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3,426,958

LITTER BAG AND SUPPORT MEMBER

Filed April 7, 1967

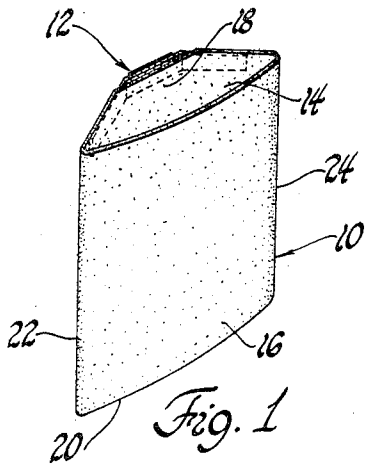


Fig. 1

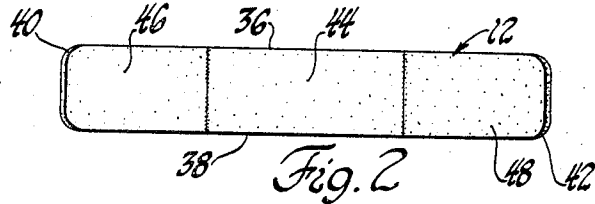


Fig. 2

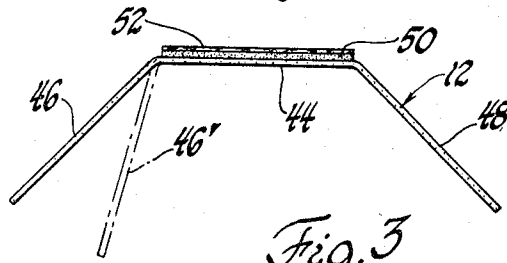


Fig. 3

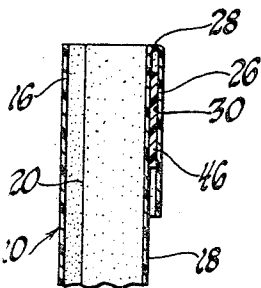


Fig. 5

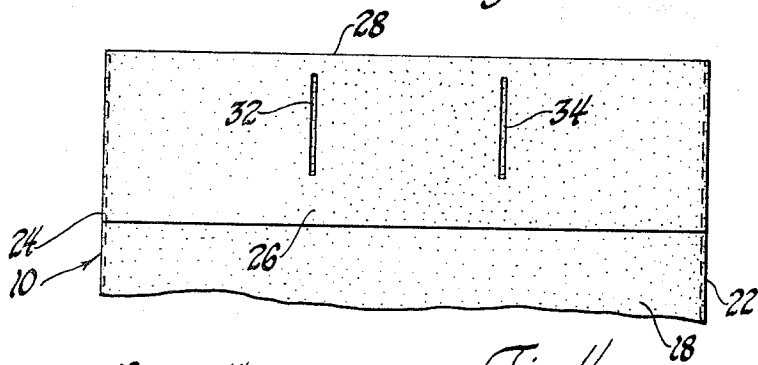


Fig. 4

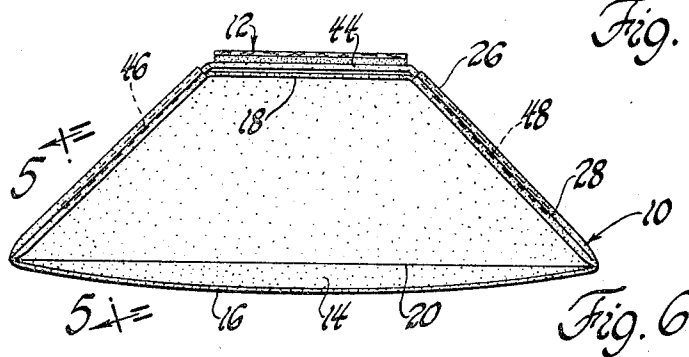


Fig. 6

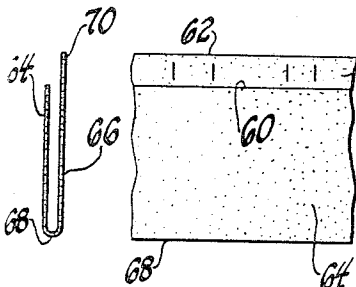


Fig. 7

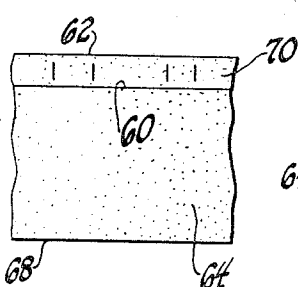


Fig. 8

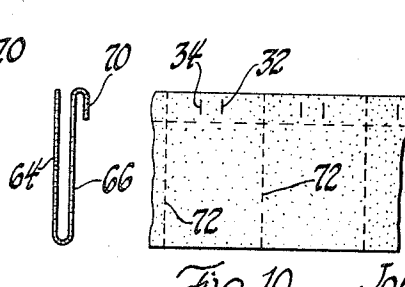


Fig. 9

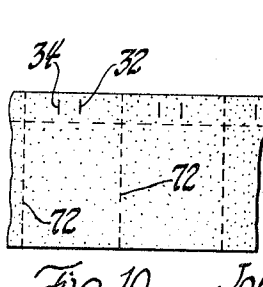


Fig. 10

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LITTER BAG AND SUPPORT MEMBER

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4 Claims

ABSTRACT OF THE DISCLOSURE

A receptacle for waste and other materials includes a sack having a folded edge at the open end for receiving a supporting member having divergent arms to help hold the sack open and which are laterally flexible to facilitate attachment to the sack or bag.

Background of the invention

This invention relates to receptacles for waste paper and other materials, in general, and more particularly to a convenience item, known best as a litter bag, its construction, and means of support.

Small paper sacks are being used as litter bags in many homes, cars and hospitals to collect the debris which gathers about those confined, by choice or otherwise, to one spot for extended periods of time. Although such sacks are relatively inexpensive, they are not fireproof, do not stand well by themselves, and are generally a make-do item rather than a special convenience item designed for a specific purpose.

Although efforts have been made to provide receptacles which are more serviceable for motorists and hospital bed patients, for example, they have either departed from the use of the paper sack or have included a retainer which uses the sacks as a liner. Moreover, in most instances, the container or retainer, as the case may be, is required to be permanently attached to some structure if one is to avoid having it knocked over occasionally, or must be hidden away, which completely obviates its intended purpose.

