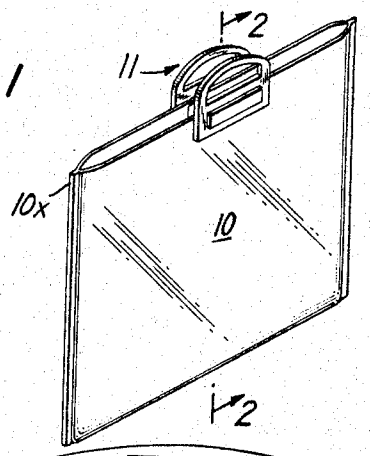
Aug. 1, 1967 J. MACK 3,333,308

SNAP LOCK ATTACHED BAG HANDLE

Filed April 8, 1966

FIG. 1



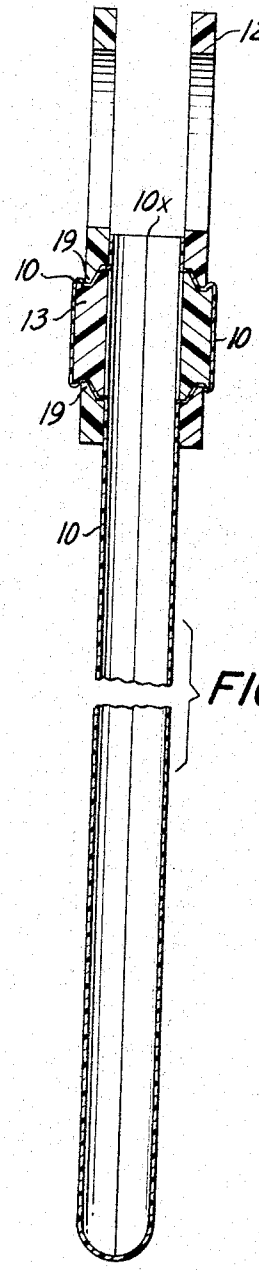


FIG. 2

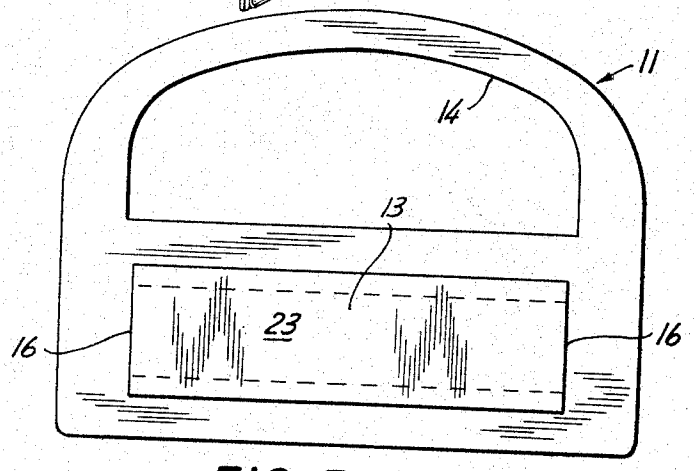


FIG. 3

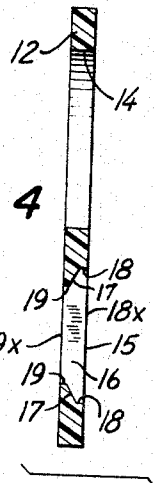


FIG. 4

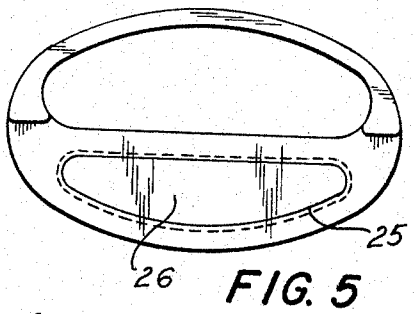
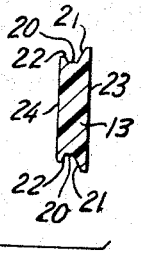


FIG. 5



United States Patent Office 3,333,308
Patented Aug. 1, 1967

3,333,308

SNAP LOCK ATTACHED BAG HANDLE

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Filed Apr. 8, 1966, Ser. No. 541,298
1 Claim. (Cl. 24—245)

ABSTRACT OF THE DISCLOSURE

This invention in abstract form relates to a novel snap lock device and to snap lock handles for a shopping bag made therewith. The novel features of this handle is that it is of two piece construction, consisting of a handle containing body portion having a suitably large aperture therein having a suitably beveled edge, and a bar having a channeled edge adapted to lockingly engage said beveled edge of said aperture.

