

Journ. de Pharm. et Chim., s. 6, v. 24, p. 397. (Pharm. Zeit., 54, p. 651; Proc. Am. Pharm. Assoc., 58, p. 367; Yrbk. Brit. Pharm. Conf., 44, p. 62; Journ. Am. Pharm. Assoc., 19, p. 719.)

Discusses the chemical and physical properties of Ergotinine; a new alkaloid from ergot.

Weigel, G.

1906

Neues vom Drogenmarkt.

Pharm. Centralh., 47, p. 864. (Proc. Am. Pharm. Assoc., 55, p. 755.)

Calls attention to a large consignment of abnormal Russian ergot recently observed on the Hamburg market.

Barger, G., & Carre, F.

1907

The Alkaloids of Ergot.

Journ. Chem. Soc., 91, p. 337. (Journ. Am. Pharm. Assoc., 19, p. 719; Archiv. Pharm. 272, p. 503; Pharm. Journ., 118, p. 384.)

Report the chemical and physical characteristics of the alkaloid and found in ergot, and the isolation of a crystalline base named ergotinine.

Barger, G. & Dale, H.

1907

Ergotoxine and Some Other Constituents of Ergot.

Biochem. Journ., 11, p. 240. (Journ. Am. Pharm. Assoc., 18, p. 1136.)

Describe the physiological action of ergotoxine in relation to other active constituents of ergot.

Bernhardt, R.

1907

Bestimmung des Mutterkorns im Mehl.

Zeits. & Untersuch. Nahr. and Genuosmit., 12, p. 325. (Pharm. Repertoire, 19, p. 271; Yrbk. Brit. Pharm. Conf., 44, p. 61.)

Redcommends a method for the determination of ergot in flour.

Fernau, D.

1907

(Ueber die Sklerepythrinreaktion in Extrakten vos Fungus secalis).

Pharm. Post., 40, p. _____. Pharm. Zeitung, 52, p. 192. (Proc. Am. Pharm. Assoc., 55, p. 756.)

(Proposes a method for the identification and valuation of ergot and its preparations.)

Zimmerman, A.

1907

(Ergot.)

Zitechr. f. Pflanzenkrankheiten, ____, p. 129. (Wood & Bache, Dispens. U. S., 2ed., p. 424.)

(After being kept for 2 years, the sclerotium of claviceps purpurea is able to germinate.)

Bernegau, L. H.

1908

Some Remarks on the Adulterations of Drugs and Chemicals as Found in Practice.

Am. Journ. Pharm., 80, p. 223.

Remarks that ergot is sometimes loaded with stones & small grains, and old stock is often brightened with oil. States that ergot should assay at least 0.15 per cent cornutine.

Kehrer, E.

1908

Der Überlebende Uterus als Testobjekt für die Wertigkeit der Mutterkorn-Präparate.

Arch. für. Exp. Path. und Pharm., 58, p. 366. (Wood & Bache, Dispens. U.S., 20, ed., p. 426; Journ. Am. Pharm. Associ., 3, p. 42.)

States that during 1 year, the activity of Ergot sinks to 1/7 the original strength and in 2 years it sinks to 1/5 the original strength.

Kobert, R.

1908

Über Mutterkornpräparate.

Pharm. Zeitung, 53, p. 839. (Proc. Am. Pharm. Assoc., 57, p. 151.)

Reviews the various commercial ergot preparations, beginning with the "ergotin" proposed by J. Bonjean in 1842 and bringing them down to the present day.

Pearson, W. A.

1908

The Pharmacopoeia from the View Point of an Analytical Worker.

Am. Journ. Pharm., 80, p. 77.

States that since Ergot is often partly or completely inert, a physiologic assays should be introduced.

Rathje, A.

1908

Oleum Secalis cornuti - Mutterkornöl.

Arch. d. Pharm., 246, p. 696. (Proc. Am. Pharm. Assoc., 57, p. 152.)

Gives an account of the chemical characters and physical constants of the fixed oil of ergot.

Ruffman, D. A., & Maben, T.

1908

Ergot Its Production and Collection in Russia.

(Journ. Am. Pharm. Assoc., 3, p. 43; Proc. Am. Pharm. Assoc., 56, p. 179; Yrbk. Brit. Pharm. Conf., 45, p. 232.)

Discusses effect of age on ergot as collected in Russia.

Barger, G.

1909

p-Hydroxyphenylethylamine, An Active Principle of Ergot, Soluble in Water.

Trans. Brit. Pharm. Conf., 46, p. 333. (Proc. Am. Pharm. Assoc., 58, p. 156.)

Expresses similarity between body found in aqueous extracts of ergot and that found in putrid meat, called p-Hydroxyphenylethylamine.

Fromme, G.

1909

Secale Cornutum.

Pharm. Zeitung, 54, p. 758. (Proc. Am. Pharm. Assoc., 58, p. 157.)

Concludes that petroleum ether is a more suitable solvent than ether for the extraction of oil of ergot.

Martin, W.

1909

Ergot.

Yrbk. Brit. Pharm. Conf., 46, p. 241.

Discusses the wide use of ergot and its physiological effects.

Schindelmeiser, J.

1909

Enzyme in Mutterkorn.

Apoth. Ztg., 24, p. 837. (Chem. Absts., 4, p. 1083;
Proc. Am. Pharm. Assoc., 58, p. 157; Journ. Am. Pharm.
Assoc., 3, p. 43.)

Demonstrates the presence of 2 enzymes in ergot which may be responsible for the deterioration of ergot.

Umney, J. C.

1909

Physiological Testing of Ergot Preparations.

Pharm. Journ., 73, p. 794. (Am. Journ. Pharm., 82, p. 128;
Proc. Am. Pharm. Assoc., 58, p. 156.)

Discusses the practicability of establishing a standard for preparations of ergot, and reports varying opinions on the British Pharmacopeia method.

Wood, H. C.

1909

A New Method for the Chemical Assay of Ergot.

Am. Journ. Pharm., 51, p. 215. (Proc. Am. Pharm. Assoc.,
57, p. 152; Yrbk. Brit. Pharm. Conf., 46, p. 33.)

Gives the details of a new method for the chemical assay of ergot by previous extracting with benzene.

Barger, G. & Dale, H. H.

1910

A Third Active Principles in Ergot Extracts.

Proc. Chem. Soc., 26, p. 128. (Pharm. Journ. & Pharmacist,
_____, p. 757; Proc. Am. Pharm. Assoc., 58, p. 156; Yrbk.
Brit. Pharm. Conf., 45, p. 22.)

Describes a third active principle of ergot which is responsible for the intense activity of ergot on the uterus of a non-pregnant cat.

Barge, G., & Ewins, A. J.

1910

Alkaloids of Ergot.

Journ. Chem. Soc., 97, p. 284. (Wood & Bache, Dispens. U.S., 20 ed., p. 425; Yrbk. Brit. Pharm. Conf., 45, p. 21.)

Show that ergotinine is the anhydride of ergotoxine, which has the formula of $C_{35}H_{41}O_6N_5$.

Kazay, A.

1910

(Ergot.)

Ztschr. d. Allgem. Oesterr. Apoth. Ver., 48, p. 547. (Pharm. Journ., 85, p. 449; Proc. Am. Pharm. Assoc., 59, p. 156; Yrbk. Brit. Pharm. Conf., 48, p. 28.)

(Discusses the active constituents of ergot and their assay.)

Sharp, G.

1910

Ergot: A Short Historical Study.

Pharm. Journ., 85, p. 38. (Yrbk. Brit. Pharm. Conf., 48, p. 228.)

Gives a resume of the botany, chemistry, toxicology, pharmacology, and therapeutics of ergot.

Wenzell, W. T.

1910

Ergoxanthein.

Am. Journ. Pharm., 82, p. 410. (Yrbk. Brit. Pharm. Conf., 48, p. 30.)

Discusses ergoxanthein, a new active principle found in ergot, with a brief historical summary of the discovery of the several alkaloids of ergot.

Wilbert, M. I.

1910

Progress in Pharmacy.

Am. Journ. Pharm., 82, p. 132.

Reports that ergot should yield not more than 1.5 per cent of ash and should contain at least 0.1 per cent of alkaloids.

Wood, H. C. & Hofer, C. A.

1910

An Experimental Study of the Pharmacology of Ergot.

Arch. Intern. Med., 6, p. 388. (Journ. Am. Pharm. Assoc., 18, p. 1136; Wood & Bache, Dispens. U.S., 20 ed., p. 426; *ibid.*, 21 ed., p. 437; *ibid.*, 22 ed., p. 436; Yrbk. Brit. Pharm. Conf., 48, p. 244.)

Report considerable variation in assay data using cats in the vaso-motor reversal action. Give the advantage of using the cock's comb method for assaying ergot.

Bridel, M.

1911

Les recents travaux sur la composition de l'ergot de seigle.

Journ. de Pharm. et Chim., s. 3, v. 4, 306. (Pharm. Journ. 87, p. 667; Proc. Am. Pharm. Assoc., 59, p. 154; Yrbk. Brit. Pharm. Conf., 49, p. 194.)

States that recent results of the investigation of ergot show that the chemistry of the drug is less complex than was formerly thought. Reviews the chemistry of ergot.

Crawford, A. C.

1911

A Review of the Chemical Work Done on the Active Principle of Ergot.

Am. Journ. Pharm., 83, p. 147. (Proc. Am. Pharm. Assoc., 59, p. 155; Yrbk. Brit. Pharm. Conf., 48, p. 238.)

Gives the history of the important discoveries concerning Ergot and its alkaloids.

Edmunds, T., & Halle, M.

1911

The Assay of Ergot.

Hygienic Lab. Bul., 76, p. 25. (Wood & Bache, Dispens. U.S., 20 ed., p. 426; *ibid.*, 21 ed., p. 437; *ibid.*, 22 ed., p. 436; Journ. Am. Pharm. Assoc., 3, p. 925; *ibid.*, 16, p. 507; *ibid.*, 18, p. 1136; *ibid.*, 19, p. 719.)

An outline of an Ergot assay by the uterine method; performed on cats.

Hale, W.

1911

Biological Standardization of Drugs.

Am. Journ. Pharm., 83, p. 107. (Proc. Am. Pharm. Assoc., 59, p. 158.)

Describes some comparative experiments to determine the values of standardization of ergot by chemical and by biological methods.

Marino-Zucco, F., & Pasquero, V.

1911

Nuovo glucoside della segala cornuta.

Gazz. Chem. Ital., 41, p. 368. (Apoth. Zeit., 26, p. 1087; Yrbk. Brit. Pharm. Conf., 49, p. 122.)

Report on the chemical and physical properties of Clavisepsin, a new glucoside from ergot.

Ranson, S. W., & Scott, G. D.

1911

The Results of Medicinal Treatment in Eleven Hundred and Six Cases of Delirium Tremens.

Am. Journ. Med. Science, 141, p. 673. (Wood & Bache, Dispens. U. S., 20 ed., p. 428; *ibid.*, 21 ed., p. 439; *ibid.*, 22 ed., p. 438.)

Report on the value of ergot in the treatment of delirium tremens.

Tanret, C.

1911

Sur l'ergotinine Cristallisee.

Bull. Sci. Pharm., 18, p. 20. (Yrbk. Brit. Pharm. Conf., 48, p. 29.)

Reiterates the statement that crystalline ergotinine is an active principle of ergot.

Barger, G. & Ewins, A. J.

1912

Constitution of Ergothioneine, A Betaine Related to Histidine.

Proc. Chem. Soc., 27, p. 393. (Pharm. Journ. & Pharmacist, 87, p. 97; Yrbk. Am. Pharm. Assoc., 1, p. 420.)

Discuss the chemical reactions and the constitution of Ergothioneine, a crystalline base isolated from ergot.

Burmam, J.

1912

Sur un nouveau principe actif de l'ergot de seigle.

Schweiz. Wchnschr. Chem. und Pharm., 50, p. 85. (Chem. & Drug., 80, p. 523; Am. Journ. Pharm., 84, p. 272; Yrbk. Brit. Pharm. Conf., 49, p. 266.)

Reports the isolation from ergot of a new base which has a similar physiological action to that of adrenalin.

Dale, H. H., & Laidlaw, P. P.

1912

A Method of Standardising Pituitary Extracts.

Journ. Pharmacol. and Exp. Ther., 4, p. 75. (Jr. Am. Pharm. Assoc., 19, p. 719.)

Describes the standardization of Ergot by the isolated rabbit's uterus method.

Dahlin, T.

1912

Ueber Secale Cornutum.

Apoth. Ztg., 27, p. 1006. (Yrbk. Am. Pharm. Assoc., 2, p. 160; Yrbk. Brit. Pharm. Conf., 51, p. 8.)

Demonstrates experimentally the variation in alkaloidal content of various samples of ergot.

Freedom, A.

1912

Yellow Colouring Matters from Ergot.

Pharm. Journ., 88, p. 567; (Yrbk. Am. Pharm. Assoc., 1, p. 453; Yrbk. Brit. Pharm. Conf., 49, p. 67.)

Reviews the physical characters, composition and chemical relations of 3 yellow coloring matters of ergot.

Hartwich, C.

1912

Schweizer Mutterkorn vom Jahre 1911.

Schweiz. Wschr. f. Chem. u. Pharm., 50, p. 281. (Yrbk. Am. Pharm. Assoc., 1, p. 133.)

Describes the ergot collected in the Canton of Luzern, and compares the qualities of different samples.

Pittenger, P. S. & Vanderkleed, C. E.

1912

A New and Reliable Method for the Preservation of Ergot Preparations.

Proc. Penn. Pharm. Assoc., 35, p. 128. (Yrbk. Am. Pharm. Assoc., 1, p. 133; Yrbk. Brit. Pharm. Conf., 50, p. 333.)

Suggest the adoption of the Vacuum method for better preservation of Ergot preparations.

Vatter, A.

1912

Secale Cornutum 1911.

Schweiz. Wschr. f. Chem. u. Pharm., 1, p. 377. (Yrbk. Am. Pharm. Assoc., 1, p. 133.)

Gives data on Swiss ergot, and compares the uniformity, alkaloidal content, and therapeutic action of various samples.

Carr, F. H. & Dale, H. H.

1913

Ergot and its Preparations: A Critical Review of the Requirements of the British Pharmacopoeia.

Trans. Brit. Pharm. Conf., 50, p. 505. (Yrbk. Am. Pharm. Assoc., 2, p. 158.)

Present a comprehensive review of the B.P. requirements for ergot and its preparations.

Crawford, A. C., & Crawford, J. P.

1913

The Cock's-Comb Test for the Activity of Ergot Preparations.

Journ. Am. Med. Assoc., 61, p. 19. (Wood & Bache, Dispens. U.S., 20 ed., p. 427; *ibid.*, 21 ed., p. 438; Journ. Am. Pharm. Assoc., 19, p. 719; Yrbk. Am. Pharm. Assoc., 2, p. 159.)

Discuss the assay of ergot by the cock's comb method.

Pearson, W. A.

