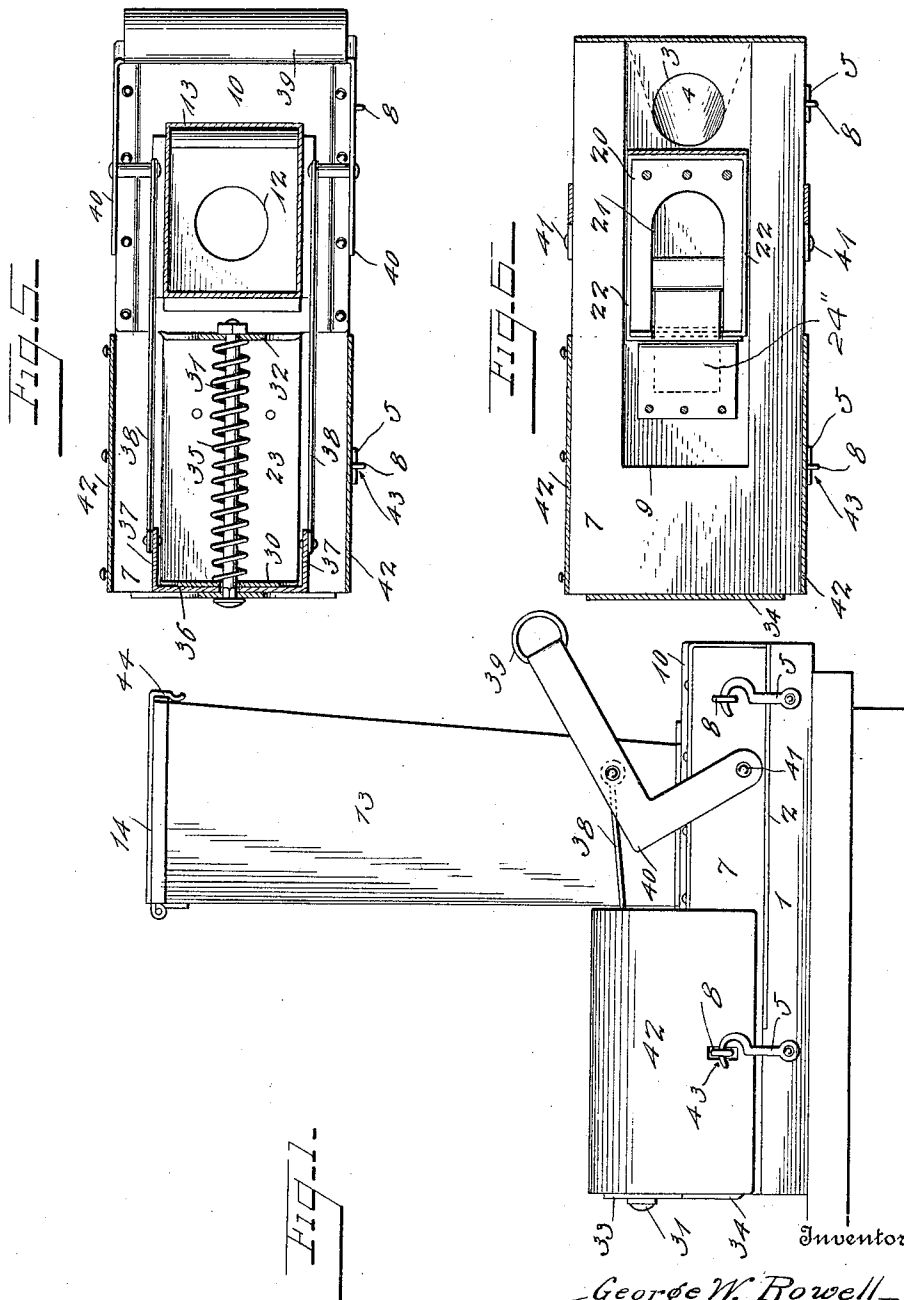


1,064,776.

G. W. ROWELL.
SUGAR DISPENSING MACHINE.
APPLICATION FILED JUNE 20, 1912.

Patented June 17, 1913.

