T. A. KEEN.

GARBAGE CAN.

APPLICATION FILED FEB. 20, 1913.

1,146,714.

Patented July 13, 1915.

2 SHEETS—SHEET 1.

FIG. 1

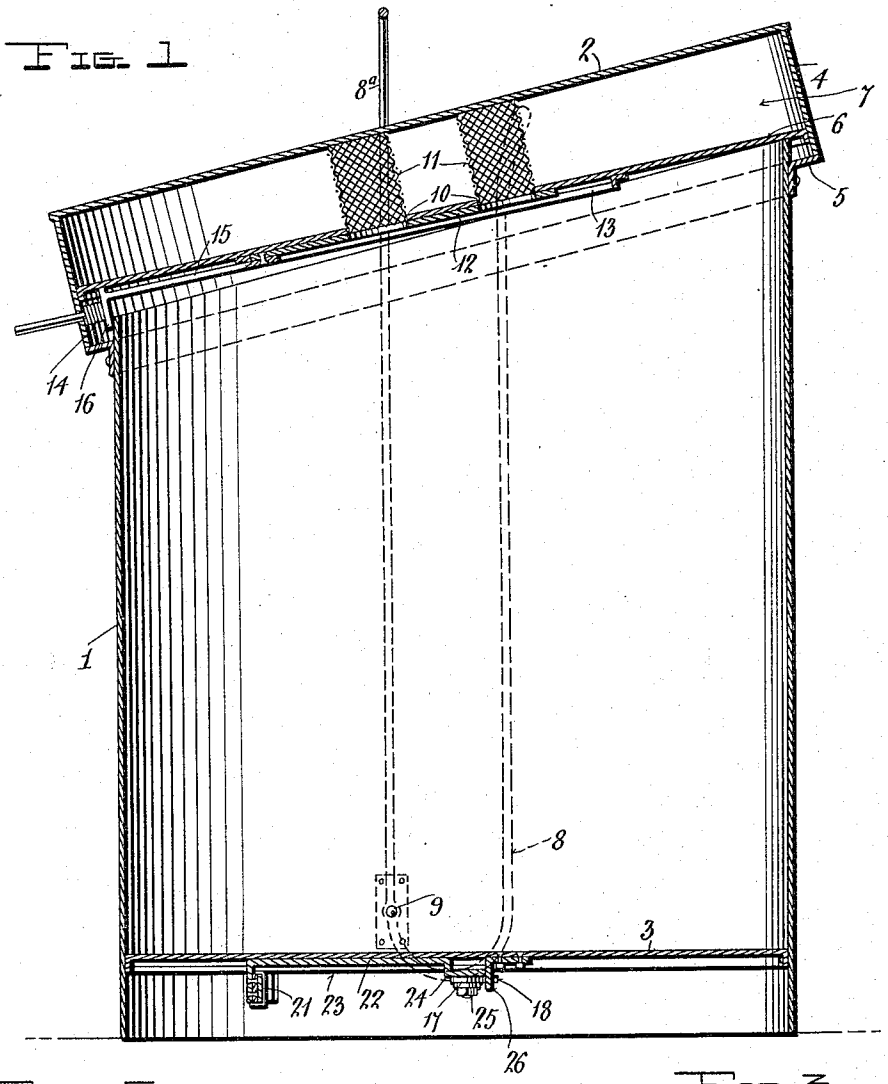


FIG. 5

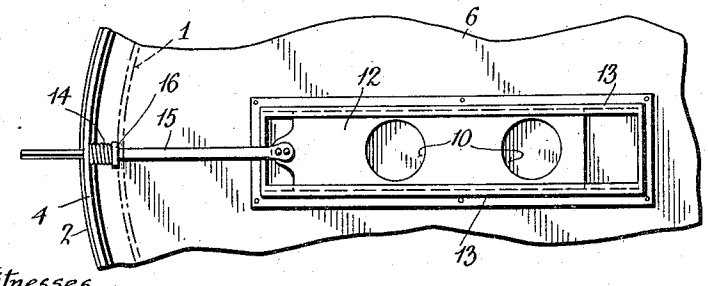
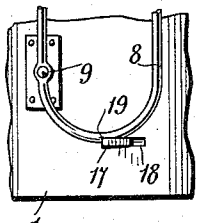


FIG. 3



Witnesses,

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2 SHEETS—SHEET 2.

