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BIBLIOGRAPHY
OF
CARUM CARVI LINNÉ

BY

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A Thesis Submitted for the Degree of
GRADUATE IN PHARMACY

UNIVERSITY OF WISCONSIN

1933

Dioscorides, P.

(Ca 70 A. D.)

(Carum)

(Peri iatrikos, etc., Lib. 3, pp. 59 & 63. Alphita Glossary, pp. 30 & 31.)

The original was not available.

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Apulieius, -

(Ca. 1050.)

(Fructus Carui)

(Herbarium, p. - ; Leechdoms, etc., of Early England, I; Flückiger & Hanbury Pharmacographia, 1 ed., p. 272 ; Ibid., 2 ed., p. 305.)

(Contains no reference to caraway, nor in other works of the same period, though cumin is mentioned.)

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- - -

(Ca. 12 & 13 C.)

(Fructus Carui)

Meddygon Mydfai, pp. 158 & 354. Flückiger & Hanbury, Pharmacographia, 2 ed., p. 305.

(In the 12th and 13th centuries, caraway seed appears to have been used by the Welsh physicians of Myddvai.)

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Platearius, -

(Ca. 1300.)

(Carvi)

Liber di simplici medicina dictus circa instans, p. - ;
Dornaux, Le Livre Des Simples Medecines, p. 55, (1913).

Describes its medicinal properties according to the four
properties, habitat, method of cultivation, preparations, and
uses.

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Ibn Boytar,

(13th C.)

(Fructus Carui)

(Works of, Sontheimer's translation, 2, p. 368; Flückiger
& Hanbury, pharmacographia, 1 ed., p. 272; Ibid., 2 ed., p. 305.)

(In the arab writings quoted by Ibn Boytar, himself a
Mauro-Spaniard of the 13th century, caraway is compared to cumin
and anise.)

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(Maranchus,-)

(Ca. 1465.)

Carui agreste & careos nel carui

Alphita Glossary, pp. 30 & 31. (1887). Chem. & Drugg.,
90, p. 329.

Gives carui and careos nel carui as pertaining to caraway,
the latter being similar to anise; also gives a few references.

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Brunfels, O.

(1530)

(Caros)

Herbarium vivae icones, etc., p. - ; Bauhin, Pinax, p. 158.

The original was not available.

Dioscorides, P. A.

1537.

Carum

De Medica Materia, Libri 6, p. 124.

Briefly describes the uses of the fruit and gives a few preparations.

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Gesner, C.

1541.

(Caros)

Historia plantarum, etc., p. - ; (Bauhin, Pinax, p. 158.)

The original was not available.

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Fuch, L.

1542.

(De Caro)

De historia stirpium, etc., p. 397; (Bauhin, Pinax, p. 158.)

Gives a number of names, description, habitat, time of flowering, medicinal properties and uses, according to Dioscorides and Galen, with a full page of black and white illustration.

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Tragus, (Bock, H.)

1546.

Von Romischen Kümmel

Kreuterbuch, p. 310; (Bauhin, Pinax, p. 158.)

Gives a description, habitat, time of flowering, related plants, etymology, property, used externally and internally, under the latter gives a number of preparations.

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Lacuna, A.

1552.

(Carum)

Commentaria in Dioscoridem, etc., p. - ; (Bauhin,
Pinax, p. 158.)

The original was not available.

Lonitzer, A.

1557.

(Carui)

Kreuterbuch, etc.; Bauhin, Pinax, p. 158.

The original was not available.

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Dodoems, R.

1559.

(Carum)

De stirpium historia, etc., p. - ; (Bauhin, Pinax, p. 158.)

The original was not available.

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Anguillara, L.

1561.

(Carum)

Simplici, etc., p. - ; (Bauhin, Pinax, p. 158.)

The original was not available.

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Cordus, V.

1561.

(Carum)

Annotationes in Pedacii; Dioscorides, etc. (Bauhin,
Pinax, p. 158.)

The original was not available.

* * *

Malthiolus, P. A.

1569.

(Carum)

Opusculum de simplicibus medicamentum, etc., p. - ;
(Bauhin, Pinax, p. 158.)

The original was not available.

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Pena, P.

1570.

(Carui)

Adversariorium opus a etc., p. - ; (Bauhin, Pinax, p. 158.)

The original was not available.

* * *

Dodonaeus, R.

1583.

(Carum)

Stirpium historiae pemptades, sex, p. 299; (Willdenow,
Linnés Species Plant, 4 ed., V. I, p. 1470; Linnés Species
Plant, 1 ed., p. 263.)

The original was not available.

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Caesalpino, A.

1583.

(Carui)

De plantis libri, XVI, p. --; (Bauhin, Pinax, p. 158.)

The original was not available.

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Cameragues, J.

1586.

(Carum)

De plantes Epitome, mattiole; p. 516. (Willdenow, Linnés
Species Plant, 4th ed., V. I, p. 1470.)

The original was not available.

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Lobel, M.

1591.

(Carum)

Plantarum seu stirpium historia, p. - ; (Bauhin, Pinax,
p. 158.)

The reference could not be located.

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Gerard, J.

1596.

(Of Caruwaies)

Herball, 1 ed., p. --; Ibid., 2 ed., p. 1033; (Chem. & Drugg.,
90, p. 829.)

Gives a description, the habitat, time of harvesting, other
names used for caraway in different European countries and the
medicinal use of caraway.

* * *

Castelli, P.

1620.

(Carum)

Vera natural effige, etc.; (Bauhin, Pinax, p. 158.)

The original was not available.

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Turre, G

1660.

(Carum)

Catalogus plantarum, etc., p. - ; (Bauhin, Pinax, p. 158.)

The original was not available.

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Bauhin, C.

1671.

Carui

Bauhin, Pinax, p. 158, (Willdenow, Linné's Species Plant, 4 ed., V. 1, p. 1470. Linne's Species Plant, 1 ed., p. 263; Hayne, Arzneigewächse, V. 7, No. 19; Woodville, Medical Botany, 2 ed., p. 102.)

Lists six early names for caraway with references.

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Thalius, J.

1674.

(Carui)

Sylva Hercyanus, etc., p. - ; (Bauhin, Pinax, p. 158.)

The original was not available.

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Rivivius, A. I.

1727.

(Carum)

Icones plantarum, etc., p. 54. (Willdenow, Linnés Species Plant, V. 1, p. 1470.)

The original was not available.

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Linné, C.

1737.

(Carum)

Flora Lapponica, p. 105. (Willdenow, Linnés Species Plant V. 1, p. 1470. Linnés Species Plant, 1 ed., p. 263.)

The original was not available.

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Linné, C.

1737.

(Carum)

Hortus cliffortamus, p. 106. (Willdenow, Linnés Species Plant, 1 ed., p. 263.)

The original was not available.

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Royin, A.

1740.

Carum

Florae Lugdb., p. 116, (Willdenow, Linnés Species Plant, 4 ed., V. 1, p. 1470; Linnés Species Plant, 1 ed., p. 263.)

The original was not available.

* * *

Haller, A.

1742.

(Carum)

Stirpium helvetica, No. 789. (Willdenow, Linnés Species Plantarum, V. I, p. 1470; Linnés Species Plant., 1 ed., p. 263; Woodville, Medical Botany, 2 ed., p. 102.)

The original was not available.

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Linné, C.

1745.

(Carum carvi)

Flora Suecica, pp. 245, 260. (Willdenow, Linnés Species Plant, 4 ed., V. I, p. 1470; Linnés Species Plant, 1 ed., p. 263; Nees von Esenbeck, & 3 others; *plantae officinales*, Tr., 276.)

The original was not available.

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Linné, C.

1753.

Carum carvi

Linnés Species plant, 1 ed., p. 263. (Berg & Schmidt, *Officinellen Pflanzen*, V. 2, p. 73; Bently & Trimen, *Medical Plants*, V. 2, No. 121.)

Lists two scientific synonyms for caraway, with references.

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Miller, P.

1760.

(Carum)

Gardner's Dictionary, No. 1; (Willdenow, Linnés Species Plantarum, V. I, p. 1470.)

The original was not available.

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De Garsault, F. A.

1765.

Carvi

Explication Abregee, etc., p. 135.

Gives a description of the plant and the uses of caraway.

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Crantz, H. J. N.

1769.

(Carum Carvi)

Stirpes Austriacae, 2 ed., p. 218; (Willdenow, Linnés Species Plant., 4th Ed., V. I, p. 1470.)

The original was not available.

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Ziegler, H.

1771.

Carvi

Materia Medica, p. 181.

Gives a description of caraway and a method of distillation of the fruit to obtain the caraway oil.

* * *

Linné, C. A.

1772.

Carum Carvi

Materia Medica, p. 85; (Willdenow, Linnés Species Plant., V. I, 4th ed., p. 1470; Linnés Species Plant., 1 ed., p. 263; Nees van Esenbeck & 3 others; plantes officinales, I, 276.)

Gives three references to the plant, its habitat, part used, preparations, medicinal properties, and uses.

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Scopoli, J. A.

1772.

(Carum Carvi)

Flora Carniolica, 2 ed., No. 361; (Willdenow, Linnés Species Plant., 1 ed., V. I, p. 1470.)

The original was not available.

* * *

Trew, J. G.

1773.

(Carum)

Herbarium Blackwelliarum, t. 529. (Willdenow, Linnés Species Plant., 4th ed., V. I, p. 1470.)

The original was not available.

* * *

Jacquin, N. J.

1776.

(Carum)

Flora Austriacae, t. 393; (Willdenow, Linnés Species Plant. 4th ed., V. I, p. 1470; Berg & Schmidt, Officinellen Pflanzen, No. 2, p. 73; Woodville, Medical Botany, 2 ed., V. I, p. 102; Nees van Esenbeck & three other plantes officinalis, I, 276.)

The original was not available.

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Pollich, J. A.

1776 - 1777.

(Carum)

Historia plantarum in palatinatu, No. 304; (Willdenow, Linnés Species Plant., 4 ed., V. I, p. 1470.)

The original was not available.

* * *

Houttyn, W.

1777.

(Carum)

Linnés pfl, Naturlyke Historie, St. 3, p. 218; (Willdenow, Linnes Species Plant., V. I, p. 1470.)

Gives several scientific synonyms with references, describes the plant, the fruit, gives its history, habitat, and uses.

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Allione, C.

1785.

(Carum Carvi Linné)

Flora pedemontaria, V. 22, p. 25. (Berg & Schmidt, officinellen pflanzen, V. 2, p. 73.)

The original was not available.

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Plenck, J. J. v.

1788.

(Carum Carvi Linné)

Offiz, pfl., t. 214. (Berg & Schmidt, officinellen pflanzen, V. 2, p. 173.)

The original was not available.

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Monro, D.

1788.

Carvi

Treatise on Medical & Pharmaceutical Chemistry & the Materia Medica, V. 3, p. 50.

