Sept. 10, 1935. K. M. SHANKLAND 2,013,901

LUMP SUGAR SERVER

Filed April 3, 1933

Fig. 1

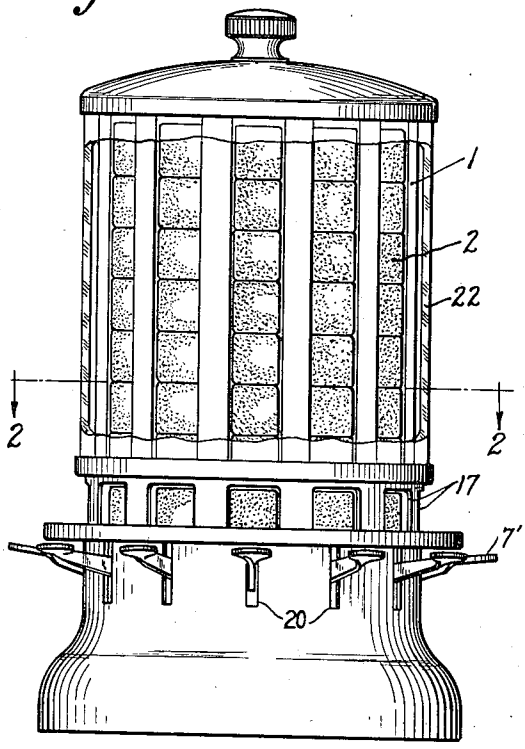


Fig. 3

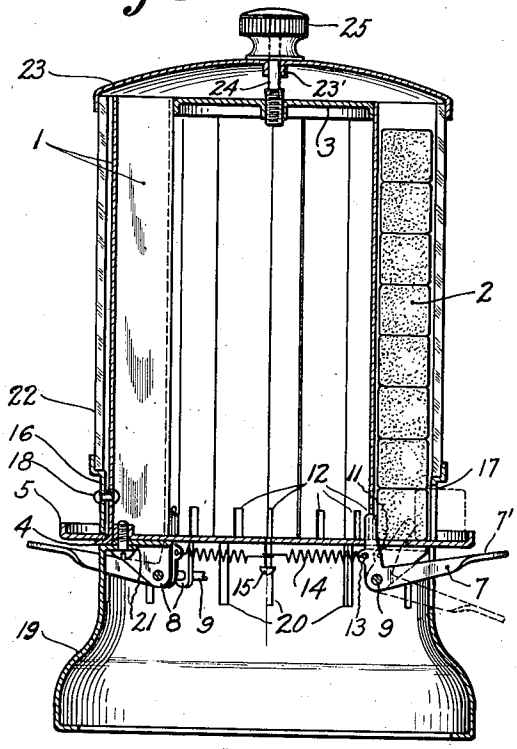


Fig. 2

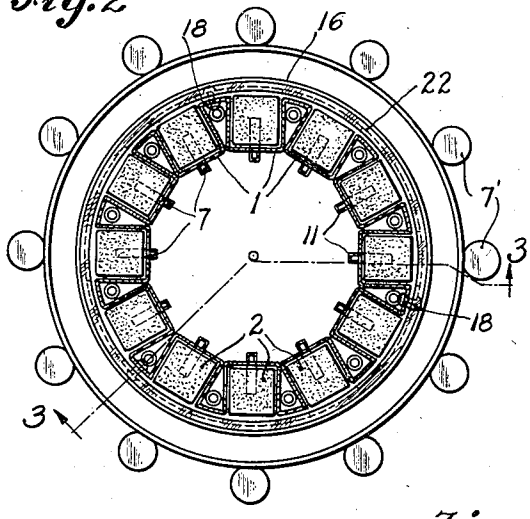


Fig. 4

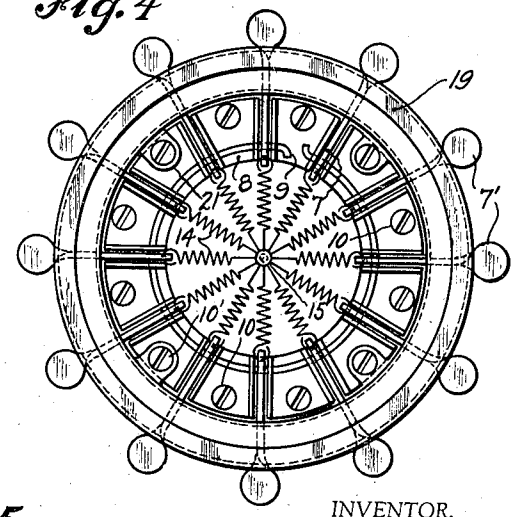
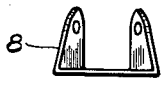


Fig. 5



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LUMP SUGAR SERVER

Karl M. Shankland, Seattle, Wash.