FIG. 2

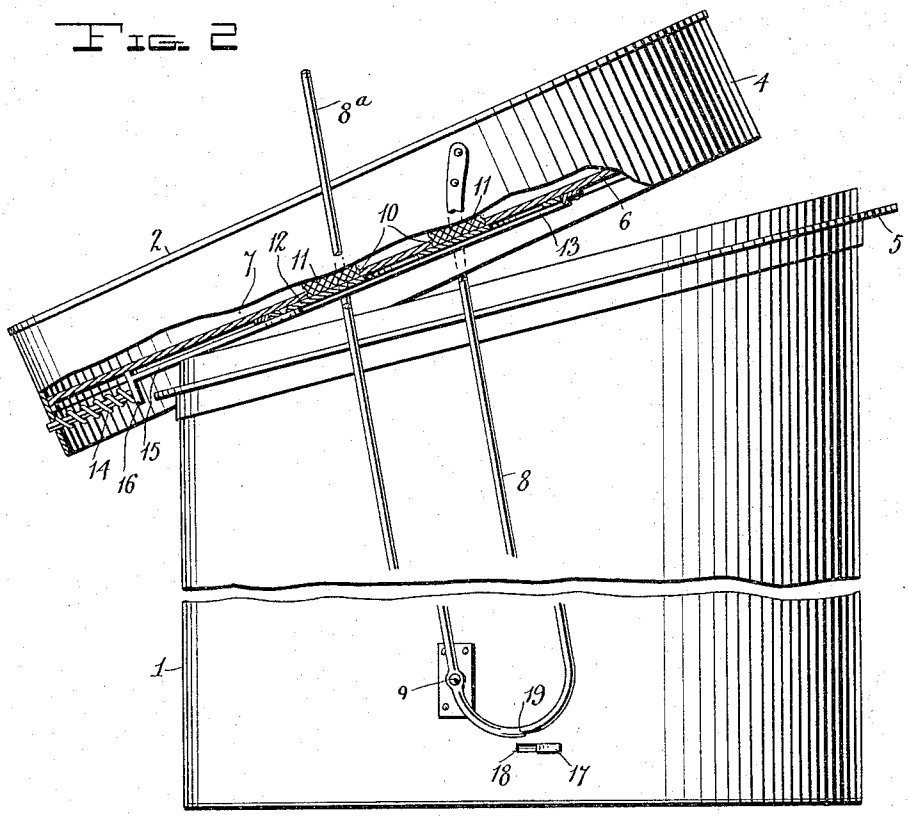
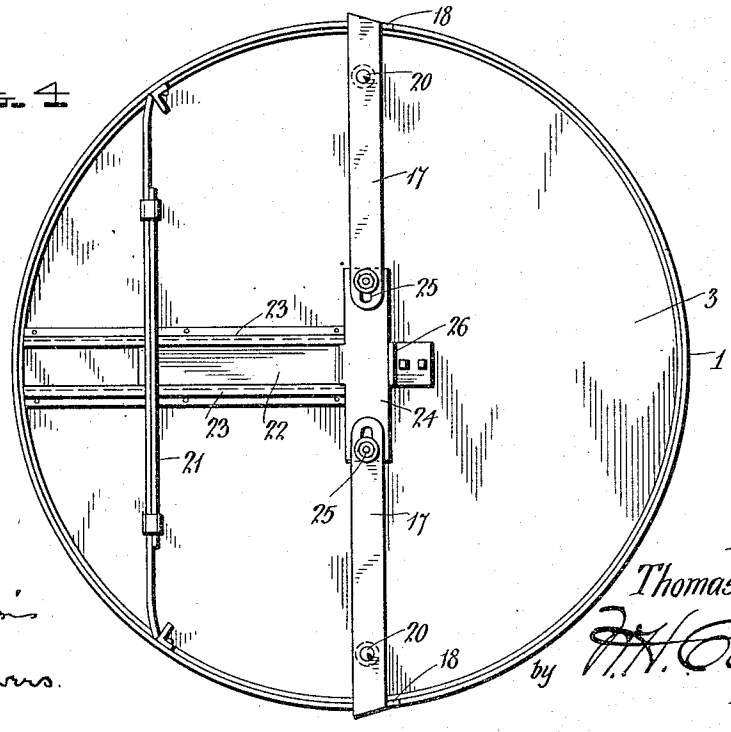


FIG. 4



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GARBAGE-CAN.

1,146,714. Specification of Letters Patent. Patented July 13, 1915.

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To all whom it may concern:

Be it known that I, THOMAS A. KEEN, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Garbage-Cans, of which the following is a specification.

This invention relates to improvements in garbage cans.

The objects of the invention are to provide for the secure and positive closure of the can in substantial air-tight relation for the purpose of minimizing decomposition and preventing the escape of odors of garbage and to provide a can which may be discharged with ease and facility, notwithstanding its normally secure and positive closure.

With the above objects in view the invention consists in a number of novel features of construction and arrangement, among which are the relation between the top and the body of the can whereby an airtight closure of said body is obtained; the provision of means of simple and efficient nature for positively retaining the top in air-tight sealing engagement, and in this way preventing accidental displacement of the top from its closed position; and an arrangement of parts whereby the cover may be released and the can body tilted by one and the same act when the can is to be discharged.

