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PORTABLE GARBAGE CAN HOLDER

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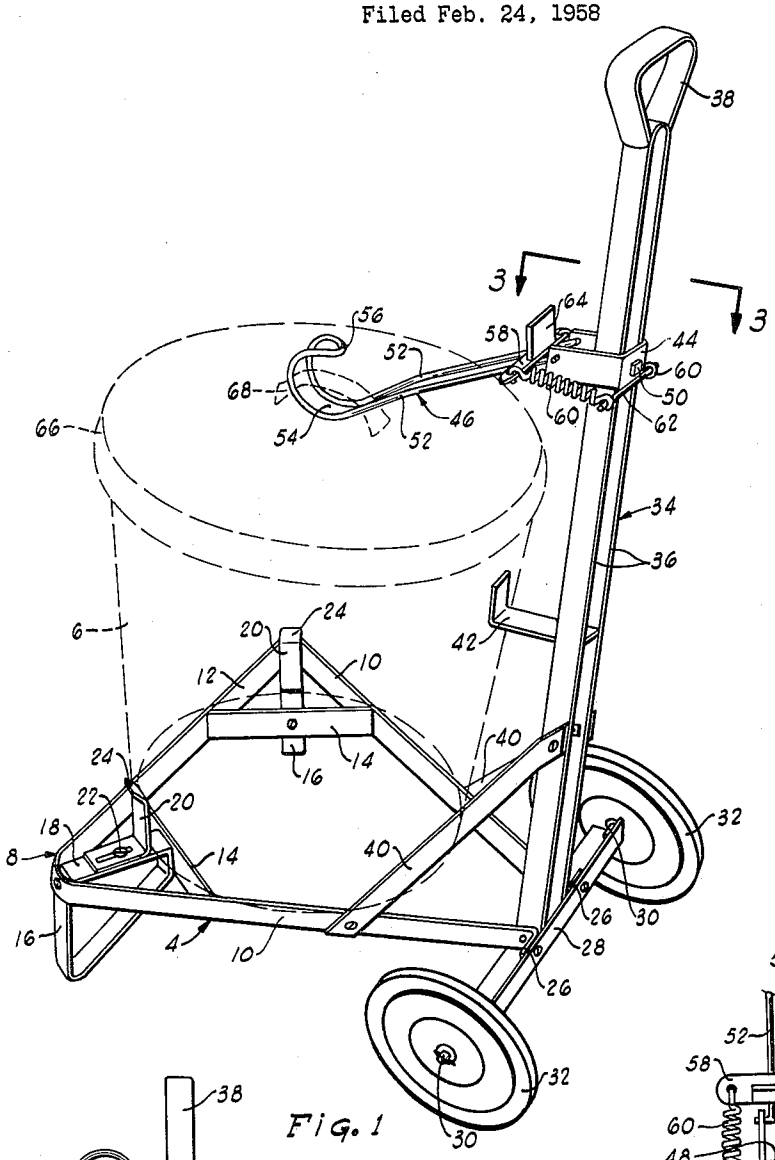


Fig. 1

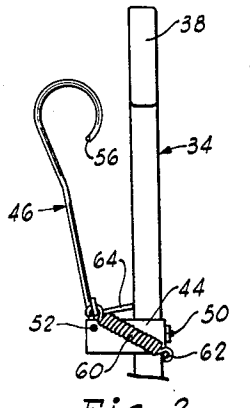


Fig. 2

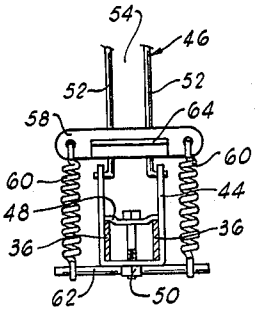


Fig. 3

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PORTABLE GARBAGE CAN HOLDER

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3 Claims. (Cl. 248—149)

This invention relates generally to improvements in garbage can holders, and more particularly, but not by way of limitation, to an improved portable garbage can holder for supporting various sizes of garbage cans.

Many different types of garbage can holders have been devised. Heretofore, however, such holders have been either stationary, expensive to manufacture, or capable of holding only a single size of garbage can, or required the use of bolts or the like for attaching some portion of the garbage can to the holder, and none of such garbage can holders have been widely accepted.