1913

The Physiological Activity of Various Pharmaceutical Preparations of Ergot.

Journ. Am. Pharm. Assoc., 2, p. 1453. (Wood & Bache, Dispens. U.S., 20 ed., p. 427; *ibid.*, 22 ed., p. 437.)

Reports on tests of the activity of Ergot by the Blood Pressure Method.

Ewins, A. J.

1914

Acetylcholine, a New Active Principle of Ergot.

Biochem. Journ., 8, p. 44. (Wood & Bache, Dispens. U.S., 20 ed., p. 425; *ibid.*, 21 ed., p. 436; Yrbk. Brit. Pharm. Conf., 51, p. 8.)

Discusses the isolation of acetylcholine as an active constituent of ergot.

Lieb, C. C.

1914

Pharmacologic Action of Ebolic Drugs.

Journ. Am. Med. Assoc., 62, p. 486. (Am. Journ. Pharm., 86, p. 136; Am. Journ. Obstet., 2 Dis. Wom. & Child, 69, p. 433; Yrbk. Am. Pharm. Assoc., 3, p. 222.)

States that stimulation of the uterus is the characteristic pharmacologic action of the constituents of ergot.

Marino-Zuco, F. & Ducciwi, C.

1914

Sulla ricerca tossicologica della Segala Cornuta.

Gazz. Chim. ital., 44, pt. 2, p. 437. (Chem. Abstr. Am. Chem. Soc., 9, p. 900; Yrbk. Brit. Pharm. Conf., 52, p. 234.)

Discuss the results of a toxicological investigations of ergot.

Pittenger, P. S., & Vanderkleed, C. E.

1914

A New Uterus-Contracting Method of Testing Ergot - with Comparison with the Blood-Pressure Method.

Journ. Am. Pharm. Assoc., 3, p. 925. (Wood & Bache, Dispens. U.S., 20 ed., p. 426; Yrbk. Am. Pharm. Assoc., 3, p. 221.)

Outline an assay for ergot in which the uteri of non-pregnant guinea-pigs act as the indicators. This method is then compared with the Blood Pressure Method.

Rosenbloom, J., & Schildecker, C.

1914

The Successful Isolation of Ergotinin Crystals from Certain Organs in a Case of Acute Ergot Poisoning.

Journ. Am. Med. Assoc., 63, p. 1203. (Yrbk. Am. Pharm. Assoc., 3, p. 221.)

Report the successful isolation of ergotinine crystals from certain organs in a case of acute ergot poisoning.

Stewart, _____

1914

(Ergot.)

Trans. Amer. Therap. Soc., p. _____, (Wood & Bache, Dispens. U.S., 20 ed., p. 426; *ibid.*, 21 ed., p. 437.)

(Points out the parallelism between the degree of action of different samples of ergot upon the uterus and upon the blood pressure.)

Tschirch, A.

1917

Hundert Jahre Mutterkornforschung.

Schweiz. Apoth. Ztg., 55, p. 305. (Chem. Abstracts, 11, p. 2531; Yrbk. Am. Pharm. Assoc., 6, p. 196.)

Reviews the development of the biological, pharmacological and chemical knowledge of ergot.

Van Leeuwen, W. S.

1917

Secale Cornutum.

Pharm. Weekblad., 54, p. 509. (Yrbk. Am. Pharm. Assoc., 6, p. 197.)

Recommends testing ergot physiologically by the estimation of the oxytocic action on the uterus of a virgin guinea pig.

(Editor)

1918

Ergotin Not Soluble in Alcoholic Menstrua.

Amer. Drugg., 66, p. 157. (Yrbk. Brit. Pharm. Conf., 55, p. 286.)

Discusses the solubility of ergotin in alcoholic menstrua.

Walter, L.

1918

Über den Nachweis des Ergotinins.

Chem. Zeit., 42, p. 446. (Pharm. Weekblad, 56, p. 659; Yrbk. Am. Pharm. Assoc., 8, p. 517; Yrbk. Brit. Pharm. Conf., 56, p. 13.)

Recommends a new chemical method for the detection of ergotinine.

Hamilton, H. C.

1919

Pharmacological Assaying.

Journ. Am. Pharm. Assoc., 8, p. 52. (Yrbk. Am. Pharm. Assoc., 8, p. 185.)

Describes a method of carrying out the pharmacological assay of ergot, among other drugs.

Barger, G.

1920

Ergot: Its History and Chemistry.

Pharm. Journ., 105, p. 470. (Yrbk. Am. Pharm. Assoc., 9, p. 282; Yrbk. Brit. Pharm. Conf., 58, p. 135.)

Gives a history of the ancient and medieval epidemics, the autiology, toxicological and medicinal properties, the botanical history and chemistry of ergot.

Zellner, J.

1920

Kennzahlen des Mutterkornöls.

Chem. Umschau, 27, p. 176. (Pharm. Zent., 61, p. 745;
Yrbk. Am. Pharm. Assoc., 9, p. 282.)

Gives the chemical constants for the fixed oil of
Russian ergot.

Gander, K. & Zellner, J.

1921

Kennzahlen des Mutterkornöls.

Chem. Umschau, 28, p. 98. (Journ. Soc. Chem., Ind., 40,
p. 518; Am. Journ. Pharm., 93, p. 729; Yrbk. Am. Pharm.
Assoc., 10, p. 453; Yrbk. Brit. Pharm. Conf., 59, p. 88.)

Report on the chemical characteristics of oil of ergot.

Hecke, L.

1921

Die Kultur des Mutterkornes.

Schweiz. Apoth. Ztg., 59, p. 277. (Am. Journ. Pharm., 93,
p. 723.) Yrbk. Am. Pharm. Assoc., 10, p. 237; Wood & Bache,
Dispens. U.S., 21 ed., p. 434; *ibid.*, 22 ed., p. 434.)

Describes methods of cultivation of ergot on rye.

Spiro, K. & Stoll, A.

1921

Über die wirksamen Substanzen des Mutterkorns.

Chem. Zentr., 92, p. 890. (Journ. Chem. Soc. Land, 1922,
1, p. 47; Yrbk. Am. Pharm. Assoc., 12, p. 191; Journ. Am.
Pharm. Assoc., 19, p. 719; Schweiz. Med. Wochschr., 51,
p. 525.)

Discuss the isolation of a new alkaloid, ergotamine,
from ergot.

Tate, G. 1921

Action of Heat and Moisture on the Activity of Ergot and Extractum Ergotal Liquidum.

Yrbk. Brit. Pharm. Conf., 58, p. 385.

Reports on the effect of heat and moisture on the physiological activity of ergot and its liquid extract.

Tiffeneau, M. 1921

(Ergotinine et ergotoxine.)

Rep. Pharm., 33, p. _____. (Schweiz Apoth.-Ztg., 59, p. 288; Yrbk. Am. Pharm. Assoc., 10, p. 507.)

(States that a German product labeled "pure crystalline ergotinine" proved to be nothing other than Tanret's amorphous ergotinine.)

Dale, H. H. & Spiro, K. 1922

Die Wirksamen Alkaloide des Mutterkorns.

Archiv. für Experiment. Pathologie und Pharmacol., 95, p. 337. (Wood & Bache, U.S. Dispens., 22 ed., p. 435; Yrbk. Am. Pharm. Assoc., 12, p. 191; Pharm. Journ., 118, p. 384.)

Report on research work done on the alkaloids of ergot and show that ergotamine and ergotoxine are identical in action.

Falck, R. 1922

Über die Bekämpfung und die Kultur des Mutterkorns im Roggenfelde.

Pharm. Zeitung, 67, p. 777. (Yrbk. Am. Pharm. Assoc., 11, p. 96.)

Discusses the various mycological factors operating for and against the growth of winter, spring, and summer forms of ergot of rye.

Halphen, H.

1922

Zur pharmakologischen Prüfung der Mutterkorn-
präparate.

Pharm. Zeitung, 67, p. 680. (Yrbk. Am. Pharm. Assoc., 11,
p. 222.)

Conducted experiments to show the pharmacological
evaluation of ergot and its preparations.

Stoll, A.

1922

Ueber Mutterkorn.

Schweiz. Apoth. Zeit., 60, p. 341. (Yrbk. Brit. Pharm.
Conf., 60, p. 213.)

Reports on the Chemical properties of the active con-
stituents of ergot.

Broom, W. A., & Clark, A. J.

1923

The Standardization of Ergot Preparations.

Journ. Pharmacol. and Exper. Therap., 22, p. 59. (Journ.
Am. Pharm. Assoc., 18, p. 1136; *ibid.*, 19, p. 719; Journ.
Pharmacol. and Exper. Ther., 32, p. 462.)

Compare the various methods of standardizing ergot,
favoring the standardization on the isolated rabbit's
uterus, giving the technique and several graphs showing
results.

Clark, A. J., & Broom, W. A.

1923

The Activity of Pharmacopocial Preparations of Ergot.

Pharm. Jr., 111, p. 90. (Jr. Am. Pharm. Assoc., 19, p. 719;
Yrbk. Am. Pharm. Assoc., 12, p. 199.)

A general discussion of the alkaloids of ergot and the
various ways of testing for them biologically.

Rothlin, E.

1923

Recherches experimentales sur l'ergotamine.

Archiv. intern. pharmacod. et therap., 27, p. 460. (Journ. pharm. Belg., 5, p. 555; Wood & Bache, Dispens. U.S.A., 22 ed., p. 435; Bull. Sci. Pharm., 31, p. 62; Yrbk. Am. Pharm. Assoc., 12, p. 199.)

Gives conclusions as to the physiological action of ergotamine, reached as a result of animal experimentation.

(Tanert, G.)

1923

(Adulterated Ergot.)

Rep. d. Pharm., 33, p. 69. (Am. Journ. Pharm., 95, p. 315; Yrbk. Am. Pharm. Assoc., 12, p. 118.)

(Reports the examination of samples of ergot from Spain, and the manner of identifying adulterated.)

Wilcox, H. T.

1923

Spanish Ergot and Ergotine.

Am. Drug., 71, p. 37. (Yrbk. Am. Pharm. Assoc., 12, p. 104.)

Gives a brief outline of the geographical source of Spanish ergot and points out the climatic conditions which are favorable for the growth of this fungus.

Goris, A., & Liot, A.

1924

Sur une methode d'appréciation de la valeur therapeutique de l'extrait d'ergot de seigle.

Bull. Sci. Pharm., 31, p. 379. (Chem. & Drug., 101, p. 921; Yrbk. Am. Pharm. Assoc., 14, p. 409; Yrbk. Brit. Pharm. Conf., 61, p. 422.)

Outlines a new method for the assay of Ergotinine and other specific alkaloids of ergot, based on precipitation by silicotungstic acid.

Hell & Co.

1924

Zur Ermittlung eines hinreichenden Cornutingehalts
von *Secale cornuthum*.

Pharm. Zeitung, 69, p. 866. (Yrbk. Am. Pharm. Assoc., 13,
p. 348.)

Outlines a chemical method for the evaluation of ergot
by determining the cornutine content.

Newcomb, M.

1924

American Ergot.

Am. Journ. Pharm., 96, p. 219.

Describes experiments to separate ergot from the grain
and foreign seed by Mechanical means.

Roos, P.

1924

(Eine eigenastige Verfälschung von *Secale Cornutum*.)

Farm. Revy., ____, p. 425. (Schweiz. Apoth. Ztg., 63, p.
213; Yrbk. Brit. Pharm. Conf., 61, p. 35.)

(Comments on the adulteration of ergot with small pieces
of iron to add weight to the drug.)

Rosenthaler, L.

1924

Chemische Charakterisierung von Drogen.

Schweiz. Apoth. Zeit., 62, p. 121. (Yrbk. Brit. Pharm. Conf.,
61, p. 277.)

Reports on the microchemical identification of ergot,
in addition to a number of other drugs.

Rothlin, E.

1924

Sur l'action physiologique de l'ergotamine, principe actif de l'ergot de Seigle.

Compt. rend. Soc. Biol., 88, p. 470. (Bull. sci. pharmacol., 31, p. 62; Yrbk. Am. Pharm. Assoc., 13, p. 202.)

Discusses the physiological action of ergotamine, what he calls the active alkaloid of ergot.

Driessen, M. W.

1925

Iets over de Herkenningsreactie von de Secale Cornutum-praeparaten.

Pharm. Weekbl., 62, p. 789. (Yrbk. Am. Pharm. Assoc., 14, p. 338.)

Recommends a colorometric method for the identification of Ergot and its preparations.

Holtz, F. & Muller, H.

1925

Über einige basische Bestandteile der Roggenpflanze, ein Beitrag zur Mutterkornfrage.

Arch. exper. Path. u. Therap., 105, p. 27. (Pharm. Zeitung, 70, p. 861; Yrbk. Am. Pharm. Assoc., 14, p. 105).

Outlines a study of the bases of ergot.

Planelles, J.

1925

Über das Zusammenwirken von Ergotamin und Adrenalin am Meerschweinchendarm.

Arch. exptl. Path. Pharmacol., 105, p. 38. (Journ. Am. Pharm. Assoc., 18, p. 1136; *ibid.*, 19, p. 719.)

Gives a technique of assaying ergot using guinea pig intestines.

Rothlin, E. & Schlegg, K. E.

1925

Über den heutigen Stand des Mutterkornproblems.

Wien. med. Wochschr., 75, p. 2018. (Journ. Am. Pharm. Assoc., 19, p. 719.)

Gives an outline of the work done on Ergot up to that time, its alkaloids, its preparations, with tables showing the results of the work.

Schilske, F.

1925

Über Mutterkorn, Mutterkorrwirkung und Mutterkornextrak.

Pharm. Zeitung, 70, p. 430. (Yrbk. Am. Pharm. Assoc., 14, p. 92.)

Discusses ergot from different countries, as to activity and richness in alkaloids.

Braun, A.

1926

Zur Auswertung von Mutterkornpräparaten.

Archiv. Exptl. Path. Pharm., 108, p. 96. (Yrbk. Am. Pharm. Assoc., 15, p. 169.)

Presents data to show the evaluation of ergotamine and other ergot preparations.

Burn, J. H.

1926

Some Methods of Biological Assay.

Pharm. Journ., 117, p. 577. (Journ. Am. Pharm. Assoc., 18, p. 1136; Am. Journ. Pharm., 98, p. 659.)

Records various methods of assaying ergot, and points out biologically their different advantages and disadvantages.

Frost, A. W. & Weese, H.

1926

(Ergot.)

Archiv. experp Path. Pharm., 117, p. 232. (Pharm. Journ., 64, p. 303; Yrbk. Brit. Pharm. Conf., 64, p. 47.)

(Report on the presence of histamine in ergot.)

Rapp-München, ____

1926

Was muss der Apotheker bei der Herstellung von Secalegubereitungen wissen?

Pharm. Zeit., 71, p. 1625. (Journ. Pharm. Belge, 9, p. 107; Yrbk. Brit. Pharm. Conf., 64, p. 322.)

Discusses the pharmacy of ergot.

