

United States Patent

Hodges

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[54] **PLASTIC GARBAGE BAG HOLDER AND SEALER**

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[52] U.S. Cl.248/97, 248/99, 248/133

[51] Int. Cl.B65b 67/12

[58] Field of Search.....248/99, 97, 95, 100, 101, 98

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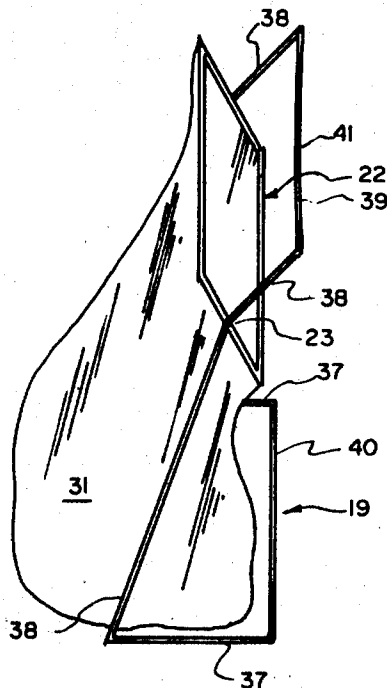
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[57] **ABSTRACT**

A holder for plastic garbage bags is disclosed. The holder is capable of constantly holding the mouth of the bag in "open" position by its resistance friction but capable of permitting the bag to be disposed such that the mouth appears to be displayed in open configuration and optionally in closed configuration even though the mouth remains open.

2 Claims, 9 Drawing Figures



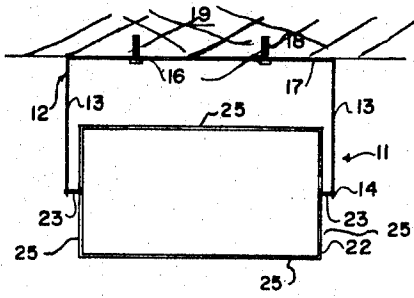


FIG 1

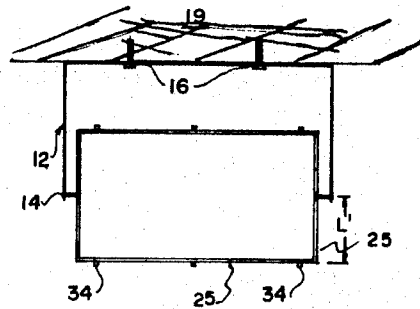


FIG 4

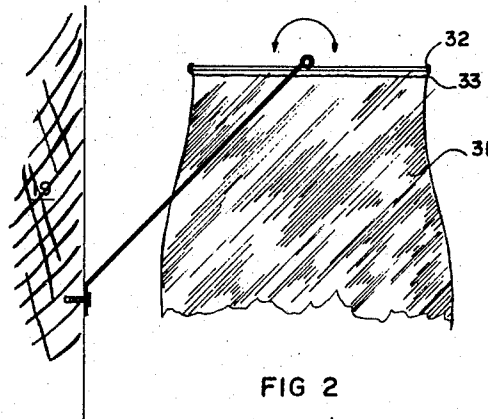


FIG 2

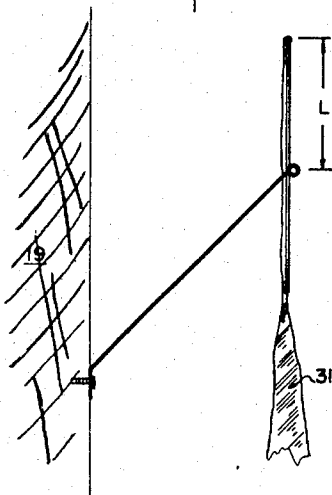


FIG 3

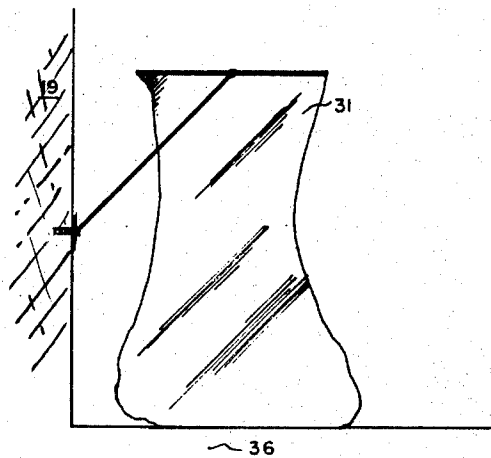


FIG 5

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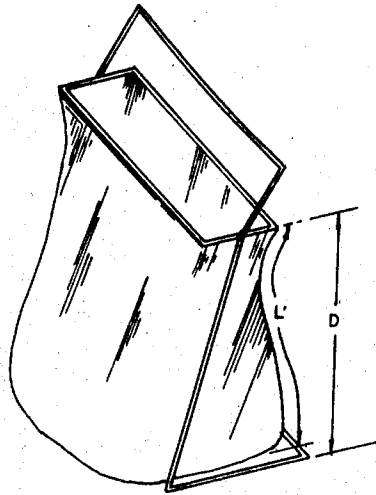


