July 27, 1965 E. N. STANLEY 3,197,032

TRASH CAN SUPPORT

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FIG. 1.

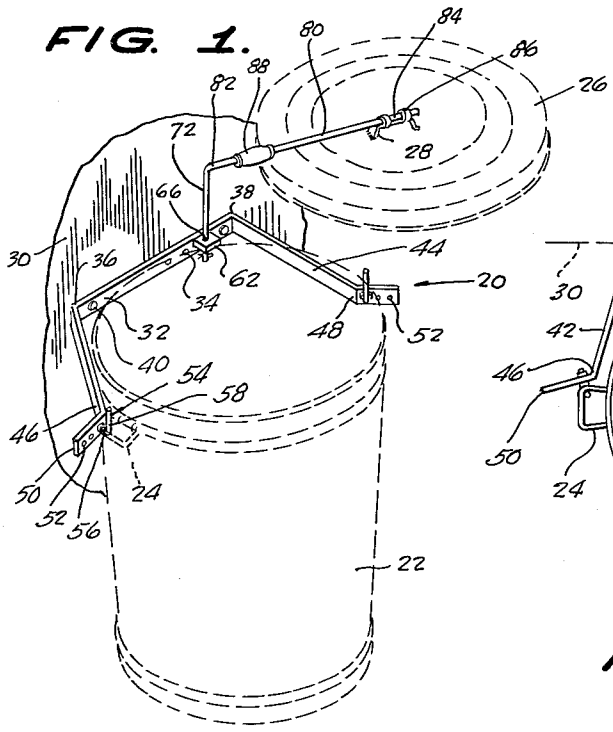


FIG. 2.

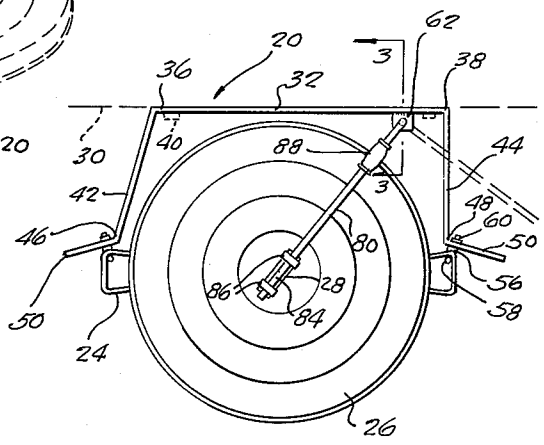


FIG. 3.

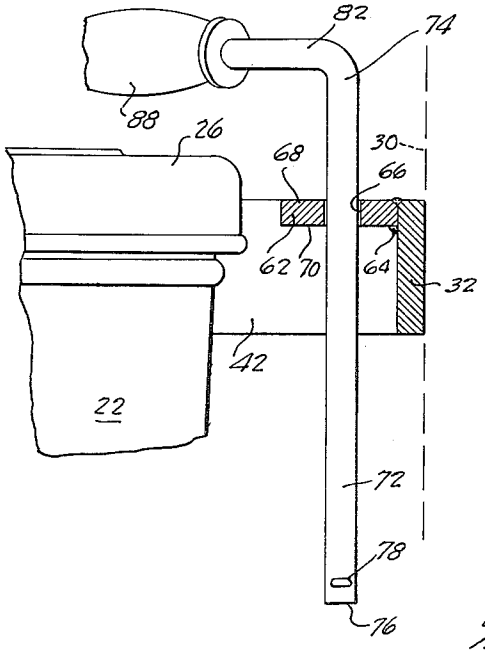
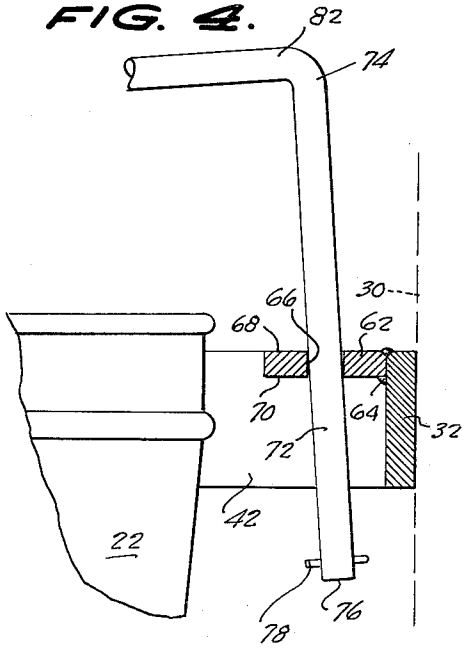


FIG. 4.