2 SHEETS—SHEET 1.



Witnesses
J. R. Pierce

J. L. Collamer

George W. Rowell

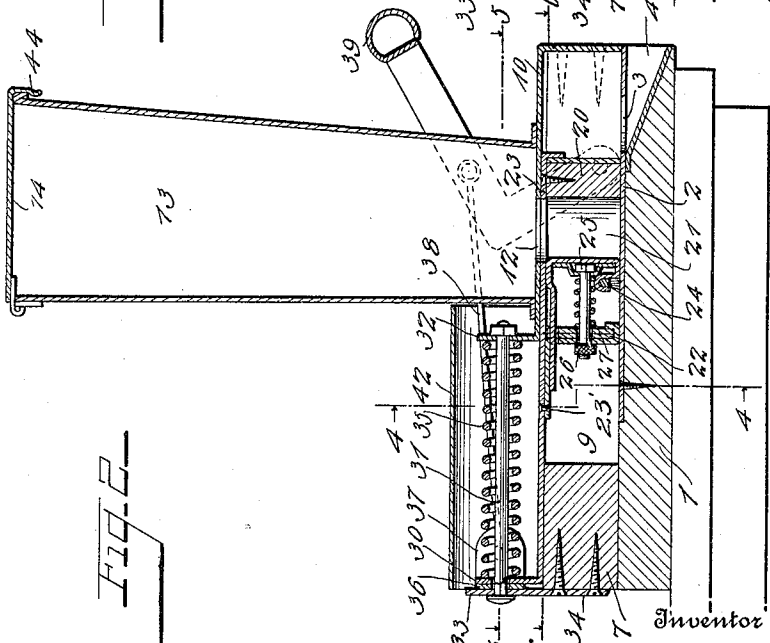
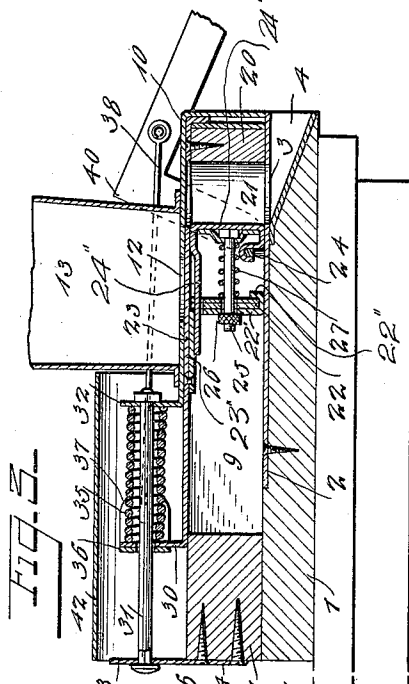
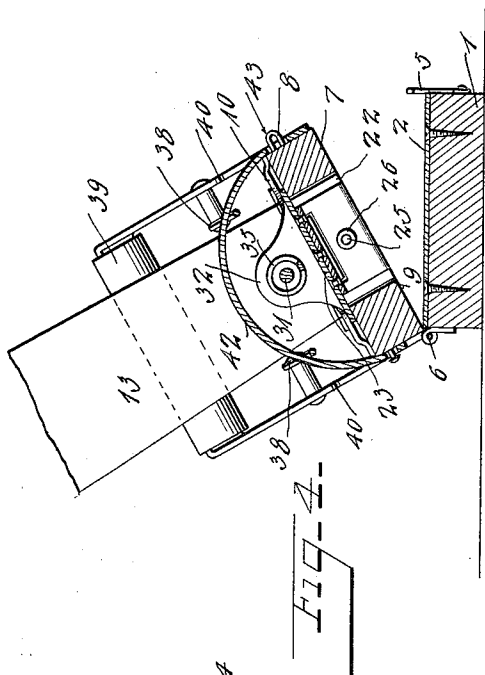
By *A. B. Wilson & Co.*
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Inventor
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Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE W. ROWELL, OF PORTALES, NEW MEXICO.

SUGAR-DISPENSING MACHINE.

1,064,776.

Specification of Letters Patent.

Patented June 17, 1913.

Application filed June 20, 1912. Serial No. 704,857.

To all whom it may concern:

Be it known that I, GEORGE W. ROWELL, a citizen of the United States, residing at Portales, in the county of Roosevelt and State of New Mexico, have invented certain new and useful Improvements in Sugar-Dispensing Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to dispensing cans, and more especially to those adapted to contain powder and having a measuring cut-off; and the object of the same is to produce a machine for use in public places where soft drinks are sold or consumed and by means of which a charge of sugar can be drawn by the consumer when his lemonade, for instance is not sufficiently sweet, although of course the device might have other uses.

To this end the invention consists in the details of construction hereinafter more fully described and claimed, and as shown in the drawings, wherein—

Figure 1 is a side elevation, and Fig. 2 a central longitudinal sectional view through this machine complete. Fig. 3 is a section similar to Fig. 2 (except that the upper portion of the hopper is omitted) showing the parts in their different positions. Fig. 4 is a cross section on the line 4—4 of Fig. 2, and with the upper portion tilted aside over the bars, and Figs. 5 and 6 are horizontal sections on the lines 5—5 and 6—6 of Fig. 2.

