NOTE 4

DETERMINATION OF MOISTURE IN EVAPORATED APPLES.

AUGUST 23, 1916.

Order in Council of 29th October, 1912, published by this Department as G. 1044, fixed 27 per cent as a maximum amount of water permissible in evaporated apples.

Subsequent investigations showed that even this limit was too high to be consistent with good keeping qualities in the product (see Bulletin No. 293), and an Order in Council of 16th March, 1916, established 25 per cent of moisture as a maximum. Experimental work done in these laboratories shows that the method employed in determination of moisture in evaporated apples, affects more or less the accuracy of the result; and in order to secure uniformity, the following method of working is provisionally adopted.

1. A representative sample (at least 25 grammes) is comminuted by cutting with a sharp knife, on a hardwood board, until the fragments are not larger than a cube of one-fourth of an inch. Machines such as are used to cut sausage meat are objectionable, as they squeeze out more or less of the water, thus causing loss.

2. Weigh out duplicate portions of from 10 to 15 grammes, of the finely cut material, on tared watch glasses, and dry for two hours at 90° Centigrade, in a well-ventilated, water-jacketed oven.

3. Weigh the samples.

4. Return to oven for another hour, under same conditions as above.

5. Weigh again.

If the loss of weight between the two last weighings amounts to less than one-half of one per cent of the weight of the samples, the last weighing is to be accepted as correct, and the weight lost in three hours is to be calculated as a percentage loss on the original weight of the sample, and stated as moisture.

6. If the loss shown in the last hour exceeds one-half of one per cent of the weight of the sample, this is to be returned to the oven for another hour, under same conditions of temperature, etc., and the loss of weight after the fourth hour, is to be taken as measuring the moisture present in the original sample.

NOTE.—It is desirable to employ an oven with forced ventilation. See description of McGill oven in Leach's "Food Inspection and Analysis," page 586.