July 23, 1940. C. H. MINOR 2,208,908

GARBAGE CAN LATCH

Filed May 2, 1939

Fig. 1.

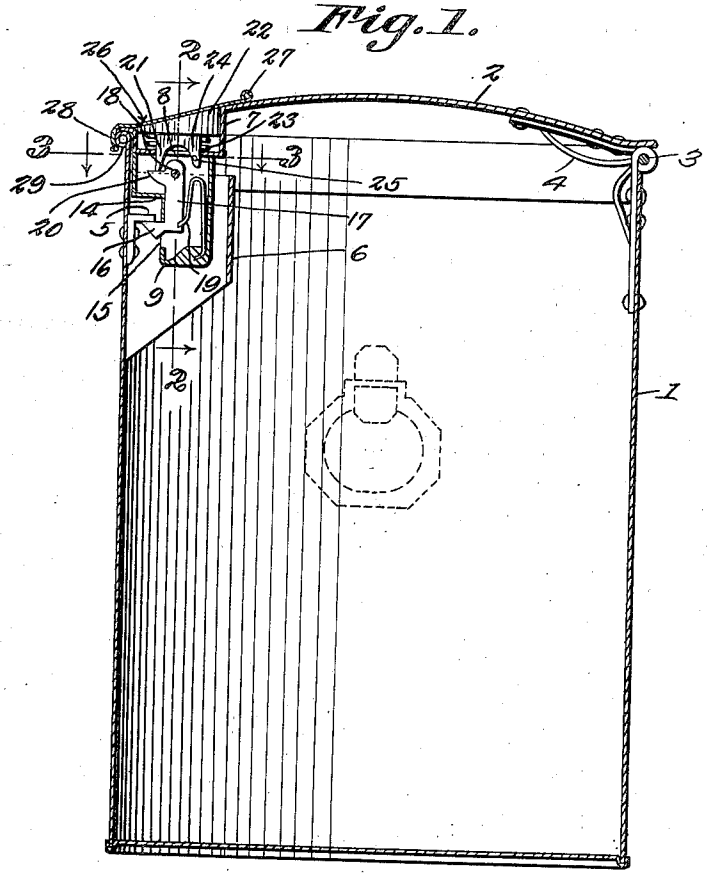


Fig. 2.

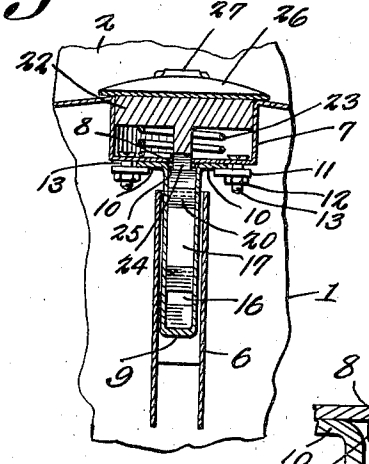
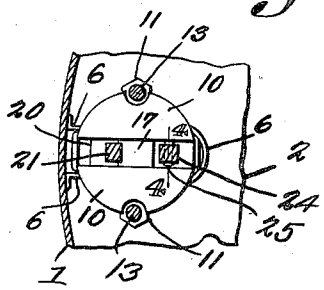


Fig. 3.



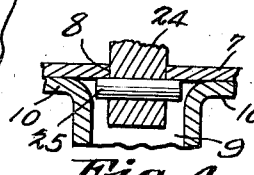


Fig. 4.

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GARBAGE CAN LATCH

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2 Claims. (Cl. 292—304)

This invention relates to garbage cans and more especially to a new and improved latch for fastening the lid in closed position, one of the objects being to provide a latch which is concealed entirely within the can when the lid is closed and cannot be actuated accidentally when the can is upset, as by dogs.

A further object is to provide a latch releasable from without the can but which is protected from the admission of dirt and moisture which might otherwise interfere with the operation of the latch.

Another object is to provide a latch which is simple and compact in construction and will not easily get out of order.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawing the preferred form of the invention has been shown.

In said drawing—

Figure 1 is a central vertical section through the can and its latch, the lid being closed.

Figure 2 is a section on line 2—2, Figure 1.