Application April 3, 1933, Serial No. 664,119

3 Claims. (Cl. 312—63)

My invention relates to new and useful improvements in machines for the sanitary serving of lump sugar or other items in which the operation of a key lever projects a unit piece of the material into position when it may be grasped conveniently by sugar tongs or by the fingers of the operator without touching any of the other pieces in the magazine portion of the device; provision being made to so project several of such pieces simultaneously or consecutively to meet the operator's requirements.

An object of my invention is to provide a new and useful container adapted to hold one or more vertical stacks of unit pieces, such as lump sugar, from which a part of the bottom piece of a stack may be so projected by depressing a key lever that said piece can then be grasped by the fingers and readily withdrawn.

Another object is to provide a new and useful container of the class described that displays the supply of unit pieces available, and is easy to fill.

A further object is to provide a simple, compact, reliable dispensing mechanism that is positive in its operation, cheap to manufacture, and readily accessible for inspection and repairs.

An additional object is to provide a sanitary lump sugar server for restaurants and the like that may be easily sterilized and cleaned.

Other objects and advantages will be apparent from the following detailed description of a preferred form of the invention, which consists of certain parts and combination of parts, hereinafter described, illustrated in the accompanying drawing and embraced in the appended claims.

Referring to the drawing:

Figure 1 is an elevation of a preferred form of the invention adapted to dispense lump sugar, with a portion of the tubular glass inclosing the magazine core shown in section.

Figure 2 is a transverse section through the magazine portion on broken line 2—2 of Figure 1.

Figure 3 is a sectional elevation of the device taken on broken line 3—3 of Figure 2.

Figure 4 is a bottom view of the device showing the key lever mechanism and springs.

Figure 5 is an elevation of one of the key lever brackets.

Referring more specifically to the drawing by reference numerals, which indicate like parts throughout the several views, 1 indicates a formed strip of metal providing a plurality of longitudinal peripheral grooves adapted to receive vertically disposed stacks of sugar cubes 2. A flanged top head 3 may be soldered to said strip 1 to form the cylindrical core of the device. Ear projections 4 may be disposed at suitable intervals around the lower edge of strip 1 and adapted to pass through rectangular apertures in an upwardly flanged tray 5, after which said ears may be bent over to fixedly secure the core to the tray. It will be noted that this joining of the formed strip, flanged top head and flanged tray results in the construction of the light yet strong magazine unit.

A plurality of levers 7 having key pads 7' and alternating with brackets 8, each equal in number to the number of sugar grooves in the magazine unit, are strung on a wire loop 9, previously cut from a coil of suitable diameter, after which the ends are turned, as shown in Figure 4, to retain the key levers and brackets in assembled position on the loop.

Brackets 8 may then be secured to the under side of tray 5 of the magazine unit by means of screws 10, the key ends of levers 7 extending radially outward and the other ends of said levers being positioned to work freely through apertures 11 in tray 5 and notches 12 registering therewith in formed strip 1. The pivot bearing of the lever is preferably in line with the rear surface of the stack of sugar cubes as shown in Figure 3. Apertures 13 provided in the lever are adapted to receive one end of tension springs 14, the other ends of which engage pin 15 fixedly secured in tray 5, the strength of said springs being sufficient to return the key levers to the position illustrated when released after being depressed.

Ring member 16, whose sectional form is seen best in Figure 3, is provided with a plurality of notched openings 17 adapted to register with the magazine grooves of formed strip 1, to which it may be secured by means of rivets 18.

Base 19 is provided with slots 20 equal in number to and adapted to serve as guides for the key levers. Screws 10' passing through apertures in base lugs 21 may be used to secure the base and adjacent brackets to tray 5, as shown best in Figure 4, thus completing the mechanism assembly.

A tubular glass magazine closure 22 may next be positioned with its lower end fitting snugly within the recess formed at the top of the ring member. The magazine grooves then may be filled with the lumps of sugar as shown in Figure 1, after which the top is closed by means of cover 23 which is secured to the magazine unit by means of screw 24, preferably provided with a

large knurled head 25 by which the entire device may be lifted conveniently and safely. It will be noted that the upper portion of screw 24 is provided with a shoulder which engages cover 23 when the same is unscrewed from the magazine unit, thus facilitating the placement and removal of said cover, the inwardly projecting tubular portion 23' of the same serving as a guide to align the screw with the threaded hole in head 3. With this construction the screw is maintained in assembled relation with the cover, thus preventing the separation of these important items.

