# UNITED STATES PHARMACOPOEIA.

## TENTH REVISION.

### ABSTRACT OF PROPOSED CHANGES WITH NEW STANDARDS AND DESCRIPTIONS.*

### WHISKY AND BRANDY.

The Pharmacopœial Convention of 1920 recommended that abstracts of changes proposed for the U. S. P. X and new standards and descriptions be published before final adoption, that those who are not members of the Revision Committee may have an opportunity for comment and criticism.

In compliance with this recommendation, the following abstracts are submitted. The nomenclature and the exact wording of the text do not necessarily represent that to be finally adopted and doses have not been appended.

Comments should be sent to the Chairman of the Revision Committee,

E. FULLERTON COOK,
636 South Franklin Square,
Philadelphia, Pa.

### SPIRITUS FRUMENTI.

**Whisky.**

Whisky is an alcoholic liquid obtained by the distillation of the fermented mash of wholly or partly malted cereal grains and containing not less than 47 and not more than 53 per cent. by volume of $C_2H_5OH$ at 15.56° C. It must have been stored in charred wood containers for a period of not less than four years.

*Description and physical properties.*

A light to deep amber-colored liquid, having a characteristic odor and taste and an acid reaction.

Specific gravity: from 0.935 to 0.923 at 25° C.

*Tests for identity and impurities.*

The residue obtained by evaporating 20 cc. of Whisky in a dish on a water-bath is not completely soluble in 5 cc. of distilled water. Filter the solution and add to the filtrate a drop of diluted ferric chloride T. S. (1 in 10): a greenish black coloration is produced (indicating storage in wood barrels.)

A 50 cc.-portion of Whisky, diluted with 100 cc. of distilled water, requires for neutralization not less than 3 cc. nor more than 10 cc. of tenth-normal sodium hydroxide, using 5 drops of phenolphthalein T. S. as indicator.

Mix 100 cc. of Whisky with 15 cc. of distilled water and slowly distil 100 cc., using an efficient condenser. Neutralize 50 cc. of the distillate with tenth-normal sodium hydroxide, using 5 drops of phenolphthalein T. S. as indicator, then add exactly 20 cc. more of the tenth-normal sodium hydroxide and boil for one hour under a reflux condenser. Cool and titrate the excess of alkali with tenth-normal sulphuric acid. Run a blank test using distilled water in place of the distillate and make any necessary correction. The volume of tenth-normal sodium hydroxide consumed is not less than 1.7 cc. and not more than 7 cc.

To 5 cc. of the distillate add 2 cc. of sodium hydroxide T. S. and 5 drops of a freshly prepared aqueous solution of sodium nitroprusside (1 in 50), then add a slight excess of acetic acid; no violet tint is produced in one minute (*acetone*).

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A mixture of 0.5 cc. of the distillate with 5 cc. of distilled water meets the requirements of the test for Methanol under *Alcohol.**

Acidulate 10 cc. of Whisky with 5 drops of diluted hydrochloric acid and evaporate to 5 cc. Dilute with distilled water to 10 cc. and filter if necessary. The addition of iodine T. S. or mercuric potassium iodide T. S. yields no precipitate (*alkaloids*).

Dilute 10 cc. of Whisky with 2 cc. of distilled water, transfer to a test-tube and shake gently for two minutes with 15 cc. of a mixture of 100 cc. of amyl alcohol, 3 cc. phosphoric acid, and 3 cc. of distilled water, and allow the layers to separate completely: the lower aqueous layer is colorless or very nearly so (*caramel*).

Mix 5 cc. of Whisky with 5 cc. of distilled water and shake the mixture with 10 cc. of purified petroleum benzin. Transfer the separated benzin to a dish of from 70 to 80 cc. capacity, add 1 cc. of sodium hydroxide solution (1 in 10) and evaporate to dryness on a water-bath. Add to the dry residue 2 cc. of sulphuric acid, rotating the acid in the dish so that the residue will be completely moistened. Heat for two minutes on a water-bath, and pour the solution into a dry test-tube containing from 0.03 to 0.05 Gm. of resorcinol. Heat the mixture for three minutes at 160° to 170° C. shaking at intervals to dissolve all of the resorcinol. Then pour the solution into a mixture of 70 cc. of distilled water and 30 cc. of sodium hydroxide solution (1 in 10), adding more sodium hydroxide, if necessary, to make the mixture alkaline. The liquid shows no yellowish green fluorescence after standing twenty-four hours (*diethylphthalate*).

Mix 2 cc. of an aqueous solution of phloroglucinol (1 in 100) with 5 cc. of sodium hydroxide T. S. and add 2 cc. of Whisky: no red color is produced (*formaldehyde*).

Mix 20 cc. of Whisky with 20 cc. of distilled water and shake the mixture with 10 cc. of ether. Allow the mixture to stand until separation takes place, separate the ether layer and allow it to evaporate spontaneously on a watch glass: the residue has no disagreeable or irritating odor.

Evaporate 20 cc. of Whisky in a dish on a water-bath and dry the residue to constant weight at 100° C.: the weight of the residue does not exceed 0.10 Gm. This residue is not sticky, it has a slightly astringent taste but is not distinctly sweet or bitter (*glycerin, sugar, etc.*).

Evaporate 10 cc. of Whisky to 5 cc. and dilute with 10 cc. of distilled water, acidulate with 5 drops of hydrochloric acid and add 10 cc. of hydrogen sulphide T. S.† no precipitate is formed before or after rendering alkaline with ammonia T. S. (*heavy metals*).