Describes its medicinal property according to the four properties; gives preparations and medicinal properties of caraway fruit and of caraway oil.

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Roth, A. W.

1788,

(Carum carvi)

Fentamen Florae Germanica, V. I, p. 124; (Willdenow, Linnés Species Plant., 4th ed., V. I, p. 1470; Hayne, Arzneigewächse, V. 7, No. 19.)

The original was not available.

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Gaertner, J.

1788 - 1807.

(Carum Carvi Linné)

De fructibus et seminibus pantarum, V. I, t. 23. (Berg & Schmidt, officinellen pflanzen, V. 2, p. 73.)

The original was not available.

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Woodville, W.

1790.

(Carum Carvi)

Medical Botany, 1 ed., V. I, p. - ; Ibid., 2 ed., V. I, p. 102. (Wood & Bache, U. S. Dispens., 2 ed., p. k76; Ibid., 3 ed., p. 171. Ibid., 4 ed., p. 175. Ibid., 5 ed., p. 181. Ibid., 6 ed., p. 181. Ibid., 7 ed., p. 181. Ibid., 8 ed., p. 180. Ibid., 9 ed., p. 187. Ibid., 10 ed., p. 187. Ibid., 11 ed., p. 194. Ibid., 12 ed., p. 221. Ibid., 13 ed., p. 230. Ibid., 14 ed., p. 235. Stille & Maische, Nat. Dispens., 1 ed., p. 355. Ibid., 2 ed., p. 359. Ibid., 3 ed., p. 393. Ibid., 5 ed., p. 415. American Physician, Eelec. Dispens., 1 ed., p. 129; Griffith, Med. Bot., p. 319.)

Gives a few synonyms, with references, description of root, seeds, properties, places of growth, with a full page of colored illustration.

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Carum Carvi

Linné's Species Plant., 4 ed., V. I, p. 1470. (An American Physician, Eclec. Dispens., 1 ed., p. 129; Wood & Bache, U. S. Dispens., 2 ed., p. 176; Ibid., 3 ed., p. 171; Ibid., 4 ed., p. 175; Ibid., 5 ed., p. 181; Ibid., 6 ed., p. 181; Ibid., 7 ed., p. 181; Ibid., 8 ed., p. 180; Ibid., 9 ed., p. 187; Ibid., 10 ed., p. 187; Ibid., 11 ed., p. 194; Ibid., 12 ed., p. 221; Ibid., 13 ed., p. 230; Ibid., 14 ed., p. 235; Ibid., 15 ed., p. 362; Ibid., 16 ed., p. 373; Ibid., 17 ed., p. 329; Ibid., 19 ed., p. 301; Hayne, Arzneigewächse, V. 7, No. 19; Nees van Esenbeck & 3 others plantes officinalis, t. 276.)

Lists five scientific synonyms for carum carvi with references.

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Smith, J. C.

1800.

(Carum)

Flora Britannica, V. I, p. 330. (American Physician, Eclec. Dispens., 1 ed., p. 129; Berg & Schmidt, officinellen Pflanzen, V. 2, p. 73.)

The original was not available.

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Coxe, J. R.

1806.

Carum carvi

Am. Dispens., 1 ed., p. 240; Ibid., 4 ed., p. 152; Ibid., 6 ed., p. 163; Ibid., 7 ed., p. 164; Ibid., 8 ed., p. 166; Ibid., 9 ed., p. 181.

Describes the plant, gives medicinal use and official preparation in which caraway is used.

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Coxe, J. R.

1806.

Carum carvi

Am. Dispens., 1 ed., p. 240; Ibid., 4 ed., p. 152; Ibid.,
6 ed., p. 163; Ibid., 7 ed., p. 164; Ibid., 8 ed., p. 166;
Ibid., 9 ed., p. 181.

Describes the plant, gives medicinal use and official preparations in which caraway is used.

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Marelot, L.

1807.

Carvi

Dictionnaire Des Drogues, 1. ed., p. 298.

Describes the plant, its several parts, where cultivated, its medicinal properties, and preparations.

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Schkuhr, C.

1808.

(Carum Carvi Linné)

Botanisches, Handbuch, etc., V. I, t. 77. (Berg & Schmidt, officinellen Pflanzen, V. 2, p. 73.)

The original was not available.

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Thacker, J.

1810.

Carum carvi

New Am. Dispens., 1 ed., p. 96; Ibid., 2 ed., p. 176;
Ibid., 4 ed., p. 169.

Gives a description of and the use of caraway.

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Murray, J.

1815.

Carum Carvi

System of Materia Medica & Pharmacy, V. I, p. 209; Ibid., 6 ed., p. 195.

States that the aromatic flavor and warm taste of caraway is due to the oil it contains; also gives the use of the drug, the oil, and the official preparations of caraway.

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Ewell, J.

1817.

Caraway

Medicinal Comp., 3 ed., p. 507; Ibid., 7 ed., p. 649.

Gives the properties and dose of caraway.

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Nees Ivan Esenbeck, P. P. L., & 3 others.

1821 - 1833.

Carum carvi Linné

Plantae officinellen Pflanzen, V. 2, t. 276; (Berg & Schmidt, Officinellen Pflanzen, V. 2, p. 73; Bently & Trimen, Medical Plants, V. 2, No. 121; Lindley, Flora Medica, p. 37.)

Gives its botanical classification according to various systems, generic and specific characteristics, scientific synonyms with references, names in various languages, description of the parts, a full page of colored illustrations and explanations.

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Bigelow, J.

1822.

Carum

Treat. Mat. Med., 1 ed., p. 116.

A detailed description and the uses of caraway are given.

* * *

Richard, A.

1823.

(Carvi)

Botanique Medicale, V. 2, t. IV, p. 458. (Dictionnaires
Des Drogues, pt. 1, p. 602.)

The original was not available.

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Roehling, J. C., Mertens, P. K., and Koch, W. D. J.

1826.

(Carum Carvi Linne')

Deutschlands Flora, 3. ed., V. 2, p. 437. (Berg & Schmidt,
officinellen pflanzen, V. 2, p. 73.)

The original was not available.

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An American Physician.

1827.

Carum

Eclectic and General Dispensary, 1 ed., p. 129.

Describes the plant, gives the habitat, time of collection,
qualities, medical properties, uses, and official preparation of
the seeds of caraway.

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Chevallier, A. C., & Richard, A.

1827.

Carvi

Dictionnaires Des Drogues, Pt. 1, p. 602.

Describes the several parts of carum carvi and the medicinal
properties of these parts, especially the fruit, and medicinal
properties of the latter.

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Reichbenbach, M. G. L.

1827 - 1830.

(Carum Carvi Linné)

Iconographia botannica exotica, t. 1872. (Berg & Schmidt, officinellen pflanzen, V. 2, p. 173.)

The original was not available.

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De Candolle, A P.

1830.

Carum carvi

Prodromus, etc., V. 4, p. 115; Berg & Schmidt, officinellen pflanzen, V. 2, p. 73.

Gives a technical description, various references and mentions two varieties.

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Dierbach, J. N.

1831.

(Fructus Carui)

Flora Apiciana, p. 53. (Flückiger & Hanbury Pharmacographia, 1 ed., p. 271; Ibid., 2 ed., p. 305.)

(The opinion that this plant is the Kápos of Dioscorides and that, as Pliny states, it derived its name from Caria [where it never has been met with in modern times] has very reasonably been doubted.)

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Winkley, E.

1833.

Carum Carvi

Abbildungen Sämmtlicher arzneigewächse, Taf., 135.

Gives an illustration of caraway plant, flower and fruit, with explanation.

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Guimpel, F., & Schlechtendal, D. F. L. v.

1833.

(Carum Carvi Linné)

Abbildung u. Beschreibury Pflanzen in pharmacop. botannica,
V. 2, p. 35, t. 131. (Berg & Schmidt, officinellen pflanzen,
V. 2, p. 173.)

The original was not available.

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Dietrich, A.

1833 - 1844.

(Carum Carvi Linné)

Flora regni Borussici, V. 11, t. 753. (Berg & Schmidt,
officinellen pflanzen, V. 2, p. 73.)

The original was not available.

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Wood, G. B. & Bache, F.

1834.

Carum, U.S.

Dispens. U. S. A., 2 ed., p. 176; Ibid., 3 ed., p. 171;
Ibid., 4 ed., p. 175; Ibid., 5 ed., p. 181; Ibid., 8 ed., p. 180;
Ibid., 9 ed., p. 187; Ibid., 10 ed., p. 187; Ibid., 11 ed.,
p. 194; Ibid., 12 ed., p. 221; Ibid., 13 ed., p. 230; Ibid., 14
ed., p. 235; Ibid., 15 ed., p. 362; Ibid., 16 ed., p. 373;
Ibid., 17 ed., p. 329; Ibid., 19 ed., p. 301; Ibid., 20 ed.,
p. 297; Ibid., 21 ed., p. 299.

Describes the plant, gives habitat, medical properties,
uses, official preparations, and official synonyms of caraway.

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Baxter, W.

1834 - 1843.

(Carum Carvi Linné)

British Pharmacopagamous Botany, 2 ed., t. 232; (Berg & Schmidt, officinellen pflanzen, V. 2, p. 73.)

The original was not available.

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Koch, W. D. J.

1837.

(Carum Carvi Linné)

Synopsis Flora germanica et helvetica, etc., (Berg & Schmidt, officinellen pflanzen, V. 2, p. 73.)

The original was not available.

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Lindley, J.

1838.

Carum

Flora Medica, p. 37; (Griffith, Medical Botany, p. 319; Bentley & Trimen's Medical plants, V. 2, No. 121.)

Gives a detailed description of all parts of the plant, the uses and the official preparations of caraway.

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Culpeper, N.

1843.

Caraway

Complete Herbal, p. 42.

Gives a description, an account and use of caraway.

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Boissier, E.

1843.

(*Carum Carvi* Linné)

Flora Orientalae, V. 2, p. 879. (Berg & Schmidt, *Officinen Pflanz*, V. 2, p. 73; Bently & Trimen, *Medical plants*, V. 2, No. 121.)

The original was not available.

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Ledebour, K. F. v.

1844 - 1846.

(*Carum Carvi* Linné)

Flora Rossica, etc., V. 2, p. 249. Berg & Schmidt, *officinen pflanzen*, V. 2, p. 73; Bently & Trimen, *Medical plants*, V. 2, No. 121.

The original was not available.

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Oeder, G. C.

1847.

(*Carum Carvi*)

Flora Danica, V. 17, Tab. 2895. (*Icones plantarum officinal, Scandinaviae*, Tab. 228; Berg & Schmidt, *officinen pflanzen*, V. 2, p. 73.)

Gives a full page of colored illustration of the caraway plant.

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Griffith, R. E.

1847.

Carum

Medical Botany, p. 318.

Gives the habitat, a description, and the medical properties of caraway.

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Redwood, T.

1849.