FIG 6

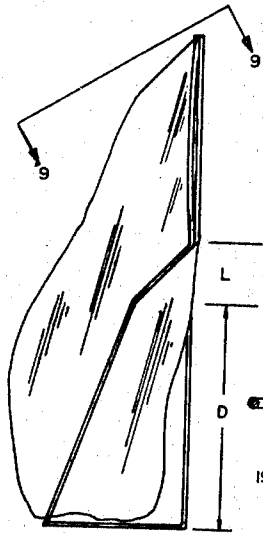


FIG 7

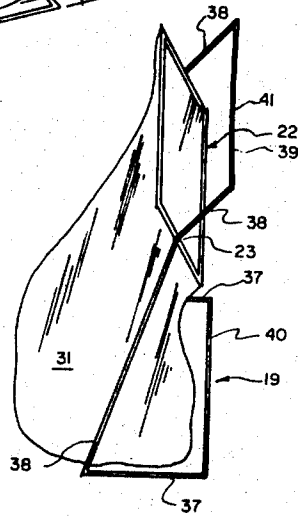


FIG 8

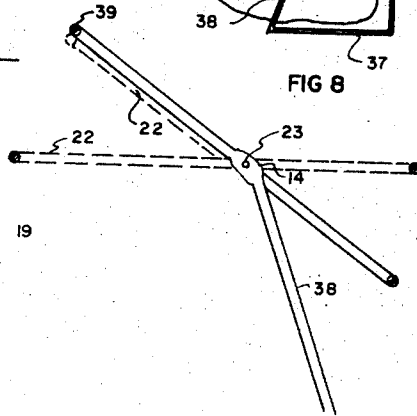


FIG 9

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PLASTIC GARBAGE BAG HOLDER AND SEALER

This invention relates to a holding and closing mechanism for thin wall resilient bags such as plastic bags.

In recent years large plastic bags particularly suitable for the disposal of waste paper and garbage have become available to the consumer market. These bags were originally designed essentially as liners for standard size garbage cans. Because of their durability and strength it has been found that they may be used without exterior rigid support. In such applications the mouth of the bag including the circumscribing lip thereof, must be held open by hand or by a suitable holder in order to place an object within it.

It is the object of this invention to provide a simple holder for flimsy plastic bags and the like.

It is a further object to provide a holder which also acts as a closer or sealer for the bags.

It is a further object to provide a holder which closes the bag in one easy motion, to reduce the profile of the bag, and yet retains the mouth of the bag open.

The invention therefore contemplates a holder for holding the mouth of a resilient bag of given length in open configuration yet adaptable to display the bag in a closed configuration comprising:

a. a bracket member including a pair of socket means;

b. means for securing the bracket member to a support member;

c. a rigid wire-like bag supporting element of closed configuration having a fixed perimeter slightly larger than the mouth of the resilient bag and having an outward perimeter surface supporting the element adapted to stretchingly accommodate the lip of the mouth of the bag about the outward perimeter such that the continual contraction of the lip frictionally engages the mouth of the bag about the outward perimeter of the element to secure the resilient bag thereto in an open mouth configuration; and,

d. connector means secured to diametrically opposed sides of the element, said connector means adapted to engage the sockets and to pivot therein such that the element may be disposed at different angulations to the plane of the bracket to thereby dispose the mouth of the bag in an open and in an apparent closed relationship.

The invention will now be described by way of example reference being had to the accompanying drawings in which:

FIG. 1 is a plan view of an embodiment of the invention.

FIG. 2 is an end view of FIG. 1 with bag in open position.

FIG. 3 is the end view of FIG. 2 with bag in closed position.

FIG. 4 is an alternative embodiment of FIG. 1.

FIG. 5 illustrates the bag of FIGS. 2 and 4 wherein the support member disposes the mouth of the bag a pre-determined distance from a floor, said distance being slightly less than the length of the bag such that the bottom of the bag rests on the floor.

FIG. 6 illustrates another embodiment wherein the support member stands on the floor and features a holding means.

FIG. 7 is the embodiment of FIG. 6, wherein the holding means "holds" the bag in its closed configuration.

FIG. 8 is the embodiment of FIGS. 6 and 7 wherein the element is being swung to the closed position of FIG. 7.

FIG. 9 is a partial side elevation of the embodiment of FIG. 8.

Referring now to FIG. 1 a holder 11 includes a bracket member 12 of essentially U-shaped configuration with arms 13. Socket members 14 are disposed at the end of the arms 13. The bracket member 12 has two holes 16 disposed along its back 17 through which screws 18 are placed to secure the bracket 12 to a supporting member 19 for example a wall or the like.

