

Contributed and Selected

A NOTE ON THE VALUE OF PRESERVATIVES IN SYRUP OF IRON IODID.*

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In the U. S. P. Eighth Revision, Diluted Hypophosphorous Acid, to the extent of 20 cc. to 1000 gm., is directed to be added to this Syrup as a preservative. Several of the foreign pharmacopœias direct the use of organic acids for the same purpose; the Austrian Pharmacopœia directing 0.1 percent of Citric Acid, the Swiss Pharmacopœia, 0.05 percent of Citric Acid, and the French Pharmacopœia, 0.1 percent Tartaric Acid. The German, the British, the Danish, the Swedish, and the Italian Pharmacopœias, do not direct any preservative, dependence being placed upon the use of sufficient sugar.

In order to test the relative value of these preservatives, six samples of Syrup of Iron Iodide, were prepared on October 15, 1913. In the preparation of all of these, the official process, manipulation and percentage of iron, salt and sugar were carefully followed. These samples were preserved in my laboratory, and not exposed to direct sunlight, for several months. On December 18th, their condition was observed and noted. Subsequently, these samples were deposited with Chairman Remington and preserved in his laboratory, with the other pharmacopœial samples, until a few days ago, when I obtained them for observation of the further changes that had taken place. In the tabulation below, the appearance on these two dates of each sample is noted:

No. 1.—Prepared by the U. S. P. formula, but without preservative.

On December 18th, this sample was slightly yellow. It is now of a pale green color, and appears to be in perfect condition.

No. 2.—U. S. P. VIII, formula without any variation. On December 18th, this sample was very pale, but perfectly clear. It was noted that the green color had gradually faded and the sample was much lighter in color than when first prepared. This is in accordance with the previous observations on this formula.

This sample is now of a light yellow color and there is evidence of some change in the sugar; the change that we have commonly considered as "caramelizing," which takes place in the presence of Hypophosphorous Acid.

No. 3.—Formula of the U. S. P., with the addition of 0.05 percent of Tartaric Acid. This sample, on December 18th, had assumed a distinct yellow color. It has now faded, until it is almost colorless.

No. 4.—Formula of the U. S. P., with 0.1 percent of Tartaric Acid. On December 18th, this sample had retained a light green color, about the same

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tint as when first prepared. It now shows no change and appears in perfect condition.

No. 5.—Formula of the U. S. P., with the addition of 0.05 percent of Citric Acid. On December 18th, this sample was of a very light green color, and preservation appears to have been perfect. It now shows no further change.

No. 6.—Formula of the U. S. P., with the addition of 0.1 percent of Citric Acid. On December 18th, this sample had retained its original pale green color and at this time preservation appears to have been perfect.

Conclusions:—If Syrup of Iron Iodide is carefully made, with the proper amount of sugar, no preservative whatever is needed. However, to overcome the careless manipulation on the part of some druggists, it has been deemed advisable to add a preservative. Hypophosphorous Acid has the advantage of a reducing value which is not possessed by the organic acids suggested for this purpose. It has, however, the disadvantage that, in the strength directed, it will act upon sugar in strong solutions and darken the syrup. This could be overcome by substituting Glycerin for a portion of the Sugar directed in the formula.

DONT'S IN PHARMACY.*

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From the experience, and quite especially from the mistakes and failures, of others we can always learn. This also holds good in Pharmacy and is my excuse for this paper.

These "Don'ts in Pharmacy" are taken at random from my lectures in the Department of Pharmacy of the University of New Jersey, and have been highly appreciated by my students. No doubt some of these "Don'ts" will be helpful, even to some members of a State Pharmaceutical Association.

In the opinion of the author it is quite as essential,—equally important,—to know how *not* to do it as it is to know how to do it. Let the following maxim be the motto of every pharmacist:

"Do it well and do it right!"

In the presentation of the present paper, the author has made an attempt to classify the "Don'ts" as follows:— General, Chemicals, Galenicals, Strength of Preparations, Dispensing, and the Prescription Department.

General.—First of all, don't hide your copies of the U. S. P., N. F., Dispensatories and other standard pharmaceutical works, but keep them in a prominent place so that you can readily consult them. A druggist who cannot lay his hands on the Pharmacopœia is like a minister who cannot find his Bible.

Don't get along without a pharmaceutical library, but collect and select the standard works on pharmacy, chemistry, materia medica, pharmacognosy, etc., which serve as reference books in the daily practice of the pharmacist. As a

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