SHOULD THE DRUGGIST KNOW THE NATURE OF SUBSTANCES HE DISPENSES?

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While the following article is composed largely of a series of questions, it brings out important thoughts from the active life of pharmacists. Several of these questions, though not new, are worthy of consideration by associations. *Confidence* is an important factor in every activity, in fact is one of the essentials of business and must be passed along. It is impossible for the average pharmacist to test all the materia medica he handles; if this were necessary, it would certainly reduce the volume of his business and increase the overhead expenses. The reliability of our pharmaceutical and chemical manufacturers is of a high quality, and contributes to the efficiency of pharmacists. The error that is cited in the article, or similar one, may occur, but so rare are these occurrences, that they are impressive because they are unusual. It is almost impossible to employ the same care, in the average pharmacy, for the prevention of errors, as is imperative in manufacturing establishments. What the retailer rightly says to the consumer, "Know whom you are dealing with," is applicable in buying.—EDITOR.

What should the druggist know about the physical and chemical properties, or the probable adulteration of, or the constituents of, preparations he is dispensing?

Some time ago the author was discussing this subject with a local druggist in connection with adulteration of aspirin recently brought to light in this state. A number of druggists had been selling aspirin powder and tablets, adulterated with acetanilide; whether or not they were ignorant of the presence of the latter has not been determined. In this instance, should the druggists have known that they were dispensing an adulterated product? The local druggist said he thought that all these men were innocently dispensing this adulterated article. He further stated that it should not be necessary to examine everything for probable impurities, or to test the strength of each preparation before dispensing it. He said, "If a druggist did that, he would never get anything else done."

Why, then, is it necessary to incorporate into the Pharmacopœia certain tests and assays? Are they simply put in for the benefit of instructors or students in pharmacy, or for those who see to the enforcement of the food and drug law? It seems to me that at least the qualitative tests should be applied, by the pharmacist, to see if his stock meets with the requirements of the Pharmacopœia; or prove the absence or presence of impurities in substances not official.

A few substances could be examined during spare moments, until all the stock had been gone over. Some druggists contend that the way of getting out of doing all this work is to buy from some reliable firm. The author has experienced that the policy of depending on substances from a reliable firm did not always hold good, when he had occasion to help a young man in the calcination of calcium carbonate in the preparation of pure calcium oxide. We placed what we considered calcium carbonate in an electric muffle, and heated it for a length of time which we judged would be sufficient for all the carbon dioxide to be driven off. But we found it responded positive to the carbonate test, and again, after further heating;

then we analyzed some of it and found it to be sodium carbonate. On examining the label of the container it was found to be labelled calcium carbonate. It also stated the presence of impurities and the amount. Other containers similarly labelled also contained sodium carbonate.

As for examining galenicals, etc., even if bought from a reliable firm, how many of these drug houses will guarantee the strength of a preparation after the container has once been opened? Will they be responsible for its strength until it is all used up? If a druggist dispenses a deteriorated product, is he not guilty of dispensing an improperly labelled product? And how about preparations which you cannot buy from a reliable firm? Another druggist raised this question, "How many druggists do you suppose are capable of doing this kind of work"? Some can not, others can and don't.

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THE McNEERY METHOD FOR PREPARING "MILK OF MAGNESIA."

Wilson W. McNeery, at one of last year's meetings of the Philadelphia Branch of the American Pharmaceutical Association, presented a formula for making "milk of magnesia" based on the formation of the suspended magnesium hydroxide in the reaction between sodium hydroxide and magnesium carbonate, and this method has received the recognition of the Revision Committee of the U. S. Pharmacopœia IX.

The reaction between magnesium carbonate and sodium hydroxide is given, and the further calculations are made for arriving at the quantities needed of the *official* chemicals for making a magma containing 40 grains of magnesium hydroxide in one fluidounce of preparation. The calculations develop that in order to have a preparation holding in suspension 40 grains of magnesium hydroxide in a fluidounce is the equivalent of 5120 grains in a gallon, and for this production 9212.46 grains of U.S.P. magnesium carbonate and 6256.08 grains of U.S.P. sodium hydroxide are required and hence constitute the formula for the preparation.

The manipulation is given by Mr. McNeery as follows:

Place 9212.46 grains of magnesium hydroxide in a mortar and triturate with sufficient water to make a smooth mixture. Dissolve 6256.08 grains of sodium hydroxide in sufficient water to make 32 fluidounces of solution. Add the latter solution to the former mixture; pour into a large container and wash by decantation or syphoning until the supernatant liquid is neutral to litmus. Then allow the precipitate to subside until its volume is one gallon, withdrawing the liquid above.

If a slight excess of alkali is used for the reaction, and the precipitate is carefully washed, the product is practically free from carbonate. The product is smooth, white and creamy.
