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3,130,853

SUPPORT FOR DISPOSABLE BAGS IN WASTE RECEPTACLES

Filed May 13, 1963

2 Sheets-Sheet 1

Fig. 1.

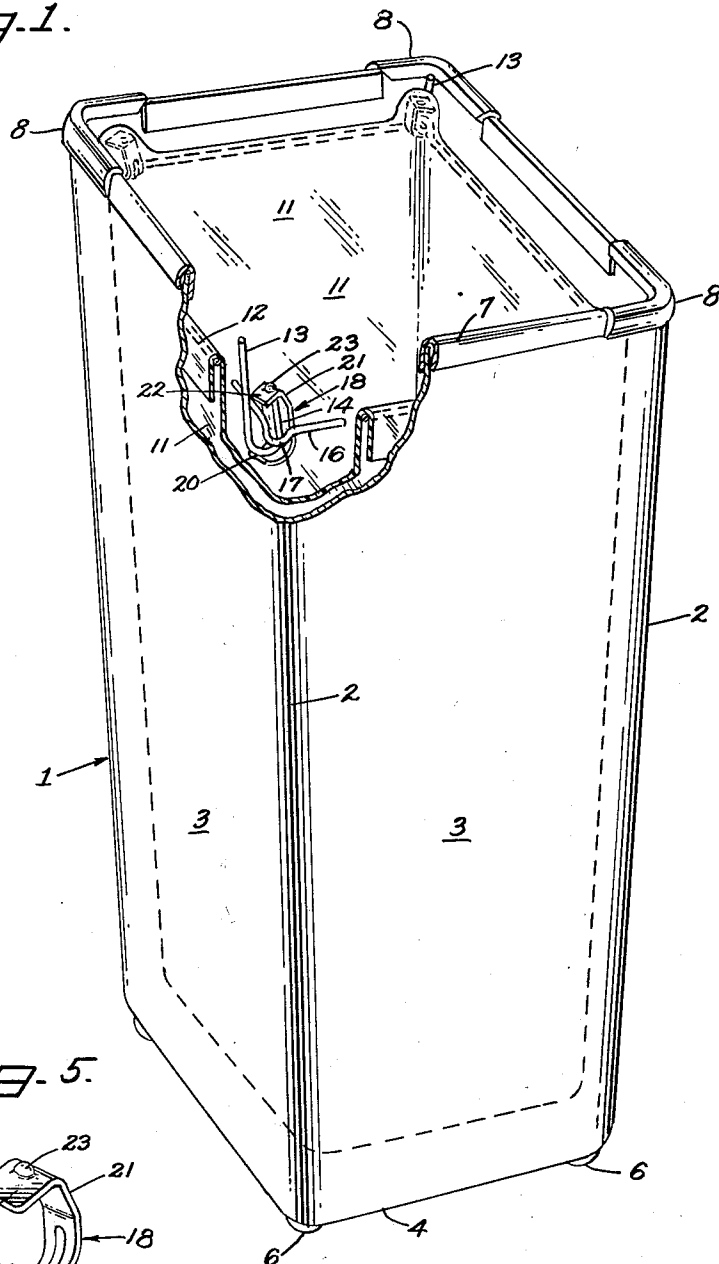
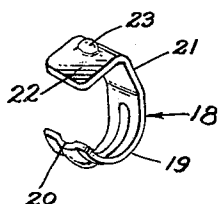


Fig. 5.



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Fig. 2.

