

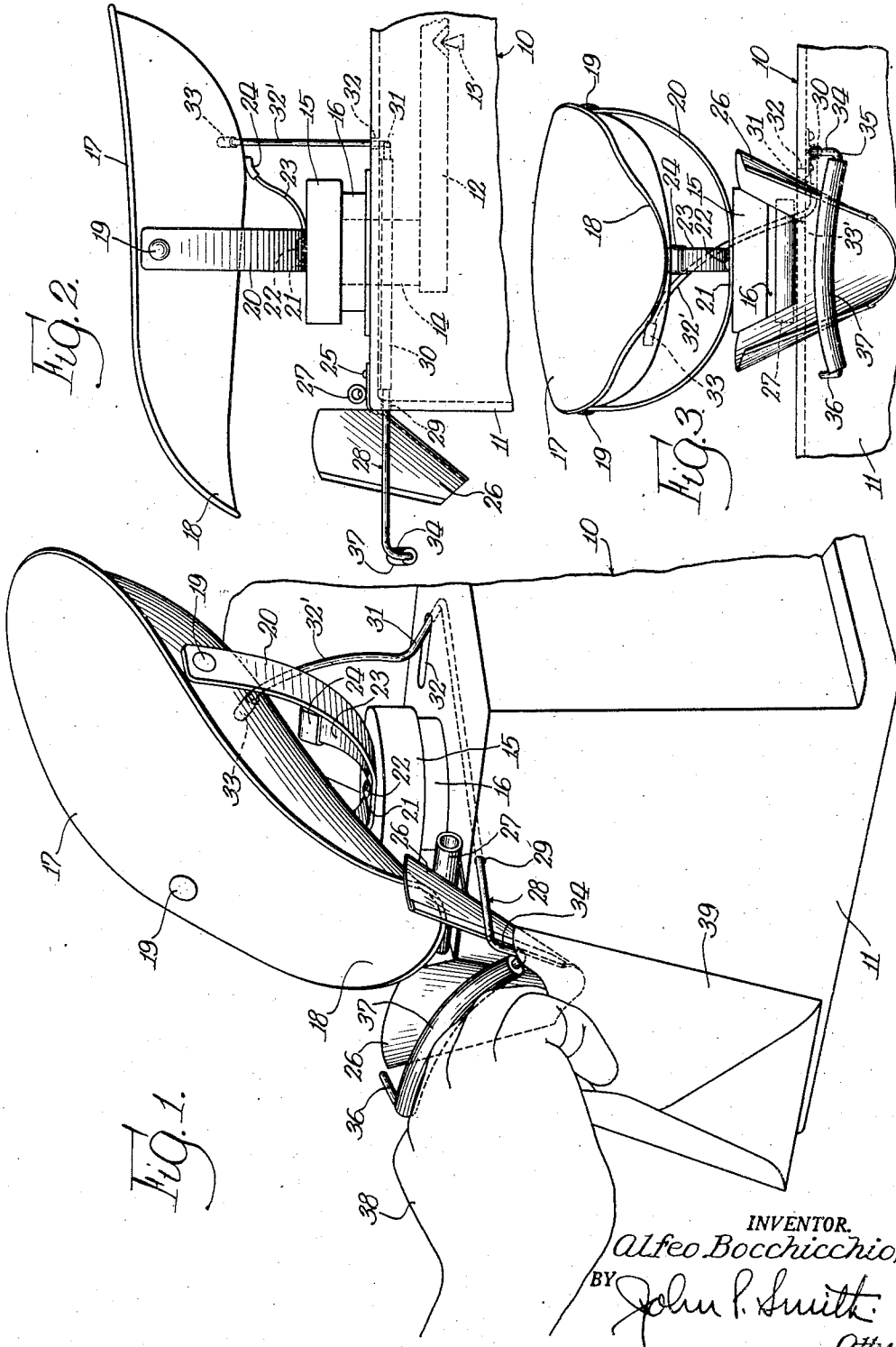
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SCOOP DISPENSING DEVICE FOR SCALES

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SCOOP DISPENSING DEVICE FOR SCALES

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The present invention relates generally to scales, but more particularly to a novel, simple and efficient attachment for scales which expedites and reduces to a minimum the labor and effort required in weighing and dispensing materials from scales so that the operation of packaging is more rapidly and easily accomplished by the operator.