In the drawings the numeral 1 designates the base which in the present instance is shown as a block of wood of proper dimensions, preferably covered on its upper face with a plate 2 through which is formed a hole 3, and beneath the hole an outlet channel 4 is cut in the block and opens out its front end to constitute a delivery passage for the sugar or other powder with which the machine is charged. Pivottally attached to one side of the base are hooks 5, and connected with the other side of the base are hinges 6 to which is hinged the lower member or bottom 7 of the superstructure, this member also by preference being a block of wood and of about the same size as the base member and carrying eyes 8 in its free edge adapted to be engaged by said hooks 5. Therefore, when the hooks are

disengaged from these eyes, the superstructure can be turned over on its hinges and its interior exposed to view, as when the parts need repair or adjustment. The upper block 7 may well be somewhat thicker than the base member, and its body is cut out to provide a longitudinal recess 9 within which works the plunger to be described below, a metal sheet 10 covering the forward portion of this recess and pierced with a hole 12. Mounted on said sheet is a hopper 13, also preferably of metal, and having a hinged top 14 by means of which it may be closed.

The sugar or other powder to be handled by this machine is poured into the hopper from above in a manner which will be clear, and passes downward through the alined holes in said plate and through the recess or opening in the upper block onto the plate 2 on the top of the lower block; and the charge, whose size is controlled by the plunger in a manner which will be described below, will then be drawn forward and dropped through the hole 3 so that it may run out the outlet or mouth 4 of the machine.

Slidably mounted within the recess in the upper block is the plunger whose construction in detail is best seen in Figs. 2 and 6. By preference its major portion is composed of a rectangular block 20 having an opening 21 therein extending out its rear end and of a width corresponding with the opening 12 above referred to; and this block is surrounded by a metal strip 22 whose ends lap each other in rear of the block and across said opening 21. The top of the block is also by preference faced with metal as seen at 23. Disposed within said opening 21 is a brush 24 whose bristles project beneath the block 20, and the back of the brush is carried by an upright partition 24' which extends across said opening and has at its upper end a tongue 24'' projecting to the rear and passing over the upper edges of the rear ends of the strip 22 where they lap each other. Secured to said partition in any suitable manner is the head of a bolt 25 whose shank extends to the rear, through alined holes in said lapping ends where it receives an adjusting nut 26, and its body carries an expansive spring 27 coiled upon it between said lapping ends and partition. Riveted at 26' beneath the top plate 23 is a bracket 23'' consisting of

a right-angular plate whose rear leaf underlies said plate 23. and overlies said tongue, whose angle has a slot in which the tongue moves freely, and whose front upright leaf passes down in rear of the lapping ends 22 as shown, at 22' in Fig. 3 and is pierced with a hole for the bolt above referred to, while the lower extremity of this front leaf is upturned as at 22'' and constitutes a clamp for holding said lapping ends together. With this construction the spring holds the partition and brush normally forward as far as the nut on the bolt will permit, and therefore the size of the opening through the block is restricted; but when it is desired to enlarge this opening, the nut is turned to further compress the spring and draw the partition to the rear, and when it slides in that direction beneath the top plate the passage through the block is enlarged in size and therefore the charge delivered by this machine is regulated. It is obviously quite useful to have hooks between the base and superstructure so that the latter can be raised to permit access to this nut which may well be a thumb nut as shown.

The means for reciprocating the plunger within the recess 9 in the block 7 will now be described: The metal plate 23 is continued to the rear along the upper surface of the block and turned upward into a perforated ear 30 whose perforation slides on a guide rod which may well be a bolt 31 disposed horizontally between and connecting support 32 at the rear end of the plate 10 with a support 33 at the upper edge of the plate 34 secured across the rear end of the block 7. Between the forward ear 32 and the support 30 an expansive spring 35 is coiled around said rod or bolt. Between the rearmost support 33 and the ear 30 a yoke 36 is slidably mounted upon said rod or bolt and its ends 37 are bent forward to receive wires or rods 38 which connect it with the handle. The latter may well be constructed of a U-shaped piece of sheet metal whose center is rolled into a hand piece 39 and whose arms are bent at right angles as at 40 and pivoted at 41 to the sides of the upper block 7; and the front ends of the rods 38 are connected with said arms which stand astride the hopper so that the hand piece stands forward of the same in position to be grasped by the operator. The entire plunger-actuating mechanism is located to the rear of the hopper, excepting the rods which run past its sides and the handle whose hand piece stands in front of the hopper and whose arms extend past its sides to connect with the rods. That portion of the mechanism to the rear of the hopper is by preference covered by means of a hood of sheet metal as shown at 42 having one edge attached to the block 7 and the

other edge fastened thereto by any suitable form of latch 43. Any suitable form of latch 44 may be employed for keeping the cover of the hopper closed so that access to the interior of the machine is denied to meddling persons.

