Dec. 25, 1956 M. CORALLINE 2,775,373

POURING SPOUT CONSTRUCTION FOR PAPER CONTAINERS

Filed Aug. 25, 1952

Fig. 1

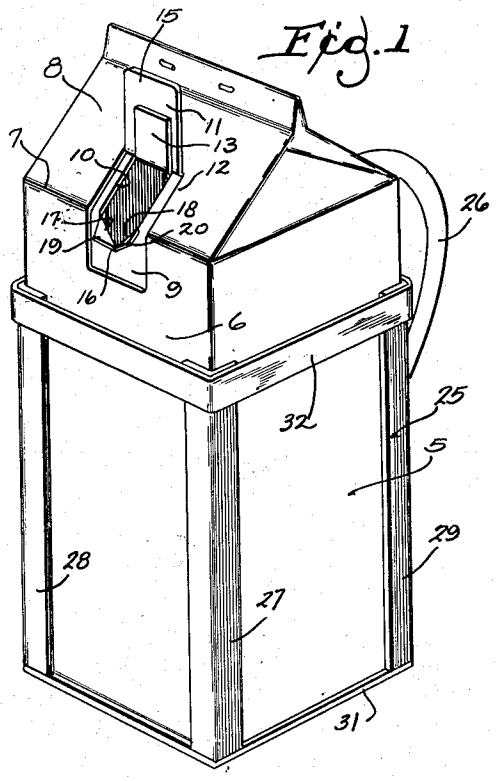


Fig. 2

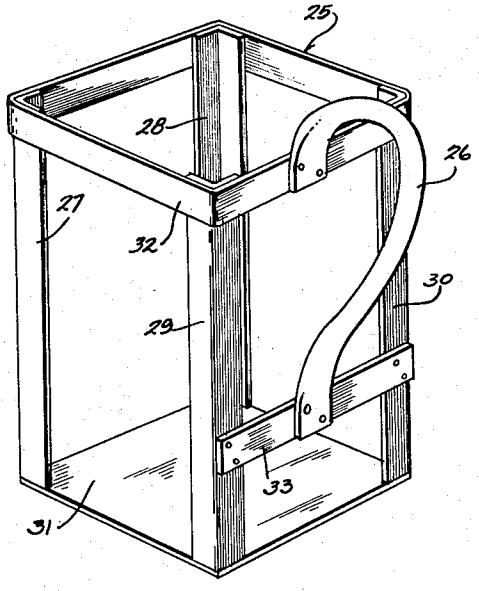


Fig. 3

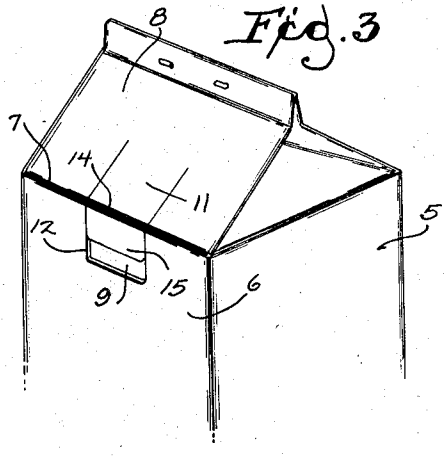
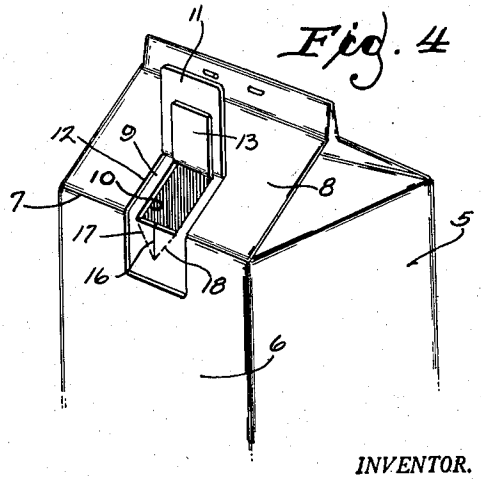


Fig. 4



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POURING SPOUT CONSTRUCTION FOR PAPER CONTAINERS

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7 Claims. (Cl. 222—183)

This invention relates to a pouring spout construction for paper containers such as milk cartons and the like. The invention is also concerned with a carrier fitted to a carton and provided with a handle to facilitate holding the carton during the pouring of liquid therefrom.

In the particular type of carton to which the invention pertains, there is a duplex wall in the upper portion of the carton, the outer ply of such wall having a liftable tab adherent to the inner ply and adapted, when lifted, to expose an opening in the inner ply through which the contents of the carton may be poured. In the ordinary carton, the inner wall aperture exposed by the lifting of the tab is rectangular; but even if such aperture terminates in downwardly converging margins to provide a pouring notch, the milk or other contents will not satisfactorily pour from such aperture in a regular stream.

According to the present invention, the inner ply of the duplex carton wall adjacent the dispensing opening is so cut and scored as to provide triangular margins or wings which are readily foldable outwardly like the wings of a dress collar, thus not only leaving a triangular notch through which the contents are poured, but further enabling the wings to guide the stream in such fashion that the flow is smooth and in a solid stream which does not separate into drops and from which little or no liquid dribbles down the side of the carton at the conclusion of the pouring operation.

In the drawings:

Fig. 1 is a view in perspective of my improved carton and carrier as they appear in readiness for use.

Fig. 2 is a view in perspective of the carrier only.

Fig. 3 is a fragmentary view in perspective showing the upper end of the sealed carton as the carton appears when sold.

Fig. 4 is a view similar to Fig. 3 showing the tab lifted to expose the wings which are later to be bent outwardly as shown in Fig. 1.