A desirable feature of the device resides in the fact that when filled and set on the center of the table, it may be operated by any of the diners there without turning the container or moving it from its position, by simply using the finger to depress the key most conveniently located with reference to his own position.

Upon depressing key pad 7' the lever is turned about its pivotal support wire 9. This elongates the spring attached to the upturned leg engaging the rear of the bottom lump of sugar, and forces said bottom lump outwardly through the opening in the ring element until the lever strikes the end of the slot in base 13. The stressed spring returns the lever to its original position upon removal of the finger. This operation leaves the aforesaid bottom lump projecting from the container upon the tray adjacent its upturned flange as shown by the dotted outlines in Figure 3.

It will be noted, however, that the portion of the projected lump remaining within the container continues to support the lumps above, which in turn maintain the bottom lump in position until removed by the fingers or sugar tongs; whereupon the remaining lumps drop down in the magazine with the new bottom one resting on the tray. This support of the lumps in the magazine by the projected lump also enables the key lever to be returned freely to its original position by the spring. The operation described may be repeated with the same or other keys to secure the number of lumps required, or two or more keys may be depressed simultaneously and the lumps then removed as desired.

In case the key should be struck vigorously, instead of gently as intended, obviously the bottom lump is projected with much greater force than is necessary. It is prevented from being thrown onto the table by the downward shifting of the point of application on the lump as the end of the lever sweeps forward in its arc, by the key striking at the bottom of the slot in the base, and by the upturned flange of the tray.

The device may be emptied quickly by removing cover 23 and then upending it over a suitable dish or other container. Glass magazine closure 22 may then be removed and the device cleaned or sterilized easily and thoroughly.

All parts of the key lever mechanism are readily accessible for inspection or minor repairs through the opening in the bottom of the base, which may be removed by unscrewing screws 18' when more extensive repairs are required.

While I have illustrated my invention in a form suitable for the serving of cube sugar, it will be apparent to those skilled in the art that it may be adapted to dispense lump sugar having any other shape, or to dispense other materials made up into compact units, and that various changes may be made in the details of construction without departing from the purpose and intent of the invention as expressed in the appended claims.

What I claim as new and desire to protect by Letters Patent is:

1. In a lump sugar server, a cylindrical magazine core having a plurality of longitudinal peripheral grooves adapted to receive vertically disposed stacks of lump sugar, and providing an annular flange projecting laterally from one end thereof in the same plane to form a tray, the flanged end of said core containing slots below and behind the lower end of each said groove; in combination with unit key-lever means providing an upwardly disposed ejector arm and a laterally disposed key arm for each said groove, bracket means secured to the flange end of said core pivotally supporting said key-levers with their ejector arms in said slots, spring anchor means arranged axially of the core beneath the latter, spring means extending between each ejector arm and the spring anchor means for forcing said key-levers into initial position with their ejector arms adjacent the rear side of the bottom lumps in said stacks, whereby the bottom lump of a said stack may be forced outwardly on said tray when the key arm of the corresponding said lever is depressed.

2. In a lump sugar server, a cylindrical magazine core having a plurality of longitudinal peripheral grooves adapted to receive vertically disposed stacks of lump sugar and providing an annular flange projecting laterally from one end thereof in the same plane to form a tray, the flanged end of said core containing slots below and behind the lower end of each said groove; in combination with a ring member surrounding said core and providing apertures adjacent said flange registering with said grooves, unit key-lever means having an upwardly disposed ejector arm and a laterally disposed key arm for each said core groove, bracket means secured to the flange end of said core and pivotally supporting said key-levers with their ejector arms in said slots, spring anchor means arranged axially of the core beneath the latter, spring means extending between each ejector arm and the spring anchor means for forcing said key levers into initial position with their ejector arms adjacent the rear side of the bottom lumps in said stacks, and base means having notches providing side guides and bottom stops for said key arms removably secured to the flange end of said core.

3. In a sanitary lump sugar server, a cylindrical core having a plurality of longitudinal peripheral magazine grooves adapted to receive vertically disposed stacks of lump sugar and providing an upwardly flanged tray of larger diameter at the lower end thereof; in combination with a base removably secured to the tray end of said core, a ring member exterior of said core providing apertures adjacent said tray and registering with said grooves, a tubular glass closure exterior of said core and supported by said ring member, and key-lever means for each said magazine groove, whereby a plurality of the bottom lumps contained therein and resting on said tray may be partially projected from the apertures in said ring member when the corresponding key-levers are depressed.

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