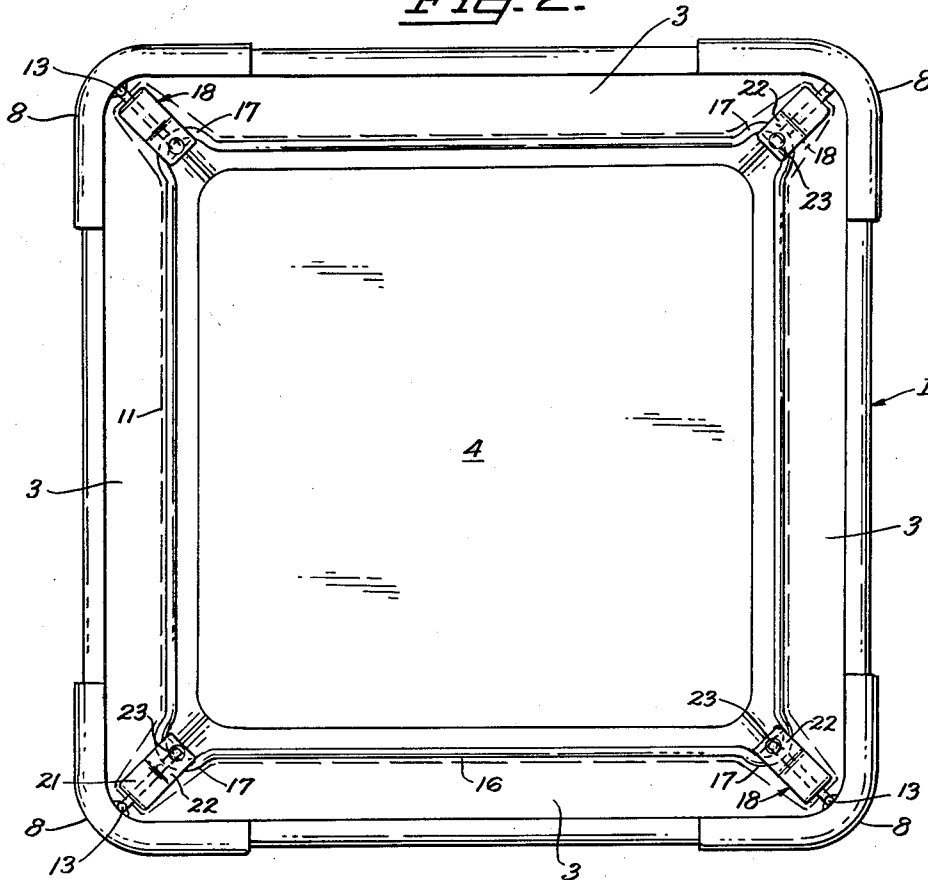


Fig. 3.

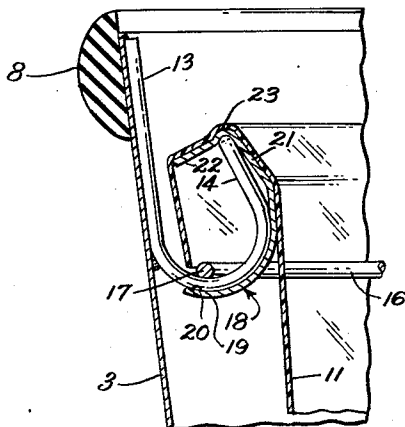
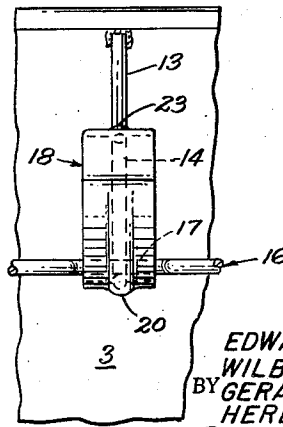


Fig. 4.



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1

2

3,130,853 SUPPORT FOR DISPOSABLE BAGS IN WASTE RECEPTACLES

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This invention relates to a support for disposable bags in waste receptacles.

The practice to hang disposable bags on the top edges of waste receptacles has the disadvantage of tearing the edges or corners of the bag; also the overlying top edges of the bag are apt to slide off the edges of the waste receptacle; holes or rings in the bags to hang on hooks tear; or the bags are in other manners mutilated or difficult to handle.

It is an object of applicants' invention to provide disposable plastic bags and bag supports for waste receptacles which co-act for securely holding the top edges of the bag in position entirely inside the receptacle, near the top of the latter, and which permit handling of the bag without tearing or mutilation.

Another object of the invention is to provide a disposable bag and bag supports in a waste receptacle, which include a convenient frame inside the receptacle, near the top of the latter, and protective shields so arranged as to prevent the tearing of the bag, and convenient co-action between the bag and the support for securely holding the bag in waste receiving attitude yet permitting quick and easy disengagement and removal of the filled bag.

We are aware that some changes may be made in the general arrangements and combinations of the several devices and parts, as well as in the details of the construction thereof without departing from the scope of the present invention as set forth in the following specification, and as defined in the following claims; hence we do not limit our invention to the exact arrangements and combinations of the said device and parts as described in the said specification, nor do we confine ourselves to the exact details of the construction of the said parts as illustrated in the accompanying drawings.

With the foregoing and other objects in view, which will be made manifest in the following detailed description, reference is had to the accompanying drawings for the illustrative embodiment of the invention, wherein:

FIG. 1 is a partly sectional perspective view of a waste receptacle showing the top of the bag supported inside the receptacle.

FIG. 2 is a top plan view of the waste receptacle with the bag therein shown in broken lines

FIG. 3 is a fragmental sectional view of the receptacle showing a corner of the bag support with the bag thereon

FIG. 4 is a fragmental view of a corner of the receptacle with a corner of the bag support, and

FIG. 5 is a perspective detail view of the shield clip for each corner of the bag support.

In the illustrative embodiment of the invention herein, a waste receptacle 1 is of generally rectangular cross section with rounded corners 2 and downwardly tapering or convergent sides 3. The bottom 4 of the receptacle 1 has suitable buttons 6 on which the receptacle 1 rests. The top of the receptacle 1 is suitably reinforced and the top edges 7 are suitably rounded and provided with rubber cushion corners 8.