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FIG. 9.

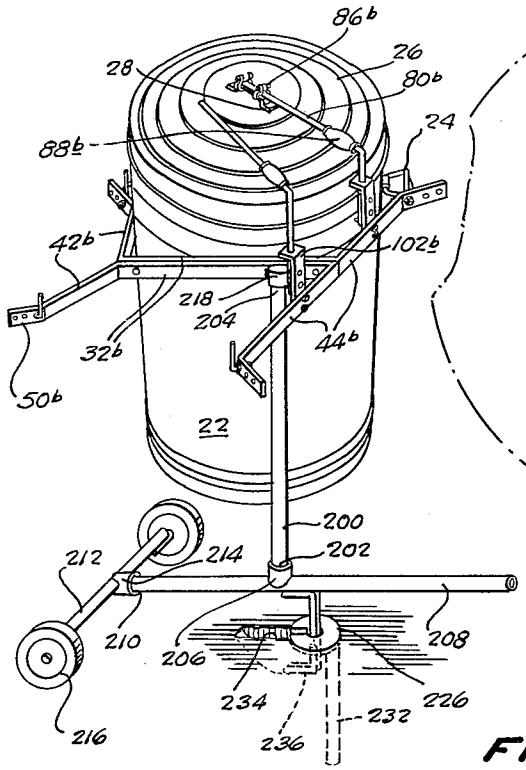


FIG. 5.

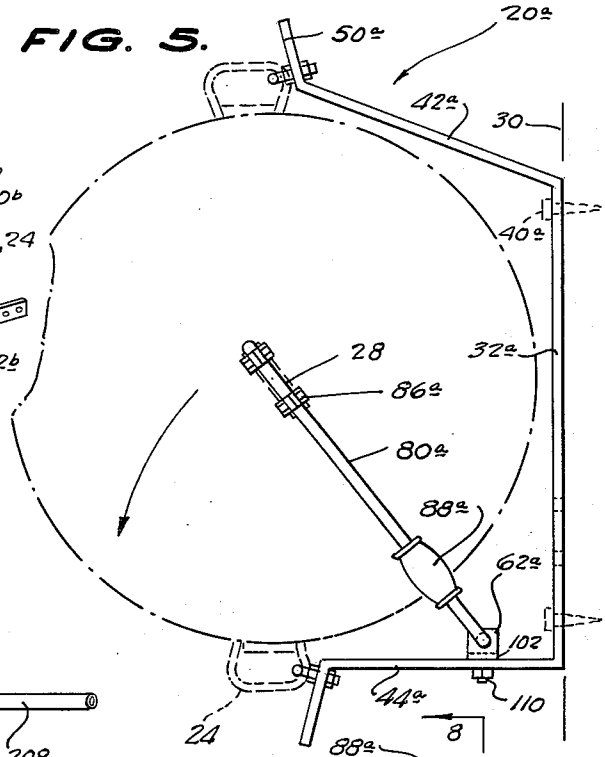


FIG. 6.

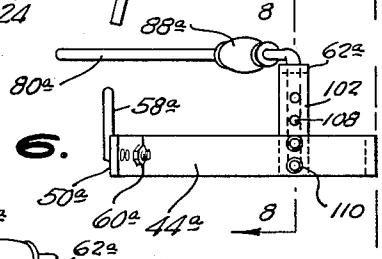


FIG. 7.

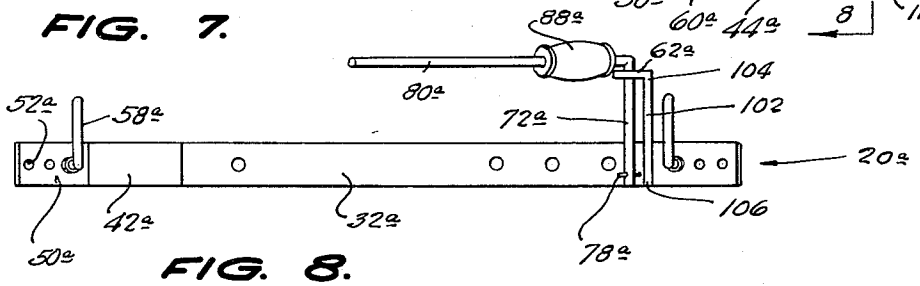
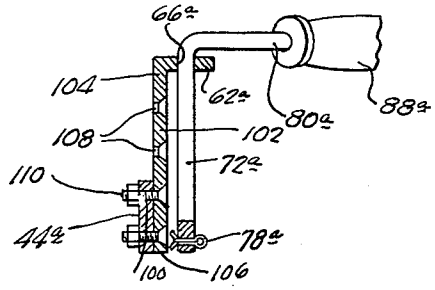


