

Sept. 2, 1958

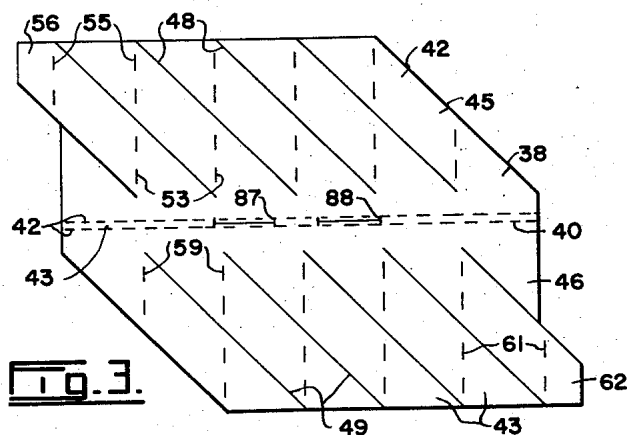
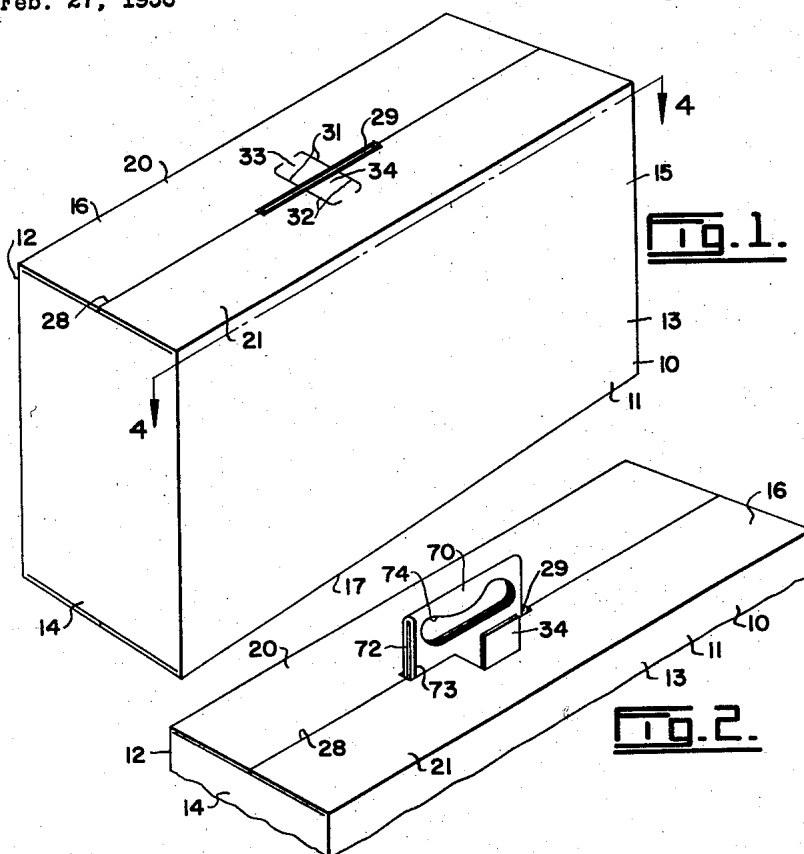
S. PASJACK

2,850,206

COLLAPSIBLE CARRY CARTON

Filed Feb. 27, 1956

3 Sheets-Sheet 1



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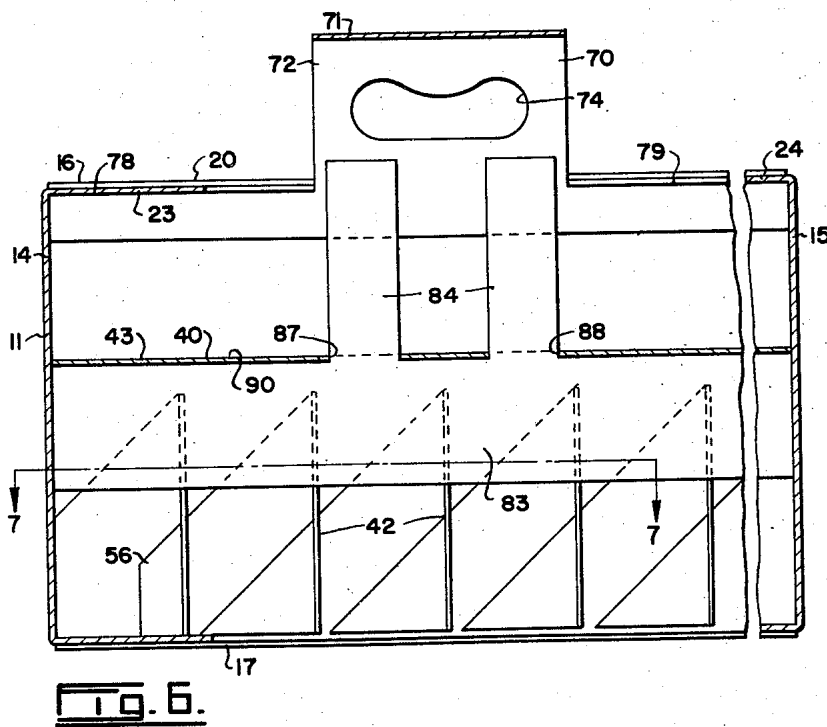
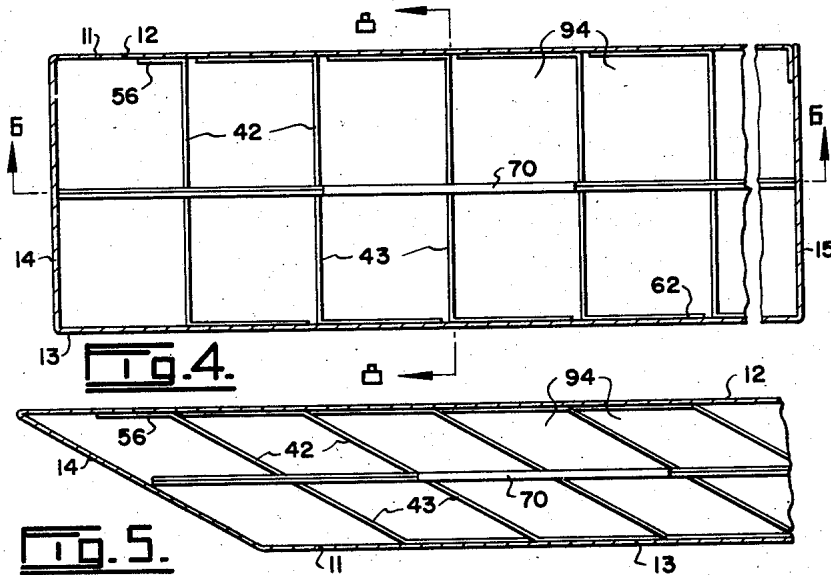
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3 Sheets-Sheet 2