There is, accordingly, a decided need for a simple and inexpensive litter bag or like structure which is disposable, fireproof, reasonably sturdy in construction, particularly at the bottom, and has wet strength, is preferably water and odor proof for final disposal, may be readily attached to any convenient surface, is self contained in the sense of requiring no major support, includes means for keeping it open, and which enables it to be tightly closed when discarded to prevent whatsoever has been collected in it from falling out.

It is these objects which the present invention seek to accomplish, as hereinafter described.

Summary of the invention

The present invention, in its preferred embodiment, includes a sack or bag of light weight or soft pliable plastic having a folded over flap, at its open end, which is fastened at its ends to the outside of the sack and serves as a means by which the sack may be supported in a free-hanging position by a holder that is partially received under the flap and is in large part obscured thereby.

The holder is also of plastic and is of a length and width to be received under the fold over flap on the sack. It has a center section on the back of which is provided a pressure sensitive adhesive that enables the holder to be fastened to almost any vertical surface, table edge, or the like, and to be moved and relocated elsewhere, if and as desired. It also includes arms extending divergently outward, from opposite ends, and which are adapted to be received through slits in the fold over flap and to ex-

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tend under it to provide the free-hanging support intended.

The disposable sacks are made in tandem rather than in series, for mass production, which enables the slits in the fold over flap to be more easily produced. This is also the most economical construction since there is no waste material.

