Feb. 13, 1923. 1,445,078.

A. FREEMAN.

VEGETABLE AND FRUIT RECEPTACLE.

FILED APR. 9, 1921. 3 SHEETS—SHEET 1.

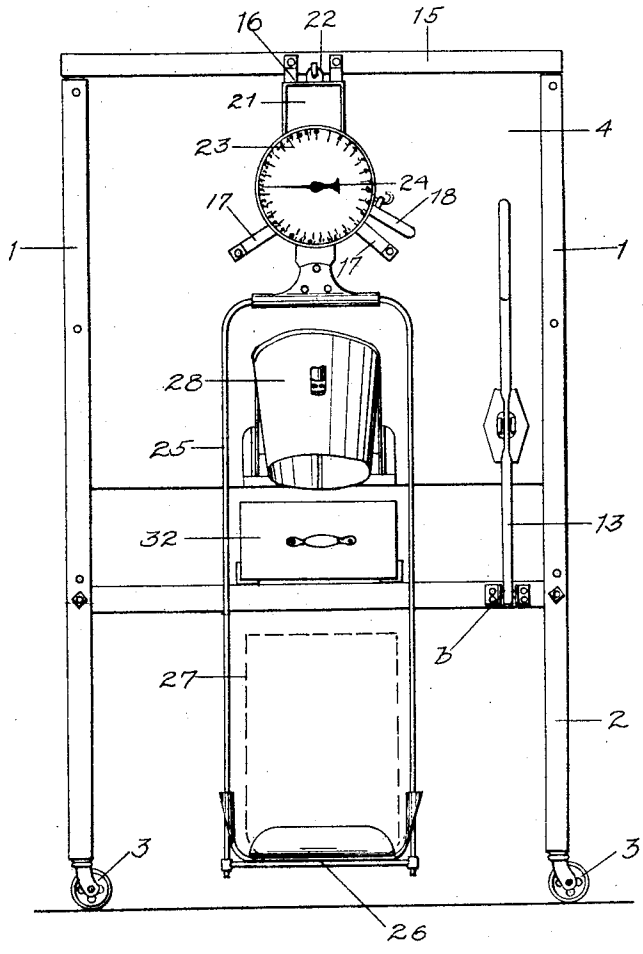


FIG. 1

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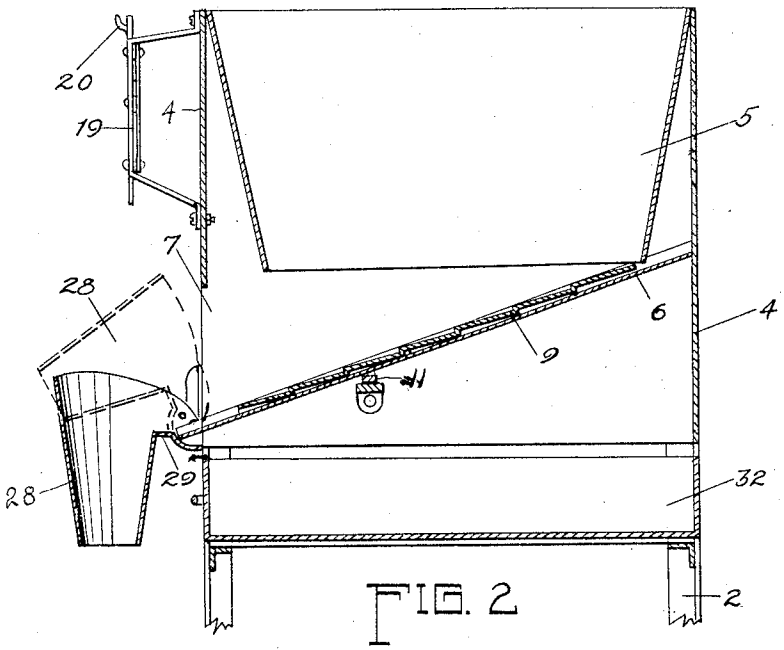