The present invention contemplates a novel garbage can holder capable of holding any desired size of garbage can, including securely holding a cover on the can supported thereon. In the present device, a garbage can cover is held in place by a novel arm construction which merely straddles the cover handle when lowered into contact with the cover and is not rigidly secured to any portion of the cover. The height of the arm is easily adjusted for various sizes of garbage cans, and the arm is held either against the can cover, or completely removed from the cover (as when the can is being filled or emptied) by a simply constructed spring arrangement. The present invention also contemplates a portable garbage can holder having guiding members thereon to facilitate the loading of a garbage can on the holder.

An important object of this invention is to provide a garbage can holder capable of holding various sizes of garbage cans.

Another object of this invention is to provide a garbage can holder which will firmly hold a garbage can, without the use of connecting bolts or the like between any portion of the can and the holder.

A further object of this invention is to provide a garbage can holder which will prevent a garbage can thereon from being tipped over by wind and stray animals and the like, yet the holder may be easily moved, as, for example, when it is desired to empty the garbage can being supported thereby.

A still further object of this invention is to facilitate the loading of a garbage can on a garbage can holder.

Another object of this invention is to provide a garbage can holder which is simple and safe to operate, is simple in construction, and may be economically manufactured.

Other objects and advantages of the invention will be evident from the following detailed description, when read in conjunction with the accompanying drawings which illustrate my invention.

In the drawings:

Figure 1 is a perspective view of a garbage can holder constructed in accordance with this invention and having a garbage can (shown in dashed lines) supported thereon.

Figure 2 is a side view of the upper portion of the garbage can holder shown in Fig. 1 illustrating the retracted position of the cover-holding arm.

Figure 3 is a sectional view as taken substantially along lines 3—3 of Fig. 1.

Referring to the drawings in detail, reference character 4 generally designates the base portion of my novel garbages can holder which is utilized for supporting a garbage can 6 thereon in a substantially vertical position. The base 4 comprises a triangularly-shaped platform 8 having diagonally extending side bars 10 and an end bar 12 which may be conveniently formed as a continuation of the side bars 10. A cross brace 14 is welded or otherwise rigidly secured at its opposite ends to the end bar 12 and the respective side bar 10 across each of the corners of the platform 8 at the larger end of the platform. The top of each cross brace 14 is, of course, level with the tops of the bars 10 and 12 to provide a level resting surface for the bottom of the can 6.

A triangularly-shaped leg 16 is secured between the intersection of each side bar 10 and the end bar 12 and the adjacent brace 14 in a position to depend from the platform 8 and support the forward end of the platform. The legs 16 may be easily bolted to the braces 14 and bars 10 and 12, and the top member 18 of each leg is positioned substantially level with the tops of the bars 10 and 12 and braces 14. An L-shaped stop member 20 is secured by a bolt 22 to the top member 18 of each leg 16 to contact the lower edge of the can 6. It will be observed that each stop 20 is slotted to receive the respective bolt 22, in order that the stops can be adjusted inwardly and outwardly on the platform 8 to engage garbage cans of various sizes. The upper end 24 of each stop 20 is preferably bent outwardly to facilitate the loading of the can 6 on the platform 8, as will be more fully hereinafter set forth.

The rear end portions 26 of the platform side bars 10 are flared outwardly and bolted to a transversely extending support member 28 which is preferably in the form of an angle iron. The member 28 extends outwardly from opposite sides of the platform 8, and each end of the member 28 has the axle 30 of a wheel 32 secured thereto. The wheels 32 are rotatably secured on their respective axles 30 and are of a size to cooperate with the legs 16 in supporting the platform 8 substantially level when both wheels 32 and both legs 16 are resting on a level surface.

A back member 34, having parallel side bars 36, is secured to the rear ends of the platform side bars 10 and extends substantially vertically upward from the platform 8. The back member 34 extends above the platform 8 a distance greater than the height of any garbage can to be supported by the holder, for purposes which will be hereinafter set forth, and has a handle 38 on the upper end thereof to facilitate moving the garbage can holder. A brace 40 is bolted to the medial portion of each platform side bar 10 and the adjacent side bar 36 of the back 34 above the rear end of the platform 8. Thus, the braces 40 extend upwardly and inwardly from the platform 8 to form guides for a garbage can 6 being placed on the platform 8, as will be described below, as well as supports for retaining the back 34 at a fixed angle with respect to the platform 8. A fixed stop 42 is also secured to the back 34 slightly above the braces 40 to cooperate with the stops 20 and braces 40 in holding the can 6 on the platform 8.

