Dec. 23, 1958 R. F. GREENWELL 2,865,590

HOLDDOWN DEVICES FOR GARBAGE CANS AND LIDS

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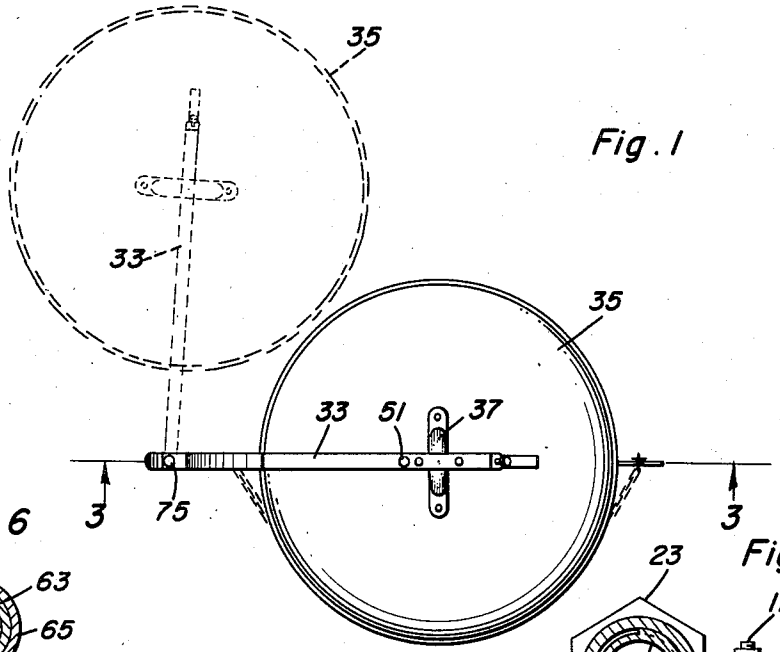


Fig. 1

Fig. 6

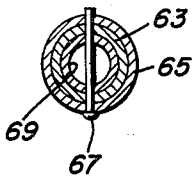
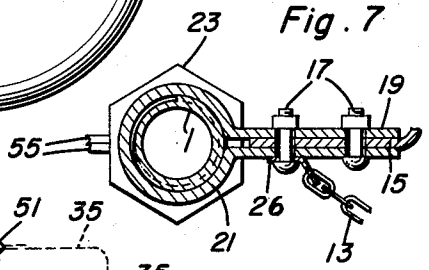


