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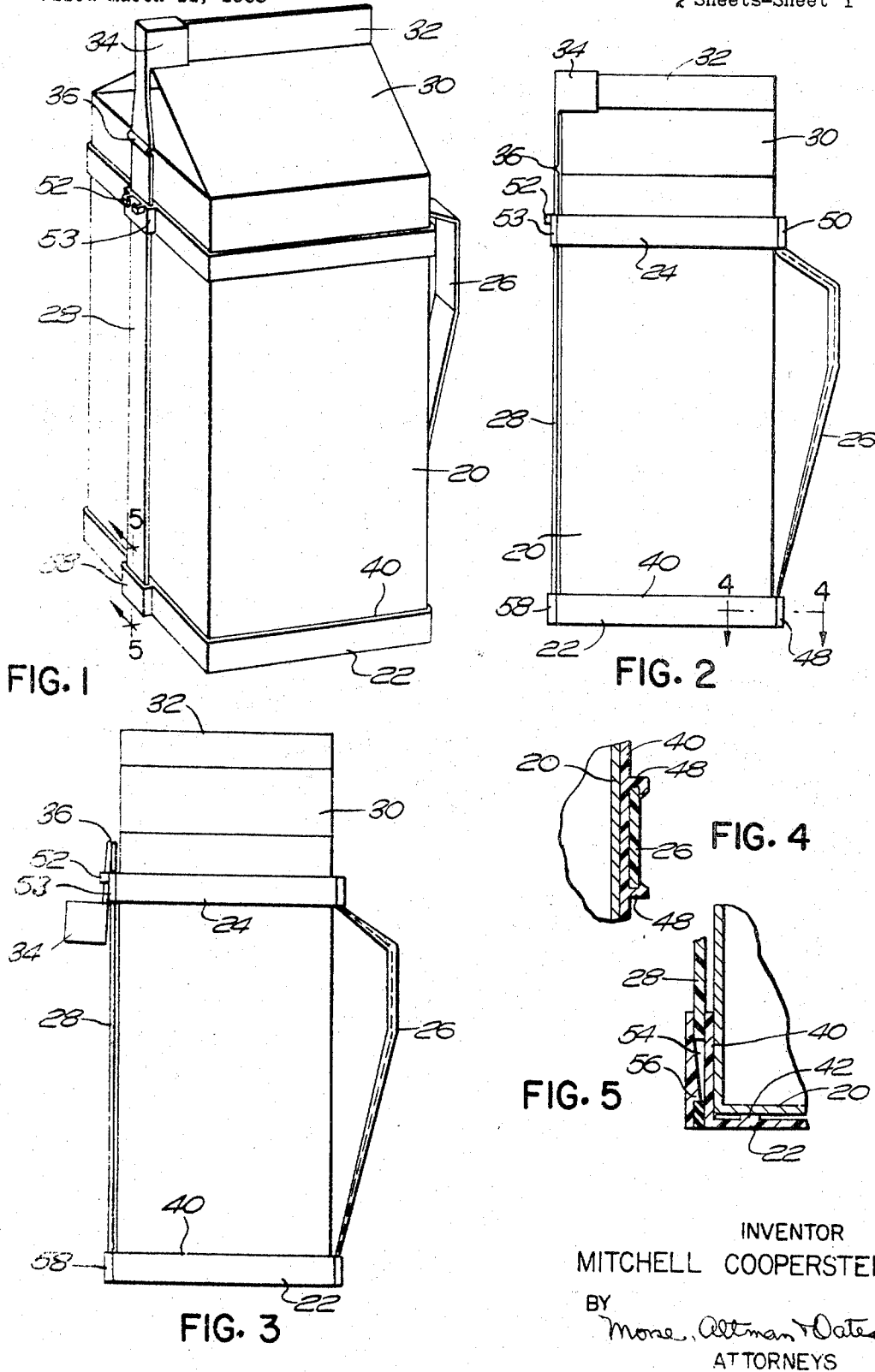
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3,488,078

HOLDER AND CLOSURE FOR MILK CARTON

Filed March 11, 1968

2 Sheets-Sheet 1



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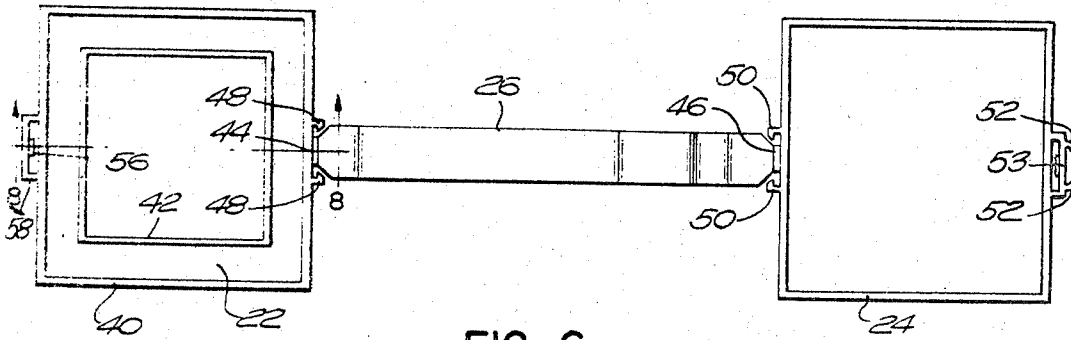


