

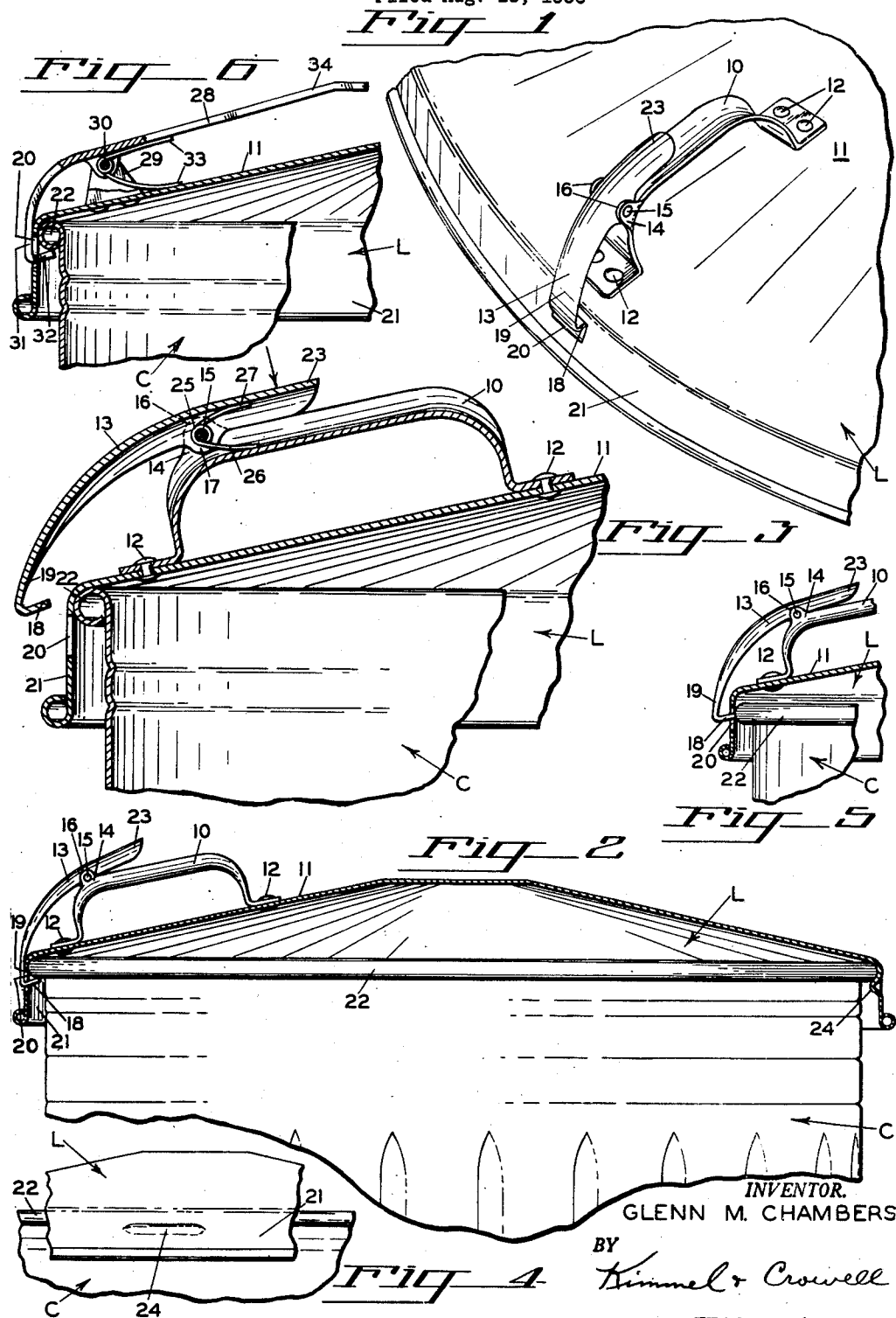
May 20, 1958

G. M. CHAMBERS

2,835,407

LATCHES FOR GARBAGE CAN LIDS

Filed Aug. 13, 1956



INVENTOR.
GLENN M. CHAMBERS

BY

Himmel & Crowell

ATTORNEYS

1

2,835,407

LATCHES FOR GARBAGE CAN LIDS

Glenn M. Chambers, Longview, Wash.

Application August 13, 1956, Serial No. 603,772

2 Claims. (Cl. 220-55.7)

The present invention relates to hold down latches for garbage can lids.

The primary object of the invention is to clamp the garbage can lid on the can until removed by the operator.

Another object of the invention is to provide an improved latch designed to hold the can lid down on the top of the can until the operator grasps the same, unlocking the device and removes the lid. This device will hold the lid on the can if the can should be tipped over by animals, wind or other causes, which has been a very annoying problem in the past. This latch is designed also to hold the lid tightly down on the rim of the can, preventing odors and the like from escaping therefrom.

A further object of the invention is to provide a device of the class described above which is so designed that the operator can use one hand for removing or replacing the lid, having full use of the other hand for inserting the garbage.

These and other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings, in which:

Figure 1 is a fragmentary perspective view of the invention.

Figure 2 is a sectional view of the lid, illustrating the invention in side elevation.

Figure 3 is an enlarged fragmentary sectional view, taken through the latching mechanism.

Figure 4 is a detail fragmentary view, illustrating a constructional detail.