A U-shaped bracket 44 (Figs. 1 and 3) extends around the outer sides and back edges of the back side bars 36 and projects forwardly from the back 34 to pivotally support an arm 46 over the platform 8. The bracket 44 is secured to the back 34 by a plate 48 extending between the flanges of the bracket and connected to the closed end of the bracket by a bolt 50 extending between the back member side bars 36. The plate 48 is of a length to slidingly fit between the side flanges of the bracket 44, and the central portion thereof may be crimped inwardly, as illustrated in Fig. 3, to facilitate the engagement

of the plate with the forward edges of the back member side bars 36. Also, the bolt 50 may be threaded into the plate 48 if desired, to facilitate the clamping of the bracket 44 on the back 34.

The arm 46 is preferably formed by a rod being bent at its middle into a U-shape to provide parallel side rods 52 and a vertical slot 54 through the arm. The free ends of the arm side rods 52 are turned outwardly and extended through aligned apertures in the side flanges of the bracket 44 to pivotally support the arm 46 on a horizontal axis for vertical pivotal movement over the platform 8. The outer end portion of the arm 46 is curved or bent on an axis parallel with the pivotal axis of the arm, such that the junction 56 of the side rods 52 at the outer end of the arm 46 is extended upwardly to form a handle when the arm 46 is positioned horizontally over the platform 8.

A bar 58 is rigidly secured transversely across the arm 46, as by being welded to the side rods 52, and extends outwardly beyond the sides of the arm 46 to receive the ends of a pair of helical tension springs 60. The springs 60 extend rearwardly on the opposite sides of the bracket 44 and are connected at their rear ends to a rod 62 secured across the lower edge of the closed end of the bracket 44 parallel with the bar 58. The ends of the springs 60 may be easily looped over the rod 62 and inserted through apertures in the ends of the bar 58, and the distance between the bar 58 and rod 62 should be such that the springs 60 are under tension in all operating positions of the arm 46. It will also be noted that a stop flange 64 is formed on the central portion of the bar 58 in alignment with the back 34 to limit the upward movement of the arm 46 as illustrated in Fig. 2. Downward movement of the arm 46 (when the arm does not contact a can cover) is limited by the bar 58 contacting the end of the bracket 44 to retain the springs 60 under tension.

Operation

Assuming it is desired to place a new garbage can 6 on the present garbage can holder, the user grips the handle portion 56 of the arm 46 and swings the arm upwardly to the position shown in Fig. 2, unless the arm 46 is already in this position. It will be observed in Fig. 2 that the springs 60 are positioned above the pivotal axis of the arm 46 when the flange 64 is in contact with the back 34 to hold the arm 46 in this up position until the arm is manually forced down.

The can 6 is then placed on the platform 8 between the braces 40 and the stops 20 and against the fixed stop 42. As the can 6 is being placed on the platform 8, the can is lifted and one side of the bottom of the can is inserted between the braces 40 above the stops 20. At this time, the can will be to the rear of the front stops 20. As the can is lowered, it slides down the braces 40 into position against the front stops 20. Thus, the can 6 need not be held precisely vertical and guided by hand onto the platform 8, as would be required if only circumferentially spaced stops similar to the stops 20 were provided on the platform 8.

When the can 6 is on the platform 8, the can is forced rearwardly against the braces 40 and the stop 42, in the event the stops 20 are positioned too far away from the braces 40. The bolts 22 are then loosened and the stops 20 slid into contact with the bottom rim of the can 6; whereupon the bolts 22 are again tightened and the can 6 is thereby wedged between the stops 20 and the braces 40 and stop 42.

The bolt 50 holding the bracket 44 is then loosened, and the bracket 44 is slid up or down on the back member 34 to a position slightly above the top of the can 6. A precise positioning of the height of the bracket 44 is not required, due to the flexibility of the present holder, as will be set forth below. At any rate, the bolt 50 is again tightened to grip the back member 34 between the closed end of the bracket 44 and the plate 48 to firmly secure the bracket 44 on the back 34.