On Drug Grinding

Pharm. Jour., 8, p. 227; (Jour. pharm., 21, p. 31.)

Gives the minimum, maximum, and average percentage of loss in grinding caraway fruit.

* * *

King, J.

1852.

Carum carui

Am. Dispens., 1 ed., p. 108; Ibid., 6 ed., p. 196; Ibid., 8 ed., p. 190; Ibid., 10 ed., p. 190; Ibid., 15 ed., p. 190; Ibid., 16 ed., p. 190; Ibid., 18 ed., V. I, p. 453.

Gives the properties, uses, description, history and official preparations of caraway.

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Oudemans, C. A. J. A.

1854 - 1856.

(Carum)

Aanteekeningen, etc., Rotterdam, p. 351. (Flückiger & Hanbury pharmacographia, 1 ed., p. 273; Ibid., 2 ed., p. 307.)

Dutch caraway is produced in the provinces of North Holland, Gelderland and North Brabant, in the latter 2 from wild plants; also gives a description of the caraway seeds.

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De Candolle, A.

1855.

Carum carvi

Geographie Botanique, pt. 2, p. 663; (Bently & Trimen, Medical plants, V. 2, No. 121.)

Discusses original habitat of caraway, comments by various writers, and origin of name.

* * *

Morton, J. C.

1855.

Caraway

Cyclop. of Agriculture, V. I, p. 390. (Flückiger & Hanbury pharmacographia, 1 ed., p. 272; Ibid., 2 ed., p. 306.)

Gives the time and method of cultivation and harvesting, and geological and geographical habitat of caraway.

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Hayne, F. G.

1855.

Carum Carvi

Arzneigew., V. 7, No. 19. (Köhler Medizin, pflanzen, V. 2, p. 346; Berg & Schmidt, officinellen pflanzen, V. 2, p. 173; Bently & Trimen, Medical plants, V. 2, No. 121; Luerssen, Handbuch der Systematischen Botanik, V. 3, p. 764.)

Gives the botanical classification of carum carvi, with a number of descriptive names, references, description of parts, constituents, history, and a full page illustration of the plant (Plate, No. 19) with explanation.

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Gmelin, L.

1860.

Oil of Caraway

Handbook of Chemistry, V. 14, pp. 283 & 414. (Flückiger & Hanbury pharmacographia, 1 ed., p. 273; Bently & Trimen, Medical plants, V. 2, No. 121.)

Gives the method of extracting carvene, carvol, and carvacrol from oil of caraway.

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Henkel, J. B.

1862.

Carum

Botanik nebst Atlas, p. 96.

Gives the habitat, description and use of caraway.

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Wigand, J. W. A.

1863.

Fructus Carvi

Pharmakognosie, p. 195.

Gives a description of the fruit with illustration of cross-section, odor, taste, and constituents.

* * *

Berg, O. K., & Schmidt, C.

1863.

Carum Carvi

Officinellen pflanzen, 1. ed., p. - ; 2 ed., V. 2, Taf. 73, p. 73. Köhler, Medizin pflanzen, V. 2, p. 346. Bently & Tri-
men, Medical plants, V. 2, No. 121;)

Gives a number of scientific names with references, describes the several parts of the plant, places of cultivation, uses of the fruit with a full page of colored illustrations, plate 73, with explanations.

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Pfeiffer, F.

1863.

(Fructus Carui)

Zwei deutsche arzneibücher aus dem XII und XIII, Jahrhundert, Wien., 14. (Flückiger & Hanbury pharmacographia, 1 ed., p. 272; Ibid., 2 ed., p. 305.)

(Two popular words, cumich and cumin, were names used for caraway in two German medicine-books of the 12th and 13th Centuries.)

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Syme, J. L. B. (now Boswell)

1863 - 1872.

(Carum Carui)

(3 ed. of Smith & Sowerby, English Botany, V. 4, t. 582. Bently & Trimen, Medical plants, V. 2, No. 121.)

The original was not available.

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Ascherson, P.

1864.

(Carum Carci Linné)

Flora der Provinz Brandenburg, etc., p. 242. (Berg & Schmidt, officinellen pflanzen, V. 2, p. 73.)

The original was not available.

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Berg, O.

1865.

Fructus carvi

Anatomischer Atlas, p. 84.

Gives description of microscopic characteristics of caraway, externally and internally, with four illustrations.

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Leyde, -

1866.

(Fructus Carui)

Description de L'Afrique et de L'Espagne trad. par Dosy et M. J. de Goëge, 75. 97. 150. (Flückiger & Hanbury, Pharmacographia, 2 ed., p. 305.)

(In the description of Morocco by Edrisi, 12th Century, it is stated that the inhabitants of Sidjilmôsa [the south-eastern province] cultivated cotton, cumin, caraway henna [Lawsonia alba Lanarck].)

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Berg, O.

Carum

1866.

Carum

Pharmazeutische Botanik, p. 329.

Gives a technical description of the genus carum and species carvi, particularly the fruit.

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Carson, J.

1867.

Carum

Synopsis of Materia Medica, p. 139.

Gives the habitat, a few characteristics, and uses of caraway.

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Berg, O.

1869.

Fructus Carvi

Pharmazeutische Waarenkunde, 4 ed., p. 386.

Gives the habitat of the plant, description, especially of the fruit, similar plants and constituents of caraway.

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Aitchison, J. E. T.

1869.

Lahul, its Flora and Vegetable Products

Jour. Linn. Soc. Bot., 10, p. 76. (Flückiger & Hanbury *Pharmacographia*, 1 ed., p. 271; *Ibid.*, 2 ed., p. 305.)

The plant (caraway) grows wild and the seeds called "zira" are a large export to Kulce, collected from wild plants, never cultivated.

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Saunders, W.

1870.

On Some Medicinal Plants of Canadian Growth

Proc. Am. Pharm. Assoc., 18, p. 186.

Tells of successful growing of caraway in Canada.

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Husemann, A., & Husemann, T.

1871.

Kümmeläl

Pflanzenstaffe, 1 ed., p. 1129; *Ibid.*, 2 ed., p. 938.

Records the percentage of oil obtained from caraway, and the constituents and uses of caraway oil.

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Babington, C, C.

1871.

A Revision of the Flora of Iceland

Jour. Linn. Soc. Bot., 11, p. 310. (Flückiger & Hanbury *Pharmacographia*, 1 ed., p. 271; *Ibid.*, 2 ed., p. 304.)

Gives the different sections in Iceland where caraway is grown. Also states that caraway may very probably be really a native plant of Iceland.

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Gladstone, J. H.

1872.

On Essential Oils

Jour. Chem. Soc., 25, p. 9. (Pharm. Jour., 31, p. 745.
(Flückiger & Hanbury, Pharmacographia, 1 ed., p. 273.)

The oil of caraway consists chiefly of carvol, and carvene, which constitutes more than a third of the crude oil.

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Cl., C. B.

1872.

(Carum Carvi Linné)

Hooker filius Flora British India, V. 2, p. 680. (Berg
& Schmidt, Officinellen Pflanzen, V. 2, p. 73.)

The original was not available.

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Leared, A.

1873.

Notes on Some Drugs Collected in Morocco

Pharm. Jour., 32, p. 623. (Flückiger & Hanbury, Pharma-
cographia, 2 ed., p. 305.)

Gives definite location where caraway is grown in Morocco and the chief countries to which it is exported.

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Schübeler, F. C.

1873 - 1875.

Carum Carvi

Pflanzenwelt Norwegens. Christiania, p. 279. (Flückiger &
Hanbury, Pharmacographia, 2 ed., p. 306.)

Gives several Scandinavian common names of the plant, describes several parts, especially, the fruit, method of cultivation, and uses of caraway.

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1873 & 1876.

(Fructus Carui)

Br. Consular Reports, 917. Flückiger & Hanbury, Pharmacographia, 1 ed., p. 273; Ibid., 2 ed., p. 307.

(Caraway is frequently shipped from the ports of Morocco; the quantity exported thence in 1872 was 952 cwt., and 288 cwt., in 1875.)

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Chamber of Commerce of Leipzig.

1874.

(Fructus Carui)

Pharm. Zeit., 19; (Flückiger & Hanbury, Pharmacographia, 1 ed., p. 274; Ibid., 2 ed., p. 307.)

(Four establishments in the district of Leipzig produced in 1873 no less a quantity than 30,955 kilos [68,277 lbs.] of caraway valued at £ 24,000.)

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Flückiger, F. A. & Hanbury, D.

1874.

Fructus Carui

Pharmacographia, 1 ed., p. 272; Ibid., 2 ed., p. 304.
(Chem. & Drug., 90, p. 796; Bently & Trimen, Medical Plants, V. 2, No. 121; Berg & Schmidt, Officinellen Pflanzen, V. 2, p. 73.)

Gives the botanical origin, history, description, chemical composition, the cultivation, production, and commerce of caraway.

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Husemann, E.

1875.

(Carum Carvi Linné)

Handbuch der gesammten Arzneimittellehre, V. 2, p. 960. (Köhler Medicinal Pflanzen, V. 2, p. 346.)

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Cauvet, D.

1877.

Carvi

Nouveaux Éléments D'Histoire Naturelle Médicale, 2 ed.,
p. 360.

Gives a description of the plant and fruit of caraway.

* * *

Boring, -

1877.

Minutes of the Pharmaceutical Meeting

Am. Jour. Pharm., 49, p. 570.

At the meeting, Mr. Boring called attention to the inferiority of the flavor of caraway due to a high percentage of small and immature fruits.

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Landerer, X.

1877.

Notes on Some Medicinal and other Useful Plants

Am. Jour. Pharm., 49, p. 156. (Proc. Am. Pharm. Assoc.,
25, p. 170.)

Gives an account of the use of caraway in Greece.

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Obituary

Chem. & Drugg., 20, p. 311.

In an obituary of S. W. Saffery, a distiller of essential oils, as early as 1819, he had raised caraway in England.

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1878.

Baillon, H.

1878.

(Carum Carvi Linné)

Plantes Méd. Anales, V. 2, 1050, fig. 2861, 2862. (Berg & Schmidt, Officinellen Pflanzen, V. 2, p. 73.)

The original was not available.

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Stille, A., & Maisch, J. W.

1879.

Carum, U. S.

Nat. Dispens., 1 ed., p. 355; Ibid., 2 ed., p. 359; Ibid., 3 ed., p. 393; Ibid., 5 ed., p. 415.

Describes the plant, gives its habitat, constituents, medical action and uses.

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Gehe & Co.

1879.

(Notes on Commercial Drugs and Chemicals)

Handlesbericht, April, p. -; (New Remedies, 8, p. 165.)

(Among other drugs, notes on the oil of caraway are given.)

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1879.

Caraway Seed

Chem. & Drugg., 21, p. 297.

Tells of the export of caraway seed, from Holland, in 1876, into Germany and of the sale of caraway to Sweden and Norway.

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Bently, R., & Trimen, H.

1880.