Raymond-Hamet, M.

1926

Sur ure Nouvelle Methode de Titrage Physiologique des Preparations Ergotres.

Compt. rend., 182, p. 646. (Journ. Am. Pharm. Assoc., 18, p. 1136; Yrbk. Am. Pharm. Assoc., 15, p. 298; Yrbk. Brit. Pharm. Conf., 63, p. 280; Journ. Pharm. Belg., 8, p. 817; Bull. Soc. Chem. Biol., ____, p.764.)

Gives direction for biological assays of Ergot and its preparations.

Schamelhout, A.

1926

(Ergot.)

Journ. d. Pharm. Belg., 8, p. 136. (Yrbk. Am. Pharm. Assoc., 15, p. 169.)

Discusses the adoption by the Committee on Hygiene of the League of Nations on resolution to gain a more uniform standardization of ergot and its preparations.

Simonnet, R. & Tanret, G.

1926

Action de l'ergotinine sur l'uterus de Cobaye.

Bull. Sci. Pharmacol., 33, p. 129. (Yrbk. Am. Pharm. Assoc., 15, p. 186.)

Show by experiments on the gravid female guinea-pig that ergotinine has a definite action on the uterus.

Tschirch, A.

1926

Nachweis und approximative Wertbestimmung des Mutterkorns.

Pharm. Acta Helv., 1, p. 89. (Yrbk. Am. Pharm. Assoc., 15, p. 341; Pharm. Journ., 117, p. 425; Yrbk. Brit. Pharm. Conf., 64, p. 259.)

Outlines a method for the chemical determination of the approximate value of ergot.

Bourne, A. & Burn, J. H.

1927

Dosage of Pituitary Extract and Ergot Alkaloids and their Action on the Uterus in Labour.

Journ. Obstet. & Gynnoecol., Brit. Empire, 34, p. 249. (Pharm. Journ., 119, p. 485; Yrbk. Brit. Pharm. Conf., 65, p. 142.)

Discuss the dosage of pituitary extract and ergot alkaloids, and their various actions on the uterus.

Burn, J. H. & Ellis, M.

1927

The Biological Assay of the Specific Alkaloid of Ergot.

Pharm. Journ., 118, p. 384. (Wood & Bache, Dispens. U.S., 22 ed., p. 434; *ibid.*, 22 ed., p. 437; Yrbk. Am. Pharm. Assoc., 16, p. 570; Journ. Am. Pharm. Assoc., 19, p. 719.)

Give details of a quantitative method for the biological assay of the specific alkaloid of ergot.

Evers, N.

1927

A Colour Test for Ergot Alkaloids.

Yrbk. Brit. Pharm. Conf., 64, p. 415.

Gives a colorimetric method for testing for ergot alkaloids.

Gadamer, J.

1927

Zur Wertbestimmung des Mutterkorns.

Pharm. Monatsh., 8, p. 219. (Pharm. Zentralh., 69, p. 389;
Yrbk. Am. Pharm. Assoc., 17, p. 1149.)

Discusses the determination of ergot alkaloids by chemical reactions.

Gittinger, G. S., & Munch, J. C.

1927

The Assay of Ergot by the Cocks Comb Method.

Journ. Am. Pharm. Assoc., 16, p. 505. (Ibid., 18, p. 1136;
Yrbk. Brit. Pharm. Conf., 64, p. 279; Yrbk. Am. Pharm.
Assoc., 16, p. 212.)

Outlines an assay of Ergot by the Cock's Comb Method, with the technique and method of arriving at the final potency value.

Hamet, M. R.

1927

Transformation de l'ergotinine en ergotoxine en solution lactique.

Journ. d. Pharm. et Chim., s. 7, v. 5, p. 90. (Yrbk. Brit. Pharm. Conf., 64, p. 281.)

Shows by physiological methods that ergotamine, in lactic acid solutions is converted in ergotoxine.

Linnell, W. H. & Randle, D. G.

1927

Extraction of Ergot.

Pharm. Journ., 119, p. 423. (Yrbk. Brit. Pharm. Conf., 65, p. 121.)

Report on effect of some of variables in the extraction of the active principles of ergot.

Matthes, H. & Schütz, P.

1927

Über das fette Öl des Mutterkorns (Secale Cornutum).

Arch. Pharm., 265, p. 541. (Yrbk. Am. Pharm. Assoc., 16, p. 406.)

Discuss the physical and chemical characteristics of oil of ergot.

Mendez, R.

1927

Antagonism of Adrenaline by Ergotamine.

Journ. Pharmacol. and Exp. Ther., 32, p. 451. (Journ. Am. Pharm. Assoc., 3, p. 43.)

Discusses the relation between the concentration of Ergotamine and its action on the rabbit's uterus, its action on various other tissues, and its action on inhibitory actions of adrenaline.

(Stoll, A., & Rothlin, F.)

1927

(Ergot.)

Schweiz. Med. Wochschr., 57, p. 106. (Journ. Am. Pharm. Assoc., 19, p. 719.)

(Report on an analysis of Ergot and the alkaloids.)

Wallis, T. E.

1927

Botanical Examination of Ten Specimens of Ergot.

Pharm. Journ., 64, p. 387. (Yrbk. Brit. Pharm. Conf., 64, p. 259.)

Reports on the results obtained from the botanical examination of 10 specimens of ergot.

Baughman, W. F. & Jamieson, G. S.

1928

Oil of Ergot.

Oil and Fat Ind., 5, p. 85. (Analyst, 53, p. 387; Yrbk. Am. Pharm. Assoc., 17, p. 942.)

Outline the characteristics of a sample of oil of ergot, and determined the chemical composition of it.

Brieger, R.

1928

Über Secale Cornutum.

Pharm. Zeitung, 73, p. 60. (Trbk. Am. Pharm. Assoc., 17, p. 685.)

Suggests that the problems to be solved in the use of ergot of rye are to find how its preparations may be stabilized and what solution is the most suitable for the administration of the drug.

Dilling, W. J. & Kelly, R. E.

1928

Gangrene Following the Use of Ergotised Rye Bread.

Brit. Med. Journ., 1928, v. 1, p. 540. (Yrbk. Brit. Pharm. Conf., 65, p. 277.)

Report a case of gangrene following a diet which included ergotized bread.

Gaal, B.

1928

(Ergot.)

Ber. Ungar. Pharm. Ges., ____, p. _____. (Pharm. Zeitung, 73, p. 390; Yrbk. Am. Pharm. Assoc., 17, p. 1150.)

(Discusses the valuation of ergot samples by their alkaloidal content.)

Garner, W. B.

1928

(The Reliability of Preparations of Ergot and the Necessity for Standardization.)

Australasian Journ. Pharm., ____, p. _____. (Am. Journ. Pharm., 100, p. 318; Yrbk. Am. Pharm. Assoc., 17, p. 836.)

(Outlines the history of work done on ergot; gives chemical and physical properties of the constituents of ergot, and emphasized the importance of a good standardization of the drug.)

Golza, H.

1928

Nouvelle methode d'extraction de l'ergot de seigle.

Pharm. Acta Helv., 3, p. 135. (Yrbk. Am. Pharm. Assoc., 17, p. 631; Yrbk. Brit. Pharm. Conf., 66, p. 138.)

Outlines a new method of extraction of ergot.

Harmsma, A.

1928

Kwantitatieve Bepaling van Het Absorbeerend Vermogen van de Moederkoornalkaloiden in het Ultraviolette Gebied en un Practische Toepassing Daarvan.

Pharm. Weekbl., ____, 65, p. 1114. (Journ. Am. Pharm. Assoc., 19, p. 719; Yrbk. Am. Pharm. Assoc., 17, p. 1144.)

A discussion of the alkaloids of ergot and their reactions in various solvents with accompanying graphs.

Issekutz, B. & Leinzinger, M.

1928

Über die pharmakologische Wertbestimmung des Mutterkorns.

Archiv. exp. Path. und Pharm., 128, p. 165. (Pharm. Ztg., 73, p. 390; Yrbk. Am. Pharm. Assoc., 17, p. 852; Yrbk. Brit. Pharm. Conf., 65, p. 660.)

Speaks of a pharmacological assay for evaluating ergot, based upon the action of adrenalin and ergotamine as antagonists on the intestine of a frog.

Moskowitz, H. L.

1928

Ergot Poisoning in the Puerperium.

Amer. Journ. Obst. Gynoec., 16, p. 549. (Brit. Med. Journ. Expit., 2, p. 8; Yrbk. Brit. Pharm. Conf., 65, p. 454.)

Reports on 3 cases of ergot poisoning following self-administration of ergot to product abortion.

Prybill, A. & Maurer, K.

1928

Versuche über Wertbestimmung und Altern von Mutterkornzubereitungen.

Arch. Pharm., 266, p. 464. (Yrbk. Am. Pharm. Assoc., 17, p. 853.)

Tell of results of investigations on the evaluation and aging of ergot and its preparations.

Robertson, J. & Ashby, H. T.

1928

Ergot Poisoning Among Rye Bread Consumers.

Brit. Med. Journ., 1928, v. II, p. 302. (Yrbk. Brit. Pharm. Conf., 65, p. 256.)

Report their observation on ergot poisoning from rye bread among the Jewish population of Manchester.

Rubsy, H. H.

1928

The Boycott of Spanish Ergot.

Journ. Am. Pharm. Assoc., 17, p. 349. (Yrbk. Am. Pharm. Assoc., 17, p. 695.)

Gives a detailed account of the character of Spanish ergot and of Russian ergot, and of the boycott on Spanish ergot.

Stoll, A.

1928

Zum Vergleich der Mutterkornalkaloide.

Archiv. für Experiment. Pathologie und Pharmacol., 138, p. 111. (Wood & Bache, Dispens. U.S., 22 ed., p. 435; Yrbk. Am. Pharm. Assoc., 18, p. 326.)

Reports the isolation of a third active alkaloid of ergot, which was named ergotamine.

Wessel, F.

1928

Über die quantitative Bestimmung der Alkaloide im Mutterkorn.

Pharm. Zeitung, 73, p. 354. (Yrbk. Am. Pharm. Assoc., 17, p. 1149.)

Proposes a method for the quantitative determination of ergot alkaloids.

Burn, J. H.

1929

Estimation of the Antidiuretic Potency of Pituitary (Posterior Lobe) Extract.

Quarterly Journ. Pharm. & Pharmacol., 4, p. 515. (Am. Journ. Pharm., 102, p. 236.)

Compares the antidiuretic effects of ergotoxine with those of pituitary extract.

Hering, K.

1929

Eine Schnellmethode zur Untersuchung von Mutterkorn-
fluidextrakt.

Apoth. Ztg., 44, p. 542. (Yrbk. Brit. Pharm. Conf., 66,
p. 321.)

Recommends a rapid method of examination of liquid
extract of ergot.

Mellanby, E., Surie, E., & Harrison, D. C.

1929

Vitamin D in Ergot of Rye.

Biochem. Journ., 23, p. 710. (Analyst, 54, p. 766; Yrbk.
Am. Pharm. Assoc., 18, p. 360.)

Discusses the presence of Vitamin D in ergot of rye.

Okoloff, F. S., & Akimoff, I. G.

1929

(Ergot.)

Zeit. Unters. Lebensmittel, 57, p. 72. (Quart. Journ. Pharm.,
2, (1929), p. 598; Yrbk. Am. Pharm. Assoc., 18, p. 185; Yrbk.
Brit. Pharm. Conf., 66, p. 599.)

(Discusses the serological determination of ergot in
flour.)

Pattee, G. L., & Nelson, E. E.

1929

The Biological Assay of Ergot Preparations.

Journ. Pharmacol. and Exp. Ther., 36, p. 85. (Journ. Am.
Pharm. Assoc., 19, p. 719; Am. Journ. Pharm., 101, p. 669;
Yrbk. Brit. Pharm. Conf., 66, p. 481.)

Describe the techniques involved in the various
biological assays of ergot.

Rothlin, E.

1929

The Specific Action of Ergot Alkaloids on the Sympathetic Nervous System.

Journ. Pharmacol. and Exp. Ther., 36, p. 657. (Journ. Am. Pharm. Assoc., 19, p. 719; Yrbk. Am. Pharm. Assoc., 18, p. 217; Yrbk. Brit. Pharm. Conf., 66, p. 481.)

Describes the specific action of ergotamine and other alkaloids of ergot upon various animal organs.

Rusby, H. H.

1929

Comments on the U.S.P. Biological Standardisation of Ergot.

Journ. Am. Pharm. Assoc., 18, p. 1125. (Yrbk. Brit. Pharm. Conf., 67, p. 131.)

Comments on various methods of biological standardisation of ergot.

Stroband, H. J.

1929

Versuche zur vereinfachung der biologischen wertbestimmung von ergotamin-enthaltenden preparaten.

Arch. Intern. Pharmacodynamie, 34, p. 224. (Chem. Abstr., 23, p. 3539; Yrbk. Am. Pharm. Assoc., 18, p. 85.)

Discusses a simplification of a method for the physiological determination of ergotamine.

Swanson, E. E.

1929

The Standardization and Stabilization of Ergot Preparations.

Journ. Am. Pharm. Assoc., 18, p. 1127. (Ibid., 19, p. 719; Yrbk. Brit. Pharm. Conf., 67, p. 148.)

Discusses the different methods of assaying ergot, with special emphasis on the Isolated Rabbit's Uterus Method, which he considers the most reliable assay.

Thompson, M. R.

1929-30

The Pharmacology of Ergot: With Special Reference
to Biological Assay and Standardization, Parts I - IX.

Journ. Am. Pharm. Assoc., 18, pp. 1106-1124; *ibid.*, 19, pp. 11-23; pp. 104-117; pp. 221-228; p. 436, and p. 705. (Wood & Bache, Dispens. U.S., 22 ed., p. 437; Yrbk. Am. Pharm. Assoc., 18, p. 217; Yrbk. Brit. Pharm. Conf., 67, p. 147.)

Reports on the potency, physical and chemical properties of ergot as the crude drug and its official preparations.

Van Urk, H. W.

1929

Een nieuwe gevoelige reactie op de Moeder boemalkaloiden ergotamine, ergotoxine en ergotinine en de toepassing voor het onderzoek en de colorimetrische bepaling in moederkoon.

Pharm. Weekbl., 66, p. 475. (Journ. Am. Pharm. Assoc., 19, p. 719; Yrbk. Am. Pharm. Assoc., 18, p. 407; Yrbk. Brit. Pharm. Conf., 66, p. 423.)

Gives the color reactions for ergot alkaloids, using para-diethylaminobenzaldehyde as the reagent.

Wokes, F.

1929

The Stability of Extracts of Ergot.

Yrbk. Brit. Pharm., 66, p. 384.

Reports on experiments on the stability of ergot and its extracts.

Wokes, F. & Elphick, G. K.

1929

The Preparation of Liquid Extract of Ergot.

Quart. Journ. Pharm. and Pharmacol., 2, p. 539. (Am. Journ. Pharm., 102, p. 237.)