The fold over flap not only provides the means of support for the sack but also serves as a reinforcement for the open end and as a closure member in that it may be folded back over the opposite side wall of the sack when it is to be discarded.

A more complete and full appreciation of the present invention will be had in considering the accompanying drawings and the detailed description which follows.

Description of the drawings

FIG. 1 is a perspective view of the waste or like receptive member of this invention as mounted for use.

FIG. 2 is a front elevation of the holder used.

FIG. 3 is a top plan view of the holder with one of the arms shown in a flexed position in dotted outline.

FIG. 4 is a back side elevational view of the top part of the sack.

FIG. 5 is a cross-sectional view through the top of the sack and the fold over flap showing the holder as received therebetween.

FIG. 6 is a top view of FIG. 1.

FIG. 7 is an end view of FIG. 8.

FIG. 8 is a sheet from which a series of bags are made.

FIG. 9 is an end view of FIG. 10.

FIG. 10 is a view similar to FIG. 8 with the flap portion folded back on the outer wall from which it depends.

Detailed description

In the first drawing figure a disposable sack 10 is shown supported in free-hanging relation on a holder 12 which is partially obscured behind the back side thereof and is accordingly shown principally in dotted outline, as viewed through the open end 14 of the sack.

The sack 10 is made of soft pliable plastic sheet material, in a manner later described, and is formed to include front and back side walls 16 and 18 interconnected at the bottom 20 and heat sealed together at the side edges 22 and 24. It also has a flap 26, best seen in FIG. 4, which is folded over the back wall 18, at the top edge, and has its ends heat sealed with the side edges, when they are sealed together. This produces a fold 28 at the open end of the sack, along the top edge and on the back side, and a double thickness of material for added strength. It also provides a space 30, open at the bottom, between the back wall of the sack and the flap which is receptive of the holder, as later described.

The fold over flap 26 is formed to include two slits or openings, 32 and 34, normal to the top fold 28, and in parallel spaced relation apart, to receive the supporting arms of the holder as will later be discussed after describing the holder more fully.

The holder 12 is of a thin gauge plastic stock, sufficient to afford reasonable flexibility, and is formed to a length less than the width of the sacks with which it is to be used and narrower than the fold over flap on the sacks. In its basic and most simple form it includes parallel side edges, 36 and 38, and slightly rounded ends 40 and 42. It has a center section 44 (later appreciated as less in length than the distance between the two slits 32 and 34 in the fold over flap) and the ends formed divergently outward, in intersecting planes of reference relative thereto, to provide arms 46 and 48.

A pressure sensitive adhesive 50 is provided on the back of the whole of the center section 44 of the holder,

with a strip-off cover 52 for protection before use, and, in particular, close to the juncture of the arms with the center part.

As mounted on a vertical surface, the holder 12 disposes the arms 46 and 48 outwardly apart from the supporting structure. Since the arms are of a reasonably flexible plastic, they may be flexed laterally as shown in dotted outline in FIG. 3 (the dotted line position of arm 46 being identified as 46') but they have rigidity and strength transversely and in their own plane.

The holder 12 is mounted wherever one wishes to have the sack 10 before the sack is attached.

The sack 10 is attached to the holder 12 by grasping the arms 46 and 48 at their top edge, between the thumb and forefinger, and squeezing them together so that they are flexed laterally and their respective ends 40 and 42 may be received within the slit openings 32 and 34 in the fold over flap of the sack. The sack is held with one hand, as the holder's arms are flexed with the fingers of the other hand, and first one and then the other slit opening is positioned to receive the ends of the arms therewithin. As soon as the arms are engaged in the slits, they may be released to cause the sack to be pulled onto the holder as the arms resume their original divergent positions.

