

3. That 100 mg. of this powder be recognized as a Unit of digitalis, the same as an International Unit.
4. That the strength of digitalis and its products be stated in terms of an "international unit."

SYRUP OF POTASSIUM GUAIACOLSULPHONATE.

BY CLYDE M. SNOW AND BERNARD FANTUS.

In view of the popularity of guaiacolsulphonate-containing syrups, and the desire felt by many physicians for a preparation of non-secret composition that may readily be prepared extemporaneously by pharmacists, experiments were undertaken to elaborate the most palatable and elegant administration form for this agent, especially with a view of having it considered for possible admission to the National Formulary.

Potassium guaiacolsulphonate is a colorless crystalline powder, odorless, of slightly bitter taste, soluble in water (7.5 parts), insoluble in alcohol and ether. It is alleged to be of value in the treatment of certain coughs in doses of 0.3 to 1.3 Gm. (gr. 5 to 20) three or four times daily.

The following vehicles were tried:

- Aromatic syrup of eriodictyon
- Syrup of orange
- Syrup of tar
- Syrup of wild cherry
- Compound syrup of sarsaparilla
- Compound syrup of asarum
- Aqueous elixir of glycyrrhiza

While none of these preparations is disagreeable, it seems that the aromatic syrup of eriodictyon yields the most palatable preparation; the well-known bitter-disguising tendency of yerba santa being more efficient in overcoming the bitterish after-taste of the medicine than any of the other vehicles. We therefore offer the following formula for consideration by the National Formulary Revision Committee.

SYRUPUS POTASSII GUAIACOLSULPHONATIS.

Syrup of Potassium Guaiacolsulphonate.

Abbr.: Syr. Pot. Guaiacolsulph.

Potassium Guaiacolsulphonate	75.0 Gm.
Water	100.0 cc.
Aromatic Syrup of Eriodictyon, enough to make	1000.0 cc.

Mix the potassium guaiacolsulphonate with the water; add the syrup; and after solution is affected filter through cotton, if necessary, and pass enough water through the filter to make the product measure 1000 cc.

AVERAGE DOSE: METRIC, 4 CC. APOTHECARIES, 1 FLUIDRACHM.

One average dose represents about 0.3 Gm. or 5 grains of potassium guaiacolsulphonate.

While at normal temperature, the salt produces a clear solution with the syrup, there is a tendency for the potassium guaiacolsulphonate to crystallize out at lower temperature. This is obviously due to the alcohol contained in the syrup

of eriodictyon. The small proportion of water added stabilizes the preparation at all ordinary temperatures.

The next most pleasant preparation, perhaps, is a simple solution of the salt in syrup of orange. This is the formula of the German, Austrian and the Hungarian Pharmacopœias.

To the physician, the prescribing of this formula offers the advantages of a preparation of a fair degree of palatability of known composition. The above formula is, therefore, submitted to the pharmaceutical profession with the request that it be tested and criticized, to the end that the National Formulary may contain the best possible preparation of this medicinal agent.

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THE VARIABILITY OF PHARMACEUTICAL PREPARATIONS.*

BY H. B. HAAG AND L. E. JARRETT.

Attention has been called upon several occasions to the variability of certain pharmaceutical preparations. Many of these studies have been concerned with drugs very liable to deterioration, such as the liquid preparations of digitalis. The fact that discrepancies have frequently been found should be a challenge to those interested in professional pharmacy and public health. Clinicians have taken some of these observations seriously, so seriously, in fact, that in increasing numbers they are turning to certain types of proprietary preparations in the hope that in these they will find, at least, uniformity. Needless to say manufacturers have apparently not been particularly loath to take advantage of this situation; we have proprietary names for almost every conceivable drug. The sad part of this state of affairs is that much of the blame probably rests with the pharmacist; by neglect in exercising proper professional care of his legitimate business, he is gradually reducing his calling to that of a middle man, pouring from this or that container a preparation which he, by right of his training, should have compounded. This paper is offered with the view of presenting additional information as to the quality of some of the common official drugs and their preparations, with the hope that it will stimulate a lagging professional spirit. While the results herein reported are based upon studies made upon specimens collected throughout Virginia, there is no reason to believe other than that similar results would have been obtained had the samples been collected in any other locality.

Through the generous coöperation of the secretary of the Virginia State Board of Pharmacy, plans were made to collect, in various sections of the state, specimens of some of the more commonly dispensed official drugs, and particularly those which would lend themselves relatively easily to analytical study. Ten samples of each specimen were to be obtained from different pharmacies. The original plan was to obtain samples of the following: Tincture of Digitalis, Diluted Hydrochloric Acid, Spirit of Nitrous Ether, Liniment of Camphor, Saturated Solution of Potassium Iodide, Spirit of Camphor, Sodium Nitrite, Tincture of Iodine, a

* Joint Session, Scientific Section and Section on Practical Pharmacy and Dispensing, A. P. H. A., Baltimore meeting, 1931.