Investigates the loss of available ergotoxine in official procedures for making Liquid Extracts of Ergot.

Heyl, F. W. & Swoap, F. W.

1930

Dihydro-Ergosterol in Ergot.

Journ. Am. Chem. Soc., 52, p. 3688. (Yrbk. Brit. Pharm. Conf., 68, p. 256.)

Report on the isolation of dihydr-ergosterol from the unsaponifiable fraction of ergot oil.

Oettel, H.

1930

Über Alkaloidbestimmung im Mutterkorn.

Archiv. Exper. Path. u. Pharmakol., 149, p. 218. (Journ. Pharm. Belg., 12, p. 689; Yrbk. Am. Pharm. Assoc., 19, p. 266.)

Recommends Forst's method for estimation of alkaloids of ergot.

Smith, M. I.

1930

(Ergot.)

Pub. Health Rep., 45, p. 1466 (Yrbk. Am. Pharm. Assoc., 19, p. 231; Yrbk. Brit. Pharm. Conf., 68, p. 107; Woodard Bach, Dispens. U.S., 22 ed., p. 436.)

(Discusses the colorimetric reaction fro ergot alkaloids, and its application in the chemical standardization of ergot preparations.)

Smith, M. I., & Stohlman, E. F.

1930

Comparative Study of the Chemical and Biological Methods of Ergot Assay.

Journ. Pharmacol. and Exper. Therap., 40, p. 77. (Wood & Bache, Dispens. U.S., 22 ed., p. 437; Yrbk. Am. Pharm. Assoc., 19, p. 107; Yrbk. Brit. Pharm. Conf., 68, p. 145.)

Report on a comparative study of a chemical method of ergot assay and the biological method of Broom and Clark.

Smith, S. L., Timmis, G. M.

1930

The Alkaloids of Ergot.

Journ. Chem. Soc., 1930, v. 1, p. 1390. (Quart. Journ. Pharm. and Pharmacol., 4, p. 105; Yrbk. Am. Pharm. Assoc., 20, p. 67; Yrbk. Brit. Pharm. Conf., 68, p. 105.)

Report on two of the alkaloids of ergot, ergotoxine and ergotinine.

Thompson, M. R.

1930

Changes Occurring in Ergot during Storage.

Journ. Am. Pharm. Assoc., 19, p. 436. (Yrbk. Brit. Pharm. Conf., 67, p. 670.)

Reports on changes occurring in ergot during storage by noting the effects on the crude drug and the U.S.P. X Fluidextract.

Bartsch, O.

1931

(Ergotamine.)

Dansk. Tidss. Farm., 5, p. 172. (Yrbk. Brit. Pharm. Conf., 69, p. 301.)

(Reports on the stability of ergotamine.)

Bladergroen, W.

1931

Over de Chemie van Let Moederkoorn.

Chem. Weekbl., 28, p. 303. (Chem. Abstr., 25, p. 4358; Yrbk. Am. Pharm. Assoc., 20, p. 67.)

Gives a historical review of the medicochemical studies on ergot. Includes 36 references.

(Edmunds, C. W., & Nelson, E. E.) 1931

The U.S.P. Ergot Text.

Am. Journ. Pharm., 103, p. 615.

Report on the progress of the revision committee in developing the standards for ergot.

Fischer, P., & Harkheimer, P. 1931

Ueber die Untersuchung des Mutterkorns.

Sudd. Apoth-Ztg., 70, p. 518. (Chem. Abstr., 25, p. 170; Yrbk. Am. Pharm. Assoc., 20, p. 67.)

Advise treatment of ergot with petroleum ether for removal of fats as a preliminary to the estimation of the alkaloids.

Lozinski, E., Holden, G., & Driver, G. 1931

The Relative Activity of Ergotoxine and Ergotamine.

Journ. Pharmacol. & Experiment. Ther., 42, p. 143. (Am. Journ. Pharm., 104, p. 285; *ibid.*, 105, p. 419; Woodard Bache, Dispens. U.S., 22 ed., p. 435.)

Compares the biological activity and other chemical and physical properties of ergotoxine and ergotamine.

Smith, M., & Stohlman, E. F. 1931

Ergot. Injured in Not Kept Cool.

Am. Journ. Pharm., 103, p. 534.

States that coolness aids in the preservation of Ergot and its preparations.

Van Pinxteren, J. A. 1931

Onderzoek van eenige Chemische methodes voor de waardebe-
paling van moederkoorn.

Pharm. Weekbl., 68, p. 688. (Quart. Journ. Pharm. and Pharmacol., 4 (1931), p. 584; Yrbk. Am. Pharm. Assoc., 20, p. 218.)

Makes a comparison of the different methods proposed for the chemical assay of ergot.

Wokes, F., & Crocker, H. 1931

Biological and Spectroscopic Tests on Ergot Alkaloids, with Notes on the Maurice Smith Colour Test.

Quart. Journ. Pharm. and Pharmacol., 4, p. 420. (Yrbk. Am. Pharm. Assoc., 20, p. 167; Yrbk. Brit. Pharm. Conf., 68, p. 167; Yrbk. Brit. Pharm. Conf., 68, p. 420; Wood & Bache, Dispens. U.S., 22 ed., p. 436.)

Summarize the results of biological and spectroscopic tests on ergot alkaloids, and comment on the Maurice Smith color test.

Wokes, F., & Elphick, G. K. 1931

A Note on the Buffering Substances in Ergot.

Yrbk. Brit. Pharm. Conf., 68, p. 101.

Report on experiments with various buffering substances in ergot.

Wulp, G. A., & Nelson, E. E. 1931

The Use of the Paralysis of the Renal Vasomotors as an Assay Method of Ergot.

Journ. Pharmacol., 42, p. 143. (Yrbk. Brit. Pharm. Conf., 69, p. 136.)

Describe a biological assay of ergot and its preparations by paralysis of the renal vasomotors.

Allport, N. L., & Cocking, T. T. 1932

The Colorimetric Assay for Ergot.

Pharm. Journ., 129, p. 235. (Yrbk. Am. Pharm. Assoc., 21, p. 566.)

Consider the colorimetric test of the B.P. for the standardization of ergot and its preparations.

Bergmann, W. 1932

Über die gelben Farbstoffe des Mutterkorns, das Ergoflavin.

Ber. d. Chem. Ges., 65, p. 1486. (Yrbk. Brit. Pharm. Conf., 70, p. 115.)

Discusses the yellow coloring matter of ergot.

Boëndorf, K., & Reichner, E. 1932

Thermische Zersetzung von Mutterkornöl.

Arch. Pharm., 270, p. 291. (Yrbk. Am. Pharm. Assoc., 21, p. 454.)

Report on the thermal decomposition of oil of ergot.

Christensen, B. V. & Welch, A. D. 1932

The Relation of Size of Ergot to Potency.

Journ. Pharmacol., 45, p. 183. (Yrbk. Brit. Pharm. Conf., 70, p. 135; Wood & Bache, Dispens. U.S., 22 ed., p. 434.)

Give item conclusions on the relation of size to potency of ergot.

Freudweiler, R.

1932

Composition Chimique de l'ergot de Seigle et dosage des principes actifs.

Pharm. Act. Helv., 7, p. 116. (Yrbk. Brit. Pharm. Conf., 70, p. 268.)

Gives a summary of the data on the active chemical constituents of ergot, and their assay.

Küssner, W., & Wolff, P.

1932

Eine neue Methode zur Wertbestimmung des Mutterkorns.

Pharm. Ztg. 77, p. 342. (Yrbk. Am. Pharm. Assoc., 21, p. 572; Yrbk. Brit. Pharm. Conf., 69, p. 577.)

Present a new method for the assay of ergot which permits the determination of the strength of ergot in a simple way.

Langbecker, H.

1932

Über den Nichtalkaloid-Anteil des Mutterkorns.

Arch. Exper. Path. Pharmacol., 165, p. 299. (Squibb Abstr. Bufl., 5 (1932), p. 659; Yrbk. Am. Pharm. Assoc., 21, p. 400.)

Describes a method for the separation of ergot alkaloids from amines.

Leger, E.

1932

L'ergot de seigle et ses preparations; composition, essai.

Journ. d. Pharm. et d. Chim, s. 8, v. 15, p. 354. (Yrbk. Am. Pharm. Assoc., 21, p. 324.)

Gives a resume of ergot investigation from the standpoint of its pharmaceutical and chemical interest.

Moir, C.

1932

Clinical Comparison of Ergotoxine and Ergotamine.

Brit. Med. Journ., 1932, v. 1, p. 1022. (Yrbk. Am. Pharm. Assoc., 21, p. 401; Yrbk. Brit. Pharm. Conf., 69, p. 615.)

Compares the action of ergotoxine and ergotamine on the puerperal uterus.

Moir, C.

1932

The Action of Ergot Preparations.

Brit. Med. Journ., 1932, v. II, p. 75. (Squibb Abstr. Bull., 5 (1932), p. 952; Yrbk. Am. Pharm. Assoc., 21, p. 400.)

Reports on the medicinal action of ergot and its preparations.

Ogata, A., & Ohtani, —

1932

(Ergot.)

Journ. Pharm. Soc. Japan, 52, p. 15. (Yrbk. Am. Pharm. Assoc., 21, p. 400.)

Report on the activity of ergot produced in the Hokuriku District of Toyama.

Pederson, O. C.

1932

(Ergot.)

Norges Apotekerfor. Tids., 39, p. 49. (Wood and Bache, Dispens., U.S., 22 ed., p. 434; Yrbk. Am. Pharm. Assoc., 21, p. 324.)

(Reports on the deterioration of ergot due to 2 specific enzymes which destroy the fat and the alkaloids. Also discusses the conservation of ergot.)

Rom, P.

1932

Untersuchung einer kleinkörnigen *Secale Cornutum*
Droge.

Pharm. Monatsh., 13, p. 84. (Yrbk. Brit. Pharm. Conf., 69,
p. 603.)

Gives results of the examination of small grained
specimens of ergot.

Schlemmer, F., & Schmitt, H.

1932

Spektrographische Untersuchungen über Mutterkorn.

Arch. Pharm., 270, p. 15. (Yrbk. Am. Pharm. Assoc., 21,
p. 325.)

Explain the spectrographic investigation of ergot.

Soltys, A.

1932

Über die Alkaloide des Mutterkorns.

Ber. d. Chem. Ges., 65, p. 553. (Yrbk. Brit. Pharm. Conf.,
69, p. 570.)

Gives his conclusions on the structure of some of the
ergot alkaloids.

Swanson, E. E. et al.

1932

The Standardization and Stabilization of Ergot Prepara-
tions.

Journ. Am. Pharm. Assoc., 21, p. 229. (Yrbk. Am. Pharm. Assoc.,
22, p.127.)

Report upon a comparative study of the Epinephrine-
Reversal and the Cook's Comb Methods and the pH in relation
to deterioration and stabilization of ergot and its prepara-
tions.

Wood, H. C., Jr.

1932

"Ergot and Ergotism".

Am. Journ. Pharm., 104, p. 162.

Gives a review of the book, "Ergot and Ergotism", by George Barger, and briefly summarizes most of the important points.

Fiero, G. W.

1933

A Chemical Examination of Oil of Ergot.

Journ. Am. Pharm. Assoc., 22, p. 608. (Yrbk. Am. Pharm. Assoc., 22, p. 195.)

Reports on the chemical examination of the oil of ergot as to the fatty acids stated.

Fiero, G. W.

1933

Fatty Oil of Ergot.

Journ. Am. Chem. Soc., 55, p. 2381. (Yrbk. Brit. Pharm. Conf., 70, p. 699.)

Gives the quantitative distribution of the fatty acids and ergot oil.

Lozinski, E., et al.

1933

The Relative Activity of Ergotoxine and Ergotamine with Special Reference to the Assay of Ergot Preparations.

Quart. Journ. Pharm. Pharmacol., 6 (1933), p. 395. (Yrbk. Am. Pharm. Assoc., 22, p. 128.)

Discuss the relation between the chemical nature and biological values of ergotoxine and ergotamine.

Reyer, W., et al.

1933

Vergleichende Wertbestimmungen von Mutterkorn.

Pharm. Zeitung, 78, p. 420. (Yrbk. Am. Pharm. Assoc., 22, p. 307.)

Point out defects in the D.A.B. VI Method of evaluation of ergot, and make comparative study of various methods of evaluating ergot.

Rothlin, E.

1933

Über enterale Resorption von Mutterkornalkaloiden und deren spezifische Wirkungsweise auf das Kreislaufsystem.

Arch. exper. Path. Pharmacol., 171, p. 555. (Physiol. Abstr., 19, p. 205; Yrbk. Am. Pharm. Assoc., 23, p. 133.)

Gives results of experiments on the intestinal absorption of the alkaloids of ergot.

Stevens, A. N.

1933

The Standardization of Ergot--A Modification of Smith's Quantitative Colormetric Assay.

Journ. Am. Pharm. Assoc., 22, p. 99. (Yrbk. Am. Pharm. Assoc., 22, p. 290; Yrbk. Brit. Pharm. Conf., 70, p. 583.)

Report on work with a modified colorimetric chemical assay of ergot together with the U.S.P. X and the Broom and Clark methods.

Swoap, O. F., Cartland, G. F., & Hart, M. C.

1933

The Assay and Deterioration of Ergot Preparations.

Journ. Am. Pharm. Assoc., 22, p. 8. (Yrbk. Am. Pharm. Assoc., 22, p. 127.)

Report details of experimental work on the assay and the deterioration of ergot preparation.

Thompson, M. R.

1933

The Extraction and Assay of Crude Ergot.

Journ. Am. Pharm. Assoc., 22, p. 736. (Yrbk. Am. Pharm. Assoc., 22, p. 34; Yrbk. Brit. Pharm. Conf., 70, p. 715.)

Reports on the extraction and assay of crude ergot.

Crosbie, H. H.

1934

The Testing of Ergot.

Journ. Am. Pharm. Assoc., 23, p. 1110. (Yrbk. Am. Pharm. Assoc., 23, p. 134.)

Reports on experiments of ergot with a photographic modification of the Cock's Comb Method.

Herold, M.

1934

Ubes die Alkaloide des Mutterkorns.

Chimie and Industrie, 31, p. 1017. (Chem. Abstr., 28, p. 257; Yrbk. Am. Pharm. Assoc., 23, p. 195.)

Reviews the methods of extraction and the chemical properties of ergot alkaloids.

Kreitmar, H.

1934

Über Ergoclavin, ein neu entdecktes Mutterkorn-
alaloid.

Arch. experim. Path. Pharmakol., 176, p. 171. (Squibb Abstr. Bull., 7, p. 1415; Yrbk. Am. Pharm. Assoc., 23, p. 194.)

Makes a pharmacological study of the new ergot alkaloid, ergoclavine.

Küssner, W.

1934

Ergoclavin, ein neues spezifisches Alkaloid des Mutterkorns.