FIG. 2

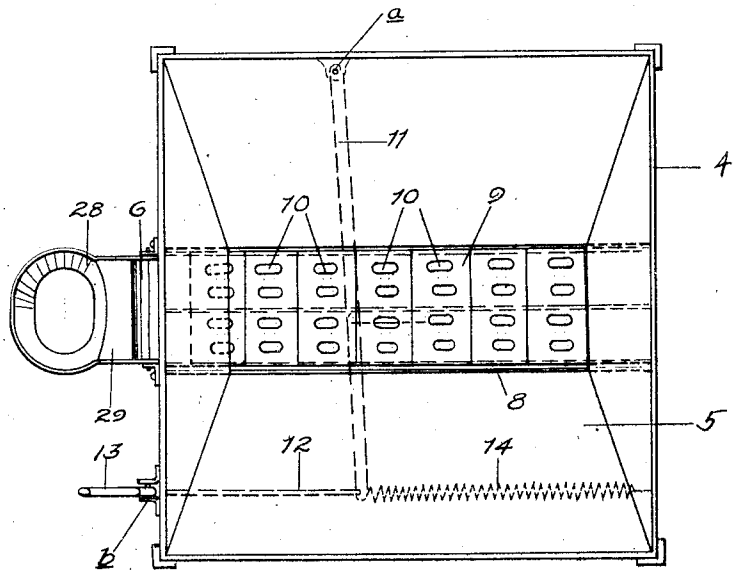


FIG. 3

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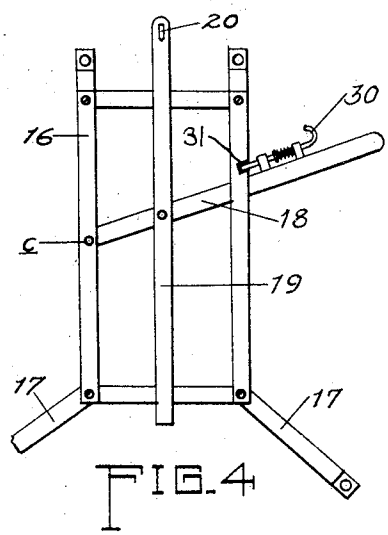


FIG. 4

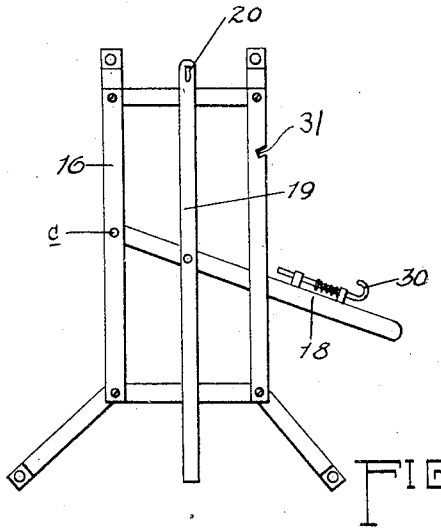


FIG. 5

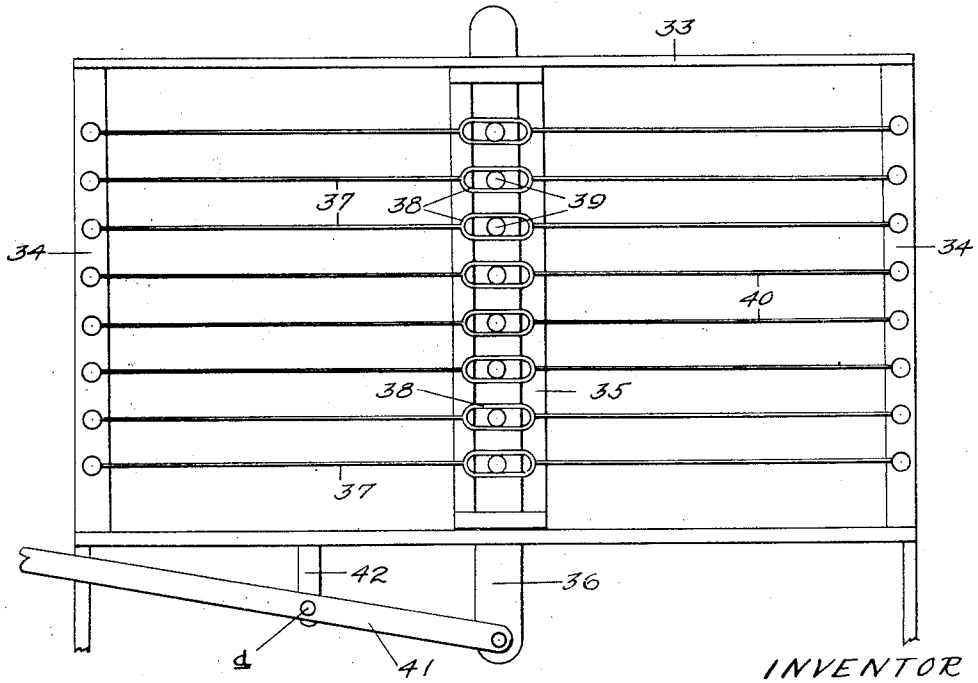


FIG. 6

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Patented Feb. 13, 1923. 1,445,078

# UNITED STATES PATENT OFFICE.

ALBERT FREEMAN, OF MOLINE, ILLINOIS.

