Generally speaking, growers understand the significance of these figures, but as a rule the merchants have either disregarded them or not understood their import, and an attempt is made here to explain in detail the scheme as intended it should apply to the produce of the 1929–30 season.

It seems necessary to explain, in the first place, why definite standards have not been fixed for certified seed. Such a proposal met with strong opposition from merchants in Canterbury who were handling most of the certified seed. They are called upon to fill orders from all over the Dominion, and the requirements of one merchant or one district may be very different from that of another in regard to the size of seed. Some purchasers require "table" size for cutting and planting, and, since this practice is one that the Department strongly recommends, it would be a retrograde step to refuse to certify to tubers

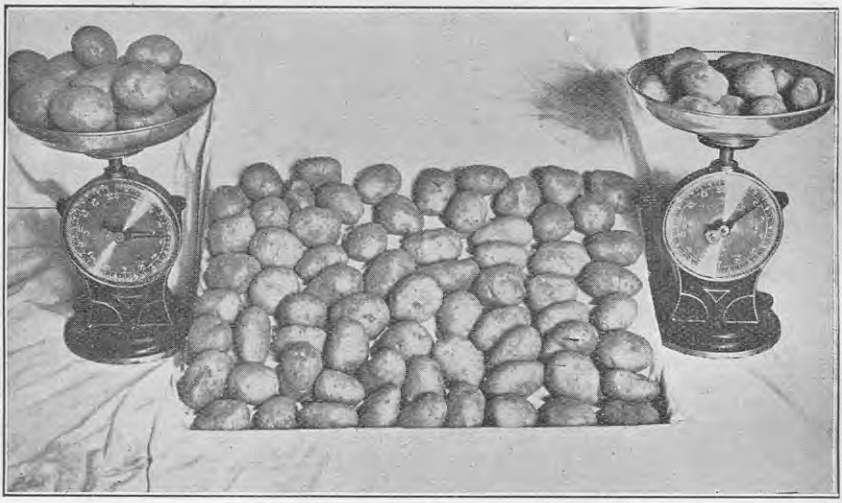

FIG. 3. SAME LINE AS IN FIGS. 1 AND 2, SHOWING WEIGHINGS.

The weight of the sixteen largest is $3\frac{1}{2}$ lb., and that of sixteen smallest 2 lb. The grading is therefore referred to as "$3\frac{1}{2}/2$."

of this size. There can be no one standard to fill all requirements, and therefore it must fall to the purchaser to stipulate the grading standard, and the method here described facilitates this to a very large degree.

One requirement is probably universal—that the tubers should be reasonably uniform in size, irrespective of whether the demand is for large, medium, or small seed. A grading standard should therefore convey in simple terms (1) the average size of the tubers, and (2) the range in size—that is, uniformity of grading. The average weight of tubers may be 3 oz. in a line ranging from 1 oz. to 8 oz., but will not be as well graded as a line having the same average weight but ranging in size from 2 oz. to 4 oz.

The use of sieves to determine size is unreliable, giving varying results according to the way they are used and the tuber-shape of the variety. Moreover, growers would have to purchase a whole range of