Feb. 9, 1971 E. C. GRANT 3,561,077

HANGER FOR LITTER BAGS AND THE LIKE

Filed Feb. 18, 1970

FIG. 1

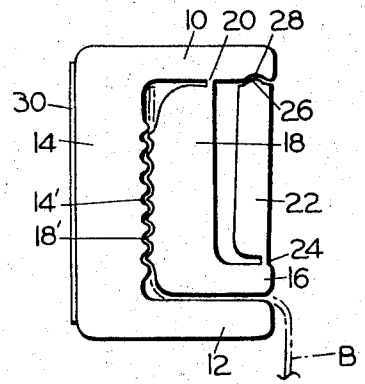


FIG. 2

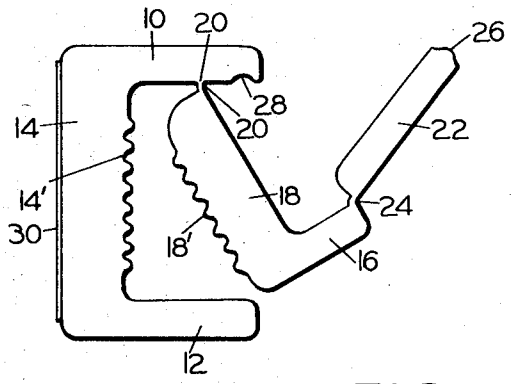


FIG. 3

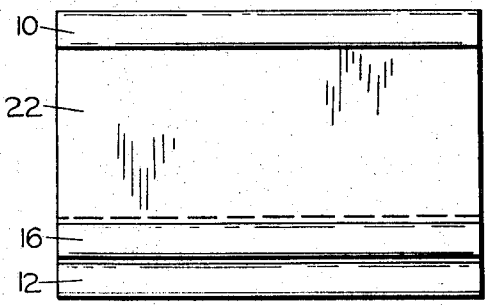


FIG. 4

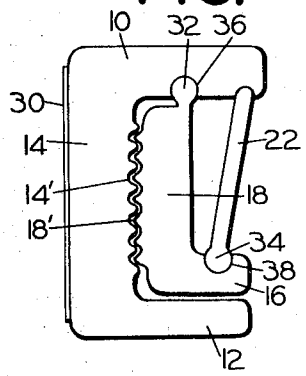


FIG. 5

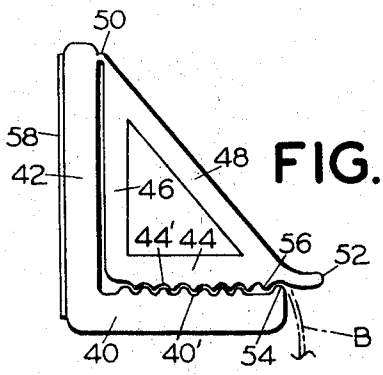


FIG. 6

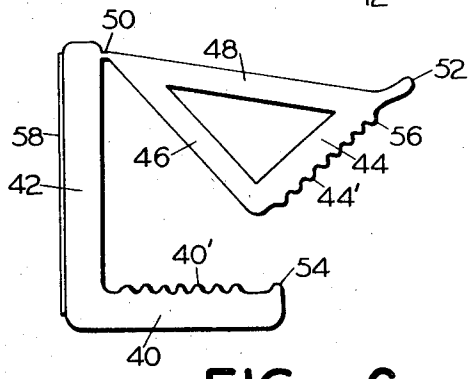


FIG. 7

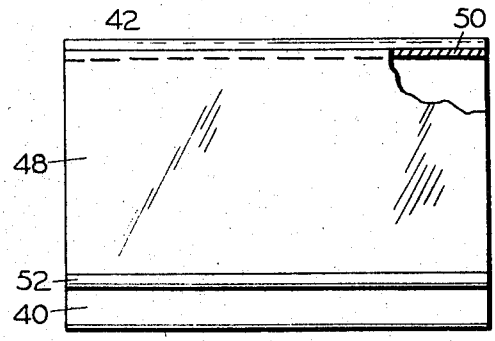
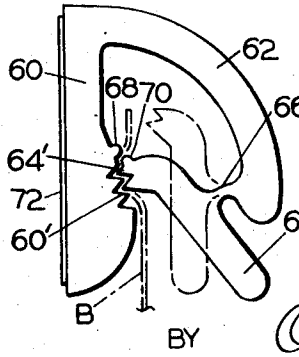