FIG. 8.



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FIG. 12.

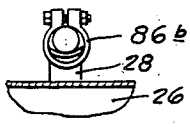


FIG. 10.

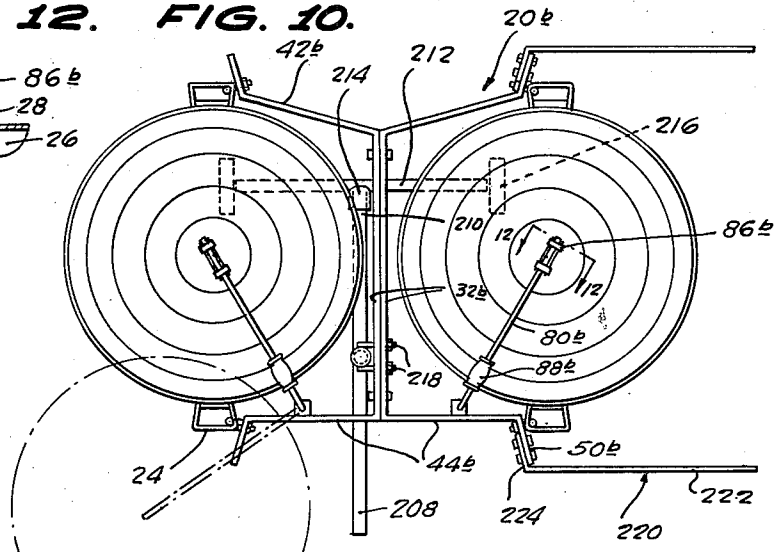


FIG. 11.

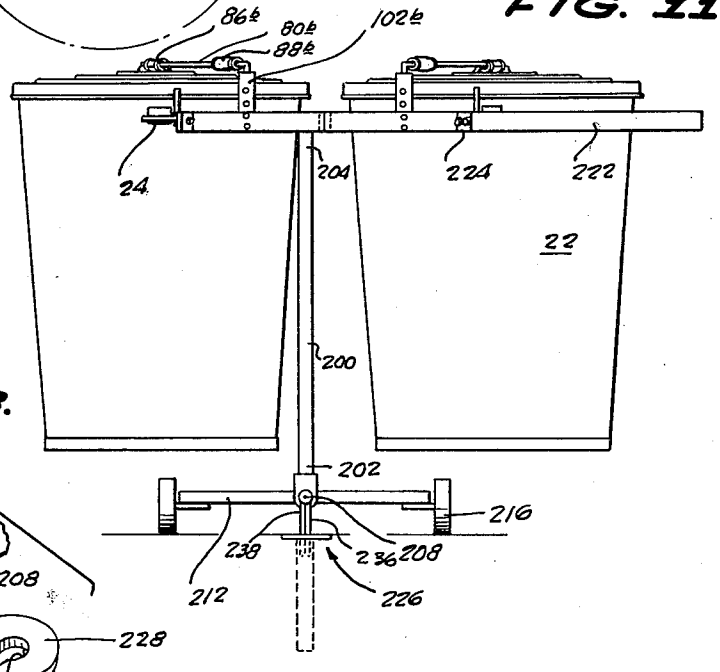
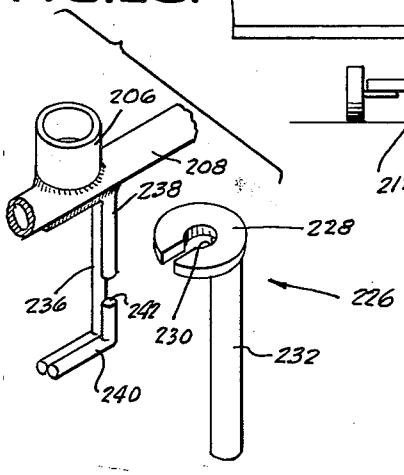


FIG. 13.



