

7. *B. coli*, *B. dysenteriae* and *B. typhosus* in pure culture did not multiply when inoculated into sterilized bottled spring waters.

8. *B. typhosus* was obtained alive from spring water "B" after inoculation and two months' storage.

9. *B. dysenteriae* remained alive from four to five days in pure culture in spring waters, "A," "C," and "D."

10. From the results obtained with water "A" it is indicated that certain chemicals in natural spring waters may inhibit the existence of bacteria.

11. A steady decrease in the numbers of the inoculated bacteria was evident in waters "B," "C," and "D." This decrease was more rapid in water "D," which was low in both organic and inorganic matter than it was in waters "B" and "C," which contained, respectively, large and medium quantities of organic and inorganic matter.

SOME SUGGESTIONS FOR NATIONAL FORMULARY REVISION.*

BY WILBUR L. SCOVILLE.

Comments on National Formulary preparations since the advent of the Fourth Edition have been very meagre. This is probably due more to war conditions, the diverting of attention, and the restrictions placed upon materials, as well as upon time and men for experimenting than to a special satisfaction with the National Formulary. Thus we have come to the time for appointment of a new revision committee, and our pharmaceutical literature offers but few suggestions for improvement. The following may be of help in getting work started, and are offered with this in mind:

Compound Elixir of Glycerophosphates precipitates on standing. Glycerin does not help this, and the amount of glycerin in the preparation might be reduced without detriment in this respect, though not without detriment to the taste. Probably more acid is needed.

Emulsions.—Nearly all commercial emulsions are made to contain tragacanth as well as acacia, in order to preserve homogeneity in appearance. Those pharmacists who make their own emulsions probably make some weeks' supply at a time, and this factor is of advantage to them. A small amount of tragacanth prevents the formation of layers in the emulsion for a considerable time, and in some instances adds to palatability.

Solution of Aluminum Subacetate is directed to be adjusted to a definite specific gravity. Such adjustments are difficult to make and not in accord with the usual methods. Adjustment to a definite volume, with a descriptive clause would be desirable.

Solution of Ferric Hypophosphite precipitates on standing. Glycerin again does not help. Probably more Sodium Citrate is needed.

Compound Solution of Phosphates also precipitates quite badly. Probably more acid is needed in this.

Liquid Petroxolin.—Complaints have been made that this does not always make a clear preparation. Experiments on the use of potassium or sodium hydroxide are desirable to learn whether more certain results are likely to follow than when stronger ammonia water is used. The present formula is probably satisfactory when the materials are standard, but it is not always practicable to get

* Presented to Section on Practical Pharmacy and Dispensing, A. Ph. A., New York Meeting, 1919.

stronger water of ammonia of full strength, and too much warming will further reduce this.

Syrup of Calcium and Sodium Hypophosphites precipitates on standing. Probably too much sugar is used.

Compound Syrup of Phosphates and Syrup of Phosphates with Quinine and Strychnine precipitates on standing. Since both of these are made from *Compound Solution of Phosphates*, this is probably the key to the difficulty.

Compound Syrup of White Pine and *Compound Syrup of Stillingia* both precipitate organic matter on standing. This kind of precipitation is not easily remedied except by a change in constituents. This may not prove to be practicable.

Antiperiodic Tincture also precipitates. This may be due to excessive acidity, and the use of another salt of quinine may reduce, or possibly inhibit, precipitation.

Stronger Tincture of Iodine.—Several complaints have been made that not enough potassium iodide is used to get all the iodine into solution.

Tincture of Vanilla.—The method of manufacture is unnecessarily complicated and wasteful. Direct percolation of the vanilla, either with or without the sugar makes just as good a preparation with much less trouble and expense.

A number of the N. F. preparations should be introduced to the "purity rubric" and have definite standards and methods of assay attached, if retained in the next edition. Among these are Caffeine Sodio-Salicylate, Extract of Jalap, Extract of Podophyllum, Fluidextract of Kola, Fluidextract of Jalap, Fluidextract of Sanguinaria, Solution of Iron of Albuminate, Solution of Iron Oxide, Solution of Iron Peptonate, Solution of Iron Protochloride, Solution of Strychnine Acetate, Magma of Ferric Hydroxide, Syrup of Calcium Iodide, Syrup of Codeine, Syrup of Iron and Manganese Iodide, Syrup of Ferrous Chloride, Syrup of Quinidine, Syrup of White Pine with Morphine, Tincture of Ferric Citrate, Tincture of Ferrated Extract of Apples, and Tincture of Jalap.

Whether it will be wise to standardize the pepsin preparations is debatable, since the conditions of permanency in solutions of pepsin are not yet known. But it is desirable to make the different liquid preparations of pepsin more uniform as to acidity. These have all been accepted as offered by independent authors, with such modifications as may have suggested themselves to the revisors. In consequence, they vary widely in acidity, and probably also in stability. The latter question should receive considerable attention in the next revision. Probably eight different liquid preparations of pepsin are more than needed, but uniformity in the chemical and physiological composition should be adopted in such as are retained.

Have abbreviations of the titles served any good purpose? If not, why encumber another book with them?

OINTMENT DIFFICULTIES.*

BY WM. GRAY.

In preparing ointments for a famous dermatologist, I have had trouble in trying to furnish a perfect preparation. Here is an example:

* Read before Section on Practical Pharmacy and Dispensing, A. Ph. A., New York meeting, 1919.