It is an object of this invention to provide a two-piece snap lock for removably securing a film of material therebetween.

It is another object to provide a novel handle for shopping bags made from relatively thin plastic film.

It is another object to provide a shopping bag handle that may be interchangeably used on variously designed or decorated film bags.

These and other objects of this invention will become apparent upon reading the following descriptive disclosure taken in conjunction with the accompanying drawing in which:

FIG. 1 is a perspective view of a shopping bag showing a pair of handles disposed on a plastic film bag,

FIG. 2 is an enlarged section view, broken away in part, and showing the manner of locking the plastic film into the handles,

FIG. 3 is a side view of a handle,

FIG. 4 is an exploded section view of the plastic handle, showing the two elements constituting the handle and the details of construction therein, and

FIG. 5 shows a front view of a modified handle having continuous co-acting locking edges.

The conventional shopping bag has a handle permanently secured thereto. When the bag becomes worn it is thrown away, handle and all.

According to this invention, the handle is easily removable from the bag by mere finger pushing pressure.

The handle of this invention is also easily secured to a plastic film, as for example, of a shopping bag, by mere application of finger pressure to snap the locking bar into place.

Thus the handle of this invention is interchangeable at the user's will with a variety of plastic film bags of separate and various colors and designs.

And when the film bag is torn or worn it alone is thrown away. Thus the handle is re-useable substantially forever.

Preferably the plastic handle is made of flexible plastic material such as polyethylene.

The bag of plastic film may be and preferably is also made of polyethylene film of a suitable thinness.

The handles themselves may be of various colors and of different configuration than that shown in the drawing by way of an illustrative embodiment.

Turning to the drawing, a plastic film bag **10**, preferably made of polyethylene film, is provided with a pair of snap-lock handles **11**.

The bag **10** is a separate and interchangeable element. It is of conventional shopping bag size or dimensions. The bag **10** may be made from a single sheet of folded film, heat sealed along its two sides at seam lines **10X**. However, the bag **10** may be made from a pair of film

sheets of like rectangular size, heat sealed along the bottom as well as along the opposed sides.

Where a pair of separate film sheets are used to form the heat sealed bag **10**, the sheets may be different colors and/or of different decorative designs thereon.

As shown in FIG. 4 the handle consists of two pieces namely the apertured handle portion **12** and the bar portion **13** adapted to snap-lock into a co-acting locking aperture of the handle portion.

As shown in FIGS. 3 and 4, the handle **11** is of molded plastic substantially rectangular construction and is provided with a suitably curved hand receiving aperture **14** and also with a locking aperture **15** of unique construction.

The aperture **15** is preferably of a longitudinal rectangular construction having flat end walls **16**. The top and bottom walls of the aperture **15** are each provided with off-set substantially centrally disposed angular walls **17**, each disposed in the same or converging direction.

The presence of the converging angular walls **17** in both the top and bottom linear walls of aperture **15**, provides a pair of wall openings of aperture **15** of different height although of like length. Thus the inner opening (FIGS. 2 and 4) in the handle formed by the pair of horizontal walls **18** and end walls **16** (FIGS. 2 and 4) is of greater area than the outer opening formed by the pair of horizontal walls **19** and the end walls **16**.

A critical feature of this invention is the provision of a snap-lock bar **13** adapted to lockingly engage walls **19** of the top and bottom walls of aperture **15** of the handle portion **12**.