Carum Carui

Medical Plants, V. 2, No. 121; (Wood & Bache, U. S. Dispens., 15 ed., p. 362; Ibid., 16 ed., p. 373; Ibid., 17 ed., p. 329; Ibid., 19 ed., p. 301; King, Am. Dispens., 18 ed., V. I, p. 453; Stille & Maisch, Nat. Dispens., 1 ed., p. 355; Ibid., 2 ed., p. 359; Ibid., 3 ed., p. 393; Ibid., 5 ed., p. 415; Köhler, Medicinal Pflanzen, V. I, p. 346; Berg & Schmidt, officinellen Pflanzen, V. 2, p. 73.)

Gives a detailed description of all parts of the plant, the area where grown, time of cultivation, the official parts and names, the commercial varieties, exporting countries, the oil as the chief constituent with its constituents; an illustration of the above-ground part of the plant, fruit, and the flowers of caraway.

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Wilkomm, M., & Lange, J.

1880.

(Carum Carvi Linné)

Prodromus flora Hespamicae, etc., 3, 92; (Berg & Schmidt, Officinellen Pflanzen, V. 2, p. 73; Bently & Trimen, Medical Plants, V. 2, No. 121;)

The original was not available.

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Karsten, H.

1880 - 1883.

(Carum Carvi Linné)

Deutsche Flora, 833. (Köhler, Medicinal Pflanzen, V. 2, p. 346;)

The original was not available.

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Holmes, E. M.

1881.

The Cultivation of Medicinal Plants in Lincolnshire

Pharm. Jour., 41, p. 238.

Discusses the time of sowing, harvesting, and amount of seed obtained per acre.

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Holmes, E. M.

1881.

The Cultivation of Medicinal Plants in Lincolnshire

Pharm. Jour., 41, p. 238. (Proc. Am. Pharm. Assoc., 30, p. 209.)

Tells of cultivation of caraway in Lincolnshire.

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Luerssen, C.

1882.

Carum Carvi Linné

Handbuch der systematischen Botanik, V. 2, p. 764. (Köhler

Gives a description of the plant, especially, the fruit, with references to illustrations, pharmacopaeias in which the fruit and preparations are official, constituents, and history of caraway.

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Wittstein, G. C.

1882.

Kümmel

Handwörterbuch der pharmakognosie des pflanzenreichs, p. 455.
(Köhler, Medicinal pflanzen, V. 2., p. 346.)

Gives a detailed description of Caraway, especially, the fruit, the constituents, medicinal uses, and a history.

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Flint, J. M.

1883.

Carum Carvi

Classification of the Materia Medica Collection of the
U. S. National Museum, p. 448.

Caraway is listed in the index.

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Oldberg, O., & Wall, O. A.

1884.

Carum; U. S.

Comp. U. S. P., 1 ed., p. 289.

Gives the habitat, part used, and description of caraway.

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Fluckiger, F. A.

1884.

Fructus Carvi

Grundriss der Pharmakognosie, p. 106.

Gives the habitat, describes the fruit, its odor, constituents, and history.

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Marme, W.

1886.

Kümmel

Lehrbuch der pharmacognosie des pflanzen und Thierreichs,
p. 313.

Brief history, bibliography concerning plant, description,
constituents, commercial data, and uses of caraway.

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Warnecke, H.

1886.

Der Aschengehalt einiger pharmaceutische wichtiger
samen, Fruchte und Fruchttheile

Pharm. Zeit., 31, p. 536. (Am. Jour. Pharm, 59, p. 28;
Dig. Crit. U. S. P., part I, p. 41.)

Reports the ash content of the air dried caraway as 5.27 %.

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Schimmel & Co.,

1887.

Kümmel-Oel

Berichte, Oct., p. 16. Pharm. Jour., 47, p. 363; Ibid., 49,
p. 603.

Comments on the high price of caraway oil as a result of
climatic conditions of various producing sections in Europe,
amounts produced in different areas, with data for several years.

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Castle, L.

1887.

Hints on the Cultivation of Some Official Plants

Christy's New commercial plants & Drugs, No. 10, p. 47.
(Am. Drugg., 16, p. 124.)

Tells about the cultivation of caraway in England.

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Nicolaysen, -

1889.

(Oil of Norwegian Caraways)

Chem. Zeit., 13, p. 1704. (Pharm. Jour., 49, p. 603.)

(Gives the percentage of oil obtained from caraway in different sections of Norway, also compares it with the yield obtained from caraway raised in Germany.)

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Köhler, E.

1890.

Carum Carvi

Medizinal Pflanzen, V. 2, plate 91, p. 345. (King, Am. Dispens., 18 ed., V. 1, p. 453; Bergh & Schmidt, officinellen pflanzen, V. 2, p. 73.)

Gives the scientific synonyms, description of the plant, anatomy, places of occurrence, time of flowering, name and history, part official, constituents, uses, and bibliography.

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Nicolaysen, --

1890.

(Caraway)

Chem. Zeits., 14, p. --; (Brit. & Col. Drugg., 17, p. 80.)

(Gives the percentage of oil derived from caraway grown in different latitudes in Norway and the percentage of carvone in the oil.)

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Battand & Trab,

(before 1893.)

(Carum Carvi Linné)

Flora d'Algeriae, 2, p. 347. (Berg & Schmidt, officinellen Pflanzen, V. 2, p. 73.)

The original was not available.

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Maisch, J. M.

1895.

Carum

Organic Materia Medica, 3 ed., p. 350; 5 ed., p. 359; 6 ed., p. 340.

Discusses the habitat, description, constituents, and uses of caraway, with an illustration depicting different views of the fruit.

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Dyer, B. & Gilbard, J. F. H.

1896.

Note on "Drawn" or Exhausted Caraways .

Analyst, 21, p. 208. (Pharm. Jour., 57, p. 150. Proc., A. ph. A., 45, p. 519. Dig. of critic. U. S. P., 1898, p. 37. Merck's Rep., 5, p. 487.)

Tells of adulterating caraway with exhausted fruits of caraway.

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Nelson, B. E.

1897.

Caraway

Merck's Report, 6, p. 5.

Gives characteristic microscopical drawings of caraway fruit.

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Dragendorff, G.

1898.

Carum Carvi

Dei Heilpflanzen der Verschiedenen Völker und zeiten, p. 488.

Gives several synonyms for carum carvi, places in which cultivated, use of the fruit, constituents, and historical data.

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Hockauf, J.

1898.

Ueber Aschengehalte von Drogen aus dem Pflanzenreiche

Zeits. Oest. Apoth. Ver 36, p. 27. (Pharm. Rev., 16, p. 152; Dig. of Critic., U.S.P., 1901, p. 56.)

Gives the percentage of ash, total and acid insoluble obtained from caraway.

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Nelson, B. E.

1898.

Caraway

Merck's Report, 7, p. 729.

Gives microscopical drawings of different sections of caraway.

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Matthews, H. E.

1898.

The Vitlae of Caraway Fruit

Pharm. Jour., 60, p. 259. (Proc. Am. Pharm. Assoc., 46, p. 259. (Proc. Am. Pharm. Assoc., 46, p. 819; Dig. & Crit., U.S.P., 1901, p. 56.)

Discusses the origin and development of the vitlae of caraway fruits.

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Kraemer, H.

1898.

Qualitative Examination of Powdered Vegetable Drugs

Proc. Am. Pharm. Assoc., 46, p. 319.

Gives the characteristics of powdered caraway seed.

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Hammel, P. E.

1899.

Caraway

Merck's Report, 8, p. 560.

Gives the history of caraway in various countries at various periods.

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Henslow, G.

1899.

(The Article on Caraway)

Med. Works of the 14th Century, etc., p. -- . (Chem. & Drugg., 90, p. 829.)

(The use of caraway occurred along with other ingredients in recipes for the store.)

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(1900.)

The Commerce of Drugs

Chem. & Drugg. Diary, 1901, p. 276. (Am. Drugg. & Pharm. Rec., 37, p. 343.)

Mentions Holland as the principal country producing caraway and cites several other countries producing it.

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1900.

The Materia Medica of the Pharmacopœia

Pharm. Jour., 64, p. 303.

Gives the habitat of caraway and characteristics of the fruit, also gives the maximum limit of total ash for powdered caraway.

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1900.

Oleum Carui

Pharm. Jour., 65, p. 284.

Gives the source of caraway oil, its properties and constituents.

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Glaser, L.

1901.

Ash of Powdered Drugs

Pharm. Jour., 67, p. 663.

Gives percentage of ash found in caraway.

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1901.

Dutch Caraway Seed.

Pharm. Era, 25, p. 680.

Gives the amount of caraway raised in Holland and tells about the effect of the raising of caraway in other countries on the Dutch market.

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Wall, O. A.

1901.

Carri Fructus

Meyer Bros., Drugg., 22, p. 115.

Gives a description of the fruit, percentage of volatile oil and the uses of caraway.

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Berendes, J.

1902.

Kümmel

Arzneimittellehre des Dioskurides, p. 302.

Gives a description of caraway according to Dioscorides, and compares it to the present product as to constituents.

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Kraemer, H.

1902.

Carum Carvi

Botany & Pharmacognosy, 1 ed., p. 190; Ibid., 2 ed., p. 352; Ibid., 3 ed., p. 352; Ibid., 4 ed., p. 565.

Gives the botanical origin, the areas where grown, a description of the fruit with an illustration of the inner structure of the fruit, and the constituents of caraway.

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Gadd, H. W.

1904.

Caraway Fruit

Drugs, p. 71.

Gives the habitat of the plant, description of fruit, the chief constituents and some preparations of caraway.

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Spaeth, E.

1905.

Kümmel

Ztschr. f. Unters. d. Nahr. u. Genussm., 10, p. 25. (Dig. of Com., 1905, p. 144.)

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Eberle, E. G.

1905.

Notes on Some Medicinal Plants of Texas

Proc. Am. Pharm. Assoc., 53, p. 304. (Dig. Com. U. S. P., 1905, p. 144.)

Mentions caraway as being one of the medicinal plants now found or grown in Texas.

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1906.

("Carum")

Nederlandsch Landbouw Weekblad, - p. - . (Schimmel & Co., Semi-Ann. Rep., 1906, Apr. - May, p. 14. Dig. of Com., 1906, p. 215.)

(Presents some figures relating to the cultivation and the yield of caraway in Holland.)

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Perrot, E., & Frouin, H.

1906.

Carvi

Matière premières Usuelles, p. 13.

Mentions areas in which caraway is cultivated in Europe and its commercial uses.

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Nelson, B. E.

1907.

"Carum"

Merck's Rep't., 16, p. 38. (Dig. Com., U.S. P., 1907, p. 200.)

Describes and figures the structural characteristics of caraway.

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Rusby, H. H.

1908.

Report of the Committee on the Drug Market

Proc. Am. Pharm. Assoc., 56, p. 768. (Dig. Com., U. S. P., 1908, p. 217.)