Fig. 7



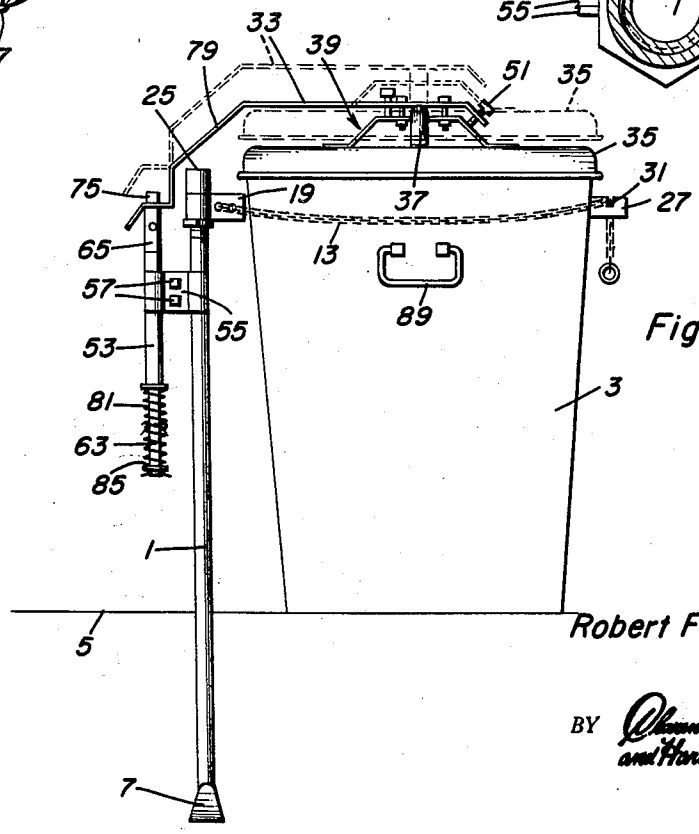


Fig. 2

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Fig. 3

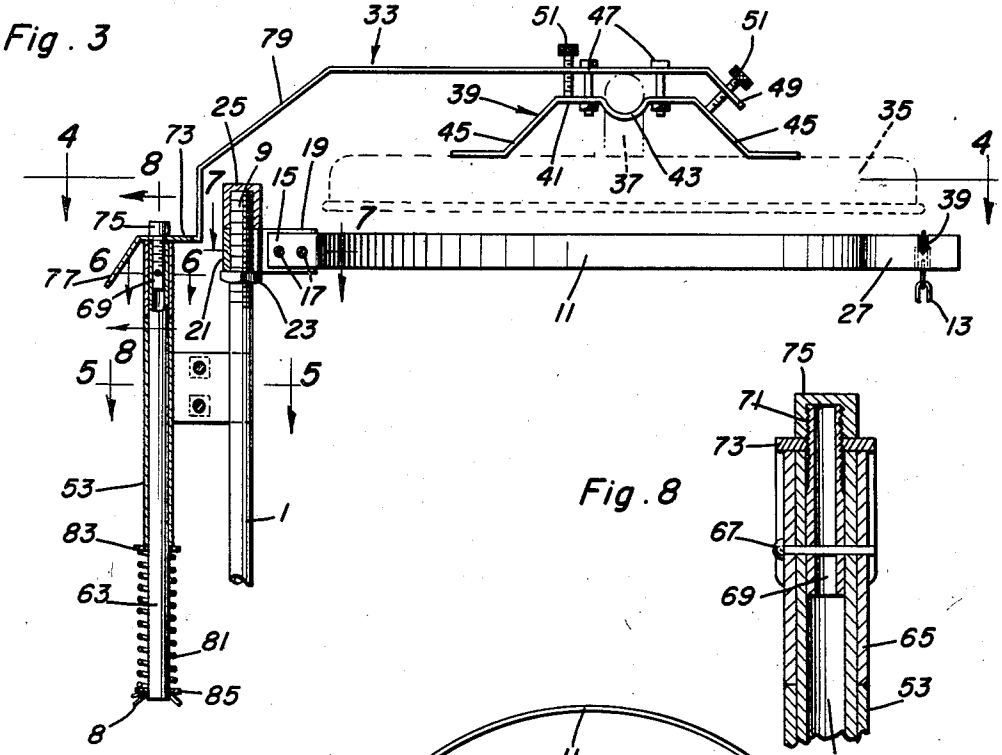


Fig. 8

Fig. 4

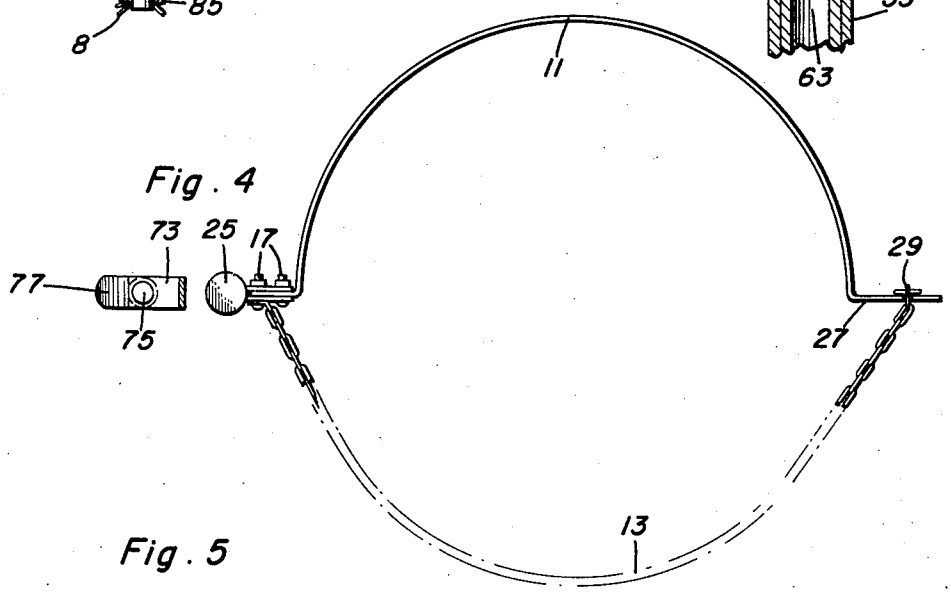
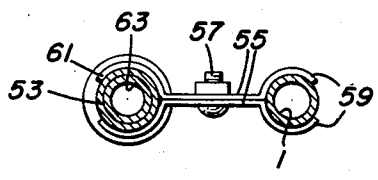