The operation of this device will now be as follows: With the parts standing at rest, the spring 35 draws the plunger to the rear so that the perforation in its top plate registers with the perforation or holes 12 in the plate 10, and the sugar or other powder within the hopper flows downward through the perforations or holes and into the body of the plunger which is filled, the plate 2 on the top of the base block acting as the bottom of the receptacle for holding the charge and the size of the latter being controlled by the thickness of the plunger and the adjustment of the partition within its recess 9. If said partition be adjusted farther to the rear, the recess is of course enlarged in that direction, and the reverse. When now the operator desires a charge of sugar, he has but to bear downward on the hand piece 39 of the handle, and the latter turning on its pivots 41 draws forward on the rods 38 so that the yoke bears the rear end of the spring forward and pushes the plate 23 forward and moves the plunger within the recess 9 of the block 7. Moving out from under the aligned holes or openings, this plunger slides forward over the top plate 2 of the base block until its opening registers with the hole 3 therein, when the charge of sugar runs through this hole and out of the channel or spout 4 into the operator's glass or coffee cup or into whatever receptacle is temporarily provided for it. Meanwhile the brush wipes the upper face of the plate 2 so that no particles are permitted to adhere thereto which would gum the machine and perhaps cause it to stick. As the operator releases the handle the spring causes the parts to return to their normal position, and when the plunger slides back over the plate 2 and under the plate 10 until the recess within its body aligns with the hole 12, another charge of sugar drops down out of the hopper into said recess ready to be ejected at the next movement of the machine. To gain access to the interior mechanism, the hooks 5 are disengaged from the eyes 8 and the entire superstructure turned aside on the hinges 6 as seen in Fig. 4, and now the size of the opening in the plunger can be adjusted by setting the nut in the manner above described. To gain access to the mechanism above the block 7, the latch 43 is disengaged and the hood 42 lifted. The interior of the hopper can be reached as for cleansing or repair by disengaging the latch 44 and lifting the cover 14.

The parts are by preference of wood or metal, and the entire device may be cheaply

made and put upon the market or can be built in a more ornamental and substantial manner and might become an ornament for the table, counter, or bar.

5 What is claimed as new is:—

1. In a device of the class described, the combination with a base block having a channel opening through its upper face and out its front end, and a plate secured upon
10 said block and having an opening registering with the upper end of said channel; of a second block overlying the first and having a recess in its body, a hinge connection between the blocks at one side, a latch connection between them at the other side, a hand-
15 operated plunger movable within said recess and having an opening, and a hopper carried by the upper block and having an outlet delivering into said opening when the plunger is moved to the rear.

2. In a device of the class described, the combination with a base having an outlet channel opening through its upper face, a block movably mounted upon said base and
25 having a recess extending over said channel, and a hopper carried by the block and having an outlet delivered into the rear end of said recess; of a hand-operated plunger movably mounted in said recess and having
30 an opening in its body, and a partition adjustably mounted in said opening for regulating the size of the charge delivered by the plunger.

3. In a device of the class described, the combination with a base having an outlet channel opening through its upper face, a block movably mounted upon said base and having a recess extending over said
35 channel, and a hopper carried by the block and having an outlet delivering into the rear end of said recess; of a hand-operated plunger movably mounted in said recess and having an opening in its body, a partition movably mounted in said opening, a
40 brush carried by the partition and whose bristles contact with the upper face of said base, a bolt secured to the partition and projecting through the rear end of the plunger, a thumb-nut on the projecting end of said

bolt, and a spring between said rear end 50 and partition.

4. In a device of the class described, the combination with a base having an outlet channel opening through its upper face, a block movably mounted upon said base 55 and having a recess extending over said channel, and a hopper carried by the block and having an outlet delivering into the rear end of said recess; of a plunger movable in said recess and having a charge 60 opening, a plate projecting to the rear from said plunger and provided with a perforated ear, a spring pressing said ear normally to the rear, a yoke engaged with the ear, a handle pivoted to the block and having a 65 hand-piece, and connections between said handle and yoke.

5. In a device of the class described, the combination with a base having an outlet channel opening through its upper face, a 70 block movably mounted upon said base and having a recess extending over said channel, and a hopper carried by the block and having an outlet delivering into the rear end of said recess; of a plunger movable within 75 said recess and having a charge-opening through its body, a plate projecting to the rear from said plunger and having an up-turned perforated ear, supports rising from said block at either side of said perforated 80 ear, a guide rod connecting said supports and passing through the perforation in said ear, an expansive spring between the forward support and said ear, a yoke slidable on the rod in rear of said ear and having 85 its extremities turned forward, a U-shaped lever having arms pivoted astride the block and a hand hold in its bend, and rods connecting the forwardly turned extremities of the yoke with the arms of said lever, for 90 the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE W. ROWELL.

Witnesses:

J. S. SANDERS,

G. W. BEAVERS.