Reports that one shipment of caraway seed was the seed of a species of Nigella.

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British Medical Association.

1908.

Carum

Pharm. Jour., 27, p. 811. (Dig. Com., U. S. P., 1908, p. 217.)

The committee on therapeutics of the British Medical Association thinks that carui fructus and aqua are unnecessary, the oil alone is sufficient.

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Spaeth, E.

1908.

Die chemische und mikroskopische Untersuchung
der Gewürze und dem Beurteilung

Pharm. Zentralh., 49, p. 60. (Dig. Com., U. S. P., 1908,
p. 217.)

Discusses the pharmacognostic characteristics of caraway,
the composition of the true drug, the adulterants met with,
and the detection of the latter.

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Petkoff, N.

1908.

(Carum)

Ztschr. f. öffentl. chem., 15, p. 82. (Dig. Com., 1908,
p. 217.)

(Five samples of powdered caraway yielded from 10.3 to 11.9 %
of ash. One sample, he powdered himself, yielded but 6.41 per
cent of ash.)

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Wall, O. A.

1909.

Cari Fructus

Notes on pharmacognosy, 3 ed., p. 475. Ibid., 4 ed.,
p. 440; Ibid., 5 ed., p. 123.

Discusses the habitat, describes the fruit, constituents
and uses of caraway, also gives percentage of oil with its odor
and taste.

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Schamelhout, A.

1909.

Deuxième Congrès international pour
la Répression des fraudes

Bull. Soc. roy. d'pharm., Brux., 53, p. 336. (Dig. Com.,
U. S. P., 1909, p. 305.)

"The Second International Congress for the Repression of
Adulteration allowed a tolerance of earthy, or stony matters, not
exceeding 2 to 3 per cent."

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Caesar & Loretz.

1909.

Fructus Carvi

Geschäfts Bericht., Sept., p. 28. (Dig. of Com., 1909,
p. 305.)

Discusses the cultivation of caraway in Holland and points
out that the present available caraway is rather dark and un-
sightly.

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Haensel, H.

1909 - 1910.

Kümmelöl

Bericht, Oct. - March, p. 30. (Dig. Com., U.S. P., 1910,
p. 377.)

Discusses the fluctuation in price of caraway in connection
with climatic conditions and yield of fruit,

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Gildemeister, E. & Hoffmann, F.

1910.

Kümmelöl

Die atherischen Oele, 2 ed., p. 182. (Perf. & Essent. Oil Rec., 2, p. 261.)

The oil distilled from caraway seed is first mentioned in the Berliner Taxe of 1574, whilst the caraway plant was well known in olden times.

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Gilg, E.

1910.

Fructus Carvi

Pharmakognosie, 2 ed., p. 245.

Gives the habitat and description of the plant and the characteristics of caraway powder.

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Haensel, H.

1910.

Kümmeloel

Bericht, Apr. - Sept., p. 29. (Dig. Com., U.S. P., 1910, p. 377.)

Discusses the outlook for caraway, and also presents a table showing the production of caraway in Holland from 1906 to 1909, inclusive.

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La Wall, C. H., & Bradshaw, H. A.

1910.

Ash Standards in Drugs - Are They Necessary?

Proc. Am. Pharm. Assoc., 58, p. 752. (Dig. of Com., U. S. P., 1910, p. 377.)

Report finding 7.8 per cent ash in caraway seed.

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(Dutch Ministry for Foreign Affairs)

1911.

The Caraway Seed Industry in Holland

Journal of the Board of Agriculture, 18, p. 134. (Chem. & Drugg., 79, p. 426.)

Gives the habitat, methods of cultivation and harvesting of caraway in Holland.

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Southall Bros., & Barclay.

1911.

(Carum)

Report, Birmingham, 1912, p. 9. (Dig. Com., 1911, p. 289.)

(Report that 3 samples of powdered caraway seed yielded from 6.39 to 7.67 per cent of ash.)

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Caesar & Loretz.

1911.

Fructus Carvi

Pharm. Ber. D. A. B., 5, p. 36. (Dig. Com., 1910, p. 377.)

The Pharmacopœia Germanica, V, permits a maximum ash content of 8 per cent in caraway.

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Rusby, H. H.

1911.

(Carum)

Oil, paint, & Drug Reporter, 80, p. 28 K., (Dig. Com. U. S. P., 1911, p. 289.)

(States that caraway is extremely liable to contamination with large amounts of stems, gravel, sand, dust, weed seeds, and other impurities.)

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Van der Wielen, P.

1911.

The Cultivation of Caraway in the Netherlands

Perf. & Essent. Oil Rec., 2, p. 261.

An abstract from Prof. P. van der Wielen's lecture gives the principal countries raising caraway, its chief uses, percentage of ash obtained from seeds and the constituents of the oils.

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Greenish, H. G.

1911.

The Cultivation of Caraway in Holland

Brit. & Col. Drugg., 60, p. 488.

Gives the principal countries where caraway is grown and the methods of harvesting.

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1911.

Standards and Tests of the New German Pharmacopœia

Pharm. Jour., 86, p. 653. (Dig. Com. U. S. P., 1911, p. 289.)

States that an ash limit of 8 per cent is introduced for powdered caraway.

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Umney, J. C., & Bennett, C. T.

1911.

The Evaluation of certain Species
Used in Veterinary Medicine

Chem. & Drug., 78, p. 674; Pharm. Jour., 86, p. 596; (Drug Topics, 26, p. 148; Dig. Com., 1911, p. 289.)

Under the subject "Society of Public Analysis" is given the ash content of caraway from different specimens.

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Tunmann, O.

1911.

Carum

Apoth. Zeits., 26, p. 377. (Dig. Com. U. S. P., 1911, p. 289.)

Discusses geographical origin of caraway seed, and presents a table showing the imports and exports of Hamburg, this being from 1897 to 1903.

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van der Wielen, P.

1911.

(Caraway Cultivation in Holland)

Pharm. Weepblod, 48, p. 988. (Pharm. Jour., 87, p. 988. (Pharm. Jour., p. 811. (Schimmel & Co., Semi-annual Rep., Apr., 1911, p. 39; Dig. Com. U.S. P., 1911, p. 289.)

(Discusses the cultivation of caraway in Holland, and presents tables showing amount produced during the years, 1871 to 1911.)

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Greenish, H. G.

1911.

Caraway Cultivation in Holland

Pharm. Jour., 87, p. 817; Chem. & Drugg., 79, p. 880.

Professor Greenish received slides from Professor van der Wielen, on caraway cultivation, harvesting and threshing, which he showed to the Pharmaceutical Society of Great Britain.

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Dutch Ministry of Agriculture.

1911.

(Caraway Oil)

(Schimmel & Co., Semi-annual Rep., Oct., p. 29. (Dig. Com. U. S. P., 1911, p. 289.)

Gives statistics on caraway growing in different sections in the Netherlands, including the effects of the weather on the crop and on the price of caraway.

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Lloyd, J. N.

1911.

Pharmacopaeial Vegetable Drugs

Lloyd Libr. Bull., No. 18, p. 15. (Dig. Com. U. S. P. p. 289.)

Caraway was known to the Arabians, and at an early date was introduced into England. At the close of the fourteenth century it was much used in England for cooking.

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Krug, W.

1911.

Caraway Oil

Perf. & Essent. Oil Rec., 2, p. 109.

Gives variation in density of different crops of caraway and reasons for variations.

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1912.

(Carum)

Cons. & Tr. Rep., May 13, p. 583. (Dig. Com. U. S. P., 1912, p. 231.)

(Gives account of caraway seed shipped into the United States in 1910 and 1911.)

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Mitlacher, W.

1912.

Carum Carvi

Die officinellen Pflanzen und Drogen, p. 63.

Mentions area in which caraway is cultivated and pharmacopaeias in which the fruit is official; in fruit, constituents, and uses.

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Rusby, H. H.

1912

Report of Committee on Drug Market, August, 1911.

Jour. Am. Pharm. Assoc., 1, p. 50. (Dig. Com., U. S.P., 1912, p. 231.)

Caraway is extremely liable to contamination, with large amounts of stems, gravel, sand, dust, weed seeds, and other impurities.

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Dutch Ministry of Agriculture.

1912.

(Caraway Oil)

(Schimmel & Co., Semi-Ann. Rep., Oct., p. 30. (Dig. Com. U. S. P., 1912, p. 231.)

(Gives amount of caraway raised in the Netherlands from 1909 to 1911, inclusive.)

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Riedel, J. D.

1912.

Untersuchung Vegetabilischer Drogen
mit Berücksichtigung des D.A.B., 5

Riedel's Berichte, pt. 1, p. 49. (Dig. Com. U. S. P., 1912, p. 231.)

The ash content of carum was found to vary from 6.2 to 7.9 per cent.

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Kockauf, J.

1913.

Ergebnisse von Gewürzuntersuchungen.

Chem. Zeits, 37, p. 1183. (Dig. Com. U.S.P., 1913, p.230.)

Many of the samples of caraway seed examined were contaminated with foreign fruits and seeds, though the ash and sand content was uniformly below the official limits.

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Hockauf, J.

1913.

Ergebnisse von Gewürzuntersuchungen.

Pharm. Zentralh., 54, p. 1057. (Dig. Com., U. S. P., 1913, p. 230.)

Samples of caraway contained the sclerotia of claviceps microcephala.

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Holland Ministry of Agriculture.

1913.

Caraway Oil

(Schimmel & Co., Semi-Ann. Rep., Oct., p. 36. (Dig. Com. U. S. P., 1913, p. 230.)

(A review on the condition of the caraway plantations in Holland.)

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Caesar & Loretz.

1913.

Fructus Carvi

Jahres-Bericht., Sept., p. 57. (Dig. Com. U. S. P., 1913, p. 230.)

The year's crop of caraway is decidedly smaller than was at first expected, due to climatic conditions.

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Riedel, J. D.

1913.

(Carum)

Riedel's Berichte, -, p. 31. (Dig. Com., U. S. P., 1913, p. 230.)

(Caraway contained from 6.1 to 7.9 per cent of total ash and up to 0.7 per cent of insoluble ash.)

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Plahe, W.

1914.

(Carum)

Arch. Chem. Mikros., 7, p. 209. (Dig. Com., U. S. P., 1914, p. 227.)

(In detection of extracted caraway, considerable reliance is placed on the odor and taste of individual seeds.)

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(Remington, J. P.)

1914.

Abstract of Proposed Changes with New Standards
and Descriptions of the Ninth Revision
of the United States Pharmacopœia

Jour. Am. Pharm. Assoc., 3, p. 370. (Abstr. Prop. Changes,
Pt. 2, p. 12. [Dig. Com. U. S. P., 1914, p. 227.])

Gives the proposed monograph including a test for purity.

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Maines, E. L.

1914.

Ash Content of Crude Drugs

Jour. Am. Pharm. Assoc., 3, p. 424. (Dig. Com., U. S. P.,
1914, p. 227.)