Archiv. d. Pharm., 272, p. 503. (Am. Journ. Pharm., 106, p. 386; Yrbk. Am. Pharm. Assoc., 23, p. 193; Yrbk. Brit. Pharm. Conf., 71, p. 618.)

Discusses the isolation of ergoclavine, the seventh alkaloid of ergot.

Pinxteren, J. A. van

1934

Bijdrage tot de Pharmacie van Het Moederkorn.

Pharm. Weekblad., 71, p. 1230. (Yrbk. Am. Pharm. Assoc., 23, p. 26.)

Reports on the examination of 17 samples of ergot for the determination of alkaloidal content.

Smith, S. & Timmis, G. M.

1934

The Nature of Engine.

Journ. Chem. Soc., 1934, v. i, p. 674. (Squibb, Abstr. Bull., 7, p. 1164; Yrbk. Am. Pharm. Assoc., 23, p. 183.)

Discuss the crystalline base, engine, which constitutes 1/2 of the parent molecule of the ergot alkaloids.

Swanson, E. E., & Hargreaves, C. C.

1934

The Action of Ergot and its Alkaloids on the Puerperal Uteri of Dogs.

Journ. Am. Pharm. Assoc., 23, p. 867. (Yrbk. Am. Pharm. Assoc., 23, p. 134.)

Report the action of ergot and its alkaloids on the puerperal uteri of dogs.

Upsker-Smith, F. A.

1934

Notes on the B.P. Colorimeter Test for Ergot.

Journ. Am. Pharm. Assoc., 23, p. 25. (Yrbk. Am. Pharm. Assoc., 23, p. 194; Yrbk. Brit. Pharm. Conf., 71, p. 249.)

Reports a study of the B.P. colormetric test for ergot, and the modification by Allport and Cocking and also a method suggested by Freudweiler.

Allport, N. L., & L. Crews, S. K.

1935

Spectrographic Absorption of Ergometrine in Relation to the B.P. Color Test.

Pharm. Journ., 135, p. 8. (Pharm. Abstr., 2, p. 32; Yrbk. Brit. Pharm. Conf., 72, p. 447.)

Presents results of spectrographic and chemical observations on specimens of ergot alkaloids prepared in accordance with Dudley and Moir's method.

Anonymous.

1935

Ergot and the Ergot Alkaloids.

Merck Report, 44, p. 16. (Pharm. Abstr. 2, p. 127.)

Gives a concise review of the literature concerning the alkaloids of ergot.

Anonymous

1935

The U.S.P. Assay for Ergot.

Pharm. Journ., 134, p. 61. (Pharm. Abstr., 1, p. 29.)

Discusses the revision of the U.S.P. assay process for ergot.

Brown, G. L., & Dale, H.

1935

The Pharmacology of Ergometrine.

Proc. Roy. Soc., B., 118, p. 446. (Quart. Journ. Pharm. Pharmacol., 8, p. 558; Pharm. Abstr., 2, p. 164; Physiol. Abstr., 21, p. 584; Yrbk. Brit. Pharm. Conf., 72, p. 589.)

Records the results of an investigation of the action of ergometrine.

Burr, J. H.

1935

The Isolation of Ergometrine.

Pharm. Journ., 134, p. 357. (Pharm. Abstr., 1, p. 206).

Discusses the isolation of ergometrine, and a report on its physiological action.

Corran, R. F. & Rymill, F. E.

1935

The Effects of Hot Solvents on Ergot with a Note on the Effect of Storage on the Activity of Ergot.

Pharm. Journ., 134, p. 782. (Pharm. Abstr., 1, p. 322; *ibid.*, 2, p. 80; Quart. Journ. Pharm. Pharmacol., 8, p. 337.)

Discuss the effect of hot solvents on ergot and note the effect of storage on the activity of ergot.

Davis, M. E.

1935

A New Active Principle in Ergot and its Effects on Uterine Motility.

Am. Journ. Obstet. Gynecol., 29, p. 155. (Pharm. Abstr., 1, p. 85; Squibb Abstr. Bull, 8, p. 327.)

Reviews the uses of ergot including a test for determining the biological potency of ergot and its various constituents by determinations of uterine motility.

Dudley, H. W.

1935

The Preparation of Ergometrine.

Pharm. Journ., 134, p. 709. (Yrbk. Am. Pharm. Assoc., 23, p. 194; Yrbk. Brit. Pharm. Conf., 72, p. 117; Bost. Med. Journ., 211, p. 314; Wood & Bache, Disp. U.S., 22 ed., p. 435.)

Describes a method for the isolation of ergometrine from ergot.

Fabriques de Produits Chimiques Ci-Devant Sandoz 1935

(Ergot Alkaloids.)

Belg. pat. 407,274, Feb. 28, 1935. (Pharm. Abstr., 2, p. 127.)

(Gives a process for the separation and preparation of ergot alkaloids in a pure state.)

Gaay-Kostyal, M. & Tesarz, J.

1935

Nucleic Acid from Ergot of Rye.

Pharm. Journ., 135, p. 231. (Pharm. Abstr. 2, p. 17.)

Report on the isolation of nucleic acid from Ergot of rye and describes its properties.

Gutorov, I.

1935

(Ergot.)

Soviet. Mukomol'e Khlebopechemie, 10, p. 18. (Chimie & Industrie, 37, p. 287; Pharm. Abstr., 3, p. 287.)

(Reports on the effect of ergot on the growth of yeast cells.)

Issékutz, B., & Leizinger, M.

1935

(Ergot Alkaloids.)

Magyar Gyogyszeresztad. Tarsasag Ertesitoje, 11, p. 17. (Chem. Abstr., 29, p. 3775; Pharm. Abstr., 1, p. 186; *ibid.*, 2, p. 325; *Chimie et Industrie*, 35, p. 635.)

(Report on the biological determination of the alkaloids of ergot on the basis of their antagonistic action to adrenaline.)

Jacobs, W. A., & Craig, R. G.

1935

The Cleavage of Ergotinine with Sodium and Butyl Alcohol.

Jr. Biol. Chem., 108, p. 595. (Wood & Bache, *Dispens. U.S.*, 22 ed., p. 435.)

Report on the isolation of prolene from ergot, after ergotinine was hydrolyzed by cleavage with sodium and butyl alcohol.

Jacobs, W. H., & Craig, L. C.

1935

The Structure of the Ergot Alkaloids.

Journ. Am. Chem. Soc., 57-1, p. 383. (Wood & Bache, *Dispens. U.S.*, 22 ed., p. 435.)

Report on the isolation of proline from ergot, after the hydrolysis of ergotinine.

Kharasch, M. S., & Legault, R. R.

1935.

Ergotocin: The Active Principle of Ergot Responsible for the Oral Effectiveness of Some Ergot Preparations on Human Uteri.

Journ. Am. Chem. Soc., 57-1, p. 956. (*Ibid.*, p. 1140; Wood & Bache, *Dispens. U.S.*, 22 ed., p. 435; Pharm. Abst., 1, p. 158.)

Call attention to the fact that certain alkaloids of Ergot are ineffective when administered orally to human mothers in doses of 2 mg.

Lynovski, O. P.

1935

(Ergot.)

Voprosy Pitaniya, 4, p. 107. (Chimie & Industry, 37, p. 313; Pharm. Abstr., 3, p. 287.)

(Gives the modification in the Chemical constituents of ergot due to prolonged storage.)

Merz, K. W.

1935

Chemie und Pharmakologie des Mutterkorns.

Apoth.-Ztg., 50, p. 472. (Pharm. Abstr., 1, p. 276.)

Gives a review of the chemistry and pharmacology of ergot.

Moeller, K. O.

1935

(Ergot Alkaloids.)

Dansk Tids. Farm., 9, p. 121. (Pharm. Abst., 1, p. 158.)

Reviews the chemical and physical properties of ergot alkaloids.

Moir, C.

1935

The Alkaloids of Ergot: Ergometrine.

Pharm. Journ., 135, p. 63 (Pharm. Abst., 1, p. 348.)

Recommends the use of ergometrine when given for post-partum hemorrhage. Gives the clinical uses of other ergot alkaloids.

Moir, C., & Dudley, H. W.

1935

Ergometrine, een nieuw ontdekt alkaloïde in *Secale Cornutum*.

Pharm. Weekblad., 72, p. 345. (Brit. Med., Journ., 1935, 1, p. 520; Pharm. Journ., 134, p. 321; Pharm. Abstr., 1, p. 99).

Discuss the properties of ergometrine, a newly discovered alkaloid in ergot.

Raymond-Hamet, M.

1935

Sur quelques effets pharmacologiques de l'ergometrine, nouvel alcaloïde de l'ergot de seigle.

Compt. rend., 201, p. 176 (Pharm. Abstr., 1, p. 337).

Explains the pharmacological effects of ergometrine.

Rothlin, E.

1935

Erfahrungen über die Haltbarkeit von Mutterkornpräparaten.

Klin. Wochschr., 13, p. 1148. (Squibb Abstr. Bull, 7, p. 1201; Yrbk. Am. Pharm. Assoc., 23, p. 27.)

Discusses the results of investigations on the stability of ergot preparations.

Rusby, H. H.

1935

Russian Ergot.

Journ. Am. Pharm. Assoc., 24, p. 382. (Pharm. Abstr., 1, p. 173.)

Reports on the general conditions and characteristics of Russian ergot.

Stoll, A., & Burckhardt, E.

1935

L'ergobasine, nouvel alcaloïde de l'ergot de Seigles soluble dans l'eau.

Compt. rend., 200, p. 1680. (Pharm. Abstr., 1, p. 206. (Bull. sci. Pharmacol., 42, p. 257; Pharm. Abstr., 2, p. 126; Yrbk. Brit. Pharm. Conf., 72, p. 526; Wood & Bache, Dispens. U.S., 22 ed., p. 435.)

Report on the extraction of and the chemical and physical properties of Ergobasine, a new water-soluble alkaloid of ergot.

(Sub-Committee)

1935

(Assay of Ergot.)

Am. Drug. Manufacturers Assoc., Proc., 24, p. 297. (Squibb Abstr. Bull., 8, p. 1373; Pharm. Abstr., 2, p. 32.)

(Give a method for the assay of ergot.)

Swanson, E., Hargreaves, C., & Chen, K.

1935

The Question of Assaying Ergotocine, the Ergot Principle.

Journ. Am. Pharm. Assoc., 24, p. 835. (Pharm. Abstr., 2, p. 62; Yrbk. Brit. Pharm. Conf., 73, p. 152.)

Directs attention to previous reports about ergotocine and its characteristics, with the suggestion that a new method for standardization be developed.

Thompson, M. R.

1935

The Active Constituents of Ergot: A Pharmacological and Chemical Study.

Journ. Am. Pharm. Assoc., 25, p. 24. (Pharm. Abstr., 1, p. 29; Wood & Bache, Dispens. U.S., 22 ed., p. 435.)

In a thesis submitted to John Hopkins University, gives the results of experiments on cats with ergot.

Vartiainen, A.

1935

The Action of Ergoclavine and Sensibamine.

Journ. Pharmacol., 54, p. 259. (Wood & Bache, Dispens. U.S., 22 ed., p. 435; Yrbk. Brit. Pharm. Conf., 72, p. 754.)

Reports that the physiological action of ergoclavine and of sensibilamine are similar to those of ergotoxine, and that their activity is about equal.

Bennekow, Il, & Schou, S. A.

1936

(Ergometride.)

Dansk. Tids. Farm., 10, p. 105. (Pharm. Abstr., 2, p. 293.)

(Reports on the optical properties of ergometrine.)

Casparis, P.

1936

Botanisches, Physiologisches und Chemisches vom Mutterkorn.

Mitt. natuurforsch. Ges. Bern., 150, p. 34. (Chem. Abstr., 32, p. 9399; Pharm. Abstr., 5, p. 209.)

(Discusses the botanical, physiological and chemical characteristics of ergot.)

Chen, K. K., Swanson, E., & Hargreaves, C.

1936

The Action of Ergometrinine.

Proc. Soc. Exptl. Biol. & Med., 34, p. 183. (Abstr. Pharm., 2, p. 275.)

Discuss the action of the alkaloid, ergometrinine, on the uterus and intestines.

Chen, K., Swanson, E., & Kleiderer, E. 1936

Ergotocin, Ergometrine, Ergostetrine and Ergobasine.

Journ. Pharmacol. and Exper. Ther., 57, p. 117. (Pharm. Abstr., 2, p. 402; Yrbk. Brit. Pharm. Conf., 73, p. 756.)

Discuss the status of the new ergot principles called ergotocine, ergometrine, ergosterine, ergobasine.

Christenson, W. G., & Lee, J. 1936

Solution of Ergot Alkaloids.

U.S. pat. 2,033,921, March 17. (Pharm. Abstr., 2, p. 282.)

Provides a therapeutic preparation comprising a solution of the ergot alkaloids in a compound consisting of a large number of ingredients.

Gatty-Kostyal, M. & Tesarz, J. 1936

(Ergot.)

Wiadomosci Farm., 213, p. 299. (Pharm. Weekblad., 74, p. 61; Pharm. Abstr., 4, p. 298.)

(Report on the investigation of nucleic acid of ergot.)

Hampshire, C. H., & Page, G. R. 1936

The Chemical Assay of Ergot.

Quart. Journ. Pharm. Pharmacol., 9, p. 60. (Pharm. Abstr. 2, p. 374.)

Outline a method for the chemical assay of ergot.

Holden, G. W., & Diver, G. R.

1936

A New Alkaloid and an Acid Salt from Ergot and an Acid Derived from the Salt.

Quart. Journ. Pharm. Pharmacol., 9, p. 230. (Pharm. Abstr., 2, p. 539.)

Report on a new alkaloid and the acid salt from ergot an acid derived from the salt, suggesting the name ergo-monamine for the alkaloid.

Jacobs, W. A., & Craig, L. C.

1936.

Ergot Alkaloids.

Journ. Biol. Chem., 111, p. 455. (Chem. Abstr., 31, p. 1415; Pharm. Abstr. 3, p. 162.)

Show the chemical structure of ergotamine and ergoclavine by use of hydrolytic methods. Consider lyseric acid to be the chief constituent of these alkaloids.

Kofler, A.

1936

Mikroskopische Untersuchung der Mutterkornalkaloide, Ergotamin und Ergotaminin.

Arch d. Pharm., 274, p. 398. (Pharm. Abstr. 3, p. 63; *ibid.*, 4, p. 354; Yrbk. Brit. Pharm. Conf., 73, p. 694.)

Presents the results of a microscopic investigation of the ergot alkaloids, ergotamine and ergotaminine.

Kofler, A.

1936

Zur Geschichte des Mutterkorns.

Pharm. Monatsh., 17, p. 84. (Pharm. Abstr., 2, p. 395.)

Discusses the history of ergot.

Liptak, P.

1936

(Ergot.)

Magyar Gyogyszereztud. Tarsasag. Ertesitoje, 11, p. 348.
(Chimie & Industrie, 35, p. 636; Pharm. Abstr., 2, p. 312.)

Describes a method for the determination of the acidity of ergot.