As shown in cross section in FIGS. 2, 3 and 4, the bar **13** is of rectangular construction and is provided with channels in its top and bottom linear walls. The dimensions of bar **13** are such as to snugly fit into the aperture **15** when engaging a film of the bag **10** therebetween (FIG. 2).

The channel bottom horizontal walls **20** of the channeled top and bottom walls of bar **13** are adapted to snugly engage the corresponding aperture walls **19** with a film **10** disposed therebetween.

The bar **13** is also provided in each of its top and bottom channeled walls with an inwardly sloping angular wall **21** of an angle and dimension corresponding to co-acting angular walls **17** of the aperture **15**.

The channels of the top and bottom bar **13** walls are further provided with an exterior sloping flange or rim wall **22**.

As shown in the drawing the thickness of the bar **13** is greater than the thickness of the handle **12** so that the bar rim **22** protrudes beyond the surface of handle portion **12** when in locked position (FIG. 2). Bar **13** is of uniform length and slightly less than the length of its locking aperture **15** and is provided with an inner side wall **23** of greater area than that of the exterior side wall **24**.

In the operation of locking a plastic film sheet within the handle **11**, the film near the mouth of bag **10** is disposed upon the small area wall **24** of the bar **13** and the film and bar are then inserted through the large area opening **18X** of the aperture **15** and rim **22** with the film thereon pushed through the small area opening **19X**.

The height of the outer bar wall **24** (FIG. 4) is slightly larger than the height of the outer opening **19X** of the handle portion **12**.

However, since the plastic of both the handle portion and the rim **22** is flexible, the larger area of wall **24** and the film **10** thereon is relatively easily pushed through the smaller area opening **19X** of said handle portion so that both walls **19** are disposed in the respective channels of bar **13** (FIG. 3).

Accordingly, the film **10** is pushed without tearing through aperture **15** to lockingly engage its wall surfaces, so that a heavy load in bag **10** can not disengage bar **13** from its locked condition.

As shown in FIG. 2, film **10** in locked position engages all the wall areas of bar **13** except that of the exposed rectangular area **23**. It is to be noted that film **10** in locked position protrudes above and below wall **19** because of the greater height of wall **24** relative to that of opening **19X**.

Accordingly, the film **10** is immovably and captively held in place in the handle portion **12** under heavy loads in the bag **10**.

In effect the film **10** is wedged captively by bar **13** in handle portion **12** so that it can not be displaced by a downwardly directed force applied to the film bag wall (FIG. 2). However, by applying suitable inward lateral finger pressure on the bar (FIG. 2), one can relatively easily push the bar and the film thereon out of the handle portion **12**.

As shown in FIG. 5 the locking aperture can be made oval or otherwise with a continuous locking edge to receive a corresponding oval bar **25** with a co-acting edge.

Accordingly, the snap lock of this invention consists of a body portion having a suitable aperture with suitable continuous or separate locking edges and a removably secured bar portion having edges which co-act in locking relationship with the corresponding edges of the body portion.

The uses of the snap lock are many and include use as buttons on plastic rainwear wherein the bar is made in the configuration of a button. Where the apertured body portion is anchored or fixed to a wall or floor, one can secure a film thereto by use of the bar portion.

This invention has been described by means of an illustration showing a substantially rectangular handle having a rectangular aperture therein but clearly it is not to be limited to this particular configuration of the handle nor to the particular aperture therein.

I claim:

A handle engageable member having means thereon adapting same to be detachably secured to an edge of a flexible member to enable the member to be suspended in a suitable fashion, said means comprising an elongated aperture extending through a portion of the device and a locking member formed so as to snappingly fit within the aperture and dimensioned so as to snugly retain a portion of the flexible member therein, said locking member having upper and lower surfaces of slightly larger and smaller relative dimensions forming flanges and having a channeled edge extending therebetween, substantially therearound, and joined thereto by tapered surfaces, said aperture having a recessed portion adapted to substantially completely receive the larger flange therein and a tapered portion which merges therewith and is dimensioned so as to snappingly engage the smaller flange and be received within the said channeled edge when the members are assembled together.

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