J. L. SCHICK & R. L. JACKSON.

SUGAR BOWL.

APPLICATION FILED SEPT. 19, 1913.

1,113,056. Patented Oct. 6, 1914.

Fig. 1.

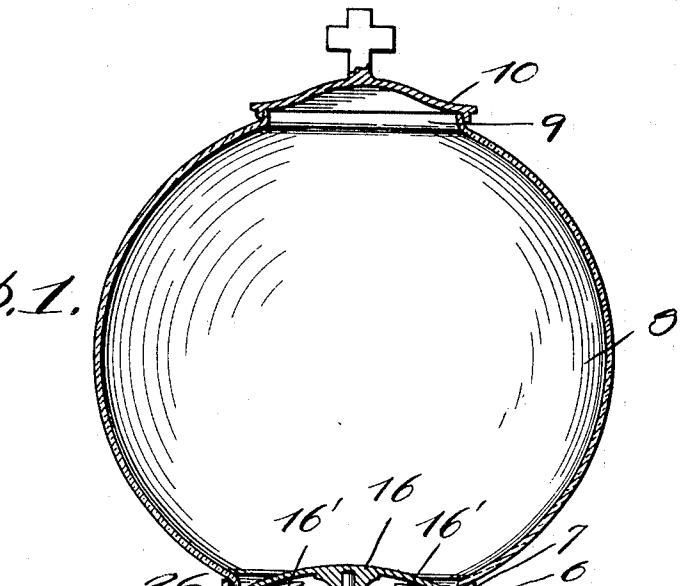


Fig. 2.

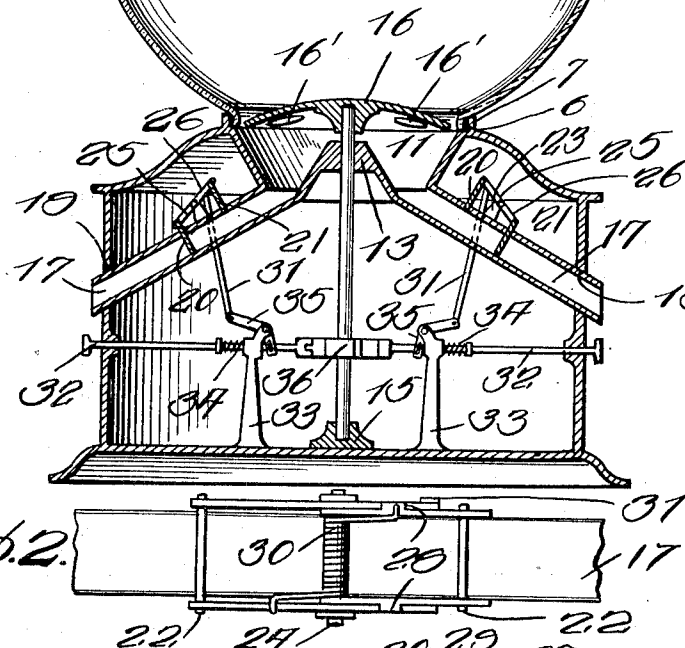


Fig. 3.

Witnesses

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SUGAR-BOWL.

1,113,056. Specification of Letters Patent. **Patented Oct. 6, 1914.**

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To all whom it may concern:

Be it known that we, JOHN L. SCHICK and ROY L. JACKSON, citizens of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Sugar-Bowls; and we do hereby 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 apparatus, and more particularly to apparatus for dispensing lump sugar or like commodities, and has for its object to provide an apparatus of this kind which will include a retainer for the sugar, and means for releasing sugar in predetermined quantities, upon actuation of certain releasing mechanism.

Another object is to provide a releasing mechanism which will prevent clogging of the parts by lumps of sugar or other commodity of different sizes.

Another object is to provide a structure which will be simple and which may be produced at a low figure.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure claimed and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this application and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a sectional view through the present apparatus, and Fig. 2 is a detailed view of the releasing mechanism. Fig. 3 is a detailed view of the releasing mechanism showing one position of the parts in dotted lines.

Referring now to the drawings, the present invention comprises a base 5 having an opening 6 at its top surrounded by a flange 7. Within this flange there is received the bottom rim of a globe 8, which, in practice, may be simply such a globe as is ordinarily used on arc electric lights. The globe is provided with an opening 9 at its top, which is closed by a cover 10. From the opening 6 of the base 5, there extends down into the base a funnel-like chute 11, in the center of which there is an upwardly extending conical member coiled provided with a bearing block 13 at its upper portion, within which there is mounted a vertical shaft 14, seated at its lower end in a block 15 mounted within the base 5. The upper end of the shaft 14 carries an agitating plate 16, located within the inclosure of the flange 7, and thus within the lower opening of the globe 8, and, in the drawings, this agitating plate is shown as a concavo-convex disk, provided with a plurality of openings 16′ adjacent to its periphery.