A further object of the invention is to provide a novel and improved construction of scoop dispensing device for scales in which the operator by the use of one hand may position the container, such as a paper bag or box or other receptacle in position to receive the material and by the movement of the same hand in positioning the receptacle in the proper position, the scoop of the scale is simultaneously actuated about its pivot to dispense the material therefrom.

A further object of the invention is to provide a novel and improved construction of scoop dispensing device for scales in which an actuating lever is positioned adjacent the discharge end of a chute so that when the hand of the operator is brought into position with the container adjacent the chute, the scoop is simultaneously actuated to a discharging position to dispense the material contained therein.

These and other objects are accomplished by providing a construction and an arrangement of the various parts in the manner hereinafter described and particularly pointed out in the appended claims.

Referring to the drawing:

Fig. 1 is a diagrammatic and perspective view of the fragmentary portion of a scale illustrating the manner in which my improved attachment may be mounted thereon;

Fig. 2 is a side elevational view of the same; and

Fig. 3 is a front elevational view of the device shown in Figs. 1 and 2 of the drawing.

In illustrating one form of my invention, I have shown the same in connection with a conventional form of scale generally indicated by the reference character 10. The scale in this instance is shown in fragmentary form and may be of any conventional construction and includes the usual base frame or casing 11. Mounted within the casing 10 is the usual beam or lever arm 12 which is balanced on the usual fulcrum 13. One end of the beam 12 has an upwardly extending post 14 which extends through the opening in the top of the casing and has secured at its upper end a cap 15. The cap 15 is adapted to move relative to a collar or sleeve 16 which in turn is secured to the top

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side of the casing 10. The construction thus far described constitutes in effect a conventional form of scale.

My improved dispensing device comprises a conventional form of scoop, indicated by the reference character 17, which is provided with the usual downwardly curved dispensing mouth as shown at 18. This scoop is pivoted intermediate its ends as shown at 19 to the oppositely and upwardly curved supporting arms 20 of a bracket 21. The bracket 21 is rigidly secured to the cap 15 by a rivet or screw 22. Formed integrally with the bracket 21 is an upwardly and rearwardly curved arm or rest 23, the upper end of which is provided with a rubber bumper 24 and forms a rest for supporting the scoop 17 in its normal horizontal position, or the position shown in Figs. 2 and 3 of the drawing. In this connection it will be observed that the scoop 17 is pivotally connected to supporting arms 20 so that it will normally return by gravity to a position resting on the rubber bumper or rest 24. Secured to one side of the casing 10 by means of screws 25 is a substantially conically shaped chute 26 which is provided with downwardly converging side walls and has its upper end sufficiently spaced apart so as to receive the discharge or mouth end 18 of the scoop 17 when the scoop is actuated from its horizontal position shown in Fig. 2 to the position shown in Fig. 1. Positioned adjacent the chute 26 and secured to the casing 10 is a bumper 27 which is in the form of a rubber or fabric tube and is located in the path of the tiltable scoop so as to break the shock or impact when the scoop is actuated to discharge material therefrom.

The scoop in the present invention is actuated to discharge the material therefrom by the operator's hand with the same motion and simultaneously with the positioning of the container below the scoop. This is accomplished by a rock shaft or rod, generally indicated by the reference character 28. This rock shaft extends through an opening 29 in the front wall of the casing 10 and is journaled in a bearing bracket 30 which is secured to the underside of the top portion of the casing. The inner end of the rod 28 has right angularly bent portion as shown at 31 which extends through the transverse slot 32 in the top of the casing 10 and terminates in an upwardly curved portion or crank 32'. The upper or free end of the arm or crank 32' is covered with a rubber tubing as shown at 33. This rubber tubing is adapted to engage the underside of the scoop 17 in actuating it from the position shown in Fig. 2 to the position shown in Fig. 1. The crank

