

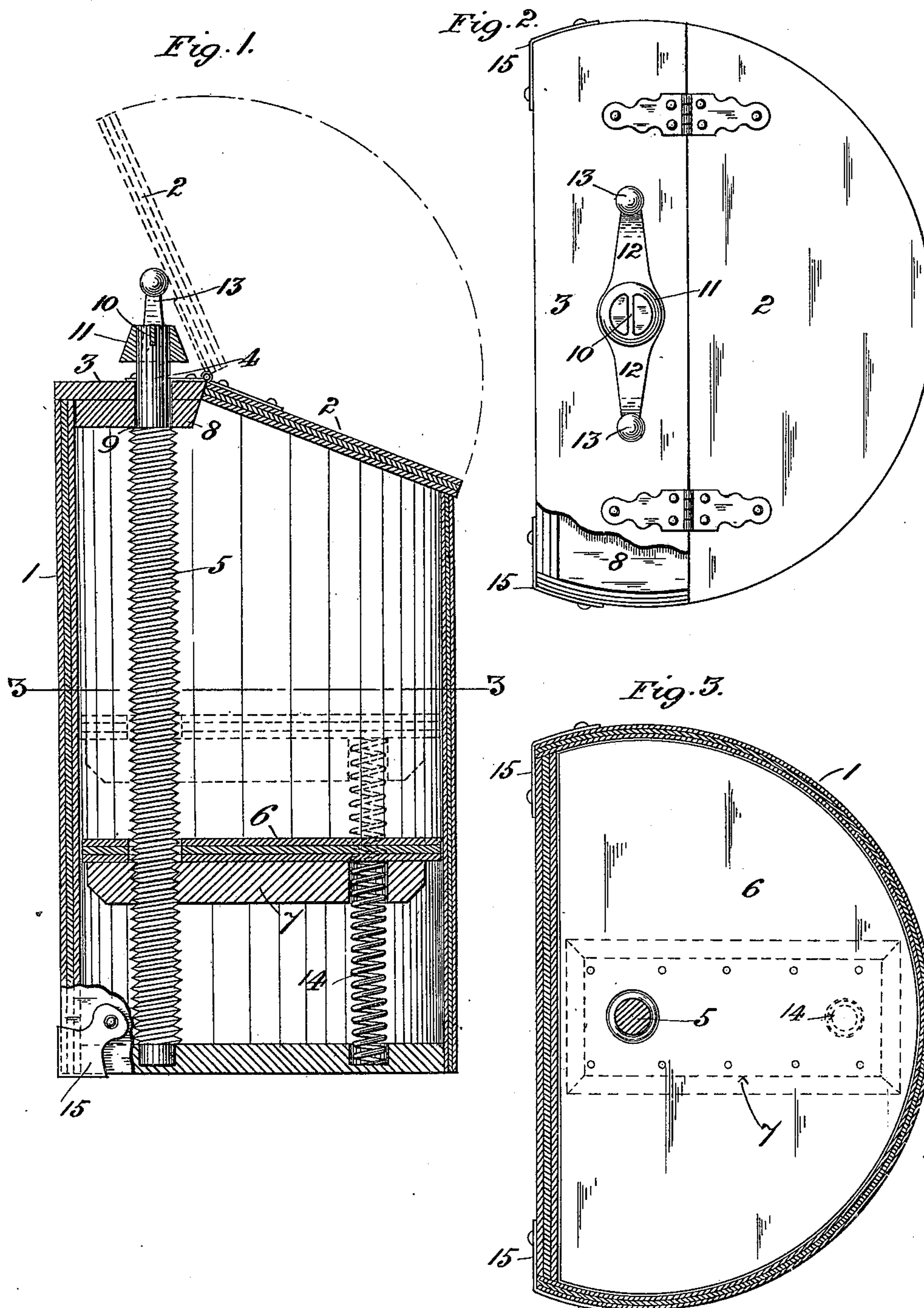
No. 631,508.

Patented Aug. 22, 1899.

G. LANG.  
GROCER'S BIN.

(Application filed Dec. 13, 1898.)

(No Model.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

GUSTAV LANG, OF ST. LOUIS, MISSOURI.

## GROCER'S BIN.

SPECIFICATION forming part of Letters Patent No. 631,508, dated August 22, 1899.

Application filed December 13, 1898. Serial No. 699,162. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAV LANG, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Grocers' Bins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in grocers' bins; and it consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a middle vertical longitudinal section taken through the bin, the screw being shown in elevation. Fig. 2 is a top plan view thereof with a portion of the upper ledge broken away so as to expose the reinforcing-strip carried by it; and Fig. 3 is a transverse section on line 3-3 of Fig. 1, showing the reinforcing-block carried by the movable diaphragm in dotted lines.

The object of my invention is to construct a grocer's bin which is provided with a false bottom or diaphragm capable of vertical adjustment, whereby as the contents of the bin is removed the said diaphragm can be elevated, so that the upper surface of such contents (coffee, tea, sugar, or the like) can be maintained at a substantially constant level and be always exposed to the view of the purchaser or customer. At the same time the scooping out of the contents is facilitated.