## VEGETABLE AND FRUIT RECEPTACLE.

Application filed April 9, 1921. Serial No. 460,096.

*To all whom it may concern:*

Be it known that I, ALBERT FREEMAN, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Vegetable and Fruit Receptacles, of which the following is a specification.

My invention has reference to a vegetable and fruit receptacle, and is designed principally for use in a retail store. One of the purposes thereof is to provide a convenient receptacle for potatoes and similar articles, which are usually purchased in small quantities by measurement or corresponding weights, and means connected with such receptacle for the positive discharge of the articles therefrom.

Another purpose thereof is to provide a discharge chute or scoop at the opening from which the vegetables are delivered which can be raised into a non-operative position and interrupt the movement of such vegetables.

Another purpose thereof is to provide a convenient weighing apparatus which can be used interchangeably with several receptacles, which apparatus is fitted to hold the container into which the vegetables are to be delivered, and which can be adjusted for containers of different sizes. Such apparatus automatically indicates the weight of the articles as they are received in the container, and by the use of the machine the vegetables can be delivered in desired quantities without the necessity of handling them in the usual manner.

In the drawings:

Fig. 1 shows my invention in front elevation.

Fig. 2 is a medial vertical section thereof, with the weighing apparatus removed.

Fig. 3 is a plan view thereof.

Figs. 4 and 5 are details of the frame 16, with the bar 19 in different supporting positions.

Fig. 6 is a modified form of agitator for use in discharging the vegetables.

1 represents a frame, supported on legs 2, provided with swivel rollers 3, by means of which the device can be moved from one point to another in a store. In the upper part of the frame is a casing 4, suspended in which is a hopper 5, the sides of which converge downwardly toward a sloping floor 6, at the lower end of which is an opening 7 in the casing 4. The floor 6 has an opening at 8, above which is an agitator 9, formed of a series of steps, each of which contains a plurality of openings 10. At one side of the casing 4 as at *a*, is pivoted a rod 11, which passes beneath the agitator 9 and has a pivotal connection therewith, so that an oscillating movement of such bar in a horizontal plane will impart a reciprocating movement to the agitator. The movable end of the rod 11 is connected by a rod 12 with a hand-lever 13, fulcrumed to the front of the machine, as at *b*, and the lever 11 is connected with the rear part of the frame by a coiled spring 14, which tends to hold such lever normally in a rearward position.

On the front side of the machine, at the upper part thereof, is a cross-bar 15, to which is attached a frame 16, secured to the casing at its lower end by means of arms 17. Pivoted to one side of said frame, as at *c*, is a hand-lever 18, pivoted to which is a bar 19, so as to be vertically movable. At the upper end of the bar 19 is a hook 20, upon which is supported a scale 21, by means of a loop 22 on the upper end thereof. Said scale is provided with a dial 23 and indicator 24, of a common type, and depending from the scale beam is a frame 25, supporting at its lower end a platform 26, adapted to receive a sack or other container, as indicated at 27.

Hingedly connected to the casing 4 at the lower side of the opening 7, is a chute 28, provided with a cross-plate 29. When in lowered position, as shown in full lines in Fig. 2, the discharge end of the chute is in proximity to the mouth of the container 27, so that articles passing through such chute will be received in the container. When the chute is raised the plate 29 forms a bar across the lower part of the outlet from the receptacle, and assists in holding the contents thereof from movement.

Where vegetables are purchased in small quantities it is usually in pecks or half-pecks, or amounts approximate thereto. On that account two sizes of sacks are found to be convenient, namely, a fifteen pound size, and one about half as large. The position of the platform 26 which would be suitable for the large sized sack would not answer so well for the small-sized one, as it would bring the mouth of the sack too far below the chute, and some of the articles would be spilled. To overcome this difficulty the

frame 25 and platform are vertically movable, through the support thereof on the bar 19. When a larger sized container is being used the bar 19 is at its lowest position, as shown in Fig. 5, and when a smaller sack is to be used such bar is raised to the position shown in Fig. 4. This brings the platform closer to the end of the chute 28. The lever 18 and bar 19 can be locked in elevated position by means of a spring latch 30 on the lever 18, adapted for engagement with a notch 31 in the frame 16.