The sugar or other commodity to be dispensed is placed within the globe 8, and rests upon this agitator plate. When the shaft 14 is revolved, by a mechanism to be presently described, the sugar is agitated, and a quantity thereof passes through the openings 16′, and into the chute 11. From this chute, the commodity, which, for convenience, will be referred to as sugar, passes into a plurality of radially extending discharge pipes, which are connected with the chute, communicating therewith. These discharge pipes are indicated at 17, and extend downwardly and outwardly through openings 18 in the sides of the base 5. To control the passage of sugar through the pipes, there is a valve mechanism provided, and for the accommodation of this valve mechanism, a pair of openings 19 are formed in the upper wall of each of the discharge pipes 17, and slidably engaged in each of these openings there are gates 20 and 21. These gates are provided at their upper ends with laterally extending pins 22, as indicated. Between the pair of gates for each pipe, there are mounted upon the pipe a pair of upwardly extending brackets 23, having transverse axle pins 24 mounted therein, and pivotally mounted upon these axle pins there are two pairs of arms 25 and 26, extending oppositely, and provided at their ends with slots 27, receiving the pins 22 of the gates 20 and 21. The arms 25 extend beyond the pivot axle 24, against the sides of the arms 26, and the arms 26 have at their upper edges lips 28, which project over the ends of the arms 25. A spring 30 is engaged with the axle pin 24, and has one end bearing against one of the arms 25, and the other end bearing upon one of the lips 28 of the arms 26.

The extended end of one of the arms 25 has connected therewith a downwardly extended bar 31 connected with an actuating mechanism to be presently described, by means of which the bar 31 is drawn down,

and, as will be seen from the drawing, when the bar 31 is so moved, the extended end of the arm 25 will be carried down, and the opposite ends, which carry the gate 20, will be raised to raise the gates. At the same time, tension will be placed upon the spring 30, which, being communicated to one of the arms 26, will tend to move the gate 21 down. With the raising of the gate 20, any sugar lying therebehind, will be free to pass out from the end of the discharge pipe 17, but the increased energy of the spring 30, bearing against one of the arms 26, will tend to move the gate 21 downwardly, as stated, and will bring this gate into the pipe 17, to cut off communication between this pipe and the chute 11. If there is a lump of sugar directly beneath the gate 21, then this lump of sugar will be engaged by the gate, and the disassociation of the arms 25 and 26, will permit the former to rise, while the latter remain elevated by reason of the engagement of the lump of sugar by the gate 21, but this engagement will of course hold the lump of sugar immovable, and prevent the passage from the discharge pipe of more than the sugar which lies between the paths of movement of the two gates. When the gate 20 is again permitted to descend, the tension of the spring will of course be relieved, and the gate 21 being elevated, more sugar will pass down to rest against the gate 20.

The operating mechanism referred to above consists of a rod 32, for each of the discharge pipes 17, and its mechanism, and this rod is slidably mounted in the wall of the base 5, and in an upright 33 mounted within the base. A spring 34 normally holds this rod 32 projected outwardly, and the rod is connected with an angle lever 35 which is mounted in the bracket 33 also, and which is connected with the rod 31, in such a way that, when the rod 32 is pushed in, the rod or bar 31 will be drawn downwardly as described in the foregoing. The end of each of the rods 32, is carried beyond the angle lever 35, and is adapted to engage a ratchet wheel 36 carried by the upright shaft 14, so that, when any one of the rods 32 is operated, the shaft 14 will be revolved to actuate the agitator.

What is claimed is:

1. To a dispensing apparatus comprising a container, a discharge chute communicating with the container, a stop for the discharge chute, said stop being movable into and out of operative position, a second stop being located between the first stop and the container, means for moving the second stop into operative position when the first stop is moved out of operative position, said second stop being yieldably connected with the moving means, for movement of the first stop out of operative position without movement of the second stop.

2. A dispensing apparatus comprising a container, a discharge tube communicating with the container, a stop for the discharge tube movable into and out of operative position, a second stop for the discharge tube located between the first stop and the container, said second stop being movable toward and away from a wall of the tube and connections between the two stops for movement of the second stop away from the tube wall when the first stop is moved into operative position, said first stop being movable into inoperative position independently of the second stop.

3. A dispensing apparatus comprising a container, a discharge chute communicating with the container, a stop for the discharge chute movable into and out of operative position, a second stop for the discharge chute located between the first stop and the container, and connections between the two stops for movement of the second stop into inoperative position when the first stop is moved into operative position, said first stop being movable into inoperative position independently of the second stop, and means for holding the second stop yieldably in operative position.

In testimony whereof, we affix our signatures, in the presence of two witnesses.

JOHN L. SCHICK.
ROY L. JACKSON.

Witnesses:
THOMAS W. BRADFORD,
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As to John L. Schick:
J. P. McQUEEN,
CHAS. ARTHUR SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."