FIG. 8



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HANGER FOR LITTER BAGS AND THE LIKE

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Int. Cl. A44b 21/00
U.S. Cl. 24—250 7 Claims

ABSTRACT OF THE DISCLOSURE

A base member, adapted to be secured to a support, has a clamping member hinged thereto for pivotal movement of a clamping surface section thereof relative to a cooperating clamping surface section of the base member, for releasably clamping between them a portion of the outer end of a litter bag or the like. Locking means releasably interengages the base and clamping members to secure the latter in clamping position.

BACKGROUND OF THE INVENTION

This invention relates to holders for litter bags, towels and like objects, and more particularly to a simplified, one-piece hanger by means of which a litter bag or the like may be suspended from suitable support.

Litter bag holders of various types have been provided heretofore. However, they are deficient in certain respects, principal among which are their inability to support a bag positively and without tearing, the difficulty of installation and removal of a bag, the requirement for special bags for use with the holder, the requirement for mounting in a specific location for proper use of the holder, and the multiple piece construction in which the loss of a component renders the holder useless.

SUMMARY OF THE INVENTION

In its basic concept the hanger of the present invention is of one-piece construction wherein a clamping member is movable relative to a base member for releasably clamping between them a portion of the outer end of a litter bag, towel, or other object of sheet material. Integral locking means on the base and clamping members releasably secure the latter in clamping position.

It is by virtue of the foregoing basic concept that the principal object of the present invention is achieved, namely to overcome the disadvantages of prior holders as enumerated hereinbefore.

The foregoing and other objects and advantages of the present invention will appear from the following detailed description, taken in connection with the accompanying drawing of the preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is an end elevation of a hanger embodying the features of the present invention, the parts thereof being shown in clamping position, a portion of a litter bag, towel, or other object being shown in dash lines.

FIG. 2 is an end elevation similar to FIG. 1 but showing the component parts of the hanger in unclamping position.

FIG. 3 is a front elevation as viewed from the right in FIG. 1.

FIG. 4 is a view in side elevation showing a modified form of construction of the hanger illustrated in FIG. 1.

FIG. 5 is an end elevation of a modified form of hanger embodying the features of the present invention, the same being shown in closed position securing thereto a portion of the upper end of a litter bag, or other object illustrated in dash lines.

FIG. 6 is an end elevation similar to FIG. 5 but showing the components of the holder in open position.

FIG. 7 is a front elevation as viewed from the right in FIG. 5.

FIG. 8 is an end elevation of a further modified form of hanger embodying the features of this invention, the same being shown in clamping position in full lines and in releasing position in broken lines.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The hanger illustrated in FIGS. 1, 2 and 3 includes a supporting base member of substantially C shape, as viewed from the end. Thus, it has top and bottom walls **10** and **12**, respectively, joined together by a back wall **14**. The front clamping surface **14'** of the back wall may be smooth, but preferably is serrated or otherwise roughened to enhance the frictional gripping power of said surface.

A clamping member of substantially L-shape in end view, provides a bottom wall **16** and a rear wall **18**. The upper end of the rear wall is secured pivotally to the underside of the top wall of the base member, by means of the hinge **20**. The rear clamping surface **18'** of the rear wall of the clamping member may be smooth, but preferably is serrated or otherwise roughened, in the manner of the front clamping surface **14'** of the rear wall of the base member, for cooperation therewith in frictionally gripping a portion of the outer end of a litter bag B, towel, or other object therebetween. The adjacent lower portion of the litter bag extends forward between the adjacent surfaces of the bottom walls.

If desired, the irregular surfaces may be provided on the facing surfaces of the bottom walls, in place of or in addition to the facing surfaces of the rear walls.