The garbage can cover 66 is then placed on the can 6, with the cover handle 68 substantially aligned, lengthwise, with the back member 34. To hold the cover 66 in place, the arm 46 is pivoted outwardly against the action of the spring 60, and then downwardly into contact with the top of the cover 66. The arm 46 straddles the cover handle 68, with the handle 68 extending upwardly through the slot 54 in the arm, and the arm contacts the cover on both sides of the handle 68. It will be observed that since the arm 46 is slotted to straddle the handle 68 and is curved upwardly on a horizontal axis, the arm 46 need not contact the precise center of the cover 66 and the height of the bracket 44 need not be precisely adjusted for the arm 46 to effectively hold the cover 66 in place. The springs 60, being below the pivotal axis of the arm 46, will hold the arm down firmly against the cover 66 until the arm is manually swung upwardly.

For a normal operation of dumping a bundle of garbage into the can 6, the user simply pulls upwardly on the handle portion 56 of the arm 46 and swings the arm up to the position shown in Fig. 2, where the arm will be held by the springs 60. The cover 66 is then removed, the garbage dumped into the can 6, and the cover is replaced with the handle 68 in alignment with the back 34 as shown in Fig. 1, whereupon, the arm 46 is swung back down into contact with the cover 66, such that the springs 60 will hold the arm firmly in contact with the cover.

In unloading the can 6, the arm 46 is raised and the cover 66 removed as previously described. The can 6 may then be lifted substantially vertically from between the stops 20 and braces 40 and dumped. The can 6 is placed back on the platform 8 by sliding the can down between the braces 40 in the same manner as previously described. It will be understood that the stops 20 and bracket 44 are adjusted only when a new size of can is being placed on the present garbage can holder.

When it is desired to move the garbage can holder, as when dumping a garbage can held on the holder and it is desired to move the can closer to a garbage truck or the like, the user grips the handle 38 at the top of the back 34 and tilts the garbage can holder on the wheels 32 until the legs 16 are raised off of the supporting surface. The garbage can holder may then be pushed on the wheels 32 to any desired location. It should also be noted that the fixed stop 42 will prevent the can 6 from being tilted with respect to the platform 8 when the legs 16 are raised, to assure that the can 6 will not be rolled off of the holder when the holder is being moved.

From the foregoing it will be apparent that the present invention provides a garbage can holder capable of holding various sizes of garbage cans, without the necessity of precise adjustments or connecting any portion of a garbage can to the holder by bolts or the like. A garbage can may be easily and conveniently placed on the present holder. Furthermore, the holder may be easily moved, without fear of spilling garbage from a can on the holder during the moving operation. The present holder is also sufficiently stable to prevent upsetting of a garbage can by wind or stray animals.

Changes may be made in the combination and arrangement of parts or elements as heretofore set forth in the specification and shown in the drawings without departing from the spirit and scope of the invention as defined in the following claims.

I claim:

1. In a device for holding various sizes of garbage cans, each of which has a cover and a handle in the central portion of the cover, comprising the combination of: a base for supporting a garbage can thereon, a back member extending upwardly from one end of the base, a bracket adjustably secured on the back member for

positioning at a height slightly above the top of a can resting on the base, a rod bent in the middle thereof to form a U-shaped arm, the ends of said rod being pivotally secured to said bracket on a horizontal axis for manual pivotal movement of the arm vertically over the base, the outer end portion of said arm being curved on an axis substantially parallel with the pivotal axis of the arm for straddling the handle and contacting the top of a cover on a can resting on the base on the opposite sides of the cover handle, the outer end of said arm being extended upwardly when the arm is extended substantially parallel over the base to form a handle on the arm, and spring means connected between the arm and bracket for retaining the arm in contact with the can cover and, alternately, in a substantially vertical position away from the can cover.

2. A device as defined in claim 1 characterized further in that said back member has horizontally spaced parallel side bars, said bracket is U-shaped and of a size to extend around the back member, a plate slidingly fitting within the bracket in contact with the adjacent edges of the back side bars in opposed relation to the closed end of the bracket, and a bolt extending through the closed

end of the bracket and said plate for clamping the bracket on the back member.

3. A device as defined in claim 1 characterized further in that a bar is secured transversely across said arm in proximity with the bracket, said bar having a flange thereon positioned to contact the back member and limit the upward movement of the arm, a rod secured to the bracket parallel with said arm and said spring means comprises a pair of helical springs anchored between adjacent ends of said bar and rod.

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