As mounted on the holder 12, the sack 10 receives the arms 46 and 48 under the overfolded flap between the slit openings and the side edges of the sack while the center section of the holder is disposed behind the back of the sack and outside of the flap; as best shown in FIG. 6. The slit openings 32 and 34 are spaced closer together than the span between the ends of the arms of the holders, so that the sack cannot be removed from the holder by shifting it laterally if engaged to the holder before the holder is mounted. Also, the length of the holder is preferably longer than the distance between a side edge of the sack and the opposite slit opening to prevent such possibility. Once the holder is mounted, of course, the sack is precluded from being shifted in either side direction or from being otherwise removed from the holder except by causing the arms to be flexed inwardly and to slip out from under the fold over flap through the openings in which they were first inserted.

The slit openings are made close to the overfold 28, at the top edge of the sack, so that the arms of the holder are received close to the fold for best support. Because they diverge outwardly, they help hold the sack open as shown in FIG. 6; particularly after the initial use which provides something in the sack to help separate the inner walls.

To remove the sack from the holder, one need only grasp the front edge of the sack, at the opening, and pull straight out. This causes both of the arms 46 and 48 to flex equally in towards each other and for the sack to slip off the holder quite easily. A definite pull is required, however, since otherwise the arms will only be flexed as necessary to enlarge the opening in the sack. In this respect, it will be appreciated that the divergence and flexibility of the arms is to facilitate having a maximum opening while still having the sack retained and without allowing it to be unintentionally removed from the holder.

When the sack is to be discarded, with whatever it has collected therein, after it is removed from the holder, the flap 26 is folded out and back over the front wall 16 to provide a closure for the sack. Since the flap is secured at its ends to the side edges of the sack, it can assume this 180° position without difficulty and will serve very effectively as a final means of closing the sack.

Referring now to FIGS. 7 to 10, the particular sack described is made from a long sheet of the desired material by folding it lengthwise across itself and so that one

edge 60 terminates short of the other edge 62. This provides the front and back material for the sacks, identified as 64 and 66, a bottom fold 68, and a part 70 which overlaps or extends beyond the edge 60.

At this condition in the making of the sacks, the slit openings 32 and 34 can be provided most easily in the overlap which later serves as the fold over flap.

The next step is to fold the overlapping or extending side edge 70 back over on itself; that is, behind the material side on which it is provided.

Thereafter, the material may be cut and heat sealed, as shown by the dotted lines 72 in the last drawing figure, to form individual sacks of the desired width, or if preferred, it may be heat sealed at closely spaced parallel lines across the material and have a perforated cut provided therebetween so that the sacks can be dispensed from a roll as needed.

In conclusion, although a preferred embodiment of the present invention has been set forth, it will be appreciated that the description thereof provides a teaching from which certain modifications and improvements may be derived. Accordingly, the scope to be accorded the present invention is to rest within the language of the appended claims and should not be restricted other than by the specific wording thereof.

I claim:

1. A free-hanging pliable plastic receptacle for receiving waste and other materials, one wall of said receptacle having a flap at its open end reversibly folded against the outer wall from which it depends and the longitudinal edges thereof sealed to the longitudinal edges of said receptacle, said flap having a pair of spaced longitudinal slits adapted to receive a member for supporting said receptacle, said member including means of attachment to a supporting structure and having outwardly extending and yieldingly biased arms provided on each side thereof, and said arms having a span greater than the distance between said slits requiring contraction thereof for being engaged in said slits and for extending laterally there-through when released for the free-hanging support of said receptacle thereon.

2. The free-hanging receptacle of claim 1, the arms of said supporting member having lateral flexibility relative to the open end of the receptacle to be supported thereby and transverse strength for the support required thereof.

3. The free-hanging receptacle of claim 2, said supporting member being of thin gauge material having a center section and said extending arms formed divergent therefrom and contiguous therewith.

4. The free-hanging receptacle of claim 3, said supporting member being relatively narrow in width throughout the length thereof and having said means of attachment including an adhesive provided on the back of said center section and immediately adjacent the juncture of said arms therewith for providing greater support rigidity thereto.

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U.S. Cl. X.R.