March 31, 1953 S. H. MARKS 2,633,235

SELF-OPENING FLAP FOR GARMENT BAGS

Filed April 15, 1950

Fig. 1.

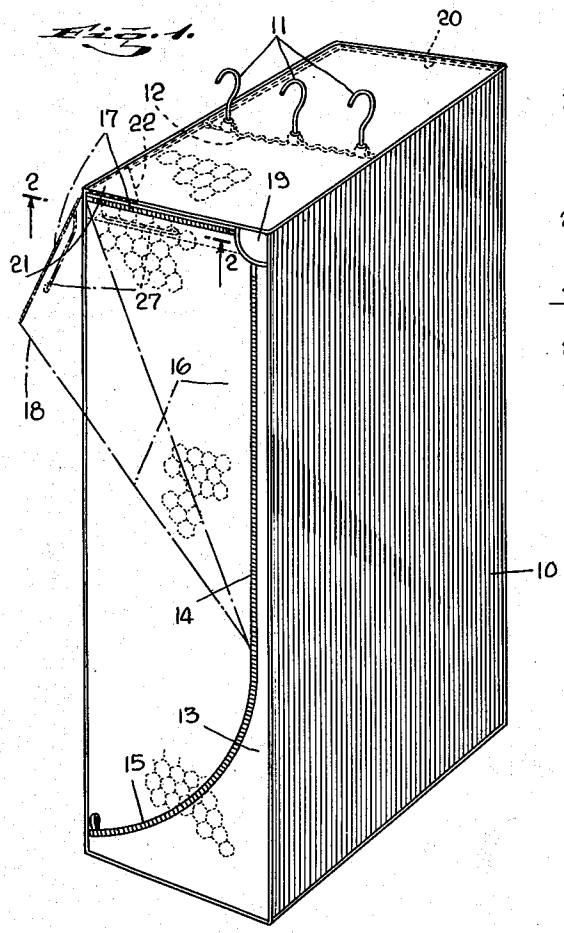


Fig. 2.

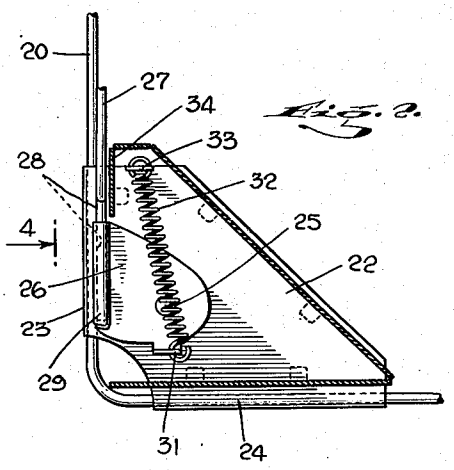


Fig. 3.

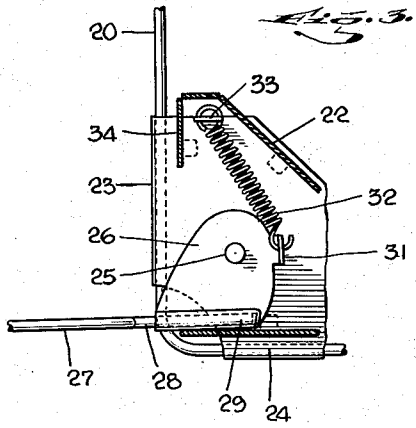
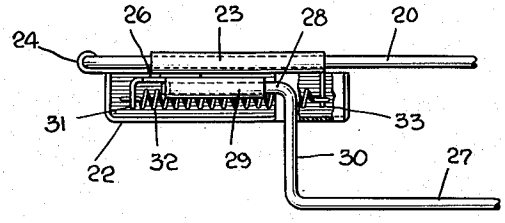


Fig. 4.



INVENTOR
SAUL H. MARKS

BY

ATTORNEY

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SELF-OPENING FLAP FOR GARMENT BAGS

Saul H. Marks, Brooklyn, N. Y., assignor to Phoenix Closet Accessories, Inc., New York, N. Y., a corporation of New Jersey

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3 Claims. (Cl. 206—7)

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This invention relates to garment bags usually constructed of flexible materials and employing a separable fastener closure controlling the flap opening of the bag to give access thereto in insertion and removal of garments. More particularly, the invention deals with a device or attachment for bags of this kind for automatically moving the closure flap or door portion of the bag into open position in the operation of moving the separable fastener into open position.

The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

Fig. 1 is a perspective view of a garment bag showing the door or closure flap in closed position in full lines and indicating the same in a partially opened position in dot-dash lines.

Fig. 2 is an enlarged section on the line 2—2 of Fig. 1 showing only the framework of the bag.

Fig. 3 is a view similar to Fig. 1 showing parts in a different position; and

Fig. 4 is a view looking in the direction of the arrow 4 of Fig. 2.