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United States Patent Office 3,197,032 Patented July 27, 1965

3,197,032

TRASH CAN SUPPORT

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Filed Apr. 10, 1964, Ser. No. 358,800
10 Claims. (Cl. 211—83)

This invention pertains to a support for covered receptacles such as trash cans, or the like, the support including can holding means and lift means engaged with the receptacle cover for lifting of the cover and retention thereof in selected positions.

A basic objective of the present invention is to provide a can retention support of the general class described above, including a can support means and a cover lift and locking means, the can support being adapted to be readily and conveniently mounted on existing supporting elements or on special supporting elements hereof, and the cover lift and locking assembly serving to prevent accidental or inadvertent removal of the cover, but aiding in the authorized placement and removal thereof. It is a related object of the invention to provide, in a receptacle support assembly, a means for locking the cover of the receptacle in place serving to prevent the removal thereof by wind, pets, children, and the like, and serving to maintain the cover in selected, open positions.

Further objects include the provision of a receptacle support means for holding a receptacle in suspended relation above the ground, the provision of a means for removal of a receptacle cover which eliminates the need for handling of the cover itself, the provision (in one form of the invention) of a wheeled support means, and the provision of novel anchoring means for such wheeled support.

Other and further objects and advantages of the invention will become apparent to those skilled in the art from a consideration of the following specification, when read in conjunction with the annexed drawings, in which:

FIGURE 1 is a perspective view of a first form of support constructed and assembled in accordance with the teachings of this invention;

FIGURE 2 is a top plan view of a support as shown in FIGURE 1;

FIGURE 3 is an enlarged, sectional view showing details of construction, taken substantially on the section line 3—3 of FIGURE 2, looking in the direction of the arrows;

FIGURE 4 is a view similar to FIGURE 3, disclosing a different operating position of the elements;

FIGURE 5 is an enlarged top plan view disclosing a first modification of the invention;

FIGURE 6 is a side elevational view of one side arm of the form of the invention disclosed in FIGURE 5;

FIGURE 7 is a front elevational view thereof;

FIGURE 8 is an enlarged, detail sectional view taken substantially on the line 8—8 of FIGURE 6, looking in the direction of the arrows;

FIGURE 9 is a perspective view of a second modified form of the invention;

FIGURE 10 is a top plan view of the apparatus of FIGURE 9, with transport levers in place;

FIGURE 11 is a side elevational view of the assembly shown in FIGURE 10;

FIGURE 12 is an enlarged, detail cross sectional view substantially on the line 12—12 of FIGURE 10, looking in the direction of the arrows; and

FIGURE 13 is a fragmentary, perspective view of the anchoring means hereof.

With more detailed reference to the drawing, and initially to FIGURES 1–4, a first form of receptacle support 20 of this invention is therein shown. The support 20 is particularly provided for use with a receptacle 22,

such as a conventional trash can, having pivotally mounted, bail-type handles 24 on opposite sides thereof, and having a cover 26 provided with a central, upstanding handle 28. The support 20 may be used in combination with any suitable support element such as a fence, wall, or other element 30, preferably vertically arranged and of a height sufficient to permit suspension of the can 22 above the ground or floor.

The supports 20 hereof comprise an elongated, substantially rectangular back member 32 having a plurality of openings 34 formed therein and having opposite ends 36, 38. Suitable connection means, such as bolts 40, are employed to secure the back member 32 to the support surface 30.

Side arms 42 and 44 are secured to the ends 36 and 38, respectively, of the back member, integrally or otherwise, the arm 44 being arranged substantially perpendicular to the back member, and the arm 42 being angularly related thereto as shown in FIGURE 2. Each of the arms 42 and 44 has a distal end portion 46 and 48, and substantially rectangular end plates 50 extend angularly outward therefrom. As shown in FIGURE 1, the plates 50 each have a series of longitudinally spaced apertures 52 formed therein in horizontal rows.

Handle engagement means operatively associated with each of the end plates is provided, and each such means includes a substantially L-shaped clip 54 having a foot portion 56 extended through a selected aperture 52 and an upstanding leg portion 58. Nuts 60 may be employed on the foot portions 56 to retain the same in place.