Place 2 cc. of mercuric sulphate T. S.† in a test-tube, add 5 drops of Whisky and heat the mixture just to boiling over a small Bunsen burner, and remove it from the flame; no yellow precipitate is formed (*iso-propyl alcohol*).

The addition of an excess of bromine T. S. to 5 cc. of Whisky diluted with an equal volume of distilled water, produces no precipitate (*phenols*).

## SPIRITUS VINI VITIS.

### Brandy.

Brandy is an alcoholic liquid obtained by the distillation of the fermented juice of sound, ripe grapes and containing not less than 48 and not more than 54 per cent. by volume of $C_2H_5OH$ at 15.56° C.

It must have been stored in wood containers for a period of not less than four years.

*Description and Physical properties.*

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* Test for Methanol under *Alcohol.*—Dilute the Alcohol with water to contain about 5 per cent. by volume of ethyl alcohol. To 5 cc. of this dilute alcohol contained in a test-tube of 20-cc. capacity, add 0.5 cc. of phosphoric acid and 2 cc. of a 3 per cent. aqueous solution of potassium permanganate, and allow the mixture to stand for ten minutes. Add 1 cc. of an aqueous 10 per cent. solution of oxalic acid, and allow it to stand until the liquid is a transparent brown. Now add 5 cc. of a diluted and cooled sulphuric acid, prepared by mixing 3 volumes of distilled water and 1 volume of sulphuric acid, add 5 cc. of freshly prepared fuchsin-sulphurous acid T. S., mix well, and allow to stand for ten minutes. At the end of this time the solution, when observed against a white background, may have a reddish or pale green color, but not a distinct blue or violet color (*methanol*).

† Mercuric Sulphate T. S. (Denigè's Reagent). Mix 5 Gm. of yellow mercuric oxide with 40 cc. of distilled water, add 20 cc. of sulphuric acid with constant stirring and then add 40 cc. additional distilled water and stir until dissolved.

A pale amber-colored liquid, having a characteristic odor and taste and an acid reaction. Specific gravity: from 0.933 to 0.921 at 25° C.

*Tests for identity and impurities.*

Evaporate 20 cc. of Brandy on a dish on a water-bath, treat the residue with 5 cc. of distilled water, filter and add to the filtrate a drop of diluted ferric chloride T. S. (1 in 10): a greenish black coloration is produced (indicating storage in wood barrels).

Evaporate 20 cc. of Brandy in a dish on a water-bath and dry the residue to constant weight at 100° C.: the weight of the residue does not exceed 0.30 Gm.

A 50-cc. portion of Brandy, diluted with 100 cc. of distilled water, requires for neutralization not more than 7.5 cc. of tenth-normal sodium hydroxide, using 5 drops of phenolphthalein T. S. as indicator (*free acid*).

Dilute 20 cc. of Brandy with 5 cc. of distilled water and slowly distil 20 cc., using an efficient condenser: the distillate meets the requirements of the tests for *acetone* and *methanol* under *Spiritus Frumenti*.

Brandy meets the requirements of the tests for impurities under *Spiritus Frumenti* beginning with the test for "*alkaloids*" but omitting the tests for "*caramel*" and for "*glycerin, sugar etc.*"

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# PROCEEDINGS OF THE LOCAL BRANCHES

"All papers presented to the Association and Branches shall become the property of the Association with the understanding that they are not to be published in any other publication prior to their publication in those of the Association, except with the consent of the Council."—Part of Chapter VI, Article VI of the By-Laws.

Article IV of Chapter VII reads: "Each local branch having not less than 50 dues-paid members of the Association, holding not less than six meetings annually with an attendance of not less than 9 members at each meeting, and the proceedings of which shall have been submitted to the JOURNAL for publication, may elect one representative to the House of Delegates."

Reports of the meetings of the Local Branches should be mailed to the Editor on the day following the meeting, if possible. Minutes should be typewritten, with wide spaces between the lines. Care should be taken to give proper names correctly, and manuscript should be signed by the reporter.

## CHICAGO.

The 144th regular meeting of the Chicago Branch of the American Pharmaceutical Association was held Friday evening, October 17, at the School of Pharmacy Bldg., 701 S. Wood St., with President L. E. Warren in the chair. The meeting was devoted to reminiscences of the good times at Buffalo with the following program:

Wm. B. Day—A. Ph. A. Annual Meeting Buffalo.

H. C. Christensen—News from the National Association Boards of Pharmacy.

C. M. Snow—The 25th Annual Meeting of the American Conference of Pharmaceutical Faculties.

L. E. Warren—Scientific Papers at the A. Ph. A. meeting.

E. N. Gathercoal—Pharmaceutical Research, now recognized by the great research organizations of America.

I. A. Becker—Some Pictures from Buffalo (about 30 personally prepared lantern slides).

Professor Day discussed many features of the A. Ph. A. meeting and because of his very intimate knowledge of the business activities as well as the general meetings and the work in the various sections his résumé was of great interest and very illuminating, especially to those who were not privileged to be at Buffalo.

Mr. Christensen spoke of the splendid representation at the general meeting of the National Association Boards of Pharmacy. Thirty-three Boards were represented, the largest number ever represented at an annual meeting of the association; he also stated that during the year, 1,200 reciprocal registrations had passed through the office of the secretary. The committee on examinations had performed a very large amount of excellent work in stabilizing and improving State Board Examinations. Mr. Christensen discussed the National Certificate and stated that while this was endorsed by the boards, further time ought to be given the committee who had it in charge to consider every phase of the matter and to