

dissolving slowly, yield maximum effect upon the mouth and throat. While a good administration form for local medication, they are unsuitable for substances intended for action elsewhere.

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ABSTRACT OF DISCUSSION.

F. W. Nitardy inquired of the author whether it was the intention to give standards for disintegration and solubility. Professor Snow stated that he did not know whether standards would be provided for, that the tablets as submitted disintegrated quite rapidly. Mr. Nitardy stated that skill was an important factor in tablet manufacture. He also spoke of the absorbent qualities of charcoal, and variation in that respect; an article on the subject had recently appeared in the *Journal of Industrial and Engineering Chemistry*; much information may be obtained on this subject of value to members of Revision Committees by reference to the research work on charcoal in connection with its value in the manufacture of gas masks.

[EDITOR'S NOTE.—For a comprehensive article on Tablet Manufacture, see p. 788, Volume IX, THIS JOURNAL.]

COMPOUND SOLUTION OF SODIUM PHOSPHATE, N. F.\*

BY H. M. FASER.

The formula for compound solution of Sodium Phosphate, N. F. is as follows:

Sodium Phosphate, in effloresced crystals.....	1000 Gm.
Citric Acid.....	130 Gm.
Glycerin.....	150 mils

Distilled Water, a sufficient quantity to make	1000 mils
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Heat the mixture of sodium phosphate and citric acid in a glass or porcelain vessel on a water-bath until liquefied. Filter the solution while hot into a vessel which has just previously been rinsed with boiling water. Finally add the glycerin and sufficient distilled water, just previously boiled, to make the product measure one thousand milliliters.

Keep the solution in well-stoppered bottles, in a moderately warm place.

The formula states:

"It is important that effloresced crystals of sodium phosphate be used in making this solution, as it is nearly saturated. Should an effloresced salt be employed with its greater percentage of anhydrous sodium phosphate, the solution is likely to crystallize."

It also states:

"Should sodium phosphate in partly effloresced form be used, the salt should be first covered or thoroughly washed with distilled water, and, when the efflorescence has disappeared, the clear crystals should be removed from the water and air dried; or a small quantity of the sample may be dried with heat, as directed under *Sodii Phosphas Exsiccatus* (U. S. P.) and the percentage of moisture determined. When the amount of water present is known, a proportionately smaller quantity of the effloresced salt may be taken."

In the first place, when this preparation is made from the salt in effloresced crystals, by the formula as laid down, which states to heat the sodium phosphate and citric acid until liquefied and filter while hot, we will find that it is almost impossible to filter unless a hot water funnel is used, and again it would crystallize before it passed through due to the fact that the sodium phosphate employed had dried out to a certain extent and a greater percentage of sodium was used than

\* Read before Section on Practical Pharmacy and Dispensing, A. Ph. A., New Orleans meeting, 1921.

intended. I know that the formula states that it is important that uneffloresced crystals of sodium phosphate be used, and tells us what to do if it is partly effloresced, by covering it with water and then drying in open air, but all of this is troublesome, and involves work that the average pharmacist is not going to do.

I venture the assertion that ninety percent of the sodium phosphate found in the wholesale drug houses, from where we purchase the article, does not contain over 40-45% of moisture, and after the pharmacist keeps it in stock for a while, especially in a steam-heated house, it contains less. And the result is that, after a half-gallon of this solution is made, in a short time several inches of crystals form on the bottom of the container.

Sodium phosphate of the U. S. P. contains about 40% of anhydrous salt and the exsiccated sodium phosphate contains about ninety-eight percent of the salt. I would therefore suggest that about 396 grammes of the dried salt be ordered in making this preparation, which would give us a preparation of full strength and overcome all danger of crystallization.

Then again, we all know that salts containing much water of crystallization have stored up in them spores, or micro-organisms, and when brought into solution a mother will soon collect.

When this preparation is made by the simple formula of dissolving the dried sodium phosphate and citric acid in 800 mils of water, heating to the boiling point and filtering into a sterile container, adding the glycerin and then sufficient boiled distilled water to make the 1000 mils, you will have a preparation that will keep indefinitely.

#### REMARKS.

F. W. Nitardy stated that he had used the method of Professor Faser for many years, and found it very satisfactory.

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### THE COMING PHARMACIST.\*

BY WILLIAM GRAY.

As chairman of the A. Ph. A. membership committee for Illinois, I have had the opportunity of observing what seems to me to be the trend of the retail pharmacist—in the direction opposite to professionalism. For example: Some druggists say that they are not interested in the American Pharmaceutical Association; others that they have no time to read journals, etc. So the thought comes to me that the future of pharmacy as a profession in this country lies with the hospital pharmacist; generally speaking, his or her work is entirely professional.

Hospitals are coming to the people more and more; each year a larger proportion of the medicines prescribed for the sick are dispensed through them. There are not enough hospitals to supply the demands of the people, even though the number is growing rapidly. Hospital pharmacists are becoming more numerous, and more of a factor in pharmaceutical affairs. Therefore the importance of organizing them.

Believing the American Pharmaceutical Association to be the ideal association for them to join, I brought this matter to the attention of General Secretary William B. Day, who heads the membership committee. He heartily agreed with me that

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