A lug member 62 is secured to the back member 32 adjacent to but spaced from its end 38 or alternatively on the end 38, being connected as by welds 64. The lug 62 has a vertical opening 66 formed therein of a selected diameter, the opening having vertical walls substantially perpendicular to the upper and lower sides 68 and 70 of the lug 62.

Slidably positioned in the opening 66 is an elongated, substantially cylindrical rod 72 having an upper end 74 and a lower end 76. A cross piece, such as a cotter pin 78 is secured to the rod adjacent its lower end 76 comprising a stop means to limit withdrawal of the rod from the lug. The rod 72 is of a selected diameter such that, when vertically positioned with its outer side substantially parallel to the opening walls in the opening 66, it is slidable therein, but, when tilted as shown in FIGURE 4, the rod binds against the opening walls preventing relative sliding movement.

An elongated lift arm 80 with inner and outer end portions 82, 84 is supplied, and the inner end portion 82 is fixedly secured to the upper end 74 of the rod 72. The outer end portion 84 of the lift arm is secured to the cover handle 28 by clamping bands 86. Positioned intermediate the ends 82 and 84 about the rod 80 is a grip or lift means 88. The grip 88 is located at a position on the arm 80 such that upward force applied thereto results in straight upward movement of the rod 72, thereby permitting upward, sliding movement of the rod in the opening 66. With the cover 26 removed from the can 22 and swung laterally, for example, to the position shown in FIGURE 1, the weight of the cover causes a tilting of the rod 72 to a position as shown in FIGURE 4, which prevents further sliding of the rod within the opening 66 until the operator again manipulates the grip to vertically align the rod for sliding movement in the lug opening 66.

FIGURES 5–8 disclose a second form of the invention quite similar to that shown in FIGURES 1–4, but including means for adjustment of the distance between the lug means and can support means thereof, whereby receptacles of varying height between the side handles 24 and cover

handle **28** are accommodated. The elements comprising the second form **20***a* of the invention which are substantially the same as those elements in the first described form, are identified by like reference characters, with the letter "*a*" appended thereto. As best shown in FIGURE 8, the substantially perpendicular arm **44***a* has a pair of transverse openings **100** formed therein. An elongated elevating plate **102**, with upper and lower ends **104** and **106** is adjustably positioned against the arm **44***a*. Plate **102** has a plurality of bores **108** therein selectively alignable with the openings **100**, and screw means **110** are employed, extending through a selected pair of the bores **108** and the openings **100** to set the plate **102** at a selected location in relation to the side arm **44***a*. The plate **102** has a lug **62***a* secured to its upper end **104**, the lug **62***a* having an opening **66***a* therein. Operation of the second embodiment **20***a* of the invention is as hereinbefore described with respect to the first form **20** of the invention.

A further modification is shown in FIGURES 9–13 which comprises plural supports **20***b* of this invention on a common mount. In this form of the invention (wherein elements corresponding to the elements of FIGURES 5–8 carry the same numerals with a letter "*b*" affixed for distinction), the upstanding support element comprises a tubular standard **200** having a base end **202** and a top end **204**. The base end **202** is fixedly seated in a sleeve **206** connected to a horizontal bar **208** having an end **210**. An axle member **212** having a sleeve **214** secured about the end **210** of the bar **208** supports the same, and the axle **212** has ground wheels **216** operatively mounted thereon.

As shown in FIGURE 10, clamp means **218** is employed to secure the back members **32***b* of a pair of supports **20***b* to the upuper end **204** of the standard **200**, the clamp means comprising a cap with bolts extended through said members. As further seen in that figure, a pair of transport levers **220**, each including an elongated handle portion **222** and an inwardly bent, apertured portion **224** are provided and secured to the extended end plates **50***b* of one of the supports **20***b*.

Anchoring means **226** is provided for the form of the invention shown in FIGURES 9, 10, and 11, the anchoring means being best seen per se in FIGURE 13. In that figure, it will be seen that means **226** includes a disc **228** with a keyhole slot **230** therein opening on one side thereof and having a depending leg **232** driven into the ground or other surface below the device adjacent a trench **234** (FIGURE 9), with the slot opening **230** facing the trench. A first L-shaped guide leg **236** is fixed to the bar **208** beneath the sleeve **206** and a locking bar **238** is fixed to one side thereof. A second lock piece **240** is fixed to the guide leg **236** at a location spaced from the bar **238** thereby to provide a slot **242** therebetween. As indicated in FIGURE 13, the leg **236** and the lock bar section **240** are extended into the trench **234**, with the slotted portion **242** being used as an entry portion through the keyhole slot **230**. The device is then lowered so that the portion **238** enters the enlarged portion of slot **230**, thereby effectively preventing further movement of the apparatus.