The invention also comprises certain detail features of construction and combination which will be set forth in detail as the description proceeds.

A preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a vertical sectional view illustrating a can in which the features of the invention are incorporated; Fig. 2 is a side elevation of said improved can, with the top thereof in a partly open position and illustrated partly in section; Fig. 3 is a fragmentary side elevation illustrating the action of the device which positively retains the top in closed position; Fig. 4 is a bottom plan view of the can; and Fig. 5 is a fragmentary bottom plan view of the top or cover of the can.

Similar characters of reference designate corresponding parts throughout the several views.

The can comprises a body 1 which may be of ordinary cylindrical form, a cover 2 to provide a closure for said body, and a bottom 3 which is located at a short distance above the lower edge of the body 1.

The cover 2 includes a depending annular flange 4 which, when the top is closed, uniformly engages upon an annular ledge or flange 5 circumscribing the upper portion of the body 1. In this way, the cover 2 provides a substantially air tight closure for the body 1 and the odors of the garbage are prevented from escaping.

The cover 2 is preferably utilized as a container for the disinfectant used to prevent decomposition of the garbage. For this purpose said cover is provided with a plate 6 arranged within the flange 4 and defining an internal chamber 7 for the disinfectant.

The cover 2 is pivotally supported and provision is made for the discharge of disinfectant into the can consequent to the pivotal closing movement of the cover. For this purpose, the pivotal support of the cover 2 includes a bail 8 which is fixed to said cover at opposite sides thereof, and is pivoted as at 9 at opposite sides of the body 1 adjacent the lower end thereof. The upper edge of the can is preferably inclined relatively to the bottom and the flange 5 is arranged in an inclined plane parallel to the plane of the said inclined upper edge. In this way provision is made for suitably spacing the cover, during its pivotal movements, from the upper edge of the can, as indicated in Fig. 2.

The plate 6 is provided with disinfectant discharge openings 10 and may carry cylindrical screens 11 which project into the chamber 7 and aline with said openings. To control the discharge of disinfectant into the can, a valve is employed which is operative to close and uncover the openings 10. This valve preferably comprises a plate 12 which is arranged adjacent the under face of the plate 6 and is slidable in guides 13 which are constructed to limit the movement of said plate to closed position. The plate 12 has openings which, in the open position of

said plate, register with the openings 10 of the plate 6. The plate 12 is normally closed by a spring 14 which may be conveniently arranged on a stem 15, carried by and projecting rearwardly from said plate. The spring 14 is arranged between the flange 4 and a shoulder 16 of the stem 15. When the cover 2 is moved to closed position, the upper edge portion of the body 1, at the rear side of said body, engages the shoulder 16 and causes a relative rearward movement of the plate 12 against the tension of the spring 14 and during such movement, said plate uncovers the openings 10. The embodiment disclosed is constructed with regard to the use of a powder disinfectant, such, for example, as lime. It will be noted that the opening movement of the slide 12 is effected before the cover 2 comes into closed position, and it will also be noted that the flange 4, owing to the manner in which the cover is spaced from the can during its movements, engages upon the ledge 5, not gradually, but practically at the same instant throughout the extent of said ledge. The sudden and uniform engagement of the flange 4 with the ledge 5 not only promotes the security of the closure effected by the cover 2, but it also produces an appreciable shock or jar and this shock or jar is instrumental in causing a sufficient quantity of the powdered disinfectant in the chamber 7 to fall through the previously uncovered openings 10 upon the garbage which has been deposited in the can. The screens 11 serve to prevent any lumpy formations of the disinfectant from passing into the can, and consequently, the disinfectant is discharged into the can in a finely powdered condition, in which it is best calculated to serve its purposes and to uniformly attack the mass of garbage. When the cover 2 is opened, the spring 14 moves the plate 12 to close the openings 10 and to prevent loss of the disinfectant in the chamber 7, as well as the undue exposure thereof to the atmosphere.

As previously stated, the cover 2 closes the body 1 in a substantially air-tight manner, and in order that there may be no interference with the efficiency of the closure thus established, it is preferred to provide for the positive retention of the cover in closed position. The invention includes simple and effective means for this purpose. Such means preferably comprises latch fingers 17 arranged adjacent the under face of the bottom 3 and having engaging ends which project through slots 18 in the bottom 1 to coact with the bail 8. The bail 8 may be conveniently provided with U-shaped side bars, one leg of which is connected by the pivots 9 aforesaid to the body 1, and the other leg of which is riveted or otherwise secured at its upper end to the cover 2. Below the pivots 9 and in the portions thereof connecting said legs, the side bars of the bail 8 are provided with shoulders 19. The projecting ends of the fingers 17 normally engage the shoulders 19 when the cover is in closed position, and thereby positively prevent accidental movement of said cover from said closed position. When it is desired to open the can, the fingers 17 are moved from engagement with the shoulders 19. Said fingers are pivotally secured to the bottom 3, as at 20, and are held in normal engaging position by a spring 21, which has its ends secured to the body and is connected at a central point to the central leg of a slide 22. The slide 22 is movable in guides 23 and at its end opposite the spring 21 is provided with a head 24 to which the inner ends of the fingers 17 are connected as by pin and slot joints 25. The movement of the slide 22 by the spring 21 is limited by a stop 26 secured to the bottom 3.