Fig. 5



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United States Patent Office 2,865,590 Patented Dec. 23, 1958

2,865,590

HOLDDOWN DEVICES FOR GARBAGE CANS AND LIDS

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Application January 23, 1957, Serial No. 635,737

1 Claim. (Cl. 248—361)

My invention relates to improvements in devices for holding down garbage cans and the lids thereof, the important object in view being to provide simply constructed means for preventing such cans from being tipped over or the lids thereof being opened or pried off by prowling animals.

Another object is to provide a lid holder for such cans which will securely hold the lids in place and hold the can down so as to prevent the escape of noxious odors from the cans and will prevent the lids from being stolen by mischevious children.

Still another object is to provide means for accomplishing the above which is easy to install, durable, comparatively inexpensive to manufacture, and adapted for use with standard garbage cans and lids.

Other and subordinate objects together with the precise nature of my improvements will become apparent when the following description and claim are read with reference to the accompanying drawings in which:

Figure 1 is a view in top plan partly in broken lines of my invention in the preferred embodiment thereof;

Figure 2 is a view in side elevation partly in broken lines;

Figure 3 is an enlarged fragmentary view in vertical section partly in broken lines taken on the line 3—3 of Figure 1 with the garbage can eliminated;

Figure 4 is a view in horizontal section taken on the line 4—4 of Figure 3;

Figure 5 is an enlarged view in horizontal section taken on the line 5—5 of Figure 3;

Figure 6 is an enlarged view in horizontal section taken on the line 6—6 of Figure 3;

Figure 7 is an enlarged view on horizontal section taken on the line 7—7 of Figure 3; and

Figure 8 is an enlarged fragmentary view in vertical section taken on the line 8—8 of Figure 3.

Referring to the drawings by numerals, according to my invention an anchor post 1 is provided for the garbage can 3 for driving into the ground 5 and is preferably formed of tubular metal with a flattened lower ground penetrating and anchoring end 7 and an upper externally threaded end 9. The post 1 is driven into the ground 5 at one side of and close to the can 3 to extend substantially to the top of the can 3 and has mounted thereon can embracing means for preventing the can 3 from being tipped over.

The can embracing means comprises a curvilinear flat metal arm 11 extending horizontally from said post 1 around one side of the can 3, and a link chain 13 extending around the opposite side of the can 3. The arm 11 is attached to the post 1 by means of an angular rear end 15 thereon bolted as at 17, between a pair of lateral ears 19 on a split collar 21 fitting on the upper end 9 of said post 1 and clamped between a nut 23 on said end 9 below said collar 21 and a tubular cap 25 threaded on said end 9 above said collar. An angular vertically notched front end 27 is provided on said arm 11 for a purpose presently seen.

The link chain 13 is connected by a ring 26 on one end to one of the bolts 17 and has a terminal ring 29 on its other end interlocked with the notch 31 in the front end 27 with the chain tightened against the can 3.

A hold down flat metal arm 33 for the can lid 35 extends transversely over the conventional U handle 37 on said lid 35. The handle 37 is clamped between the front end of the arm 33 and a flat metal resilient clamp member 39 underlying the handle 37 crosswise thereof and parallel with said arm 33.

The clamp member 39 has a raised center portion 41 provided with a concave seat 43 fitting the handle 37, and said member 39 is provided with obtuse angled end legs 45 fitting flat on the lid 35 at opposite sides of said handle. A pair of bolts 47 extend through said arm 33 and center portion 41 of said member 39 at opposite sides of the handle 37 and secure said arm 33 and member 39 in clamping relation to said handle.