Novelli, A.

1936

(Ergot.)

Rev. Farm. (Buenos Aires), 78, p. 5. (Chimie & Industrie, 38, p. 316; Pharm. Abstr., 4, p. 170.)

(Discusses the assay of commercial ergot by Smith's colorimetric method.)

Rauch, C. & Schmal, M.

1936

Zur Frage der azidimetrischen Gehaltsbestimmung der Mutterkonalkaloide.

Suddents. Apoth.-Ztg., 76, p. 478. (Yrbk. Brit. Pharm. Conf., 73, p. 700.)

Give a method by which it is possible to precipitate the alkaloids of ergot without any adsorbed alkali.

Rothlin, E.

1936

Neues zum Mutterkornproblem.

Arch. exp. Path. Pharmak., 181, p. 154. (Yrbk. Brit. Pharm. Conf., 73, p. 614.)

Reports on the various alkaloids of ergot, and the differences in their activity and toxicity.

Schlemmer, F., Wirth, P., & Peters, H.

1936

Die Bestimmung von Mutterkorninhaltsstoffen nach
verschiedener Methodik.

Arch. d. Pharm., 274, p. 16. (Pharm. Abstr. 3, p. 17;
Yrbk. Brit. Pharm. Conf., 73, p. 117.)

Discuss the spectrographic and colorimetric methods
of evaluation of ergot.

Smith, S., & Timmis, G. M.

1936

A New Alkaloid of Ergot.

Nature, 137, p. 111. (Squibb Abstr. Bull, 9, p. 232; Pharm.
Abstr., 2, p. 346; Yrbk. Brit. Pharm. Conf., 73, p. 111.)

Report on the isolation of a new alkaloid from ergot,
with its physical and chemical properties.

Tropp, G. J.

1936

(Der Einfluss verschiedener Faktoren auf die
Toxizität von Mutterkorn.)

Farm. Shurnal, 7, p. 222. (Chem. Zentralb., 107, p. 805;
Pharm. Abstr., 3, p. 26.)

(Discusses the influence of different factors on the
toxicity of ergot.)

Zunz, E., & Vesselovsky, O.

1936

A Propos des effets des Alcaloides de l'ergot de
seigle sur la diuresis.

Archiv. Inter. Pharmacody. et. Therap., 54, p. 75. (Pharm.
Abstr., 2, p. 522; *ibid.*, 3, p. 102; *ibid.*, 4, p. 101; Chimie
& Industrie, 38, p. 105; Yrbk. Brit. Pharm. Conf., 73, p. 754.)

Diss the action of ergometrine in diuresis.

Barger, G.

1937

The Alkaloids of Ergot.

Analyst, 62, p. 340. (Pharm. Abstr., 3, p. 497.)

Reviews the chemistry and methods of assay of the ergot alkaloids up to 1936.

Barkovic, R.

1937.

Aantooning van alkaloiden in moederkorn en in moederkoornextracten.

Pharm. Tijdschr., 14, p. 202. (Pharm. Abstr., 4, p. 240.)

Gives methods for the determination of the quantity of alkaloids in ergot and its extract.

Kharasch, M. S. & Legault, R. R.

1937

Process of Obtaining an Effective Ergot Preparation.

U.S. Patent 2,082,342, June 1, (Pharm. Abstr., 3, p. 335.)

Give a process for obtaining what they call an effective ergot preparation.

Kofler, A.

1937

Mikroskopische Untersuchung der Mutterkornalkaloide: Ergotinin, Ergotoxin und Sensibamin.

Arch. d. Pharm., 275, p. 455. (Pharm. Abstr., 5, p. 38; Yrbk. Brit. Pharm. Conf., 74, p. 731.)

Gives the results of the microscopic investigation of 3 ergot alkaloids.

Kussner, W. H.

1937

Method of Separating Mixed Ergot Alkaloids.

U.S. Patent, 2,086,562, July 13. (Pharm. Abstr., 3, p. 497;
ibid., 7, p. 84.)

Gives a method for the separation of mixed ergot alkaloids.

Kussner, W.

1937.

Neure Ergebnisse auf dem Gebiet der Mutterkorn-
forschung.

Angewandte Chemie, 50, p. 34. (Pharm. Abstr., 3, p. 293.)

Reviews the progress in the isolation of the alkaloids
of ergot and their use through the year of 1935.

Lennox, W. G., & Leonhardt, H. G.

1937

The Flow and Concentration of Blood as Influenced by
Ergot Alkaloids and as Influencing Migraine.

Ann. Intern. Med., 11, p. 663. (Pharm. Abstr. 4, p. 170.)

Discuss the influence of the ergot alkaloids on the
flow and concentration of blood and on migraine.

Lesser, M. A.

1937.

Ergot.

Drug and Cosmetic Ind., 41, p. 639. (Pharm. Abstr., 4, p. 163.)

Gives a historical discussion and review of ergot with
16 references.

Otter, F. G.

1937

De Schatting van het Alkaloidengehalte in Secale
Cornutum.

Pharm. Weekblad., 74, p. 511. (Pharm. Abstr., 4, p. 9.)

Gives a method for the estimation of alkaloids and the
preparation of standard solutions of ergot.

Rauch, C., & Schmal, M.

1937

Zur Frage der Azidimetrischen Gehaltsbestimmung der
Mutterkornalkaloide.

Süddent. Apoth. Ztg., 76, p. 478. (Chimie & Industrie, 37,
p. 1137; Pharm. Abstr., 3, p. 452.)

Conclude that the acidimetric method for the estimation
of ergot alkaloids is the most practical for the average
pharmacist.

Roudochevskaia, B. I.

1937

(Ergot.)

Voprossy Pitania, 5, p. 171. (Chimie & Industrie, 38, p. 933;
Pharm. Abstr., 4, p. 250.)

(Gives the effect of small doses of ergot on the animal
organism.)

Rowe, L. W.

1937

A Note on the Stability of Ergot.

Journ. Am. Pharm. Assoc., 26, p. 312. (Pharm. Abstr., 3, p.
333; Yrbk. Brit. Pharm. Conf., 74, p. 579.)

Reports on the stability of Spanish ergot after being
stored for a number of years.

Schow, S. A.

1937

(Ergot.)

Arch. Pharm. og Chem., 44, p. 173. (Pharm. Abstr., 4, p. 118.)

(Discusses the chemistry of the ergot alkaloids.)

Smith, S., & Timmis, G. M.

1937

New Alkaloids of Ergot; Ergosine and Ergosinine.

Journ. Chem. Soc., 1937, v. i, p. 396. (Yrbk. Brit. Pharm. Conf., 74, p. 542.)

Report on the physical and chemical characteristics of ergosine and ergosinine, 2 new alkaloids of ergot.

Stuart, E. H.

1937

Ergot-Derived Product and Process of Obtaining It.

U.S. Paten, 2,067,866, Jan. 12, (Pharm. Abstr., 3, p. 198.)

Gives a method for extracting ergot with liquid ammonia.

Stoll, A.

1937

(Ergot.)

Pharm. Monatsh., 18, p. 146. (Pharm. Abstr., 4, p.118.)

(Gives a review of the active constituents of ergot.)

Thompson, M. R.

1937

Comparison of the Pharmacological Syndromes of Ergosterine (Ergonovine) and the Ergotoxine Group of Ergot Alkaloids.

Journ. Am. Pharm. Assoc., 26, p. 850. (Pharm. Abstr., 4, p. 73; Yrbk. Brit. Pharm. Conf., 75, p. 159.)

Classifies alkaloids of ergot according to their oxytocic activity.

Trabucchi, E.

1937

(Ergot.)

Boll. soc. ital. biol. sper., 12, p. 232. (Journ. Soc. Chem. Ind., 56, p. 1132; Pharm. Abstr., 4, p. 72.)

(Outlines a method for the determination of ergonovine in ergot preparations.)

Zurz, E.

1937

(Ergot.)

Bull. Acad. roy. med. Belg., 2, p. 492. (Chimie & Industrie, 40, p. 112; Pharm. Abstrs., 5, p. 510.)

(Discusses the results of new investigations on the effects of the constituents of ergot on diuresis.)

Allport, N. L., & Porter, G. V.

1938

The Assay of Ergot and its Liquid Extract for Ergometrine.

Quart. Journ. Pharm. Pharmacol., 11, p. 96. (Pharm. Abstr., 4, p. 499.)

Outlines an assay of ergot and its liquid extract for ergometrine.

- Kofler, A. 1938
 Zusammengesetzte Mutterkornalkaloide.
 Arch. Pharm., 276, p. 61. (Yrbk. Brit. Pharm. Conf., 76,
 p. 112.)
 Reports on a microscopic examination of ergot alkaloids.
- McLachlin, A. D. 1938
 The Action of Ergometrine on the Isolated Human
 Uterus.
 Journ. Pharmacol., 64, p. 243. (Yrbk. Brit. Pharm. Conf.,
 76, p. 157.)
 Describes the pharmacological action of ergometrine on
 the isolated uterus.
- Nelson, E. E., & Colwery, H. O. 1938
 Present Status of the Ergot Question.
 Physiol. Rev., 18, p. 297. (Am. Journ. Pharm., 110, p. 205;
 Pharm. Abstr., 4, p. 355.)
 Summarize the history of ergot and its constituents and
 discusses its present status.
- Percs, E. 1938
 (Ergot.)
 Magyar Gyogyszeresztud. Tarsaag. Eintesitoje, 14, p. 81.
 (Chem. Abstr., 32, p. 3901; Pharm. Abstr., 5, p. 39.)
 (Describes a method for the chemical evaluation of
 ergotal rye.)
- Reigers, F. 1938

Reimers, F. 1938

The Acidimetric Titration of Ergometrine.

Yrbk. Brit. Pharm. Conf., 75, p. 252. (Pharm. Abstr., 5, p. 430.)

Determines a method for the estimation of ergometrine in ages by an acidimetric titration.

Rosenfeld, A.; & Tropp, M. 1938

(Ergot.)

Trans. Ukrainian Inst. Exp. Pharm., 1, p. 79. (Pharm. Abstr., 5, p. 325.)

(Explain a new colorimetric method for the quantitative determination of ergot in meal.)

Schow, S. A. & Bennekow. 1938

(Ergot.)

Dansk. Tidss. Farm., 12, p. 257. (Yrbk. Brit. Pharm. Conf., 76, p. 118.)

Describe a colorimetric assay for ergot.

Schou, S. A. & Tonnesen, M. 1938

(Ergot Alkaloids)

Dansk. Tidss. Farm., 12, p. 268. (Yrbk. Brit. Pharm. Conf., 76, p. 112.)

(Give in detail data concerning the stability of ergometrine and ergotoxine.)

Schwan, H.

1938

(Ergot.)

Farm. Revy, 37, p. 717. (Pharm. Abstrs., 5, p. 430.)

(Gives a review of the chemistry of the ergot alkaloids, citing 18 references.)

Sternon, F.

1938

(Ergot.)

Bull. Acadm. Roy. Med. Belgique, 1, p. 463. (Chimie & Industries, 39, p. 719; Pharm. Abstr., 5, p. 131.)

(Gives the quantitative variations in the total alkaloidal content in the course of the life cycle of ergot of rye.)

Stevens, A.

1938

Standardization of Ergot, Comparison of Results Obtained by the Colorimetric, the Cook's Comb and the Clark Methods of Assay.

Journ. Am. Pharm. Assoc., 27, p. 100. (Pharm. Abstr., 4, p. 394; Yrbk. Brit. Pharm. Conf., 75, p. 269.)

Compares various methods of assaying ergot and gives a method for determination of total alkaloids.

Stoll, A.

1938

(Ergot Alkaloids.)

Dansk Tids. Farm., 12, p. 1. (Pharm. Abstr., 4, p. 477.)

(Reviews the work of ergot alkaloids in 1937.)

Stoll, A., & Burckhardt, E.

1938

(Ergot.)

Z. physiol. Chem., 250, p. 1. (Analyst, 63, p. 54; Yrbk. Brit. Pharm. Conf., 75, p. 261.)

(Discuss the isolation of the new alkaloids of ergot, ergocristine and ergocristinine.)

Zunz, E., & Vesselovsky

1938

Action de la sensibamine, de l'ergotamine et de l'ergotaminine sur la diurese.

Arch. inter. pharmacodynamie, 60, p. 301. (Pharm. Abstr., 5, p. 516; Yrbk. Brit. Pharm. Conf., 76, p. 308.)

Discuss the action of sensibamine, ergotamine and ergotaminine upon diuresis.

Christiansen, B. V. & Reese, J. A.

1939

Changes in Ergot with Various Moisture Contents under Different Conditions of Storage.

Journ. Am. Pharm. Assoc., 28, p. 343. (Yrbk. Brit. Pharm. Conf., 77, p. 83.)

Report on changes in ergot with varying moisture content and other storage conditions.

Daglish, C., & Wokes, F.

1939

The Chemical Assay of Powdered Ergot.

Quart. Journ. Pharm. Pharmacol., 12, p. 451. (Pharm. Abstr., 7, p. 38.)

Give conclusions on the efficiency of various chemical assays of powdered ergot.

Jacobs, W. A., & Gould, R. G.

1939

Studies of the Synthesis of Substances related to
Lysergic Acid.

Journ. Biol. Chem., 126, p. 67. (Chem. Abstrs., 33, p. 1332;
Pharm. Abstr., 5, p. 430.)

Review the ergot alkaloids with studies of the synthesis
of substances related to lysergic acid.

Schulek, E., & Vastagh, G.

1939

(Ergot Alkaloids.)

Magyar Gyogyszeresztud Tarsaag. Ertesitoje, 15, p. 322.
(Chemie & Industrie, 43, p. 925; Pharm. Abstr., 8, p. 232;
Yrbk. Brit. Conf., 76, p. 611.)

(Discuss a method for the colorimetric determination
of ergot alkaloids.)

Vandermeulen, H.

1939

(Oil of Ergot.)

Journ. Pharm. Belg., 21, p. 195. (Yrbk. Brit. Pharm. Conf.,
77, p. 176.)

(Discusses the extraction of oil of ergot and the
isolation its constituents.)

Bekesy, Von, N.

1940

(Ergot.)

Biochm. Zeit., 302, p. 187. (Journ. Soc. Chem. Ind., 59,
p. 85; Harm. Abstr., 7, p. 164.)

Gives method for the determination of alkaloidal content
of ergot.

Bergy, G. A., & Thompson, M. R.

1940

Ergot and Ergonovine.

Am. Professional Pharmacist, 6, p. 782. (Am. Journ. Pharm., 113, p. 35.)

Describes the new water-soluble alkaloid of ergot, ergonovine and predicts great future use for it.

Denston, T. C.

1940

The Germination of Ergot.

Chem. & Drugg., 132, p. 470. (Pharm. Abstr., 7, p. 5.)

Discusses the collection, the life history and the experimental germination of ergot.

Harrisson, J. W.

1940

Report on Bio Assays.

Am. Journ. Pharm., 112, p. 275.