The disposable bag 11 is a suitable collapsible plastic bag which is made of thin but tough fire-proof and moisture-proof material, such as suitable polyethylene material. The top of the bag 11 is open and its top edges 12

can be spread or folded outwardly, as shown, and can be gathered together for disposal.

The support for the disposable bag 11 includes a hook stem 13 fixedly secured, for instance by spot welding, into each corner 2 of the receptacle 1 so that its open hook 14 extends inwardly of the receptacle 1 spaced below the top edges 7. The upwardly open hook 14 is bent so that its end portion points generally in the direction of the top of the hook stem 13.

A generally rectangular frame 16, spaced from the respective sides 3 of the receptacle 1, has an outward corner loop 17 fitting over the adjacent open hook 14, so that the frame 16 is thus supported on the four hooks 14.

A shield clip 18 is a spring clip formed with a hook portion 19 with an arcuate dent 20 therein fitting over the curved portion of the hook 14. A straight clip portion 21 extends from said hook portion 19 to the tip of the hook 14, from where it is bent over and inward of the hook 14 to form a shield lip 22. A dent 23 in the lip 22 near the top of the straight clip portion 21 fits over the tip or inner end of the hook 14. The distance between the arcuate dent 20 and the dent 23 is somewhat shorter than the distance between the curve of the hook and its tip so that the shield clip is snapped over the hook and is held in place by its spring tension. The spring clips 18 prevent accidental removal of the frame 16 from the hooks 14.

In operation the bag is preferably shorter than the distance between the frame 16 and the bottom 4 of the receptacle 1 so that the bag 11 may rest on the bottom 4 yet allow the folding of the top edges 12 over the frame 16 and over the spring clips 18, as shown in FIG. 1 and FIG. 3. The engagement of the top edges 12 of the bag 11 prevents the collapsing of the bag 11 as it is filled. The shield clips 18 prevent the tearing of the bag 11, yet firmly fold and hook over the clip lips 22 and over the sides of the frame 16. In order to dispose of the bag and its contents the top edges 12 are unfolded from the clips 18 and from the frame 16 and are gathered and collapsed, and, if needed, tied to form an easily disposable bundle.

We claim:

1. In a receptacle, in combination
 - (a) a receptacle body
 - (b) a collapsible open end bag inserted in said body
 - (c) a plurality of hooks secured inside said receptacle
 - (d) a support frame resting on said hooks within and spaced from the sides of said receptacle so as to accommodate the edges of the open end of said bag to be folded over and held by the frame in open position.
2. In a receptacle in combination
 - (a) a receptacle body having an open top
 - (b) a bag support frame within said body spaced from the side of said body
 - (c) a collapsible bag in said body having its open end folded over said frame so as to be supported thereby
 - (d) shield members on said hooks to hold said frame in place and to shield said bag from said hooks.
3. In a receptacle in combination
 - (a) a receptacle body having an open top
 - (b) a bag support frame within said body spaced from the side of said body
 - (c) a collapsible bag in said body having its open end folded over said frame so as to be supported thereby
 - (d) said frame having loops formed thereon to fit over the respective hooks
 - (e) a shield clip tightly fitting over each hook to hold said loop on the hook and to shield said bag from the hook.
4. In a waste receptacle in combination
 - (a) a receptacle body

3

- (b) a collapsible disposable bag having an open end
- (c) a support within said receptacle capable of supporting said open end folded over said support
- (d) and means to hold said support spaced from said body to accommodate the folding of said open end over said support. 5
- 5. The invention defined in claim 4, and
- (d) said bag support including a frame generally conforming to the inside cross-sectional contour of said receptacle body so as to be parallel therewith and spaced therefrom 10
- (e) said holding means on the inside of said receptacle body to support said frame including spaced hooks extended from said receptacle body.
- 6. The invention defined in claim 5, and 15
- (f) means to shield said bag from said hooks.
- 7. In a waste receptacle in combination,
- (a) a receptacle body
- (b) a bag support within said body spaced from the sides of said body
- (c) a collapsible bag in said body having its open end folded over said support so as to be supported thereby 20

4

- (d) said bag support including a frame generally conforming to the inside cross-sectional contour of said receptacle body so as to be parallel therewith and spaced therefrom
- (e) spaced hooks secured to the inside of said body, said frame resting on said hooks
- (f) spring clip shields on said hooks to hold said frame on the hooks and to shield said bag from the hooks.
- 8. In a receptacle with rigid walls,
- (a) a collapsible bag having an open end
- (b) a support frame inside of said receptacle and
- (c) means to support said frame fixedly spaced from the respective adjacent rigid sides of said receptacle so to permit the draping of the open end of said collapsible bag over said frame.

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