Figure 3 is a section on line 3—3, Figure 1.

Figure 4 is an enlarged view in section on line 4—4, Figure 3.

Referring to the figures by characters of reference 1 designates a can of the usual construction. It has a lid 2 hingedly connected thereto at 3 and a spring 4 can be used for opening the lid when released.

Secured to the inner surface of the wall of can 1 at a point substantially opposite to hinge 3 is an angular bracket 5 constituting a keeper and this is located within a sheet metal shield or guard 6 which is substantially U-shaped in cross section and secured at its side edges to the can. The shield is open at the top and bottom.

Formed in the lid 2 at a point diametrically opposite hinge 3 is a pocket or recess 7 having a slot 8 in the bottom thereof. A hollow tongue 9 is located beneath the pocket and opens upwardly into slot 8 while oppositely extended wings 10 at the upper end of the tongue are secured firmly to the bottom of pocket 7 by clamping plates 11 engaged by nuts 12 on depending screws 13.

That depending wall of tongue 9 nearest keeper 5 is offset as at 14 so as to provide sufficient clearance to allow the tongue to swing into and out of position back of the keeper. The offset wall has a slot 15 through which projects the beveled head 16 of a latch lever 17 which is fulcrumed at its upper end in the tongue 9 as shown at 18. A looped spring 19 is anchored at one end in the bottom of tongue 9 while its other end exerts a constant pressure against the lower end of lever 17 so as to normally press head 16 outwardly from the tongue.

A finger 20 extends from the upper end portion of lever 17 and overlies head 16. This finger is in the path of a tripping lug 21 extending downwardly from a plunger 22 which is slidably mounted in pocket 7. The lug projects through slot 8 and the plunger is yieldingly supported in the pocket by a coiled spring 23.

A second or restraining lug 24 projects through slot 8 from plunger 22 and has a stop pin 25 which extends under the pocket so as to prevent the plunger from moving too far in an upward direction. When the plunger 22 is in its normal position its top is substantially flush with the top surface of the lid, as shown in Figure 1.

A cover plate 26 is hingedly connected at 27 to lid 2 and has a clip 28 at one end positioned to snap into engagement with the bead 29 on can 1. Thus the plunger 22 and its pocket 7 are protected from snow, dirt, etc.

Normally the parts are positioned as in Figure 1. To open the can cover plate 26 is swung open to expose the end of plunger 22. The plunger is depressed against spring 23 and lug 21 thus pushes on finger 20 so as to swing lever 17 back against spring 19. This results in withdrawal of head 16 from engagement with keeper 5 and the spring pressed lid 2 is allowed to swing upwardly while a light pressure is being maintained on the plunger.

The lid is closed by pressing it downwardly until head 16 engages keeper 5.

The shield 6 is open at the top and bottom so as to allow refuse, etc., to fall therethrough and not interfere with the insertion of tongue 9 into the shield when the lid is closed.

What is claimed is:

1. The combination with a keeper, of a movable structure having a pocket, a hollow tongue opening into and depending from the pocket, a spring pressed lever fulcrumed in the tongue, a keeper engaging head on the lever and normally projecting from the tongue, a spring supported plunger in the pocket, and cooperating means on the plunger and lever for actuating the lever to retract its head when the plunger is depressed,

said plunger having its outer end normally flush with the surface of said structure and filling the outer end of the pocket.

2. The combination with a keeper, of a movable structure having a pocket with a slot in the inner end thereof, a hollow tongue, oppositely extending wings at one end of the tongue, means for detachably securing the wings to the inner end of the pocket, said tongue having an open end communicating with the slot, a latch lever pivotally mounted within the tongue, a head projecting therefrom, there being a slot in the tongue, a spring seated in the tongue and engaging the latch lever for holding the head normally projected through the slot, a finger extended from the lever and within the tongue adjacent the fulcrum of the lever, a plunger slidably mounted within the pocket, and a tripping lug extending from the plunger and through the slot in the pocket and engaging and supported by the finger, said spring cooperating with the latch lever to hold the plunger normally positioned with one end substantially flush with and filling the outer end of the pocket, said lug, finger and lever constituting cooperating means for retracting the head within the tongue when the plunger is shifted from normal position.

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