Suggests that the U.S.P. find a more satisfactory method for the evaluation of ergot and that cock's blood pressure methods be carefully considered.

Hassen, A., & Mohammed, A. H.

1940

Atropine and Ergotoxin as Antidotes to Scorpion Toxin.

Lancet, 238, p. 1001. (Pharm. Abstr., 7, p. 266.)

Discuss the use of ergotoxine and atropine as antidotes to scorpion toxin.

Santi, D.

1940

Le sostanze attive della segale conuta.

Schweiz. Apoth. Ztg., 78, p. 305. (Pharm. Abstr., 7, p. 300.)

Reviews the discovery, classification and the structures of the active ergot alkaloids as far as known.

Schow, S. A., & Tonnesen, M.

1940

(Ergot.)

Dansk. Tidss. Farm., 14, p. 33. (Yrbk. Brit. Pharm. Conf., 77, p. 278.)

(Give a method for the assay of ergot.)

Smith, R. G.

1940

The Assay of Ergot.

Journ. Am. Pharm. Assoc., 29, p. 385. (Pharm. Abstr., 7, p. 56.)

Points out some of the difficulties encountered in attempts to apply biological assays to ergot.

Thompson, M. R.

1940

Ergot Preparation and Process for Making Same.

U.S. Patent, 2,192, 460, March 5. (Pharm. Abstr., 7, p. 300.)

Gives a method for preparing ergostetrine.

Allport, N. L., & Jones, N. R.

1941

The Determination of Ergometrine and Ergotoxine
in Ergot and Its Liquid Extract.

Quart. Journ. Pharm. Pharmacol., 14, p. 106. (Pharm. Abstr.,
8, p. 319; Chem. & Drugg., 134, p. 252.)

Give a method for the determination of ergometrine and
ergotoxine in ergot and its liquid extract.

Beer, E. J., & Tullar, R. E.

1941

The Biological Estimation of Ergometrine.

Journ. Pharmacol., 71, p. 256. (Yrbk. Brit. Pharm. Conf.,
78, p. 304.)

Discuss methods for the biological estimation of ergo-
metrine using albino rabbits.

Grove, D. C.

1941

The Quantitative Separation of Ergometrine from Other
Ergot Alkaloids.

Journ. Am. Pharm. Assoc., 30, p. 260. (Pharm. Abstr., 8,
p. 72; Am. Journ. Pharm., 113; p. 374; Yrbk. Brit. Pharm.
Conf., 79, p. 169.)

Gives a method for the quantitative separation of ergo-
metrine from other ergot alkaloids.

Hampshire, C. H., & Partridge, M. W.

1941

The Chemical Assay of Ergot.

Quart. Journ. Pharm. Pharmacol., 14, p. 116. (Pharm.
Abstr., 8, p. 71.)

Summarize the methods of the chemical assay of ergot,
with notes on the extraction and decomposition of the ergot
alkaloids.

Moore, M. B.

1941

Extraction of Alkaloids from Ergot.

U.S. Patent, 2,255,124, Sept. 9. (Pharm. Abstr., 8, p. 302.)

Gives a method for the extraction of alkaloids from ergot, using an alkali metal alcoholate.

Powell, C. E. et al.

1941

The Biologic and Colorimetric Assay of Ergonovine in Ergot and its Fluidextract.

Journ. Am. Pharm. Assoc., 30, p. 255. (Yrbk. Brit. Pharm. Conf., 79, p. 168.)

Discuss a method for the determination of ergometrine in ergot and the liquid extract of ergot.

Kopel, J. C. & Dille, J. M.

1942

(Ergot Alkaloids.)

Journ. Am. Pharm. Assoc., 31, p. 109. (Pharm. Abstr., 8, p. 270; Yrbk. Brit. Pharm. Conf., 80, p. 62.)

(Report on experiments on the elimination of ergotoxine, ergotamine and ergonovine from the animal system.)

Youngken, H. W., Fischer, E. B., & Rogers, C.

1942

(Pharmacognosy of Ergot.)

Journ. Am. Pharm. Assoc., 31, p. 136. (Pharm. Abstr., 8, p. 326; Yrbk. Brit. Pharm. Conf., 80, p. 62.)

(Report on a study of the pharmacognosy of domestic rye and wheat ergots.)

Stoll, A., Hofmann, A., & Becker, B.

1943

Die Alkaloide der Ergotoxingruppe: Ergocristin,
Eisokryptin und Ergocornin.

Helv. Chim. Acta, 26, p. 1570. (Yrbk. Brit. Pharm. Conf.,
80, p. 367.)

Discuss the chemical and physical properties of the
alkaloids of the ergotoxine group.

Vos, B. J.

1943

(Ergometrine.)

Journ. Am. Pharm. Assoc., 32, p. 138. (Yrbk. Brit. Pharm.
Conf., 80, p. 391.)

(Describes a biological assay of ergometrine by the
isolated rabbit uterus.)

White, A. C.

1943

A Comparison of Some of the Ergot Alkaloids.

Yrbk. Brit. Pharm. Conf., 80, p. 344.

Compares the general toxicology of the various ergot
alkaloids.

LIST OF BOOKS CONSULTED

- (An American Physician), The Eclectic and General Dispensatory, 1 ed., 1827.
- Bigelow, J., A Treatise on the Materia Medica, etc., 1 ed., 1822.
- Coxe, J. R., The American Dispensatory, 4 ed., 1818; *ibid.*, 6 ed., 1825; *ibid.*, 7 ed., 1827; *ibid.*, 8 ed., 1830; *ibid.*, 9 ed., 1831.
- King, J. American Dispensatory, 8 ed., 1872; *ibid.*, 10 ed., 1875; *ibid.*, 15 ed., 1881; *ibid.*, 16 ed., 1889; *ibid.*, 18 ed., 1900.
- King, J. and Newton, R. S., The Eclectic Dispensatory, 1 ed., 1852.
- Stille, A. and Maische, J., The National Dispensatory, 1 ed., 1879; *ibid.*, 2 ed., 1879; *ibid.*, 3 ed., 1884; *ibid.*, 5 ed., 1894.
- Thacker, J., The American New Dispensatory, 1 ed., 1810; *ibid.*, 2 ed., 1813; *ibid.*, 3 ed., 1817; *ibid.*, 4 ed., 1821.
- Wood, G. B. and Bache, F., The Dispensatory of the United States of America, 1 ed., 1833; *ibid.*, 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.*, 12 ed., 1869; *ibid.*, 13 ed., 1871; *ibid.*, 14 ed., 1879; *ibid.*, 15 ed., 1883; *ibid.*, 16 ed., 1892; *ibid.*, 17 ed., 1894; *ibid.*, 18 ed., 1899; *ibid.*, 19 ed., 1907; *ibid.*, 20 ed., 1918; *ibid.*, 21 ed., 1926; *ibid.*, 22 ed., 1937.

LIST OF JOURNALS CONSULTED

- (The) Am(eric)an Journ(al of) Pharm(acy). Vol. 1-116;
1825-1944.
- (The) Journ(al of the) Am(eric)an Pharm(aceutic)al
Assoc(iation). Vol. 1-30; 1912-1941.
- (The) Journ(al of the) Am(eric)an Pharm(aceutic)al
Assoc(iation) Sci(entific) Ed(ition).
Vol. 1-2; 1940-1941.
- Pharm(aceutic)al Abstr(actions).
Vol. 1-8; 1935-1942.
- (The) Proc(eedings of the) Am(eric)an Pharm(aceutic)al
Assoc(iation). Vol. 1-59; 1851-1911.
- Y(ear) B(oo)k (of the) Am(eric)an Pharm(aceutic)al
Assoc(iation). Vol. 1-23; 1912-1934.
- Y'ear) B(oo)k (of Pharmacy and Transactions of the)
Brit(ish) Pharm(aceutic)al Conf(erence).
Vol. 1-80; 1864-1943.

THE PHARMACEOPOCIA OF THE UNITED STATES
OF AMERICA (1820-1940)

(I - XII)

and

THE NATIONAL FORMULARY

(1888-1942) (I-VII)

HISTORY

of

ERGOTA

U.S.P. 1820

S.

p. 57

Secale Cornutum
Spurred rye
 Called Ergot

Secale Cereale W.I. 471.
 Clavus. The spur

U.S.P. 1830
 (Philadelphia)

P

p. 23

Secale Cornutum.
Spurred Rye.

Secale cereale. W.i. 471/
 Semen marbo affectum./
The diseased seed. Vel/
Sclerotium Clavus. De Candolle./

Ergot.

U.S.P. 1830 (New York)

-

p. 57.

SECALE CORNUTUM.
Ergot. Spurred Rye.

Sclerotium Flavus.

A parasitic fungus, principally obtained from the Secale Cereale.

Prop. A hard, brittle, cylindrical substance, from four to twelve lines/in length, and from one to three in diameter; curved, tapering toward/the extremities with a longitudinal groove on the concave and convex/sides. Colour, externally dark-violet, or black; internally, white; nearly inodororous; taste, nauseous, sub-acrid; active matter yielded to/water and alcohol; most perfectly to water./

Med. Oper. Acts specifically and with great certainty on the gra/vid uterus, exciting powerful contractile action of that organ; in/ large doses, emetic, narcotic. Dose, grs. X every ten minutes until / its action on the uterus is manifested.

Notes:

Prop = porperties

Med. Oper. = Medicinal Operations

U.S.P. 1840

P.

pp. 21

Ergota.Ergot.

The diseased seeds of Secale cereale.

U.S.P. 1850 P p. 24

Ergota. Ergot.

The diseased seeds of *Secale cereale*.

U.S.P. 1860 P. p. 28

Ergota. Ergot.

The diseased seed of *Secale cereale*.

U.S.P. 1870 P. p. 29.

Ergota. Ergot.

The sclerotium of *Claviceps purpurea* (Tulasne), replacing the grain of *Secale cereale*.

U.S.P. 1880- p. 98

Ergota.

Ergot.

(Ergot of Rye.)

The sclerotium of *Claviceps purpurea* Tulasne (Nat. Ord., Fungi), replacing the grain of *Secale cereale* Linne (Nat. Ord., Graminaceae).#

#Ergot should be preserved in a dry place, and should not be kept longer than a year.# (p. 99)

#Somewhat fusiform, obtusely triangular, usually curved, about one inch (25/millimeters) long, and one-eighth of an inch (3 millimeters) thick; three-furrowed, obtuse at both ends, purplish-black, internally whitish with some purplish strial, breaking with a short fracture; odor peculiar, heavy, increased by trituration with/solution of *polossa*; taste oily and disagreeable.#

#Preparations: *Extractum Ergotae Fluidum*. *Vinum Ergotae*.

U.S.P. 1890

p. 114

Ergota.

Ergot.

(Ergot of Rye.)

The sclerotium of Claviceps purpurea (Fries) Tulasne (Class Fungi), replacing the grain of rye, Secale cereale Linne (nat. ord. Gramineae)#

Ergot should be only moderately dried. It should be preserved in/a close vessel, and a few drops of chloroform should be dropped upon/it from time to time to prevent the development of insects.#

When more than one year old, it is unfit for use.#

Somewhat fusiform, obtusely triangular, usually curved about 2 or 3 Cm./long, and 3 mm. thick; three-furrowed obtuse at both ends, purplish-black./internally whitish with some purplish striae, breaking with a short fracture,/odor peculiar, heavy, increased by trituration with potassium or sodium/hydrate T.S.; taste oily 2 disagreeable.#

#Old Ergot, which breaks with a sharp snap, is almost or entirely devoid of/a pinkish tinge upon the fracture, is hard and brittle between the teeth, and/is comparatively odorless and tasteless, should be rejected. #

#Preparations: Extractum Ergotae
Fluidum. Vinum Ergotae.

U.S.P. 1900

p. 130

ERGOTA

Ergot.

The sclerotium of Claviceps purpurea (Fries) Tulasne (Fam. Hypo-/craceae), replacing the grain of rye, Secale cereale Linne (Fam. Gramineae). Ergot should be moderately dried, and not exposed to a/damp atmosphere. After being kept more than one year, it is unfit/for use.#

Subcylindrical, obscurely three-angled, tapering toward both ends but obtuse,/somewhat curved, 1.5 to 3 cm. long and about 3 mm. thick; externally pur-/plish-black, longitudinally furrowed on each side, more conspicuously on the/concave side; fracture short, pinkish or reddish-white; odor peculiar, heavy,/ increased by trituration with potassium hydroxide T.S.; taste disagreeable.#

Average dose - 2 Gm. (30 grains).

U.S.P. 1910

p. 138

ERGOTA/

Ergot/

Ergot. - Secale Cornutum, P.I. Ergot
of Rye Spurred Rye/

The carefully dried sclerotium of claviceps purpurea (Fries) Tulasne/ (F_{am.} Hypocreaceae), replacing the grain of the rye, Secale cereale Linne/ (F_{am.} Gramineae), without the presence or admixture of more than 5 per/cent. of seeds, fruits or other foreign matter. Before storing, dry Ergot/ at a temperature not exceeding 70°C., and preserve it, protected from/light, in tightly-closed containers to which a few drops of chloroform or carbon tetrachloride are added from time to time to prevent attacks/by insects.

Cylindraceous, obscurely three-angled, tapering towards both ends, obtuse,/somewhat curved, from 1 to 4.5 cm. in length and from 3 to 5 mm. in thickness;/ externally purplish-black, or brownish black, longitudinally furrowed; fracture/ short, pinkish or reddish white, sometimes grayish-white; odor peculiar, dis-/agreeable, free from mustiness; taste oily and disagreeable.#/

Pour hot water on bruised Ergot; no ammonical or rancid odor develops.#/

The powder is grayish-brown, consisting chiefly of whitish fragments composed of false parenchyma of compacted hyphae and a few purplish colored fragments of the outer layer of the sclerotium; mounts made in hydrated T.S. or in sulfuric acid show the separation of numerous globules of a fixed oil, and many of the fragments are colored yellowish, reddish or rose-purple. # (cont. on pp. 139)

Shake 1 Gm. of the powdered drug with a mixture of 20 mls of water and one drop of hydrochloric acid, filter the mixture, make 4 mls of the filtrate alkaline with ammonia water and shake out with 10 mls of ether. Underlay 5 mls of this ethereal solution with 2 mls of sulfuric acid; a blue ring is formed at the zone of contact with the two liquids. #

Ergot yields not more than 5 per cent. of ash. #

Preparations - Extractum Ergotae.
Fluidextractum Ergotae #

Average Dose - Metric, 2 Gm. -- Apothecaries, 30 grains.