To all outward appearances at the time of sale, the carton 5 is entirely conventional. Its front wall 6 merges at the top edge 7 with an upwardly and rearwardly inclined top wall 8. These walls comprise a plurality of plies, there being an inner ply 9 with a dispensing opening at 10 covered by the tab 11 of the outer ply 12. The tab 11 marginally laps the inner ply 9 at the sides and below the opening 10 and is adhered thereto, usually by means of the wax with which the cardboard is impregnated. A supplemental tab 13 of the inner ply may be laminated to the tab 11 to be opened therewith to expose the opening 10, tab 13 and tab 11 being connected with the respective inner and outer plies solely at their upper ends.

In accordance with conventional practice, the lower margin of the opening 10, as exposed upon the lifting of the tab 11, is desirably coincident with the upper edge 7 of the front wall 6 of the carton. As the carton is sold (Fig. 3), the tab 11 has a corner or fold at 14 registering with the upper edge 7 of the front wall and the free end portion 15 of the tab extends downwardly along such

wall for a considerable distance beneath the top edge thereof. However, the opening 12 in the outer ply is somewhat longer than tab 11 so that the free end portion 15 of the tab is readily accessible to be lifted to the position shown in Fig. 4.

The present device differs from conventional practice in that I provide a slit at 16 which extends downwardly in the inner ply of the front wall as shown in Fig. 4. To the lower end of this slit extend the score lines 17 and 18 which converge from the lower corners of the opening 10. Both the slit and the score lines are fully covered by the free end portion 15 of tab 11 when the latter adheres to ply 9 at the time the carton is sold.

With tab 11 raised and the slit 16 and score lines 17, 18 exposed in the manner shown in Fig. 4, the user can readily employ his finger or the handle of a knife, or any other suitable implement, to flex outwardly the triangular wings 19 and 20 bordered by the slit 16 and what was formerly the lower margin of opening 10. This leaves a pouring notch as shown in Fig. 1, but I have found it important to have the wings provide flat surfaces rather than edge surfaces adjoining the notch. Because of this, the milk or other liquid contents of the receptacle will flow in a solid and unbroken stream. Without the wings, the stream is irregular and tends to break up into droplets and to run down the face of the carton at the conclusion of the pouring operation.

Such cartons, particularly in the larger sizes, tend to collapse under the pressure of the operator's hand if grasped at their sides during manipulation. To enable the user to hold such a carton in one hand and to pour freely therefrom, as from a pitcher, in the manner which is accommodated by the type of pouring opening above described, I desirably provide a carrier 25 having a handle 26 in which the carton is interchangeably receivable for support and guidance.

The carrier is desirably skeletonized, comprising corner angles at 27, 28, 29, and 30 and a bottom at 31 to which the angles are connected. The tops of the angles are connected by a rectangular frame 32. The rear corner angles 29 and 30 are further connected by a cross member 33. The handle 26 may conveniently be attached at its upper end to the frame 32 and at its lower end to the cross member 33. The height of the carrier is desirably such that the frame 32 is disposed below the pouring opening of the carton receivable therein. However, for convenience of manipulation, the handle 26 desirably curves upwardly above frame 32, as shown, to enable the operator's hand to grasp the handle at a point which is relatively high with respect to the center of gravity of the assembly.

The skeletonized carrier illustrated is closely fitted to the particular type and size of carton with which it is to be used so that the corners of the carton fit closely into the respective corner angles of the carrier to slide smoothly to and from the operative position in which the carton rests on the carrier bottom 31.

With such a carrier, maximum advantage of the pouring spout can be taken, the spout and carrier together permitting ready manipulation of the largest carton with one hand for the accurate discharge of its contents.

I claim:

1. The combination with a carrier provided with a handle, of a cardboard carton interchangeably mounted therein and provided above such carrier with a wall having a dispensing aperture.

2. The device of claim 1 in which the carrier comprises a skeletonized structure including a bottom, a top frame, and angle shaped corner members connecting the bottom and top frame, the carton having angles complementarily fitted within such corner members.

3. As a new article of manufacture, a skeletonized car-

rier for a cardboard carton of rectangular cross-section, said carrier comprising a bottom, an upper band spaced upwardly above the bottom, and corner angle strips complementary to the corners of the carton receivable in said carrier, said carrier being provided with a handle for the manipulation of the carrier and the carton complementary to the said corner angles.

4. A cardboard carton comprising a wall provided with wing portions initially in the plane of the wall and each defined in part by a generally upright margin and by oblique score lines downwardly convergent, the wing portions being foldable outwardly upon the respective score lines to open a generally triangular notch in the carton wall and to form a pouring spout for the guidance of liquid issuing through the notch, the initially inner faces of the wing portions providing flat surfaces bordering the path of liquid flow, whereby liquid poured through the notch is not required to flow transversely across an edge surface.

5. The device of claim 4 in further combination with an outer wall ply comprising a tab sealed to the wall first mentioned and wholly covering said wing portions, said tab being detachable from the wing portions to expose them for said outward folding to form said spout.

6. As a new article of manufacture, a cardboard carton for liquids having a two ply wall, the inner wall ply having an aperture and being provided below the aperture with a central slit, the said inner wall ply integrally having wing portions defined in part by said slit and by the bottom margin of the aperture, the outer wall ply comprising a tab covering the aperture and wing portions and having a separable connection permitting it to be stripped open to expose the aperture and the wing portions, the wing portions being thereupon foldable outwardly upon fold lines downwardly convergent from the aperture to the slit to form a pouring notch and to provide substantially flat face surfaces for the guidance of liquid poured therethrough.

7. The device of claim 6 in which a portion of the inner wall ply substantially filling the aperture and foldably connected to the inner ply above the aperture is connected to said outer ply tab to open therewith.

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