

time. It is relatively inexpensive, clean and easy to handle, and does not, as do lime, salt, and other chemicals, tend to impart any noticeable flavor and eggs preserved in it will remain in satisfactory condition for a year, and even longer.

The excellent reputation which this matter enjoys, has created a considerable demand for it, and as a natural consequence a number of manufacturers have each placed upon the market a brand of water-glass. Since waterglass is not itself a definite chemical compound; since the methods of its manufacture differ in themselves; and since no arbitrary standards have been set to which this product must conform, it is not reasonable to expect all brands of commercial waterglass to be uniform in character.

In general it may be stated that the waterglasses at present found on the market can be divided into two classes, viz:

- (1) Solutions of sodium silicates of specific gravity 1.30 to 1.45, perfectly fluid, and containing from 25—33% of total solids, generally labelled Improved Water Glass.
- (2) Solutions of sodium silicates of specific gravity 1.65-1.75 semi-solid, and containing from 53-57% of total solids.

All brands of waterglass are put on the market in small tins of an average content of 800cc. and in larger tins containing 600cc. The smaller tin will hold about 17 ounces of 1.7 Sp. Gr. water glass, and about 13 ounces of 1.3 Sp. Gr. water glass. A small tin of the heavy solution sells for 20 cents and the same size tin of weak solution for 15 cents. When it is considered that the weak solution is the cheaper of the two to manufacture, and that it contains little more than half as much sodium silicate as the strong solution, these prices appear decidedly out of proportion to the value offered. In general, the weak solution costs the consumer 2.5 times as much as its equivalent in the heavy solution.

The thin liquid has one advantage over the denser article, namely that it is more easily handled. This advantage, however, hardly warrants the difference in the price of the two articles.

The manufacturers of water glass, as a rule, make no claim as to the weight of the material in the containers, save in one case, namely Lyman's, Ltd. One can of this make shows a deficiency of 2 ozs. but as other samples of the brand are well up to weight, this is hardly to be considered as more than accidental.

As a result of this investigation I am of the opinion that waterglass is an article which it would be in the interest of the public to standardize, and I present this report with the hope that the information it contains may be sufficiently full to allow you to fairly define this product.

I have the honour to be, Sir,

Your obedient servant,

R. M. ROWAT,
Public Analyst.