METHODS OF DETERMINING WEIGHT PER BUSHEL.

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In a recent bulletin, Barber, of the Maine station discussed methods for determining the weight per bushel of grains. The need for a uniform method for such determinations is pointed out in this bulletin, as is shown by the following statement made by the Federal Bureau of Standards in answer to an inquiry made by the Maine station:

"So far as the Bureau has any knowledge on the matter, there is very little care or uniformity of method used in filling the bucket with grain, although without doubt it is a matter to which greater attention should be given, as there is a decided difference in the amount of grain that may be contained in a measure according to whether it is struck off level as it falls into the bucket or is first shaken down. The most common practice of the matter is, probably, to merely dip the bucket into the grain to fill and then strike off the grain as it lies."

Four methods of determining weight per bushel were tested at the Maine station. The details of these methods are given briefly elsewhere in this paper. The method used in the department of plant breeding at Cornell University has given very satisfactory results; and as it differs in some essentials from those used by the Maine station, a comparison of the results obtained by the various methods seems desirable.

When investigations with cereals were begun by the department of plant breeding, it was deemed important to use a method for determining weight per bushel which would give accurate results and one in which all tests would be conducted in a uniform manner. It was also desired to use a method which would give results representing fairly the weights per bushel. It seemed that some method which would make it possible to fill the bucket in the same manner and with the same quantity each time would be satisfactory.

For this purpose Mr. H. W. Teeter of the department of plant breeding designed the apparatus shown in Plate I, Fig. 2. This

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