Caraway was found to contain from 5.93 to 6.82 per cent of
ash.

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(Editor)

1914.

Drugs and their Preparations

South. Pharm. Jour., 6, p. 451. (Dig. Com. U.S.P., 1914,
p. 227.)

An illustrated description of caraway, with some reference
to its use as an aromatic.

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Rippetae, J. R.

1914.

The Examination of Some Drugs with Special Reference to
the Anhydrous Alcohol and Ether Extracts and Ash

Am. Jour. Pharm., 86, p. 437. (Dig. Com. U. S. P., 1914,
p. 277.)

One sample of caraway was found to contain 20.88 per cent
of alcohol extract and 6.94 per cent of ash.

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Gehe & Co.

1914.

Fructus Carvi Hollandici

Handelsbericht, March, p. 78. (Dig. Com., U. S. P., 1914,
p. 227.)

Report on the supply of caraway in Holland, with a tabula-
tion as to amount by areas, yield, highest and lowest prices,
and value of crops from 1904 to 1913, inclusive.

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Riedel, J. D.

1914.

Untersuchung der officinellen Vegetabilischen Drogen

Riedel's Berichte, Pt. 1, p. 32. (Dig. Com., U. S. P.,
1914, p. 227.)

Caraway contained from 6.1 to 7.9 per cent of ash, and
from 27.5 to 31 per cent of extracts soluble in water.

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Mann, E. W.

1915.

Caraway

Ann. Rep. Southall Bros. & Barclay, 22 & 23, p. 10. (Dig. Com., U. S. P., 1914, p. 227.)

Of five samples of caraway, one contained 13 per cent of ash, and the others contained from 6.3 to 7.6 per cent of ash.

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Alsberg, C. L.

1915.

(Carum)

S. R. A. - chem., 18, p. 43. (Dig. Com., U. S. P., 1915, p. 217.)

(The Bureau of Chemistry reports that a recent importation of caraway seed was found to be adulterated with ergot fruits.)

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1915.

Carum (Caraway)

N. A. R. D. Jour., 20, p. 745.

Gives the habitat and uses of caraway, and tells of its cultivation and collection.

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Kraemer, H.

1916.

Carum

Scientific and Applied Pharmacognosy, 1 ed., p. 567. 2 ed., p. 481; 3 ed., p. 556.

Gives the habitat, description, characteristics of inner structure, characteristics of powder and constituents of caraway.

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Rosendahl, H. V.

1916.

Scandinavian Caraway Oil

Perf. & Essent. Oil Rec., 7, p. 150.

Caraway grows well in Norway and Sweden and yields a high percentage of oil.

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Rosendahl, H. V.

1916.

(Caraway fruits, Scandinavian, Yield of Oil From.)

Svensk, farm. Tidsk., 20, p. 1. (Schweiz. Apoth. Zeit., 54, p. 228; gr. bk. of Brit. Pharm. Conf., 53, p. 85. Dig. Com., U. S. P., 1916, p. 168.)

"Gives the percentage of oil from caraway seeds, and percentage of carvone in the oil of caraway grown in Sweden and Norway."

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Roberts, J. G.

1916.

Report of Committee on Drug Market

Proc. Penn. Pharm. Assoc., 39, p. 111. (Dig. Com., U. S. P. 1916, p. 168.)

Gives the percentage of foreign matter and ash in a number of samples of caraway.

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1916.

Ergot in Caraway Seed

Chem. & Drugg., 88, p. 217.

An importation of caraway seed into the United States showed a considerable number of more or less ergotized fruits, and was considered to be adulterated under the Food and Drugs Act.

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Holmes, E. M.

1917.

The Cultivation of Caraway

Perf. & Ess. Oil Rec., 8, p. 251. (Dig. Com., U. S. P., 1917, p. 178.)

Discusses the cultivation of caraway.

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Rusby, H. H.

1917.

Report of Committee on Drug Market

Jour. Am. Pharm. Assoc., 6, p. 311. (Dig. Com., U. S. P., 1917, p. 178.)

A sample of caraway seed, examined, was contaminated with a sclerotium quite closely related to ergot.

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Holmes, F. L. S.

1917.

Caraway

Perf. & Essent. Oil Rec., 8, p. 251.

Gives the habitat of caraway plants and the characteristics of caraway grown in different countries.

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Alsberg, C. L.

1917.

(Carum)

L. R. A. Chem., 19, p. 51. (Dig. Com., U. S. P., 1917, p. 178.)

(The Bureau of Chemistry requires that the caraway seed shall not contain more than 3 per cent of harmless foreign matter and shall yield not more than 8 per cent of ash.)

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1917.

A Neglected Plant

Science Siftings, p. 326. (Perf. & Essent. Oil Rec., 8, p. 251; Chem. & Drugg., 90, p. 796.)

(Tells about the cultivation of Caraway in different provinces in Holland and the yield of caraway fruit.)

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1918.

Tunis Caraway-Seed

Chem. & Drugg., 90, p. 796. (Dig. Com., U. S. P., 1918, p. 195.)

Tunis caraway seed is substituted for ordinary caraway. Gives typical characteristics of caraway grown in different countries.

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Xrayser, II.

1918.

Observations and Reflections

Chem. & Drugg., 90, p. 829.

States that the use of caraway was well established in medical practice in England, in the fourteenth century.

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Power, F. B.

1919.

The Odorous Principles of Plants

Chem. & Drugg., 91, p. 1006.

Discusses oil of caraway and its constituents, especially those possessing the characteristic odor.

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Alsberg, C. L.

1919.

Some Effects of the War upon Crude Drug Importation

Jour. Am. Pharm. Assoc., 8, p. 464. (Dig. Com., U. S. P., 1919, p. 251.)

Several shipments of caraway offered for importation contained fruits infected with a fungus-like growth, resembling ergot.

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(Editor)

1919.

Cause and Effect

Chem. & Drugg., 91, p. 384.

England stopped exportation of cattle fodder, so Holland stopped exportation of expressed caraway-seeds. The consequence is an accumulation of seeds in Holland and a decline in the cultivation of caraway.

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Styger, J.

1919.

Carum Carvi

Schweiz. Apoth. Zeit., 57, p. 86. (Dig. Com., U. S. P., 1919, p. 201.)

A report of a study of the anatomy of the fruit of caraway.

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Houston, D. F.

1919.

(Carum)

U. S. Dep't. Agric., Circ., No. 136, p. 12. (Dig., Com., U. S. P., 1919, p. 201.)

(Gives the U. S. Department of Agriculture standard for caraway.)

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Viehoever, A.

1920.

Report on Medicinal Plants

Jour. Assoc. of Agric. Chem., 4, p. 154. (Dig. Com.,
U. S. P., 1920, p. 225.)

The presence of a fungous growth, resembling closely the sclerotium known as "ergot" has been reported in caraway.

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Compain, M.

1920.

Carvi

Guide de L'Herbariste-Droguist, p. 61.

Discusses the varieties and use of caraway.

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Ottersbach, G., & Dorstewitz, R.

1921.

Kümmel

Drogenkunde, p. 63.

Gives the habitat of the plant, constituents and uses of caraway.

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Marzell, H.

1921.

Kümmel

Neues Illustriertes Kräuterbuch, p. 244.

Gives a detailed description of the plant, its distribution, names, folklore, uses, general and medical, with an illustration of a flowering and fruiting branch.

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Humphrey, J.

1921.

Caraway Fruit and Oil

Drugs in Commerce, p. 26.

Gives the botanical origin of fruit and oil, commercial sources, microscopic structure and commercial varieties.

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Gilg, E., & Brandt, W.

1922.

Fructus Carvi

Pharmakognosie, 3, ed., p. 268.

Gives the habitat and description of the plant and characteristics of powdered caraway.

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Pigulevski, -

(1923)

Russian Essential Oils

Jour. Russian Phys. & Chem. Soc., -, p. -. (Chem. & Drugg, 99, p. 575.)

(In connection with volatile oil produced in Russia, gives the percentage of carvone found in caraway seed and the crushed pulp.)

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Kunz - Krause, H.

1924.

Kümmel

Der Kräutersammler, p. 67.

Describes the plant, gives its habitat, prominent characters, commercial material, method of harvesting, constituents, and uses.

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Dutch Board of Agriculture.

(1925.)

(Dutch Caraway Seed)

Algemeen Handelsblad, - ; p. - ; (Chem. & Drugg., 102,
p. 397.

(Gives number of acres of caraway raised in Holland in
1924, and percentage of decrease in 1925.)

* * *

Leyel, Mrs. C. F.

1926.

(Caraway)

Magie of Herbs, pp. 12, 13, 186, 189, 269.

Tells how caraway was used in different periods of history
and that it was found to have been used by Assurbanipal.

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Dinand, U.

1926.

Kümmel

Taschenbuch Der Heilpflanzen, 31 ed., p. 61.

Discusses the uses of caraway.

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Editor.

1927.

Caraway Seed and Oil

Perf. & Essent. Oil Rec., 18, p. 336.

Gives principal countries producing caraway and, particular-
ly, of the Dutch industry.

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Gilg, E., Brandt, W., & Schürloff, P. N.

1927.

Fructus Carvi

Pharmakognosie, 4 ed., p. 307.

Gives the botanical origin of caraway, its microscopic characteristics, anatomy, appearance of powder, constituents, adulterants, history, and uses.

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Falch, A.

1928.

Carum Carvi

Die officinellen Drogen Und Ihre Ersatzstoffe, p. 506.

Lists the pharmacopaeias in which caraway is official, and, also, the constituents of caraway.

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(Government Department of Agriculture.)

(1928.)

(Dutch Caraway Seed Statistics)

Statistics public., the Gov't's. Depart. of Agri., (Holland). (Chem. & Drugg., 109, p. 531.)

(Gives the number of acres raised, imports, home consumption and exports of caraway for a number of years.)

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Greenish, H. G.

1929.

Caraway Fruits

Materia Medica, 5 ed., p. 112.

Gives the habitat of the plant, description of the fruit, constituents, and uses of caraway.

* * *

Oranje of Amsterdam.

(1929.)

(Dutch Caraway Seed Statistics)

Circular of Oranje of Amsterdam. (Chem. & Drugg., 110, p. 246.)

Gives the number of acres raised, imports, exports, and home consumption of caraway for a number of years in Holland.)

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1931.

Caraway Field in Holland

Perf. & Essent. Oil Rec., 23, p. 329.

Tells of the beginning of the importance of caraway in Holland and the use of caraway.

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Wasicky, R.

1932.

Fructus Carvi

Physiopharmakognosie, Pt. 3, p. 338.

Describes the plant yielding caraway; lists the places of commercial product, describes the plant with 2 illustrations, its constituents and those of the oil, its medicinal uses and preparations.

