Oct. 4, 1966 H. W. BLACK 3,276,600

MOBILE GARBAGE CAN RACK

Filed Aug. 3, 1964

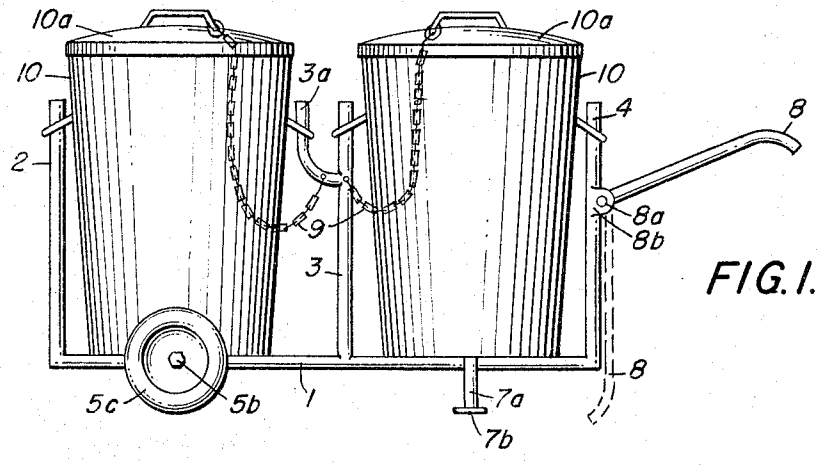


FIG. 1.

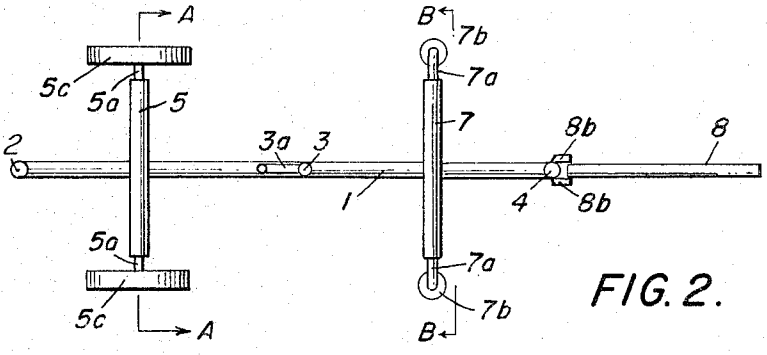


FIG. 2.

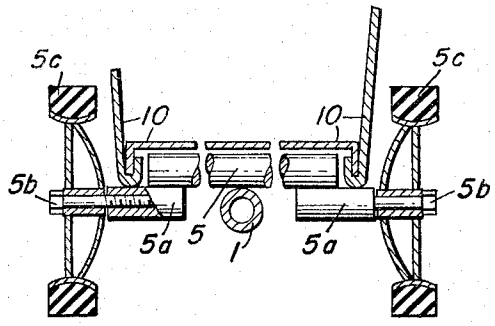
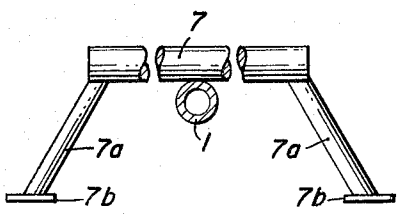


FIG. 3.

FIG. 4.



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United States Patent Office

3,276,600

Patented Oct. 4, 1966

3,276,600

MOBILE GARBAGE CAN RACK

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Filed Aug. 3, 1964, Ser. No. 387,030

5 Claims. (Cl. 211—71)

The purpose of the mobile garbage can rack as described herein is to provide a convenient, low cost, yet trim appearing device for supporting, storing and transporting a multiple number of garbage cans. The rack described herein not only affords the usual advantages of preventing wind or scavening animals from upsetting the cans, but also permits a multiple number of cans to be easily transported. This feature makes the rack very useful for the typical home situation where the cans are stored and filled in one location (such as adjacent to the rear entrance of the house) and periodically moved to another location (such as the front street curb) for "pick-up" of the garbage. When used in this manner, the rack described herein affords numerous advantages over the conventional method of using free standing cans or stationary racks.

An object of the invention is to protect against garbage spillage at both the filling and the "pick-up" locations.

Another object is to prevent damage to cans and lids at both locations. Unsecured lids and empty cans are sometimes damaged or lost when blown into the streets where they may be struck by passing traffic. On the subject rack, the lids are chained to the rack, not to the cans, and are available for use at both locations; but do not interfere when the can is removed for emptying.

Another object is to provide a convenient method of transporting a multiple number of cans to and from the garbage pick-up point without soiling hands or clothes. The loaded rack can be manipulated with only one hand, and more than 60% of the load is carried by the wheels.

A further object is to provide a rack which is light weight, easy to manipulate, neat and trim in appearance, and economical to fabricate since the unique "skeleton" design reduces rack framework to a minimum without sacrificing strength and durability.

Other objects and advantages of the invention will be apparent from the following description taken in connection with the accompanying drawing, and it will be understood that changes may be made in the details of construction and arrangement of parts shown and described without departing from the scope of the invention, as the preferred form has been given by way of illustration only.

Referring to the drawing:

FIGURE 1 is a composite side view with cans in place. The handle is shown in both the extended (solid lines) and folded (dashed lines) positions.