Figure 5 is a fragmentary view of the invention engaging the upper rim of the can when applying the lid.

Figure 6 is a modified form of the invention.

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures, the reference character C indicates a garbage can of conventional construction, while the lid of the can is designated by the letter L. My new and improved lid latching device consists of a handle 10, which is secured to the upper surface 11 of the lid L by any suitable means, as for instance by the rivets 12.

A latching lever 13 is pivotally connected to the upper corner of the handle 10 at 14 by a cross pin 15 which passes through spaced upwardly extending ears 16 of the handle 10 and through the downwardly extending ears 17 of the latching bar 13.

A hook 18 is formed on the end 19 of the latching bar 13, which is adapted to pass through an opening 20 formed in the downwardly extending rim 21 of the lid L. This hook 18 enters underneath the upper rim 22 of the garbage can C, as illustrated in Figure 2. A portion of the rear end 23 of the latching lever 13 extends over the handle 10 and is adapted to be contacted by the thumb of the operator for releasing the hook 18 from under the rim 22 of the can C when removing the lid L from the can C.

The opposite side of the lid L is held down to the rim

2

22 of the can C by a pressed-in detent 24, which engages the under surface of the rim 22 of the can C.

A coil spring 25 is mounted to the pivot pin 15 and has one of its ends 26 engaging the upper surface of the handle 10 and its opposite end 27 engaging the under surface of the end 23 of the latch lever 13. The spring 25 forces the hook 18 through the opening 20 of the rim 21 of the lid L and under the upper rim 22 of the can C at all times, except when removing the lid L from the can C.

In Figure 6 modified form of latching mechanism is illustrated wherein a lever 28 is pivotally mounted to the supporting bracket 29 by a pivot pin 30. The bracket 29 is secured to the top of the lid L by any suitable means. The lever 28 extends downwardly in the portion 31 and has a hook 32 passing through the opening 20 formed in the rim 21 of the lid L, latching under the upper rim 22 of the can C.

A spring 33 tends to force the hook 32 into the slot 20 and under the rim 22 constantly. The lever 28 extends towards the center of the lid L of the can C in the extension portion 34 and is adapted to provide a handle and a trip mechanism for releasing the hook 32 from under the rim 22 of the can C, as will be described.

In the preferred form of the invention, in order to place the lid L on the can C, the operator grasps the handle 10 on the extension portion 34. He brings the detent 24 formed on the opposite side of the lid L under the rim 22, then he forces the handle 10 and lid L down, which will cause the hook 18 to ride over the rim 22 by forcing the same out through the opening 20 of the rim 21 of the lid L, clearing the rim 22, after which the spring 25 will pivot the lever 13 so as to force the hook 18 under the rim 22 of the can C, securely locking the lid L thereon.

When it is desired to remove the lid L from the can C the operator grasps the handle 10, places his thumb on the extension 23 of the latch 13 pushing the same down, which causes the same to pivot about the pin 15 against the spring 25 removing the hook 18 from under the rim 22, as best illustrated in Figure 3, at which time the lid L can be lifted upwardly and removed from the can C.

One of the advantages of this type of latch is that it is located on one side of the lid L, and when lifting one side of the lid L the vacuum seal encountered between the lid L and the can C is easily and quickly broken, much easier than when lifting the lid L from the center of the same.

In the operation of the modified form illustrated in Figure 6, the operator grasps the extension portion 34 of the lever 28 in his hand, pivoting the lever about its pivot 30 so that the end 34 approaches the top of the can. This is usually done by twisting the wrist so as to move the lever 28 downwardly toward the lid L while at the same time lifting the lid L. This will unlock the hook 32 from under the rim 22 of the can C, permitting the removal of the lid L.

When lowering the lid L over the upper rim 22 of the can C, the latch will force itself outwardly by the angle of the hook 32 until it passes the rim 22, at which time it will snap in under and behind the rim 22.

It can be readily understood that with both designs of hold down latches that the lid L can fit snugly to the upper rim 22 of the can C, preventing the escape of odors, and that it will securely hold the lid L to the can C until purposely removed by the operator.

Having thus described the preferred embodiments of the invention, it should be understood that numerous structural modifications and adaptations may be resorted to without departing from the scope of the appended claims.

What is claimed is:

1. In a garbage can of the type having an outwardly rolled upper rim and a cover having a depending circumferential flange thereon telescopically engaging over the upper edge portion of said can, a generally U-shaped handle, opposite end portions on said handle offset therefrom and engaging said cover, means rigidly securing said end portions to said cover, a pair of upstanding ears formed on said handle in spaced parallel relation, an elongated arcuate arm, depending ears formed on said arm medially thereof, means pivotally securing said depending ears to said upstanding ears whereby said arm is pivotally mounted to said handle, said arm having a handle portion overlying said handle, a latch hook integrally formed on the end of said arm opposite said han-

dle portion, said covering having an aperture through which said latch hook extends to engage under said rolled rim, and means biasing said arm in a direction engaging said latch hook under said rim.

2. A device as claimed in claim 1 wherein said flange is provided with an inwardly projecting rolled rim engaging detent diametrically opposed to said arm.

References Cited in the file of this patent

UNITED STATES PATENTS

1,011,198	Holmes	Dec. 12, 1911
2,049,373	Hampe	July 28, 1936
2,111,359	Curtis	Mar. 15, 1938
2,220,319	Curtis	Nov. 5, 1940