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List of Journals Consulted

- Am(eric)an) Drugg(ist), V. 13 - 21; 73 - 82.
1886 - June, 1892; 1925 - 1930.
- Am(eric)an) Drugg(ist) & Pharm(aceutical) Rec(ord),
V. 22 - 72; July, 1892 - 1924.
- Am(eric)an) Jour(nal of) Pharm(acy), V. 1 - 103; 1829 - 1931.
- Am(eric)an) Perf(umer), V. 3, 9 - 25; 1908, 1914 - 1930.
- Brit(ish) & Col(onial) Drugg(ist), V. 12 - 84; 1897 - 1931.
- Bull(etin) Am(eric)an) Pharm(aceutical) Assoc(iation),
V, 1 - 20; 1912 - 1931.
- Bull(etin of) Pharm(acy), V. 5 - 43; 1891 - 1928.
- Canadian Drugg(ist), V. 11 - 21; 1899 - 1909.
- Chem(ist) & Drugg(ist) V. 1 - 115; 1859 - 1931.
- Drugg(ists) Cir(cular), V. 1 - 73; 1857 - 1929.
- Jour(nal) Am(eric)an) Pharm(aceutical) Assoc(iation),
V. 1 - 18; 1912 - 1929.
- Merck's Report, V. 2 - 39; 1883 - 1930.
- Meyer Bro(thers) Drugg(ist), V. 9 - 54; 1888 - 1931.
- Midl(and) Drugg(ist), & Pharm(aceutical) Rev(iew),
V. 1 - 10, 43 - 60; 1899 - 1909, 1909 - 1926.
- Montreal Pharm(aceutical Jour(nal), V. 4 - 42; 1893 - 1931.
- N(ational) A(ssociation of) R(etail) D(ruggists) Jour(nal),
V. 18 - 51; 1914 - 1931.
- N(ational) A(ssociation of) R(etail) D(ruggists) Jour(nal),
Notes, V. 1 - 17; 1902 - 1913.
- Nat(ional) Drug Clerk, V. 1 - 19; 1913 - 1931.

Nat(ional) Drugg(ist), V. 1 - 6; 12 - 60, 1885, 1888 - 1930.

New England Drugg(ist), V. 5 - 15; 1893 - 1903.

New Rem(edies), V. 1, 4 - 12; 1872, 1875 - 1883.

N(orth) w(estern) Drugg(ist), V. 1 - 19, 27 - 39,
1899 - 1918; 1919 - 1931.

Perfum(ery) & Essent(ial) Oil Rec(ord), V. 1 - 13, 16,
18 - 22; 1910 - 1922; 1925, 1927 - 1931.

Pharm(aceutical) Era, V. 1 - 67; 1887 - 1930.

Pharm(aceutical) Jour(nal), V. 1 - 127; 1882 - 1931.

Pharm(aceutical) Rec(ord), V. 1 - 15;

Pharm(aceutical) Rev(iew), V. 14 - 26; 1896 - 1908.

Pharm(acist) & Chem(ist), V. 3 - 18; 1870 - 1885.

Pharm(azeutische) Rund(schau), V. 1 - 13; 1882 - 1895.

Prac(tical) Drugg(ist), V. 1 - 49; 1897 - 1931.

Proc(eedings) Am(eric)an Pharm(aceutical) Assoc(iation),
V. 1 - 59; 1851 - 1911.

South(ern) Pharm(aceutical) Jour(nal), V. 1 - 24, 1908 - 1932.

The Spatula, V. 1 - 22; 1894 - 1916.

West(ern) Drugg(ist), V. 2 - 50; 1880 - 1928.

Y(ea)r B(oo)k Am(eric)an Pharm(aceutical) Assoc(iation)
V. 1 - 18; 1912 - 1929.

Y(ea)r B(oo)k of Pharm(acy & Transactions of) Brit(ish) Pha
Pharm(aceutical) Conf(erence), V. 1 - 68; 1864 - 1931.

List of Books Consulted

- An American Physician, (The) Eclectic & General Dispensatory), 1 ed., 1827.
- Arends, L., Volkstümliche Anwendung der Einheimischen Arzneipflanzen, 1925.
- Bacquillon - Limousin, H., Études Des Plantes, 1895.
- Baillon, H. Traité De Botanique Médicale Cryptogamique, -
- Bauhin, C., Pinax, 1671.
- Bently, R. & Trimen, H., Medical Plants, V. 2, 1880.
- Berendes, J., Arzneimittellehre Des Dioskurides, 1902.
- Berendes, J., Die Hausmittel Des Pedanias Dioskurides, 1888.
- Berg, O., Anatomischer Atlas, 1865.
- Berg, O., Pharmazeutische Botanik, 1866.
- Berg, O., Pharmazeutische Waarenkunde, 1869.
- Berg, O. K., & Schmidt, C., Atlas Der officinellen Pflanzen, 1 ed., 1893; 2 ed., 1899.
- Berge, F. & Riecke, U. A., Giftpflanzenbuch, 1855.
- Bigelow, J., (A) Treat(ise on the) Mat(eria) Med(ica) 1 ed., 1822.
- Blair, T. S., Botanic Drugs, 1917.
- Bohn, W., Die Heilwerte Der Pflanzen, - -
- Brock, H., Die Tierwelt in Heilkunde und Drogenkunde, 1925.
- Brown, O. P., Complete Herbalist, 1870.
- Budge, E. A. W., The Divine Origin of the Craft of the Herbalist, 1928.
- Carson, J., Synopsis of Materia Medica, 1867.

- Cartheuser, J. E., *Fundamenta Materiae Medicae*, 1749.
- Cauvet, D. *Nouveaux Éléments D' Histoire Naturelle Médicale*, 1877.
- Chevallier, A. & Richard, A. *Dictionnaire Des Drogues*, 2 ed., 1827.
- Christy, T. *New Commercial Plants*, 1878.
- Commelin, C. *Praeludia Botanica*, 1703.
- Compain, M., *Guide De L'Herboniste Droguisse*, 1920.
- Coupin, H., *Les Plantes Médicinales*, 1920.
- Culpeper, N. *Complete Herbal*, 1843.
- Coxe, J. R., (The) *Am(eric)an Dispens(atory)*, 1 ed., 1810; 2 ed., 1813; 4 ed., 1821.
- De Garsault, - *Explication Abrigee, etc.*, 1765.
- De Candolle, A. P., *Propriétés Médicales Des Plantes*, 1816.
- De Rosemont, R., *Comment nos Pères Se Soignaient*, 1917.
- De Saldanha Da Gama, J., *Plantes Alimentaires*, 1867.
- Dieterich, - Helpenberg, K., *Die Wichtigen Medizinischen Drogen*, -
- Dorveaux, P. *Le Livre Des Simples Médecines*, 1913.
- Dragendorff, G., *Die Heilpflanzen Der Verschiedenen Völker und Zeiten*, 1898.
- Ewell, J. (The) *Med(ical) Comp(anion)*, 3 ed., 1817, 7 ed., 1827.
- Falk, A. *Die Officinellen Drogen Und Ihre Ersatzstoffe*, 1928.
- Fischer, H. *Mittelalterliche Pflanzenkunde*, 1929.
- Flint, J. M. *Classification of the Materia Medica Collections of the U. S. National Museum*, 1883.
- Flückiger, F. A. *Grundriss der Pharmakognosie*, 1884.
- Flückiger, F. A. *Pharmaceutischen Waarenkunde*, 1873.
- Flückiger, F. A. & Hanbury, D. *Pharmacographia*, 1 ed., 1874; 2 ed., 1879.

- Freyberger, H. M. Die Organischen Drogen, 1874.
- Gadd, H. W. Drugs, 1904.
- Gerard, J. Herball, 2 ed., 1596.
- Gildemeister, E. & Hoffmann, F. Die atherischen Oele,
2 ed., 1910.
- Gilg, E., & Brandt, W., & Schürhoff, P. N. Pharmakognosie,
4 ed., 1927.
- Gmeling, J. F. Allgemeine Geschicht Der Pflanzengifte,
1805.
- Goebel, F., & Kunze, G. Pharmaceutische Waarenkunde,
1 ed., 1827 - 1829, 2.ed., 1830 - 1834.
- Greenish, H. G. Materia Medica, 5 ed., 1929.
- Griffith, R. E. Medical Botany, 1847.
- Hamilton, E. Flora Homoeopathica, V. I, 1852.
- Henkel, J. B. Botanik Nebst Atlas, 1862.
- Hérail, J. Traité De Matière Médicale, 2 ed., 1912,
3 ed., 1927.
- Houttuyn, J. Linnés Naturlyke Historie, Pt. 2,
St. 8, 1777.
- Humphrey, J. Drugs in Commerce, 1921.
- Husemann, A., Hilger, A. & Husemann, J. Pflanzenstoffe,
1 ed., 1882; 2 ed., 1884.
- Husemann, A. & Husemann, T. Pflanzenstoffe, 1871.
- Johnson, L. Medical Botany of North America, 1884.
- Kanngiesser, F. Vergiftungen durch Pflanzen und
Pflanzenstoffe, 1910.
- King, J. Am(eric)an Dispens(atory), 1 ed., 1852;
6 ed., 1864; 8 ed., 1872; 10 ed., 1875; 15 ed., 1881;
16 ed., 1889; 18 ed., 1900.
- Koch, L. & Gilg, E. Pharmakognostisches Praktikum, 1907.
- Köhler, E. Medizinal Pflanzen, V. I, 1890; V. 2, 1898.
- Kraemer, H. Botany & Pharmacognosy, 1 ed., 1902;
2 ed., 1907; 3 ed., 1908; 4 ed., 1910.

- Kraemer, H. *Scientific and Applied Pharmacognosy*,
1 ed., 1916; 2 ed., 1920; 3 ed., 1928.
- Kunz - Krause, H. *Der Kräutersammler*, 1924.
- Kunzle, J. *Chrut und Uchrut*, 1926.
- Lange, J. *Icones Plantarum officinal Scandinaviae*, -
- Lehamau, P. J. L. *Plantes Rémedes et Maladies*, 1922.
- Leyel, Mrs, C. F. *The Magic of Herbs*, 1926.
- Lindsay, T. S. *Plant Names*, 1923.
- Linné, C. *Materia Medica*, 1772.
- Ludovici, D. *De Pharmacia Moderno Secuto Applicanda*, 1685.
- Lyons, A. B. *Plant Names, Scientific and Popular*, 1900.
- Maisch, J. M. *Organic Materia Medica*, 3 ed., 1887;
5 ed., 1892; 6 ed., 1895.
- Marmé, W. *Lehrbuch Der Pharmacognosie Des Pflanzen und
Thierreichs*, 1886.
- Marzell, H. *Alte Heilkräuter*, 1926.
- Marzell, H. *Neues Illustriertes Kräuterbuch*, 1921.
- Mesue, I. *Opera Devi*, 1541.
- Meyer, A. *Officinellen Blätter und Kräuter*, 1882.
- Mittlacher, W. *Die officinellen Pflanzen und Drogen*, 1912.
- Monro, D. *Treatise on Medical & Pharmaceutical Chemistry
& the Materia Medica*, V. 1 - 3, 1788; V. 4, 1790.
- Morelot, S. *Dictionnaire Des Drogues*, 1807.
- Morton, J. C. *Cyclopedia of Agriculture*, V. 1, 1863.
- Mowat, J. L. G. *Alphita Glossary*, 1884.
- Murray, J. *System of Materia Medica & Pharmacy*, V. 1, 1815;
V. 2, 1821; 6 ed., 1832.
- Nees von Esenbeck, T. F. L., and 3 others, *Plantes officin-
alis*, V. 1, 1821.
- Newton, J. *A Complete Herbal*, 1805.