A front downturned obtuse angled end 49 on said arm 33 overlies one of the legs 45 and a pair of set screws 51 at opposite sides of the handle 37 extend through an intermediate part of said arm 33 and bear against the center portion 41 and said one leg 45 of the member 39 for variably tilting the lid 35 relative to the arm 33 to fit the lid 35 flush on the can 3.

The arm 33 is vertically slidably and pivotally mounted for lifting thereof to raise the lid 35 off the can 3 and for swinging laterally to swing the lid 35 to one side of the can to open said can. For this purpose the following mounting means for said arm 33 is provided.

A vertical tubular guide sleeve 53 in the rear of and parallel with the post 1 is secured in suspended position to said post adjacent the upper end of said post by a pair of opposed clamping plates 55 detachably secured together by bolts 57. The plates 55 are formed with complemental jaw ends 59, 61 clampingly engaging the post 1 and the sleeve 53.

A tubular vertical plunger 63 for supporting the arm 33 extends through the guide sleeve 53 and is vertically slidable and rotatable therein. A tubular stop sleeve 65 secured by a cross pin 67 on the upper end of the plunger 63 with its upper end flush with the upper end of the plunger seats on the upper end of the guide sleeve 53 and limits downward sliding of the plunger. A short tubular shaft 69 is fitted in and secured in the upper end of the stop sleeve 65 by the cross pin 67 and extends upwardly out of the same with its upper end threaded as at 71.

A horizontal apertured rear end portion 73 on the arm 33 is fitted over the upper end of the shaft 69 and secured flatly on the flush ends of the guide sleeve and stop sleeve 63, 65 and retained thereon by a cap nut 75 threaded on said shaft 69. The arm 33 has a rear end 77 bent downwardly from one side of the portion 73 to shed water away from the cap 75 and at the opposite side of said portion 73 said arm 33 is bent upwardly into an accute angled portion 79 clearing the cap 25.

The plunger 63 and hence the arm 33 and lid 35 are tensioned against upwardly movement by means of a coil spring 81 on the plunger 63 below the guide sleeve 53 interposed between upper and lower washers 83, 85 on said plunger, the upper washer 83 bearing against the lower end of the guide sleeve 53 and the lower washer 85 being backed by a cotter pin 87 in the lower end of said plunger 63.

As will now be seen the arm 11 and chain 13 embrace the upper portion of the can 3 above its handles 89 and stabilize the can against being tipped over when the lid 35 is removed. To remove the lid 35 for opening the can 3 the arm 33 is grasped forwardly of the portion 79, and then lifted to lift the lid 35 off the can as shown in broken lines in Figure 2, after which said arm is swung

laterally to swing the lid 35 from over the can 3 as shown by broken lines on Figure 1. Lifting of the arm 33 lifts the plunger 63 in opposition to the spring 81 so that when the arm 33 is released the plunger 63 will be lowered to lower the lid so that when said lid is swung to one side of the can 3 the arm 33 must be again lifted to position the lid 35 over the can for replacing said lid. When the lid is swung over the can in proper position for replacement the plunger 63, arm 33 and lid 35 will be lowered by the spring 81 to tightly clamp the lid 35 on said can.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

A hold down device for a garbage can comprising a post adapted to be driven into ground alongside a garbage can, a hold down arm adapted to extend horizontally across a lid of a garbage can, means on one end of said arm attachable to a handle on a garbage can lid, means attached to said post and mounting said arm at its other

end for vertical movement and lateral swinging whereby said arm may be lifted to lift a garbage can lid off a garbage can and said arm swung laterally to swing such a lid to one side of the garbage can, said second named means comprising a vertical tubular guide sleeve secured to said post at the rear of and below the top of the post, a vertical plunger slidably extended through said guide above and below the same and rotatable therein, said arm being attached to said plunger above said guide, and spring means on said plunger below said guide, said spring means urging said plunger downwardly to hold said arm down for holding a garbage can lid down on a garbage can, said arm extending upwardly from said plunger and forwardly across the top of the post for rotation through an angle of 360° without interfering with said post.

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