U.S.P. 1920

p. 133

ERGOTA/

Ergot/

Ergot. - Ergot of Rye, *Secale Cornutum* P.I./

Ergot is the dried sclerotium of Claviceps purpurea (Fries) Tulasne/ (Fam. Hypocreaceae), developed on rye plants. #

Ergot, in the form of the fluidextract, administered by intramuscular/injection to single-comb, white Leghorn cocks, in doses not exceeding 0.5 cc. for each Kilogram of body weight of cock, produces a darkening of the comb, corresponding in intensity to that caused by the same/dose of a standard fluidextract of ergot, prepared as directed below./ It contains not more than 5 per cent of seeds, fruits, or other foreign/organic matter. #

Ergot should be dried at a low temperature. It deteriorates with age/and should not be kept longer than one year. #

Description and Physical Properties./

Underground Ergot. Cylindrical, obscurely 3-angled, tapering towards both ends,/obtuse, somewhat curved, from 1

to 4.5 cm. in length and from 3 to 5 mm./thick, longitudinally furrowed; externally dark purple or dark reddish-brown;/ fracture short; internally white, tinged with purple or gray; odor character-istic but free from mustiness or rancidity; taste oily, somewhat acrid, dis-/agreeable.

Structure - A thin outer portion of small compact cells generally deep violet in/color, turning red with 50 per cent sulfuric acid or T.S.;/ the inner portion stimulating parenchyma tissue, of thin-walled, colorless cells/usually less than 0.015 mm. wide, but slightly elongated and containing/ numerous globules and fixed oil./#

Powdered Ergot. - Grayish to purplish-brown; containing purplish and whitish/fragments of the outer tissue and of the thin-walled cells./#

Test for identity - Shake 1 Gm. of powdered Ergot in a closed flask for about/five minutes with 20 cc. of ether and about 15 drops of 20 per cent sulfuric/acid. Filter, and shake the filtrate thoroughly with 15 drops of a cold, satu/rated sodium bicarbonate solution. The separated lower, aqueous layer is red/or violet (sclereythin).#

Test for purity - When crushed or powdered, Ergot does not develop a rancid/or ammonical odor upon the addition of hot water./#

Assay - Use single-comb, white Leghorn cocks, which are less than eighteen/months of age, and weigh approximately 2 kilograms. Injections are made/deeply into the breast muscles, and the effects are observed within one hour/to one hour and a half after the administration of the drug. The same cock/ must not be used for testing purposes at shorter intervals. than two weeks.

STANDARD FLUIDEXTRACT OF ERGOT

Prepare a composite fluidextract, representing at least ten different lots of/Ergot, conforming to the official botanical description. This standard fluid-/extract, which must be aged for at least six months before being standardized/by the method described in the preceding paragraph, and must be preserved in/a vacuum, when administered by intramuscular injection in doses not exceeding/ 0.5 cc. per Kilogram of body weight of cock, produces darkening of the comb/of a single-comb, white Leghorn cock which is less than eighteen months of/age, and which weighs approximately 2 Kilograms./#

Preserve in air-tight containers./#

Preparation - Fluidextractum Ergotae./#

Average Dose - Metric, 2 Gm., - Apothocaries, 30 grains./

U.S.P. 1930

p. 147

ERGOTA/

Ergot/

Ergot. - Ergot of Rye, *Secale Cornutum* P.I./

Ergot is the dried sclerotium of *Claviceps purpurea* (Fries) Tulasne/ (Fam. Hippocreacea), developed on rye plants. #

Ergot, when assayed by the method herein directed, possesses a/potency, per gram, equivalent to not less than 0.5 milligram of ergo-/toxine ethanesulfonate. It contains not more than 8 per cent of mois-/ture and not more than 4 per cent of seeds, fruits and other foreign/organic matter. /#

Description and physical properties-/

Underground Ergot - Cylindraceous, obscurely 3-angled, usually tapering toward/both ends, obtuse, somewhat curved, from 0.7 to 4.5 cm. in length up to/5 mm. thick, longitudinally furrowed, occasionally transversely fissured;/ externally nearly black or purplish brown; fracture short; internally white,/sometimes a relatively few sclerotia tinged white pink, lavender, or gray; odor/characteristic but free from mustiness or sancidity; taste oily, somewhat/acrid, disagreeable. /#

Structure - A thin outer portion of small compact hyphal cells generally deep/violet in color, turning red with 50 per cent sulfuric acid or with chloral/hydrate T.S.; the inner portion, stimulating parenchyma tissue, of thin-/walled, colorless cells usually less than 0.015 mm. wide, but slightly elongated/and containing numerous globules of fixed oil. /#

Powdered Ergot - Grayish to purplish-bornw; containing purplish and whitish/fragments of the outer tissue and of the thin-walled hyphal cells. /#

Test for identity - Shake 1 Gm. of powdered Ergot in a closed flask for about/five minutes with 20 cc. of ether and about 15 drops of 20 per cent sulfuric/acid. Filter, and shake the filtrate thoroughly with 15 drops of a cold/saturated aqueous solution of sodium bicarbonate. The separated lower,/aqueous solution is red or violet (sclererythrin). /#

Test for purity - When crushed or powdered, Ergot does not develop a rancid or/ammoniacal odor upon the addition of hot water. /#

Assay - Reduce an appropriate quantity of the Ergot to be assayed to a coarse/powder defat it by percolation with purified petroleum benzine as directed/ under the Fluidextract of Ergot and prepare a fluid preparation of the defatted/ drug, employing Type Process C for Fluidextracts, page 167, using propor-/tionate amounts of the drug and a menstrum consisting of 2 volumes of/hydrochloric acid to each 98 volumes of diluted alcohol. Adjust the volume/of the final mixed percolates so that 1 cc. is the equivalent of 1 Gm. of the/Ergot taken, and proceed as follows://

For this assay select single comb, white Leghorn cocks which have the/following characteristics: they shall be not more than twenty-four months/of age, and shall weigh not less than 1.5 Kilograms and not more than 2.5/kilograms. Each cock to be used shall be standardized by determining the/smallest dose, known as the threshold dose, of a freshly prepared, 1 in 100,/aqueous solution of tartaric acid containing 0.5 milligram of ergotoxine/ethanesulfonate per cubic centimeter, which, when injected deeply into the/breast muscles of the cock shall produce, within one hour to one hour and a/half, a partial but characteristic darkening of the comb. The discoloration/produced by the standard which is to be considered satisfactory for the pur-/pose of comparison shall be such that the anterior portion of the comb shows/ little or no effect, the middle section is moderately darkened, and the posterior/area shows a more pronounced darkening. A cock to be acceptable for this/assay must show a greater degree of darkening in the comb than was pro-/duced by the threshold dose when injected with a dose of the standard 25 per/cent larger than the threshold dose.//

In the same manner, and using these standardized cocks, inject the fluid/preparation of Ergot to assayed, employing a dose of the same volume,/per kilogram of body weight, as the previously determined threshold/dose of the standard.//

Cocks must not be used for testing purposes at intervals shorter than one/week and then not until all traces of discoloration from a previous test have/disappeared.//

Storage - Preserve Ergot under all conditions of storage and transportation in/water-proof and air-tight containers.//

Preparation - Fluidextractum Ergotae./

AVERAGE DOSE - Metric, 2 Gm. - Apothecaries, 30 grains.

U.S.P. 1940

p. 166

Ergota

Ergot

¹ Ergot. - Ergot of Rye, *Secale Cornutum* P.I.

Ergot is the dried sclerotium of *Claviceps purpurea* (Fries) Tulasne/ (Fam. Hypocreaceae) developed on rye plants. #

The potency of Ergot shall be such that, when assayed as directed, / 1 Gm. shall be equivalent to not less than 0.5 milligram of the U.S.P./Ergotoxine Ethanesulfonate Reference Standard. #

It contains not more than 6 per cent of moisture, and not more than /4 per cent of seeds, fruits, and other foreign organic matter, page 628. #

Description --

Underground Ergot - Cylindrical, obscurely 3-angled, usually tapering toward /both ends, obtuse, somewhat curved, from 0.7 to 4.5 cm. in length and up to /5 mm. thick, longitudinally furrowed, occasionally transversely fissured; ex-ternally nearly black or purplish brown; fracture short; internally white, some- /times a relatively few sclerotia tinged with pink, lavender, or gray; odor charac- /teristic but free from mustiness or rancidity; taste oily, somewhat acrid, dis- /agreeable.

Histology - A thick outer portion of small compact hyphal cells generally deep/violet in color, turning red with 50 per cent sulfuric acid or with chloral hydrate/T.S.; within this a pseudo-parenchyma composed of colorless hyphal cells/ (cont. on p. 167) usually less than 20 microns in diameter, occasionally up to 28 microns in /diameter, slightly elongated in longitudinal sections and having thin, chitinous/ walls, and containing protein and numerous globules of fixed oil. #

Powdered Ergot - Grayish to purplish brown; containing purplish and whitish /fragments of the outer tissue and of the thin-walled hyphal cells. #

Identification - Shake 1 Gm. of powdered Ergot in a closed flask for about 5 minutes /with 20 cc. of ether and about 15 drops of 20 per cent sulfuric acid. Filter, and /shake the filtrate thoroughly with 15 drops of a cold, satur-ated aqueous solution /of sodium bicarbonate. The separated lower, aqueous layer is red or violet / (sclererythrin). #

Purity - When crushed or powdered, Ergot does not develop a rancid or ammoniacal/odor upon the addition of hot water. #

Assay - Reduce an appropriate quantity of the Ergot to be assayed to a coarse/powder, defat it by percolation with purified benzin as directed under Fluidextractum/Ergotae, page 192, and make a preparation of the defatted drug, employing type/Process C for Fluidextracts, page 189, and using proportionate amounts of the drug/and a menstrum consisting of 2 volumes of hydrochloric acid to each 98 volumes/of diluted alcohol. Adjust the volume of the final mixed percolate so that 1 cc. is/the equivalent of 1 Gm. of the Ergot taken, and proceed as follows:/

For this assay select single comb, white Leghorn cocks which have the following/characteristics; they shall not be more than 24 months of age, and shall weigh/not less than 1.5 kilograms and not more than 2.5 kilograms. Each cock to be/used shall be standardized by determining the smallest dose, known as the threshold/dose, of a freshly prepared, 1 in 100, aqueous solution of tartaric acid containing/ 0.5 milligram of ergotoxine ethanesulfonate per cubic centimeter, whi, when/injected deeply into the breast muscles of the cock shall produce, within 1 hour/ to 1½ hours, a partial but characteristic darkening of the comb. The discolora-/tion produced by the standard which is to be considered satisfactory for the pur-/pose of comparison shall be such that the anterior portion of the comb shows/little or no effect, the middle section is moderately darkened, and the posterior/area shows a more pronounced darkening. A cock to be acceptable for this assay/must show a greater degree of darkening in the comb than was produced by the/threshold dose when injected with a dose of the standard 25 per cent larger than/the threshold dose. #

In the same manner, and using these standardized cocks, inject the fluid prepa-/ration of Ergot to be assayed, employing a dose of the same volume, per kilogram/of body weight, as the previously determined threshold dose of the standard. The/preparation which is being assayed shall produce a darkening of the comb at least/as intense as that produced by the threshold dose of the standard. #

Cocks must not be used for testing purposes at intervals shorter than 1 week/and then not until all traces of discoloration from a previous test have disappeared. #

Storage - Preserve Ergot under all conditions of storage and transportation in water-/proof and air-tight containers. A suitable cartridge containing a non-liquifying,/inert, dehydrating substance may be inserted in the container to maintain low/humidity. #

U.S.P. Products of Ergot - Ergonovinae Maleas, Ergotaminae Tartras, Fluidextrac-tum Ergotae, Tabellae Ergonovinae Maleatis, Tabellae Ergotaminae Tartratis.

SUMMARY
OF
U.S.P. and N. F.
DATA
OF
ERGOTA

SUMMARY OF U.S.P. and N.F. DATA OF ERGOTA

When and Where Official:-

U.S.P. 1820; '30; (Phil.); '30 (N.Y.); '40; '50; '60;
'70; '80; '90; 1900; '10; '20; '30; '40.

Official Latinized Title:-

Secale Cornutum, U.S.P. 1820; '30 (Phil.); '30 (N.Y.)
Ergota, U.S.P. 1840; '50; '60; '70; '80; '90; 1900; '10;
'20; '30; '40.

Official English Title:-

Spurred Rye, U.S.P. 1820; '30 (Phil.)
Ergot, U.S.P. 1830 (N.Y.); '40; '50; '60; '70; '80;
'90; 1900; '10; '20; '30; '40.

Official Abbreviation:-

Ergot, U.S.P. 1910; '20; '30; '40.

Official Synonym:-

Ergot, U.S.P. 1820; '30 (N.Y.)
Spurred Rye, U.S.P. 1830; (Phil) 1910.
Ergot of Rye, U.S.P. 1880; '90; 1910; '20; '30; '40.
Secale Cornutum, P.I., U.S.P. 1910; '20; '30; '40.

Part or Product used:-

Clavus. The spur - U.S.P. 1820.
Semen morbo affectum. The diseased seed - U.S.P. 1830
(Phil.)

A parasitic fungus, principally obtained from the
Secale cereale - U.S.P. 1830 (N.Y.)

The diseased seeds of *Secale Cereale* - U.S.P. 1840;
 '50; '60.

The sclerotium of *Claviceps purpurea*, replacing the
 grain of *Secale Cereale* - U.S.P. 1870; '80.

The sclerotium of *Claviceps purpurea*, replacing the
 grain of rye, *Secale cereale*- U.S.P. 1890; 1900.

The carefully dried sclerotium of *Claviceps purpurea*, re-
 placing the grain of the rye, *Secale cereale* -
 U.S.P. 1910.

The dried sclerotium of *Claviceps purpurea*, developed
 on rye plants - U.S.P. 1920; '30; '40.

Scientific Name:-

Secale cereale - U.S.P. 1820; '30 (Phil.); '40; '50; '60.

Sclerotium clavus, De Candolle, U.S.P. 1830 (Phil.)

Sclerotium Flavus - U.S.P. 1830 (N.Y.)

Claviceps purpurea (Tulsane). U.S.P. 1870

Claviceps purpurea Tulsane U.S.P. 1880

Claviceps purpurea (Fries) Tulsane, U.S.P. 1890; 1900;
 '10; '20; '30; '40.

Official Description:-

U.S.P. 1830 (N.Y.); '80; '90; 1900; '10; '20; '30; '40.

Official Preparations:-

Extractum Ergotae Fluidum - U.S.P. 1880; '90.

Vinum Ergotae - U.S.P. 1880; '90.

Extractum Ergotae - U.S.P. 1910.

Fluidextractum Ergotae - U.S.P. 1910; '20; '30; '40.

Ergonovinae Maleas - U.S.P. 1940.

Ergotaminae Tartras - U.S.P. 1940.

Tabellae Ergonovinae Maleatis - U.S.P. 1940.

Tabellae Ergotaminae Tartratis - U.S.P. 1940.

Official Dose:-

Grs x every ten minutes until its action on the uterus
in manifested - U.S.P. 1830 (N.Y.)

2 Gm. (30 grains) - U.S.P. 1900

Metric, 2 Gm. - Apothocaries, 30 grains - U.S.P. 1910;
'20; '30.

APPROVED BY W. O. Richtmann

DATE May 21, 1946

Professor of Pharmacology