- Nicolai, E. A. *Systema Materiae Medicae*, 1757.
- Oldberg, O., & Wall, O. A. (A) *Comp(anion to the) U(nited) S(tates) P(harmacopoeia)*, 1 ed., 1884.
- Ottersback, G. & Darstewitz, R. *Drogenkunde*, 1921.
- Perrot, E. & Frouin, H. *Matieres Premiéres Usuelles*, 1906.
- Pobequin, H., *Les Plantes Médicinales De La Guinées*, 1912.
- Pollock, A. *Botanical Index*, 1872.
- Schöffner Mainz, P., *Hortus Sanitatis*, 1485.
- Schroderi, J. *Quercetanus Redivivus*, 1679.
- Schübeler, F. C. *Die Pflanzenwelt Norwegens*, 1873 - 1875.
- Stille, A. & Maisch, J. M. (The) *Nat(ional) Dispens(atory)*, 1 ed., 1879; 2 ed., 1879; 3 ed., 1884; 5 ed., 1894.
- Wall, O. A., *Handbook of Pharmacognosi*, 1917.
- Wall, O. A. & Suppan, L., *Handbook of Pharmacognosy*, 1928.
- Warneke, T. L. *Laegmidlernes*, 1862.
- Wasicky, R. *Physiopharmakognosie*, 1929
- Wellmann, M. *Die Schrift des Dioskurides*, 1914.
- Wigand, J. W. A. *Pharmakognosie*, 1863.
- Windler, E. *Das Bremer Mittelniederdeutsche Arzneibuch des Arnoldus Doneldey*, 1932.
- Winkler, E. *Abbildungen Sämmtlicher Arzneigewächse*, 1833.
- Willdenow, C. L. *Linnés Species Plant.*, 4 ed., V. 1, 1797.
- Wittstein, G. C. *Handwörterbuch der Pharmakognosie des Pflanzenreich*, 1882.
- Wood, G. B. *Syllabus of the Course of Lectures*, 1837.
- Wood, G. B. & Bache, F. (The) *Dispens(atory of the) U(nited) S(tates of) Am(eric)*, 2 ed., 1834; 3 ed., 1836; 4 ed., 1839; 5 ed., 1843; 6 ed., 1845; 7 ed., 1847; 8 ed., 1849; 9 ed., 1851; 10 ed., 1854; 11 ed., 1858; 12 ed., 1869; 13 ed., 1870; 14 ed., 1879; 15 ed., 1883; 16 ed., 1892; 17 ed., 1894; 19 ed., 1907; 20 ed., 1918; 21 ed., 1926.

Woodville, W. Medical Botany, 1 ed., V. 1, 1810.

Zeigler, H. Materia Medica, 1771.

UNITED STATES PHARMACOPAEIA (O - X)

(1820 - 1920)

and

NATIONAL FORMULARY (I - V)

(1888 - 1926)

HISTORY

OF

CARUM CARVI LINNÉ

U. S. P., 1820, P. p. 31.

Carum.
Caraway.

carum carui
Semina.

W. i. 1470.
The seeds.

* * *

U. S. P., 1830, N. Y. P. p. 25.

Carui Semina.
Caraway seeds.

Carum carui.

Prop. Odour fragrant; taste, warm and agreeable.
Med. Oper. Carminative, stomachic.

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U. S. P., 1830, Phil. P. p. 7.

Carum
Caraway.

Carum carui
Semina.

W. i. 1470.
The seeds.

* * *

U. S. P., 1840, P. p. 16.

Carum.

Caraway,

The fruit of carum carui.

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U. S. P., 1850, P. p. 19.

Carum.

Caraway.

The fruit Carum Carui.

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U. S. P., 1860, P. p. 23.

Carum.

Caraway.

The fruit of Carum Carui.

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U. S. P., 1870, P. p. 24.

Carum.

Caraway.

The fruit of Carum Carui.

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U. S. P., 1880, p. 67.

Carum
Caraway.

The fruit of carum carvi Linné (Nat. Ord., Umbelliferae, Orthospermae.)

Oblong, laterally compressed, about one-sixth of an inch (4 millimeters) long, / usually separated into the two mericarps, and these curved, narrower at both ends, / brown, with five yellowish, filiform ribs, and with six oil-tubes. It has an agreeable odor, and a sweetish, spicy taste.

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U. S. P., 1890, p. 80.

Carum
Caraway.

The fruit of carum carvi Linné (nat. ord. Umbelliferae,)

Oblong, laterally compressed, about 4 or 5 mm. long, usually separated into / two mericarps, which are curved, narrower at both ends, brown, with / five yellowish, filiform ribs, and with six oil-tubes. Caraway has an agree/ able odor, and a sweetish, spicy taste. Preparation:
Preparation: Tincture cardamomi composita.

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U. S. P., 1900, p. 91.

Carum
Caraway.

The dried fruit of carum Carvi Linné (Fam. Umbelliferae.)

About 4 or 5 mm. long, oblong laterally compressed, usually separated into / the two mericarps, which are curved, tapering toward each end, dark brown, / with five yellowish, filiform ribs, and with six oil-tubes; seed plane upon the / face, nearly equilaterally pentagonal in transverse section; odor and taste agree/- ably aromatic; ash not more than 8 per cent.

Average dose - 1 Gm. (15 grains.)

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Carum
Caraway

Carawayseed

Caraway Seed

The dried fruit of *Carum Carvi* Linné (Fam. Umbelliferae). Without the presence or admixture of more than 3 per cent of other fruits, seeds or foreign matter. Preserve caraway in tightly closed containers, adding a few drops of chloroform or carbon tetrachloride, from time to time, to prevent attacks by insects.

Mericarps usually separated, crescent-shaped, 3 to 7 mm. in length, 1.5 mm. in diameter; externally dark brown with 5 yellowish filiform ribs; in transverse section nearly equi-laterally pentagonal, the commissural surface with two vitlae, the dorsal surface with a vitla between each of the primary ribs; oily endosperm large, enclosing a small embryo; odor and taste agreeably aromatic.

Under the microscope, transverse sections of Caraway show an epidermal layer of slightly tangentially elongated cells with thick outer walls; a layer of several rows of tangentially elongated parenchyma cells, frequently more or less collapsed; a single large, elliptical, brown vitla or oil-tube, between each of the ribs and surrounded by small epithelial or secretion cells; in each of the ribs a single fibro-vascular bundle surrounded by a layer of thick-walled sclerenchymatous fibers; inner epidermis of broadly elongated cells with very thin side walls, being very frequently broken and closely coherent with the more or less brownish collapsed cells of the seed-coat; commissural surface with 2 large vitlae and at the middle portion 2 large transverse hollow spaces formed by the separation of the tissues of the seed-coat on one side and the pericarp on the other, otherwise, the cells resemble those on the dorsal surface; endosperm large cells, polygonal, with thick walls, and containing a fixed oil and aleurone grains, the latter not infrequently containing a small rosette aggregate, or prism of calcium oxalate.

The powder is yellowish brown, mostly of irregular, angular fragments; cells of endosperm with aleurone grains each usually containing a rosette aggregate of calcium oxalate about 0.001 mm. in diameter; fragments with light-yellow vitlae, together with nearly isodiametric, or polygonal, yellowish-brown, inner epidermal cells of pericarp; fragments with tracheae and sclerenchymatous fibers, the latter 0.01 mm. in width, slightly lignified and with numerous oblique pores.

Caraway yields not more than 8 per cent of ash.

Average dose: Metric, 1 Gm. - Apothecaries, 15 grains.

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U. S. P., 1920, p. 100.

Carum
Caraway
Caraway Seed

Caraway is the dried ripe fruit of *Carum Carvi* Linné (Fam. Umbelliferae).

Caraway contains not more than 3 per cent of other fruits, seeds, or foreign organic matter, and yields not more than 1.5 per cent of acid-insoluble ash.

Description and physical properties.

Unground caraway. Usually in separated mericarps; curved, tapering towards both ends; up to 7 mm. in length and 2 mm. in diameter; externally dark brown with five yellow filiform ribs; odor and taste aromatic.

Structure- Mericarps nearly equilaterally pentagonal, with a fibro-vascular bundle in each rib; outer epidermis of tangentially-elongated, rather thick-walled cells, a middle layer of collapsed parenchyma bearing the oil tubes, usually six in number, sometimes one or more additional, and located between the ribs; an inner epidermis of broad parenchyma cells, more or less collapsed and which are coherent with the collapsed cells of the seed coat; endosperm of thick-walled parenchyma containing fixed oil and aleurone grains up to 0.010 mm. in diameter and in which are embedded rosette aggregates of calcium oxalate up to 0.004 mm. in diameter.

Powdered Caraway - Elements of identification are the outer epidermal cells characterized by a waviness and striping of the cuticle; the cells of the endosperm containing aleurone grains with the embedded rosette aggregates; tracheae; liquified fibers and fragments of the oil tubes.

Average Dose:- Metric, 1 Gm., - Apothecaries, - 15 grains.

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Summary of Data of U. S. P., 1820 - 1920
and N. F., 1888 - 1926

Carum Carvi Linne'

Official in:-

U. S. P., 1820, '30 (Phil.); '30 (N. Y.), '40, '50, '60, '70, '80, '90, 1900, '10, '20.

Official Latin Title:-

Carum, U. S. P., 1820, '30 (Phil.), '40, '50, '60, '70, '80, '90, 1900, '10, '20.

Carum Semina, U. S. P., 1830 (N. Y.).

Official English Title:-

Caraway, U. S. P., 1820, '30 (Phil.), '40, '50, '60, '70, '80, '90, 1900, '10, '20.

Caraway Seeds:- U. S. P., 1830 (N. Y.).

Official Abbreviation: None.

Official Synonyms:-

Carawayseed, U. S. P., 1910.

Caraway Seed, U. S. P., 1910, '20.

Official Family:-

Umbelliferae, U. S. P., 1880, '90, 1900, '10, '20.

Scientific Name:-

Carum Carui, U. S. P., 1820, '30 (Phil.), '30 (N. Y.), '40, '50, '60, '70.

Carum Carvi:- U. S. P., 1880, '90, 1900, '10, '20.

APPROVED: W. O. Richtmann

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