Means is provided for releasably locking the clamping member to the base member, in bag-clamping position. In the embodiment illustrated, this means comprises a locking plate **22** secured pivotally at its lower end, by means of the hinge **24**, to the bottom wall of the clamping member. The upper end of the locking plate is provided with a locking bead **26** which is adapted to snap into a recess **28** in the top wall of the base member, to secure the locking tab in locked position.

The base member, clamping member and locking plate, together with the interconnecting hinges, preferably are formed as an integral unit of thermoplastic resin, by well known injection or other molding techniques. Alternatively, the components may be molded as separate elements and thereafter joined together at the hinges, by the use of adhesive, plastic solvent, heat bonding, or other suitable technique.

The hanger is adapted to be secured to an automobile dashboard or other suitable support, for use in supporting a litter bag. Although mounting screws may be employed for this purpose by the provision of holes through the back wall of the base member, it is preferred to provide the back surface of the back wall of the base member with a coating of pressure sensitive adhesive **30**. As is well known, such a coating initially is protected by a sheet of paper, or other suitable sheet material, which is removed just prior to anchoring the base member to a support.

In the use of the hanger as a litter bag holder, the lateral sides of the locking plate are grasped between the fingers and the upper end thereof is pulled forward, disengaging the locking bead and pivoting the clamping member to the position illustrated in FIG. 2. A portion of the upper end of a litter bag B then is inserted between the irregular clamping surfaces of the base and clamping members, whereupon the clamping member and locking plate are pivoted back to the position illustrated in FIG. 1.

The embodiment illustrated in FIG. 4 differs from that of FIG. 1 in that the base member, clamping member

and locking plate are formed initially as separate components and then joined together as an operable unit. To this end the integral hinges **20** and **24** of the embodiment illustrated in FIG. 1 are replaced by ball and socket assemblies, respectively. In the embodiment illustrated, the ball components **32** and **34** are formed integral with the upper end of the back wall of the clamping member and the lower end of the locking plate, respectively, as elongated beads having substantially circular cross section. The associated socket components **36** and **38** are formed in the top wall of the base member and the bottom wall of the clamping member, respectively, and take the form of elongated grooves which, in cross section, are slightly more than semicircular. Accordingly, the ball components may be snapped into the associated socket components, whereupon the working components are joined together for relative pivotal movement.

It is to be noted in FIG. 4 that the locking plate extends angularly upward toward the front of the top wall of the base member when the unit is secured in clamping position. This arrangement enhances the locking action of the locking plate.

In the embodiment illustrated in FIGS. 5, 6 and 7, the base member is of L shape in side elevation, providing a bottom wall **40** and a rear wall **42**. The clamping member is substantially triangular in side elevation, providing a bottom wall **44**, a rear wall **46** and a front bracing wall **48**. The apex formed by the junction of the back and front walls is connected pivotally to the upper end of the rear wall of the base member, by means of the hinge **50**. Thus, the clamping member is pivotable toward and away from the base member, as in the embodiment previously described. Manipulation of the clamping member is afforded by the finger tab **52** projecting from the apex formed by the junction of the bottom wall and front wall.

As in the embodiment previously described, the facing surfaces of at least one of the bottom walls and back wall preferably are serrated, roughened or otherwise made irregular, for frictionally gripping between them a portion of the outer end of a litter bag. In the embodiment illustrated, it is the facing surfaces **40'** and **44'** of the bottom walls that are made irregular.

Means is provided for releasably locking the clamping member to the base member in the clamping position. In this embodiment such means is provided by the projecting beads **54** and **56** on the front ends of the bottom walls of the base and clamping members, respectively. If the facing surfaces **40'** and **44'** are provided with deep serrations arranged to interlock, as illustrated, the serrations will perform the locking function of the beads **54** and **56**, and the latter therefore may be omitted.

As in the embodiment previously described, a layer of pressure-sensitive adhesive **58** is applied to the back surface of the rear wall of the base member for securing the latter to a support.

In the use of the hanger illustrated in FIGS. 5, 6 and 7 for supporting a litter bag, the clamping member is pivoted to the open position illustrated in FIG. 6. A portion of the outer end of a litter bag B then is inserted between the base and clamping members and the latter then pivoted clockwise about the hinge toward clamping position. When the clamping member approaches the full clamping position, the locking bead on the clamping member snaps rearward over the cooperating bead on the base member, whereby to secure the clamping member in clamping position.