In Fig. 1 of the drawing, I have indicated at 10 a flexible garment bag having suitable hanger means 11 opening through the upper end thereof and extending from a garment hanging bar 12 disposed within and extending between the side walls of the bag. One narrow side wall 13 of the bag has, adjacent one edge thereof, a closure separable fastener 14, the lower portion of which curves, as seen at 15, to the opposed side edge, so that the flap or door 16 can be moved into an opened position to give access to the interior of the bag.

The upper edge portion of the door or closure flap 16, in the construction shown, is also preferably secured by a separable fastener, as indicated at 17, the fastener closing from left to right and opening from right to left, as seen in Fig. 1. The sliders of the fasteners 14 and 17, as well as the corner portion 18 of the door or flap 16, are preferably housed within a flexible and liftable corner flap 19, as clearly indicated in Fig. 1.

The upper portion of the bag 10 has a bordering rectangular frame 20 which is shown in Fig. 2 of the drawing. Attached to this frame, at the corner portion 21 of the bag, note Fig. 1, is a triangular casing 22 having side wall portions wrapped around the frame, as indicated at 23 and 24.

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Pivotally supported in the casing, as seen at 25, is a throw-plate 26 having an arm 27 secured thereto, the arm 27 having a short end 28 fixed in a curled portion 29 of the plate 26, the arm 27 proper being offset from the short portion 28 by a perpendicular portion 30, as clearly seen in Fig. 4 of the drawing. The outer and long portion of the arm 27 is adapted to be stitched or otherwise secured to the upper edge portion of the door or closure flap 16 in the manner indicated in Fig. 1 of the drawing.

The throw-plate 26 has an offset apertured member 31, with which one end of a spring 32 is coupled. The other end of the spring is secured to a corresponding member 33 on the casing 22. Normally, the spring and throw-plate are in the position seen in Fig. 2, that is to say, with the arm 27 supporting the flap or door 16 in closed position. However, upon moving the slide fastener 17 into open position, thus freeing the upper edge of the door or flap 16, the instant the separable fastener 14 is started to move into its open position, the corner 18 will be released and is urged outwardly to a slight extent, by the natural pull on the slider of the separable fastener, which automatically moves the member 31 of the throw-plate 26 into an off-centered position. The instant that this offset position of the plate 26 occurs, the spring 32 will then automatically operate to swing the door or flap 16 into the open position by swinging the arm 27 outwardly in the position illustrated in Fig. 3.

The operation of closing the separable fastener 14 will automatically operate to swing the arm 27 inwardly until the same reaches the dead center or locked position, shown in Fig. 2 of the drawing.

The plate 34 is provided on the casing, which may act as a stop to check movement of the arm 27 into closed position. However, the door or flap 16 itself will check this movement when the device is in use.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A supporting frame and door operating unit for a garment bag, said unit comprising a rectangular rod frame, one corner portion of the frame having a substantially triangular casing fixed thereto, a plate pivoted to the casing adjacent the center thereof, an arm fixed to the plate and adapted to be positioned longitudinally of one side of the frame and one side of said casing, a spring for actuating said plate and arm, said spring being fixed to one corner of said casing

and normally extending across the pivotal portion of said plate and fixed to one edge thereof, the normal position of the spring supporting the plate in an off-dead-center position with the arm longitudinally of one side of the frame, and said spring being adapted to swing the arm to a position substantially at right angles to said side of the frame, when the plate is released from its first named position.

2. In garment bags of the character described, a rectangular frame supporting top and side walls of a garment bag, a casing mounted in one corner portion of said frame and arranged on the inner surface of said top wall, a throw plate pivotally supported on the casing, a spring coupled with said plate and the casing at positions disposing said spring slightly beyond dead-center position with respect to the pivot of said plate in the normal position of said plate, an elongated arm fixed to and extending from said plate, one side wall of the bag having an opening extending downwardly from a free edge of the top wall, a flap for closing said opening, said arm being fixed to and extending along the upper edge of said flap in said normal position of the throw plate, and means independent of said arm and plate for imparting a slight movement to the arm, in a direction to open the flap, to move the throw plate from dead-center position maintained by said spring, allowing the spring to swing said arm and flap automatically into a position substantially at right angles to the closed position of the flap and normal position of said arm.

3. In garment bags of the character described, a rectangular frame supporting top and side walls of a garment bag, a casing mounted in one corner portion of said frame and arranged on the inner

surface of said top wall, a throw plate pivotally supported on the casing, a spring coupled with said plate and the casing at positions disposing said spring slightly beyond dead-center position with respect to the pivot of said plate in the normal position of said plate, an elongated arm fixed to and extending from said plate, one side wall of the bag having an opening extending downwardly from a free edge of the top wall, a flap for closing said opening, said arm being fixed to and extending along the upper edge of said flap in said normal position of the throw plate, means independent of said arm and plate for imparting a slight movement to the arm, in a direction to open the flap, to move the throw plate from dead-center position maintained by said spring, allowing the spring to swing said arm and flap automatically into a position substantially at right angles to the closed position of the flap and normal position of said arm, two closure means for said flap, and one of said means being at the upper edge of the flap.

SAUL H. MARKS.

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