

THE
PHARMACOPŒIA
OF THE
UNITED STATES OF AMERICA

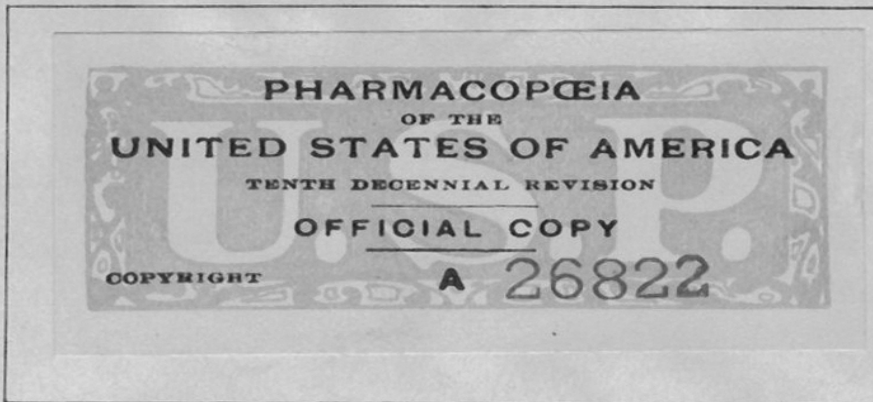
TENTH DECENNIAL REVISION
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CANNABIS

Cannabis

Cannab.

Cannabis consists of the dried flowering tops of the pistillate plants of *Cannabis sativa* Linné (Fam. *Moraceæ*).

Cannabis, in the form of the fluidextract, administered by the mouth to dogs in doses not exceeding 0.1 cc. for each kilogram of body weight of dog, produces a degree of incoördination equivalent to that caused by the same dose of the standard fluidextract of cannabis, prepared as directed below. It contains not more than 10 per cent of its fruits, large foliage leaves, stems over 3 mm. in diameter, and not more than 2 per cent of other foreign organic matter. It yields not more than 5 per cent of acid-insoluble ash.

Description and physical properties.

Unground Cannabis—In separate tops or more or less agglutinated masses or fragments, consisting of the short stems with their leaf-like bracts and pistillate flowers or more or less developed fruits; color green to dark green or greenish brown; odor agreeable, somewhat heavy and narcotic; taste somewhat acrid and pungent.

Leaves digitately compound, usually broken. Leaflets when entire, linear-lanceolate, nearly sessile, margin deeply serrate. Bracts ovate, pubescent, each enclosing 1 or 2 pistillate flowers or more or less developed fruits. Calyx dark green, pubescent and somewhat folded around the ovary. Styles 2, filiform and pubescent. Ovary with a single campylotropous ovule. Stems cylindrical, longitudinally furrowed, light green to light brown, strigose-pubescent.

Structure of stem—Cortex composed of collenchyma and, in the larger stems, of numerous strands of more or less lignified bast-fibers; strongly lignified wood with medullary rays 1-cell wide; pith, often hollow; rosette aggregates of calcium oxalate numerous.

Powdered Cannabis—Dark green; epidermis from lower surface of leaves with sinuate vertical walls and numerous oval stomata, from upper surface with straight walls and no stomata; non-glandular hairs numerous, unicellular, rigid, curved, with a very slender pointed apex and an enlarged base usually containing calcium carbonate masses; glandular hairs of two kinds, one with a short 1-celled stalk, the other with a long multicellular, tongue-shaped stalk, the head being globular and consisting of 8 to 16 cells; fragments of bracts and leaves showing yellowish-brown laticiferous vessels, numerous rosette aggregates of calcium oxalate, 0.005 to 0.030 mm. in diameter, and strands of spiral tracheæ and phloem; fragments of fruits with palisade-like, non-lignified cells with yellowish-brown finely porous walls usually containing air; tissues of embryo and endosperm with numerous oil globules and aleurone grains, the latter from 0.005 to 0.010 mm. in diameter and displaying crystalloids and globoids.

Diluted hydrochloric acid added to powdered Cannabis causes effervescence visible under the microscope.

Assay—Use adult dogs which weigh less than 15 kilograms and which are susceptible to the action of Cannabis. The dogs must not be fed for twelve hours before being used and observations should be made within one hour after administration. The same animal must not be used for testing purposes at shorter intervals than three days. Administer the fluidextract in gelatin capsules by the mouth.

STANDARD FLUIDEXTRACT OF CANNABIS

Prepare a composite fluidextract, representing at least ten different lots of Cannabis, conforming to the official botanical description, and administer this fluidextract in gelatin capsules to dogs by the mouth. This standard fluidextract must be so adjusted that it will produce incoördination in dogs which have been found to be susceptible to the action of Cannabis when administered in doses of 0.03 cc. for each kilogram of body weight of dog.

Preparations—Extractum Cannabis, Fluidextractum Cannabis.

EXTRACTUM CANNABIS

Extract of Cannabis

Ext. Cannab.

Extract of Cannabis, administered by the mouth to dogs, in doses not exceeding 0.004 Gm. for each kilogram of body weight of dog, produces a degree of incoördination equivalent to that caused by 0.03 cc.,

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for each kilogram of body weight of dog, of the standard fluidextract of cannabis prepared as directed under *Cannabis*.

CANNABIS, in moderately coarse powder 1000 Gm.
ALCOHOL, a sufficient quantity.

Moisten the drug with sufficient alcohol, pack it firmly in a cylindrical percolator, and add enough alcohol to saturate the powder and leave a stratum above it. When the liquid begins to drop from the percolator, close the lower orifice, and, having closely covered the percolator, macerate for forty-eight hours. Then allow the percolation to proceed, gradually adding alcohol until the drug is exhausted. Recover the alcohol from the percolate by distillation, and evaporate the residue with frequent stirring, at a temperature not exceeding 70° C., to a pilular consistence. Mix the mass thoroughly, and weigh it.

Assay a portion of this extract as directed under *Cannabis*, and from the result thus obtained adjust the weight of the finished Extract by the addition of either storax or a substandard Extract of Cannabis to conform to the required biological standard.

Assay—Administer the Extract in gelatin capsules, proceeding as directed under *Cannabis*.

AVERAGE DOSE—Metric, 0.015 Gm.—Apothecaries, $\frac{1}{4}$ grain.

FLUIDEXTRACTUM CANNABIS

Fluidextract of Cannabis

Flidext. Cannab.

Fluidextract of Cannabis, administered by the mouth to dogs in doses not exceeding 0.1 cc. for each kilogram of body weight of dog, produces the same degree of incoördination as that produced by an equivalent dose of the standard fluidextract of cannabis, prepared as directed under *Cannabis*.

CANNABIS, in moderately coarse powder. 1000 Gm.

Prepare a Fluidextract by Type Process A (page 159), using alcohol as the menstruum.

After dissolving the soft extract in the reserve liquid, assay a portion as directed below, and from the result thus obtained adjust the volume

of the finished Fluidextract by the addition of alcohol to conform to the above biological standard.

Assay—Proceed as directed under *Cannabis*.
Alcohol content, by volume, 75 to 85 per cent.

AVERAGE DOSE—Metric, 0.1 cc.—Apothecaries, 1½ minims.