A rigid wire-like bag supporting element 22 composed of rod metal or other rigid material such as wood or plastic and of closed configuration, preferably of a closed rectangular shape, complimentary to the rectangular shape of the plastic bag 31, has axis 23 (connector means) disposed in opposite directions diametrically from one another. The element 22 has an outward perimeter surface 25. The axis 23 are adapted to engage the socket members 14 whereupon the element 22 is adapted to rotate about the axis 23 to dispose the plane of the supporting element 22 at different angulations to the plane of the bracket member 12 and hence to the floor (not shown); in other words, the axis 23 permits the disposition of the supporting element 22 in either the vertical or horizontal planes or any intermediate plane. A flimsy bag 31, for instance a flimsy plastic bag, having a mouth 32 and circumscribing lip 33 thereabouts is supported by the supporting element 22 in the following manner. The lip 33 is stretched over the supporting element 22, more particularly over the outward perimeter 25 to thereby hold the mouth 32 of the bag 31 open. When the supporting element 22 is constrained in a horizontal plane (FIG. 2) the mouth 32 is displayed open and when the supporting element 22 is disposed in the vertical plane (FIG. 3) the mouth 32, although open, is displayed closed, that is, in an apparent closed position. The element 32 may be constrained in the horizontal position by the fact that the axis 23 and socket members 14 are in tight frictional engagement. It is this tight frictional engagement which retains the element in its vertical position (FIG. 3).

In order to provide more effective engagement between the mouth 32 and the supporting element 22 the element 22 may have fused thereto and serially disposed about the outer perimeter of the element, protuberance 34 over which the lip 31 is stretched. These protuberances 34 act as "gripping fingers" to hold the circumference of the bag 31 on to the supporting element 22 with greater security.

It will be noted that when the supporting element 22 is disposed in the vertical, the bag 31 is sealed shut irrespective of whether the supporting element 22 was rotated clockwise or counterclockwise (arrows) from its horizontal or open display (FIG. 2).

Now referring to FIGS. 5, 6, 7 and 8 in a preferred embodiment the axis 23 is disposed a pre-determined distance d from a floor 36. The distance d is preferably selected to be somewhat less than the length L of the bag 31 when the mouth 32 thereof is in stretching engagement with the supporting element 22. This ensures

that the bag 31 rests on the floor 36. Thus, preferably, the distance *d* is less than the length L by at least the length L (the distance between the axis 23 and the parallel outward faces 25 of the member 22) see FIGS. 3 and 4.

Such an arrangement ensures that there is no great unbalanced forces on the rotating element 22 when it is disposed in any position. Further the tight frictional engagement of the axis 23 in the socket 14 along with the residual stiffness of the flimsy bag 31 ensures that the element 22 will be maintained in any rotatable position that it is essentially disposed in.

Now referring to FIGS. 6, 7 and 8 the embodiments include a support member 19' adapted to be placed on the floor 36. A support member 19' includes two feet members 37, a pair of vertical risers 38 disposing a socket 14 along its length, the risers 38 dog-tailing at the socket 14 to communicate with each end of an upper cross member 39. The feet members 37 are united by a foot bar member 40.

The socket 14 is adapted to accommodate the axis 13 of the rotatable element 22. Preferably, the upper cross member 39 has a bow 41 along its length such that the outer perimeter 25 of the element 22 is latchable under and rests against the reverse side of the cross member 38 (FIGS. 7 and 9) to thus hold or constrain the bag 31 in its closed position.

It will now be obvious to those skilled in the art that the bow 41 could likewise be in either the longer parallel portions of the element 25, that is portions 39, which are essentially parallel to the cross member 38 or in the upper cross member 38 itself as disclosed.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A holder for holding the mouth of a resilient bag of given length in open configuration yet adaptable to display the bag in a closed configuration comprising:

- a. a bracket member including a pair of foot mem-

bers having ends held in spaced relationship and adapted for resting engagement on the floor, a pair of uprisers connected to the ends and an upper cross member connecting with each of the uprisers to form a U-shaped member upon the ends of the pair of foot members, said uprisers having along their length socket means, the upper cross member having a bow there along adapted to act as a latch to one side of the rotatable element to thereby constrain the same as desired;

b. means, disposed a predetermined distance from a rest surface, for securing the bracket member to a support member, said predetermined distance slightly less in length than the given length of the bag such that a portion of the bag rests on the floor;

c. a rigid wire-like bag supporting element of closed configuration having a fixed perimeter slightly larger than the mouth of the resilient bag and having an outward perimeter surface supporting the element adapted to stretchingly accommodate the lip of the mouth of the bag about the outward perimeter such that the continual contraction of the lip frictionally engages the mouth of the bag about the outward perimeter of the element to secure the resilient bag thereto in an open mouth configuration; and,

d. connector means secured to diametrically opposed sides of the element, said connector means adapted to engage the sockets and to pivot therein such that the element may be disposed at different angulations to the plane of the bracket to thereby dispose the mouth of the bag in an open and in an apparent closed relationship.

2. The holder of claim 1 further comprising protuberances serially disposed and fused to the outer perimeter of the supporting element such that the protuberances act as gripping fingers on the mouth of the bag.

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