In detail the invention may be described as follows:

Referring to the drawings, 1 represents an ordinary and prevailing form of bin, which in the present case, however, is made with a flat or plane back, so as to enable the bin to be set close to the wall. The present bin is made of three-ply veneer glued together, thereby making a bin which is stiff and strong and not easily dented.

2 is the lid, being hinged to close to an inclined position, as shown in Fig. 1, the said lid being pivoted along the front edge of an upper horizontal ledge 3, through the medial portion of which projects the upper smooth reduced portion 4 of a wooden screw 5, whose lower end rests in a suitable depression formed in the fixed or permanent bottom of the bin. The screw passes through a movable

diaphragm 6 and through the screw-threaded opening of a reinforcing-block 7 carried by it, the diaphragm being also constructed of three-ply veneer, as shown by the drawings. The diaphragm loosely contacts with the inner surface of the walls of the bin, the edges thereof, however, being sufficiently close to said walls to prevent any of the contents resting on such diaphragm from falling down upon the permanent bottom.

To the under surface of the ledge 3 is secured a wooden strip 8, (through which also the portion 4 of the screw passes,) against which the shoulder 9, formed between the screw proper and the portion 4, bears, thus retaining the screw in place. The upper end of the extension 4 is split to a suitable depth, the groove thus formed receiving the central web or wall 10 of the central ring 11, located at the meeting ends of the screw-operating arms 12, the ring embracing the split ends of the extension 4 and the free ends of the arms being provided with handles or knobs 13, which when the arms are turned to a position parallel to the hinged edge of the lid serve to support the latter when lifted to an open position, as seen by dotted lines in Fig. 1. The arms 12 therefore, while coupled to the screw in the manner indicated, serve as a means of rotating the latter in either direction and causing the diaphragm to travel up or down, as desired, thus keeping the contents at a constant or any predetermined level in full view of both the dealer and customer and at a level where in the case of coffee from its contact with the surrounding atmosphere it can always remain fresh and pure. The arms serve, in addition to imparting rotation to the screw, as a means of supporting the lid when lifted to its full open position. When the movable diaphragm is in its lowest position and the bin full of coffee, (or other material,) the weight of the latter upon the diaphragm exerts more or less lateral pressure on the screw, causing the diaphragm to bind more or less when an attempt is made to raise it along the screw, (for purposes of preserving a constant level of the contents as the latter is removed from time to time by the dealer.) To overcome this lateral strain and partially assist the diaphragm in its upward movement, I interpose



a coiled spring 14 between the permanent bottom and movable diaphragm at a point adjacent to the front wall of the bin, the opposite ends of the spring resting in depressions 5 formed in the permanent bottom and block 7, respectively.

In assembling the parts the screw, with the diaphragm, is first inserted into the bin, and then the ledge, with its reinforcing-strip 10 8, is passed over the upper smooth extension of the screw, the strip being of a contour to conform to the surface of the rear wall of the bin and of a length to abut against the rear adjacent portions of the curved wall 15 of the bin, the ledge 3 projecting beyond the strip 8 and resting upon the upper edge of bin, as best illustrated in Fig. 2, the ends of the strip being subsequently secured to the curved walls of the bin by nails or screws 20 (not shown) driven through said walls and into the abutting ends of said strip.

To prevent the corners of the bin from abrasion and wear, I provide the same with metallic corners 15, such as trunks, valises, 25 and the like are generally furnished with.

It is apparent that minor changes might be made in the present device without departing from the spirit of my invention.

Having described my invention, what I 30 claim is—

1. In a bin, a suitable movable diaphragm confined within the bin, a screw along which said diaphragm travels, means for rotating the screw, and a spring confined between the 35 diaphragm and the permanent bottom of the bin, to prevent undue lateral pressure or binding of the diaphragm resulting from the weight of the contents resting upon it, substantially as set forth.

40 2. A bin having a flat rear wall, and front curved walls, a movable diaphragm confined within the bin, a ledge disposed adjacent to

the top of the rear wall, a screw, along which said diaphragm travels, interposed between the ledge and the bottom of the bin, and having an upper extension projecting above the ledge, operating-arms having handles adapted to be coupled to the screw extension, a lid 45 hinged along the inner edge of the ledge and adapted to be supported by both arms when the latter are swung in a line parallel to the hinge-line of the lid, and suitable devices located in the bin for preventing binding of the diaphragm upon the screw during the travel thereof along the screw, substantially 55 as set forth.

3. A bin comprising a permanent bottom, front curved walls and a rear flat wall, a horizontal ledge located adjacent to the top of the rear wall, a reinforcing-strip at the base 60 of said ledge, a lid pivoted along the inner edge of the ledge, a screw having a bearing in the permanent bottom adjacent to the rear wall, and having a smooth upper end passing through and projecting above the ledge, the 65 projecting end being split, arms meeting in a ring adapted to slip over the split end of said projecting portion, said ring having a central web adapted to be inserted between the split members, a movable diaphragm 70 carried by the screw, a reinforcing-block carried by the diaphragm, a spring located between the diaphragm and permanent bottom adjacent to the curved wall, one end of the spring bearing against the permanent bottom and 75 the opposite end against the reinforcing-block of the diaphragm, the parts operating substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GUSTAV LANG.

Witnesses:

EMIL STAREK,

JAMES J. O'DONOHUE.