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arm 32' is adapted to engage one end of the slot 32 as shown at 33' to form a stop for maintaining the actuating crank arm horizontally at the front end of the rod as hereinafter described. The forward end of the rock shaft 28 is bent downwardly a short distance as shown at 34 and then extends transversely in an arcuate curve as shown at 35 so as to occupy a position which is substantially horizontal across the front end of the chute 26. The outer end of the transverse portion 35 terminates at the rearwardly extending portion as shown at 36. Embracing the arcuate portion 35 of the shaft 28 is a rubber or fabric tubing 37. This rubber or fabric guard 37 is for the purpose of protecting the upper portions of the operator's fingers when the hand, as shown at 38, is brought into contact with the crank to actuate the same. In this connection it will be noted that movement of the hand to bring the bag or container, as shown at 39, into position to receive the material discharged or dispensed from the scoop 17 also actuates the crank 35 to simultaneously tilt the scoop.

Summarizing the function and novel features of operation of my improved scoop dispensing device for scales, it will be observed that when the parts are in the positions as shown in Figs. 1 and 2 of the drawing, material may be placed in the scoop 17 and when the proper amount is placed therein with one hand of the operator, the other hand may grip the open end of the bag or container 39 and by the same motion of placing the open end of the bag below the discharge end of the chute 26, the crank arm 35 will be raised upwardly from the position shown in Fig. 3 to the position shown in Fig. 1 by the upper portion of the fingers engaging this crank 35 and thereby actuate the rear crank arm 32' to engage the rear side of the scoop 17, which in turn, actuates the scoop about its pivot 19 on the support 20 to discharge the material therefrom into the container. This arrangement obviously eliminates the necessity heretofore required of removing the scoop with one hand and holding the bag or container with the other in order to transfer the material thus weighed into a bag or container. This novel means of simultaneously positioning the container and discharging the material therefrom not only increases the efficiency and reduces time heretofore required, but also reduces the effort on the part of the operator with the consequent increase in production in the operation of packaging.

While in the above specification I have described one embodiment which my invention may assume in practice, it will of course be understood that the same is capable of modification and that modification may be made without departing from the spirit and scope of the invention as expressed in the following claims.

What I claim as my invention and desire to secure by Letters Patent is:

1. The combination with a scale having a fulcrumed beam, of a scoop pivotally supported on

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said beam, a chute positioned on said scale adjacent the discharge end of said scoop, a rock shaft journaled on said scale, a crank formed on one end of said rod and engageable with one end of said scoop, a crank formed on the other end of said rod and positioned across said chute whereby said scoop is actuated to discharge the contents therein simultaneously with the positioning of a container in a position to receive material from said chute.

2. The combination with a scale having a fulcrumed beam, of a scoop pivotally supported on said beam, a chute positioned on said scale adjacent the discharge end of said scoop, a rock shaft journaled on said scale having cranks formed on the opposite ends thereof, one of said cranks engageable with said scoop and the other of said cranks positioned adjacent to and forwardly from said chute whereby said scoop may be actuated to discharge the contents therein simultaneously with the positioning of a container in close proximity to said scoop.

3. The combination with a scale having a casing and a beam fulcrumed thereon, of a support secured to said beam, a scoop pivoted to said support and normally occupying a horizontal position, a chute secured to said casing adjacent the discharge end of said scoop, a rock shaft journaled in said casing, a crank on one end of said shaft and engageable with said scoop, and a crank on the other end of said shaft and normally occupying a horizontal position across said chute whereby said scoop may be actuated about its pivot on said support to discharge the contents therein simultaneously with the positioning of a container to receive the material from said scoop.

4. The combination with a scale having a casing and a beam fulcrumed thereon, of a support secured to said beam, a scoop pivoted to said support and normally occupying a horizontal position, a chute secured to said casing adjacent the discharge end of said scoop, a rock shaft journaled in said casing, a crank on one end of said shaft and engageable with said scoop, a crank on the other end of said shaft and normally positioned horizontally across the center of said chute, whereby said scoop may be actuated to discharge the contents therein simultaneously with the positioning of a container under said chute.

5. The combination with a scale having a casing and a beam fulcrumed thereon, of a scoop support mounted on said beam, a scoop pivoted on said support, a discharge chute carried by said scale and positioned to receive and guide the material discharged from said scoop, and tripping means positioned adjacent said chute and operatively engageable with said scoop, said tripping means being operable to actuate said scoop about its pivot to discharge the material therefrom upon the positioning of a container under said chute.

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