FIGURE 2 is a top view of the rack with cans removed to more clearly show the framework details.

FIGURE 3 is a vertical section on the line A—A of FIGURE 2 with a can shown in place.

FIGURE 4 is a vertical section on the line B—B of FIGURE 2.

The rack is fabricated mainly from standard steel pipe segments which are welded into an integral unit. Basically, the rack has a "skeleton" type construction. Rather than an enclosing "box" type design as used on conventional can racks. This unique design is based on the concept that each can may be adequately supported by a centering bar **5** or **7** which fits inside the rim projecting down from the can bottom (as shown in FIGURE 3) and by a vertical support post **2**, **3**, or **4** through each of the two handles of the can. The centering bar restrains the can bottom from moving laterally. The vertical support posts through the can handles secure the upper portion of the can against both lateral and longitudinal motion while the lower end of the posts restrain the can bottom longitudinally. The horizontal centering bars **5** and **7** and the vertical support posts **2**, **3**, and **4** are all attached to and supported by the horizontal main beam **1**.

As shown in FIGURE 3, the front centering bar **5** also serves as the main axle for the front wheels **5***c*. These wheels are attached by bolts **5***b* which act as shafts for the sleeve bearings of the wheels and are screwed into the female threads of the axle extension tubes **5***a*. The extension tubes **5***a* also serve to position the wheels **5***c* out from the ends of the centering bar **5** and thus provide clearance between the centering bar **5** and the wheels **5***c* for the can bottom rim.

The rear centering bar **7** also serves as the beam for the rear support leg assembly. See FIGURE 4. The support legs **7***a* are attached to and supported by this bar **7**. The legs **7***a* project outward at an angle to provide a sufficiently wide "stance" at ground level for rack stability and are attached under the bar so as not to interfere with the can bottom rim. Large washers, **7***b* attached to the lower end of the legs **7***a*, serve as feet to prevent the legs from sinking into soft earth when the rack is loaded.

The handle **8** is designed to fold down to reduce the over-all length when the rack is stationary. When the rack is to be removed, the handle **8** is rotated upward until the upper side of the pipe on the hinge end of the handle butts against the vertical post **4**. This stops the handle in a position where it can be used to raise the rear of the rack and to propel and guide it. The handle **8** is made sufficiently long so that when extended it will position the operator far enough away from the cart to prevent his feet from bumping the lower rear portion of the rack.

The vertical support posts **2**, **3**, and **4** position and support the cans by engaging the can handles. The intermediate support posts **3** are fitted with a fork **3***a* to provide sufficient hand clearance between the cans when placing or removing the cans. The forks **3***a* also provide an independent "post" for each can handle. If the handles of adjacent cans were overlapping on a single post (without a fork) the cans would lock each other on and complicate removal and replacement of the cans.

Each can lid **10***a* is attached to the rack by a short length of chain **9** which is secured at the rack end with a swivel to prevent chain "wind-up". This arrangement prevents the lids from being blown away, or otherwise lost, yet permits the can to be emptied without interference from the lid.

We claim:

1. A mobile rack for garbage cans and similar containers comprising a horizontal main frame member, a first upright post secured to and upwardly extending from the front end of said main frame member and adapted to pass through a side handle of said cans, a second upright post secured to and upwardly extending from the rear end of said main frame member and adapted to pass through a side handle of said cans, a third upright post secured intermediate the ends of said main frame member and upwardly extending therefrom, said third upright post being forked at an upper portion thereof to provide two upwardly extending members each of which is adapted to pass through a side handle of said cans and cooperate with said first and second upright posts to laterally and transversely restrain said cans therebetween, a first horizontally disposed trans-

verse bar secured intermediate its ends to the upward side of said main frame member intermediate said first and third upright posts, a second horizontally disposed transverse bar secured intermediate its ends to the upward side of said main frame member intermediate said second and third upright posts, said first and second transverse bars having a length adapted to fit within the recessed bottom of said cans thereby functioning to support and fully restrain said cans in cooperation with said upright posts, and said first and second transverse bars provided on the underside of the free ends thereof with supporting or wheel means.

2. The combination cited in claim 1, wherein the support means comprises a leg inclined downwardly and outwardly from the under side of each free end of the first and second horizontally disposed transverse bars, and said legs having horizontally disposed flat members secured to the free ends thereof providing sink-resisting feet.

3. The combination cited in claim 1 wherein the support and wheel means comprise legs inclined downwardly and outwardly from the underside of the free ends of the first horizontally disposed transverse bar, said legs having horizontally disposed flat members secured to the free ends thereof providing sink-resisting feet, and horizontally disposed axle tubes secured to the underside of and parallel with the second horizontally disposed transverse bar, said axle tubes being secured adjacent to and projecting outwardly from the free ends of said second transverse bar, said axle tubes having means for attaching wheels to the free ends thereof.

4. The combination recited in claim 3 wherein the first upright post further includes a handle pivotally attached adjacent the upper end of said first upright post, said handle rotatable from a downwardly depending position to a substantially horizontal stopped position, said handle rotating coplanar to the first and second uprights.

5. The combination recited in claim 4 wherein the horizontal main frame member is lengthened in its central portion and additional forked upright posts and horizontal transverse bars are secured to said lengthened main frame member in locations suitable for accommodating additional cans.

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