In operation, a sack of suitable size is placed on the platform 26, and the chute 28 tipped downwardly. If the vegetables do not move of their own gravity, the hand-lever 13 is actuated, moving the agitator 9, and causing a forced feed of the contents of the receptacle. Any dirt contained on the vegetables is removed in this process and passes through the openings 10 into a box 32 beneath the opening in the floor, which box can be removed and emptied when necessary.

As soon as it appears from the scale indicator that the desired weight of vegetables has been received on the platform, the chute 28 is raised, checking the movement of any more of such articles.

By having the scale and bag support detachably supported on the frame 16, this part of the machine can be quickly removed and transferred to another receptacle which is similarly arranged. One of the weighing apparatuses can thus be employed for a number of receptacles containing the same class of vegetables, or different classes of vegetables and fruits.

In Fig. 6 is shown a form of agitator which can be substituted for the one hereinbefore set forth. 33 indicates a frame, having end-pieces 34, and a central cross-bar 35, upon which is slidable a shaker-bar 36. At one end of the frame is a series of rods or wires 37, secured at one end to the cross-piece 34, and provided at their inner ends with loops 38, in engagement with pins 39 on the bar 36. At the opposite end of the frame is a similar series of rods 40, also provided at their inner ends with loops in engagement with the pins 39 beneath the loops 38. A lateral oscillation of the bar 36 imparts a shaking movement to the rods 37 and 40, and the frame 33 being set on an incline to correspond with that of the floor 6, vegetables received on the rods would be moved downwardly thereby, the dirt passing downwardly between the rods. One end of the bar 36 has connected thereto the end of a hand-lever 41, fulcrumed on an arm 42, as at *d*. The outer end of the hand-lever would be at the front of the machine, convenient for use by the operator.

While the invention has been pointed out as being more specially intended for the handling of potatoes, it is not limited to such use, but can be employed in the handling of any vegetables of a similar character, and apples or other fruits which will move freely in a receptacle of that kind.

What I claim and desire to secure by Letters Patent, is:

1. A device of the class described, comprising a suitably mounted receptacle having an opening in one of its sides; a floor for said receptacle, having an incline toward the lower edge of said opening, and provided with a central opening; an agitator mounted in said floor above said opening, formed of a series of steps; a chute hingedly attached to said receptacle in front of the opening therein, and provided with a cross-plate forming a partial obstruction to said opening when the chute is raised; and means for actuating said agitator from the outside of the receptacle.

2. A device of the class described, comprising a suitably mounted receptacle having a hopper in its upper part, and an opening in one of its sides; a floor for said receptacle, inclined toward the lower edge of said opening, and having a central opening beneath said hopper; an agitator mounted in said floor above said opening, formed of a series of perforated steps; means for actuating said agitator from the outside of the receptacle; and a removable box beneath said agitator.

3. A device of the class described, comprising a suitably mounted receptacle; provided with a suitable hopper and having a discharge opening in one of its sides; a floor for said receptacle, inclined toward the lower edge of said opening, and having a central opening beneath said hopper; an agitator operable in the opening in said floor; means for actuating said agitator from the outside of the receptacle; and a chute hingedly attached to said receptacle in front of the opening therein, normally forming an obstruction for the contents of said receptacle, but adapted to be turned into position to form a discharge pipe therefor.

4. A device of the class described, comprising a suitably mounted receptacle having an opening in one of its sides; a floor for said receptacle inclined toward the lower edge of said opening, and provided with a central aperture; an agitating device operably supported in said aperture; means for actuating said agitating device from the discharge side of said receptacle; a discharge spout hingedly attached to said receptacle in front of the opening therein and provided with a cross-plate forming a barrier when said spout is turned upwardly; a scale supported above said opening; and a platform supported from the beam of said scale in line with and below said discharge spout.

5. A device of the class described, com-

prising a suitably mounted receptacle provided with a discharge opening in one of its sides; a floor for said receptacle inclined toward the lower edge of said opening; a discharge spout hingedly attached to said receptacle in front of said opening; a frame attached to said receptacle above said opening; a bar supported in said frame so as to be vertically movable therein; means for holding said bar in adjusted positions, vertically; a scale removably attached to said bar; and a platform suspended from said scale in line with and below said discharge spout, the weight of articles on said platform being indicated by said scale.

In testimony whereof I affix my signature.

ALBERT FREEMAN.