Having described and illustrated several embodiments of this invention in some detail, it will be understood that these descriptions and illustrations are offered merely by way of example, and that the invention is to be limited in scope only by the appended claims.

What is claimed is:

1. A support for a trash can or the like having handle means on opposite sides thereof, and having a cover with an upwardly projecting cover handle, the support comprising:

an upstanding support element;

a back member secured to the support element, the back member having outer ends;

a side arm projecting outwardly from each of the ends of the back member including a substantially perpendicularly related side member and an outwardly angled side member, each side member having a distal end;

an end plate fixed to each of the distal ends and projecting outwardly therefrom, the end plates having a series of longitudinally spaced apertures formed therein;

handle engagement means, including a pair of L-shaped clips, each having a leg portion and a foot portion, the foot portions being extended through selected openings in the respective end plates with the leg portions extended upwardly therefrom and engaged with the handle means of the cans;

a lug member having an opening formed therein with at least one wall, projecting outwardly from the back member, adjacent the substantially perpendicular side arm;

a rod member, the opening in said lug member appreciably exceeding said rod member in cross-section, said rod member being slidably mounted in the lug opening when vertically disposed and having stop means thereon to limit withdrawal from the lug opening; and

an elongated lift arm connected to the rod member, having an outer end portion secured to the cover, and lift means thereabout.

2. A support as defined in claim **1**, wherein:

the upstanding element comprises a tubular standard; and

a wheeled base for the standard.

3. A support as defined in claim **2**, and:

transport levers secured to the end plates.

4. A support as defined in claim **2**, and:

anchoring means for the base.

5. A plural support for trash cans or the like having handle means on opposite sides thereof, and having a cover with an upwardly projecting cover handle, the supports comprising:

an upstanding support element;

back members secured to the support element, the back members each having outer ends;

side arms projecting outwardly from each of the back members, including substantially perpendicularly related side arms and outwardly angled side arms, each arm having a distal end;

end plates fixed to each of the distal ends and projecting outwardly therefrom, the end plates having a series of longitudinally spaced apertures formed therein;

handle engagement means, including a pair of L-shaped clips, each having a leg portion and a foot portion, the foot portions being extended through selected openings in the respective end plates with the leg portions extended upwardly therefrom and engaged with the handle means of each can;

lug members each having an opening formed therein with at least one wall, projecting outwardly from the back members;

rod members, the opening in each of said lug members appreciably exceeding each of said rod members in cross-section, each of said rod members being slidably mounted in one of said lug openings when vertically aligned therein, and having stop means thereon to limit withdrawal from the lug opening; and

elongated lift arms secured to each rod member and connected to the covers.

6. Plural support means as defined in claim **5**, wherein:

the upstanding element comprises a tubular standard; and

a wheeled base for the standard.

7. Plural support as defined in claim **6**, and:

transport levers secured to one pair of end plates.

8. A support as defined in claim **7**, and:

anchoring means for the base.

9. A support for a receptacle having handle means on opposite sides thereof and having a cover, the support comprising:

an upstanding support element;

an elongated frame secured to the upstanding element and including a back member, extended side arms, and end plates secured to the side arms;

handle engagement means secured to the plates;

a lug member secured to the back member and having an opening formed therein with at least one wall;

a rod member, the opening in said lug member appreciably exceeding said rod member in cross-section, said rod member being slidably mounted in the lug opening when vertically disposed; and

an elongated lift arm secured to the rod member and the receptacle cover.

10. A support for a receptacle having handle means on opposite sides thereof and having a cover, the support comprising:

an upstanding support element;

a backing member secured to said support element;

handle-engagement means secured to and supported from each end of said backing member;

a lug member secured to said backing member inwardly of and adjacent one end thereof and having an opening formed therein with at least one wall;

a rod member, the opening in said lug member appreciably exceeding said rod member in cross-section, said rod member being slidably mounted in the lug opening when vertically disposed;

and lift means operatively-connected to the rod member and the receptacle cover.

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