In the embodiment illustrated in FIG. 8 the base member includes a back wall **60** and a front wall **62** projecting arcuately downward from the upper end of the back wall. The clamping member **64** is connected intermediate its ends to the lower end of the front wall by hinge **66**. The clamping member thus is pivotable between the released position illustrated in broken lines and the clamping position illustrated in full lines. In the clamping position the clamping surfaces **60'** and **64'**, preferably irregular or otherwise roughened as previously explained, frictionally clamp a litter bag, towel, or other object between them. Cooperating locking beads **68** and **70** on the back wall **60** and clamping member **64**, respectively, secure the latter releasably in clamping position. As in the embodiment of FIGS. 5 and 6, if the clamping surfaces **60'** and **64'** are provided with deep serrations arranged to interlock, as illustrated, the serrations will perform the locking function of the beads **68** and **70**, and the latter therefore may be omitted.

A layer of pressure-sensitive adhesive **72** is provided on the back surface of the back wall **60** for securing the base member to a support.

From the foregoing it will be appreciated that the present invention provides a hanger of simplified construction and economical manufacture, which is of one-piece construction to insure against loss of operating components, which accommodates the releasable attachment of a litter bag, towel, or other object with speed and facility, which accommodates the use of conventional, inexpensive paper bags for litter and which secures the litter bag positively against accidental release.

Having now described my invention and the manner in which it may be used, I claim:

1. A hanger for litter bags, towels, and like objects, comprising:

(a) a base member adapted to be secured to a support and having a bottom wall and a rear wall,

(b) a clamping member having a bottom wall overlying the bottom wall of the base member, and a rear wall in front of the rear wall of the base member,

(c) the facing surfaces of at least one of the rear and bottom walls of the base and clamping members constituting clamping surfaces,

(d) hinge means interconnecting the top end of the clamping member and the top end of the base member for movement of the clamping surface of the clamping member toward and away from the clamping surface of the base member for releasably clamping an object therebetween, and

(e) interengaging lock means on the base and clamping members for releasably securing said members together in clamping position.

2. The hanger of claim **1** wherein the lock means comprises projections on the front ends of the bottom walls of the base and clamping members.

3. A hanger for litter bags, towels, and like objects, comprising:

(a) a base member adapted to be secured to a support and having top and bottom walls interconnected by a rear wall,

(b) a clamping member having a bottom wall overlying the bottom wall of the base member and a rear wall in front of the rear wall of the base member,

(c) the facing surfaces of at least one of the rear and bottom walls of the base and clamping members constituting clamping surfaces,

(d) hinge means interconnecting the top end of the clamping member and the top wall of the base member for movement of the clamping surface of the clamping member toward and away from the clamping surface of the base member for releasably clamping an object therebetween, and

(e) interengaging lock means on the base and clamping members for releasably securing said members togther in clamping position.

4. The hanger of claim **3** wherein the lock means comprises a locking plate connected pivotally at its bottom end to the bottom wall of the clamping member and is arranged at its upper end releasably to engage the top wall of the base member.

5. The hanger of claim 4 wherein the base and clamping members, the lock means and the hinge means comprise an integral unit.

6. The hanger of claim 4 including:

(a) first ball and socket pivot means releasably connecting the clamping member to the base member, and

(b) second ball and socket pivot means releasably connecting the locking plate to the clamping member.

7. A hanger for litter bags, towels, and like objects, comprising:

(a) a base member adapted to be secured to a support and having a back wall and a front wall projecting downward from the upper end of the back wall, the back wall having an inner clamping surface,

(b) a clamping member having a clamping surface facing the clamping surface of the base member.

(c) hinge means interconnecting the clamping member intermediate its ends and the lower end of the front wall for movement of the clamping surface

of the clamping member toward and away from the clamping surface of the base member for releasably clamping an object therebetween, and

(d) interengaging lock means on the base and clamping members for releasably securing said members together in clamping position.

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U.S. Cl. X.R.

24—67.11