FIG. 6

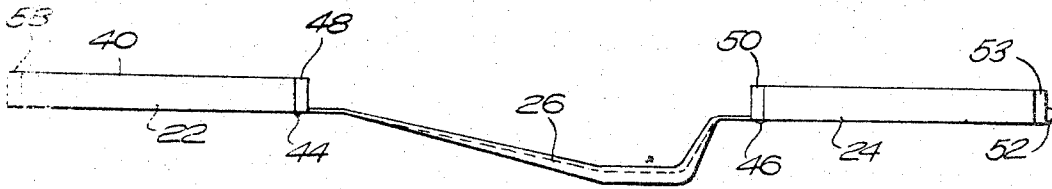


FIG. 7

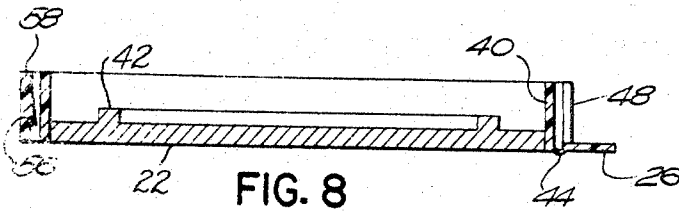


FIG. 8

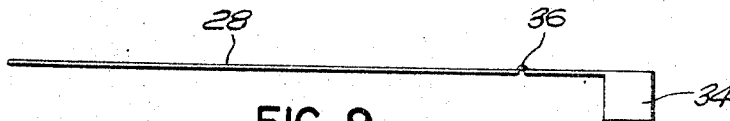


FIG. 9

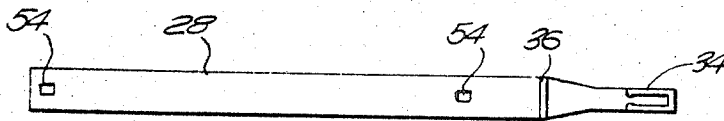


FIG. 10

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HOLDER AND CLOSURE FOR MILK CARTON

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5 Claims

ABSTRACT OF THE DISCLOSURE

A holder for a customary rectangular milk carton consists of a square platform for the bottom of a carton, a square band to fit around a carton near the top of the rectangular portion, a handle member attached at its upper end to the band and at its lower end to a side of the platform, and a vertical member attached to the band and platform at the side opposite to the handle. Hinged to the upper end of the vertical member is a closure comprising an inverted channel member arranged to fit over the forward portion of the top ridge of the carton which opens to form a pouring spout and to swing forward and downward to be out of the way when the spout is to be opened.

This invention relates to a holder for the usual cardboard milk carton which has a rectangular body and a gable top terminating in an upstanding ridge half of which is separable to unfold for the formation of a pouring spout. When the pouring has been done, the spout is usually folded into the original closed position. Owing to the low resilience of the material of the carton, the spout does not stay completely closed by itself so that unless the forward half of the top ridge, or a portion thereof, is clamped, air will have access to the interior of the carton, together with whatever dust and bacteria the air may be carrying. To keep the spout closed the holder carries a clamp in the form of an inverted member adapted to fit on the forward portion of the top ridge of the carton to keep the spout tightly closed and to be swung forward and downward out of the way when the spout is to be opened.

For a more complete understanding of the invention, reference may be had to the following description thereof, and to the drawing, of which

FIGURE 1 is a perspective view of a holder and closure embodying the invention, with a milk carton therein;

FIGURE 2 is a side elevation of the same;

FIGURE 3 is a side elevation showing the closure element in its inactive position;

FIGURE 4 is a fragmentary sectional view, on an enlarged scale, on the line 4—4 of FIGURE 2;

FIGURE 5 is a fragmentary sectional view, on an enlarged scale, on the line 5—5 of FIGURE 1;

FIGURE 6 is a plan view of a molded member constituting most of the holder;

FIGURE 7 is a side elevation of the same;

FIGURE 8 is a section, on a larger scale, taken on the line 8—8 of FIGURE 6;

FIGURE 9 is a side view of the other member forming the holder; and

FIGURE 10 is a plan view of the same.