The spring 21, through the agency of the connections described, holds the fingers 17 normally in position to engage the shoulders 19. Said fingers have sufficient resiliency or loose play to yield under the pressure of the bow shaped portions of the side bars of the bail when the cover 2 is moved to closed position, said bow-shaped lower end portions thus acting as cams. As soon as the shoulders 19 pass beyond said fingers, the latter spring back into their normal planes and engage said shoulders, as shown in Fig. 3, thus latching or positively retaining the cover in closed position, and insuring of the permanence of the secure engagement of the flange 4 upon the ledge 5. To open the can, the spring 21 is bowed outwardly, thereby moving the slide 22 away from the stop 26 and causing a pivotal movement of the fingers 17, whereby they disengage the shoulders 19. Thereupon the cover 2 may be swung rearwardly, as indicated in Fig. 2.

The arrangement of the bail 8, cover 2, and the bail latching means is, as above stated, useful to secure the efficient discharge of disinfectant into the can and also to provide for a substantially air-tight closure of the cover. This arrangement serves a further important purpose, in that it enables the can to be operated to discharge its contents with ease and facility. When the contents of the can are to be discharged, the can is lifted from the ground or support, and during this lifting action, the cover is positively retained in position by the means described. Thereafter the spring 21 is engaged and bowed outwardly and the pull on this spring not only disengages the catch fingers 17 from the bail 8, and thereby releases the cover, but also starts the can in its tilting movement. It will be observed that the pivots 9 which connect the body 1 and the bail 8 and the hand grip 8^a of said bail are located off center. Consequently,

the can is started in its tilting movement to discharge its contents with very little effort.

Matters of specific description herein contained are not intended to put any limitation upon the scope of the appended claims which does not inhere in the language thereof.

Having fully described my invention, I claim:

1. In combination, a can, a cover constructed, when in closed position, to have sealing engagement with said can, a bail carrying the cover and having U-shaped side bars pivoted to the can adjacent the lower end thereof, and having shoulders in the bow-shaped portions of said side bars, latch fingers movably mounted under the bottom of the can, and means acting automatically for causing said latch fingers to engage said shoulders when the cover comes into closed position.

2. In combination, a can, a cover constructed, when in closed position, to have sealing engagement with said can, a bail carrying the cover and having side bars pivoted to the can adjacent the lower end thereof, the side bars having cam-acting portions extending from their pivots and provided with shoulders, latch fingers movably mounted under the bottom of the can, and means acting automatically for causing said latch fingers to engage said shoulders when the cover comes into closed position.

3. In combination, a can body, a can cover, the body having an inclined seat for the cover, a bail carrying the cover and pivoted to the can body, the cover being rigidly secured to the bail, and manually releasable latch means automatically engaging the bail when the cover is closed.

4. In combination, a can body, a can cover, the body having an inclined seat for the cover, a bail carrying the cover, fashioned to provide a hand grip and pivoted to the can body, the hand grip and pivots of the bail being located at one side of a diameter of said body off-center, and latch means engaging the bail when the cover is closed.

5. In combination, a can body, a can cover, the body having an inclined seat for the cover, a bail carrying the cover, fashioned to provide a hand grip and pivoted to the can body, the hand grip and pivots of the bail being located at one side of a diameter of said body off-center, and latch means engaging the bail when the cover is closed, the latch means being arranged under the bottom of the can body and including as an operating element a transversely disposed leaf spring.

6. In combination, a can body, a can cover, the body having an inclined seat for the cover, a bail carrying the cover and pivoted to the can body, and latch means engaging the bail when the cover is closed, the latch means being arranged under the bottom of the can body and including as an operating element a transversely disposed leaf spring.

7. In combination, a can body, a can cover, a bail connected to the cover and pivotally connected to the body, and latch means engaging the bail when the cover is closed, the latch means being arranged under the bottom of the can body.

8. In combination, a can body, a can cover, the body having an inclined seat for the cover, a bail carrying the cover, fashioned to provide a hand grip and pivoted to the can body, the hand grip and pivots of the bail being located at one side of a diameter of said body off-center, and latch means engaging the bail when the cover is closed, the latch means being arranged under the bottom of the can body.

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

THOMAS A. KEEN.

Witnesses:

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A. LICHTENTAG.

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