In FIGURES 1, 2 and 3 a milk carton 20 is shown in a holder which comprises a square carton platform 22 on which the carton rests, a strap 24 which encircles the carton at a considerable distance above the platform 22, a handle 26 which connects the platform and the belt at the rear of the carton and a vertical member 28 which connects the platform and the belt at the front of the carton. As is customary with such cartons, the body of

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it is rectangular with a square cross-section. The top is a gable 30 the ends of which are folded in to make a top ridge 32. When milk is desired from such a carton, it is opened by pulling apart the forward half of the ridge 32. The fold within this end of the carton top is then reversed forwardly so as to form a spout by which milk can readily be poured from within the carton. The outwardly folded portion of the spout is then reversed inward and the two halves of the forward portion of the ridge 32 are brought together to close the carton again. Since the cardboard of which the carton is made is not entirely resilient, it does not form a tight closure when folded back to its original shape. As a tight closure is desirable for the prevention of access by bacteria, dust and the like to the interior of the carton, a device is attached to the holder for tightly closing the carton when the spout elements have been folded back to place. This consists of an inverted channel 34 which is adapted to fit snugly over a portion of the front half of the ridge 32 so as to pinch together the parts of this front half which have been separated to form a spout and have been returned to their normal closed position. To make sure that the member 34 will always be at hand for use when desired, it is made integral with the vertical member 28, being connected thereto by a thin hinge member 36 so that it can be readily swung outward and downward when it is desired to open the carton for the discharge of milk therefrom.

The holder can be molded in a single piece, or as illustrated in FIGURES 6 to 10, can be made of two pieces which are assembled after being molded. While a suitable metal or synthetic resin can be employed as a material for this holder, a synthetic resin such as polypropylene is preferred. This material is light and strong and can be readily molded in a suitable die. As indicated in FIGURES 6 and 7, the principal portion of the holder consists of the platform 22 which is square in shape and which has a peripheral flange 40 and an upstanding ridge 42 to keep the bottom of the carton out of direct contact with the floor of the platform 22, the belt 24, and the handle 26 which connects the platform 22 and the belt 24. The handle 26 is attached at one end to the flange 40 of the platform by a very thin connection 44 which is very pliant so that the handle can be easily bent up to the angles shown in FIGURES 2 and 3. At the upper end of the handle 26 it is attached by a very thin connection 46 to a side of the belt 24. On the rear side of the platform 22 a pair of hooks 48 are provided, the hooks being spaced apart a distance equal to the width of the handle 26 so that when the handle is bent up to a position of approximate perpendicularity to the plane of the floor, the edges of the handle snap in between the hooks and the handle is thus held in place. Similar hooks 50 are provided on the rear side of the belt 24 so that the upper end of the handle can snap in between these hooks so as to hold the belt 24 approximately parallel to the platform 22.

The vertical member 28 for the front of the holder is molded in one piece, as indicated in FIGURES 9 and 10, this member consisting of an elongated strip connected by a very thin element 36 which acts as a hinge to the clamping member 34 which is narrower than the strip 28. Two short parallel elements 52 are provided on the outer face of a loop 53 on the front of the belt 24, these elements being spaced apart by a distance slightly less than the width of the channel member 34, as indicated in FIGURE 10. Thus when the channel member is swung out and down, it can be wedged between the elements 52 to hold it releasably out of the way while milk is being poured from the carton.

Near the ends of the strip 28 are apertures 54 which are adapted to hook over lugs 56 within the loop 53 and a loop 58 on the front of the flange 40, this loop being

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adapted to be fitted by the lower end of the strip 28 which is thrust into it. When the holder is being assembled the strip 28 is pushed past the lugs 56 in the loops 53 and 58 until the lugs enter the holes 54, thus anchoring the strip 28 in place.

I claim:

1. A combined holder and closure member for a milk carton which includes a top ridge, said holder comprising a frame shaped to be fitted by a carton, a handle at the rear of said frame, and a clamping element hinged to the front of said frame and movable from a clamping position upon the forward portion of a carton top ridge forward and downward to an inactive position clear of the top of the carton.

2. A holder and closure member as claimed in claim 1, said closure member comprising when in active position an inverted channel fitting snugly on the forward portion of the top ridge of a carton in said holder.

3. A holder and closure member as claimed in claim 1, said frame including a square platform with an upstand-

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ing flange, a belt spaced above said platform and a vertical supporting element fastened at its lower end to the front of said platform and at a point higher up to the front of said belt, said closure member being hinged to the upper end of said vertical element.

4. A holder and closure member as claimed in claim 3, said handle being attached at its lower end to the rear of said platform and at its upper end to the rear of said belt.

5. A holder and closure member as claimed in claim 3, and means on said vertical element engageable by said closure member to hold said closure member releasably in its inactive position.

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