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3 Sheets-Sheet 3

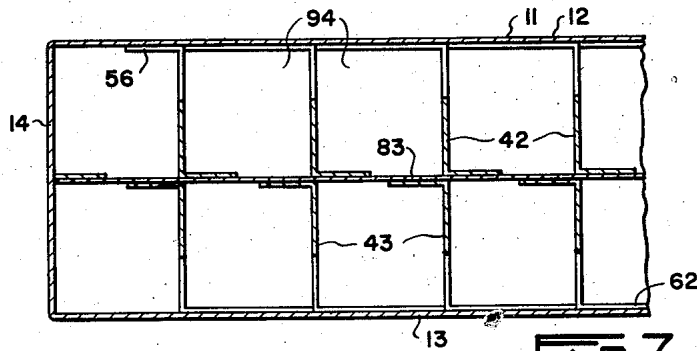


Fig. 7.

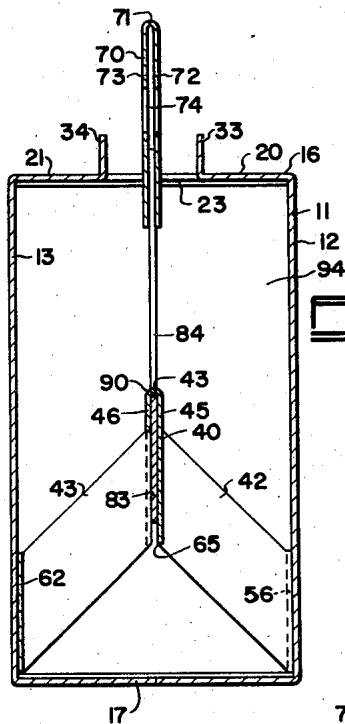


Fig. 8.

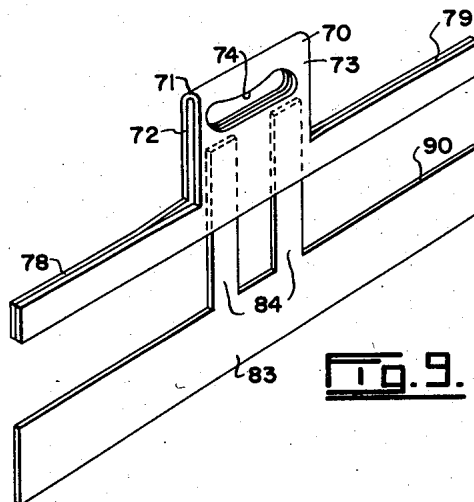


Fig. 9.

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COLLAPSIBLE CARRY CARTON

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Application February 27, 1956, Serial No. 568,087

9 Claims. (Cl. 220—105)

This invention relates to improvements in collapsible carry cartons for bottles and the like.

An object of the present invention is the provision of a collapsible carry carton having a longitudinal and lateral divider arrangement which is connected to the side walls of the carton at the bottom thereof.

Another object is the provision of a carry carton having a longitudinal and transverse divider arrangement so connected to the side walls of the carton that there is little or no tendency of the transverse dividers separating from the carton walls to which they are attached.

Another object is the provision of a carry carton made of four individual parts only, thereby reducing the cost of manufacture as compared to most of the prior carry cartons which have many more parts.

A further object is the provision of a collapsible carry carton having a slidable handle extending longitudinally and centrally thereof that does not interfere with the collapsing of the carton and yet always remains in its proper position when the carton is erected.

A collapsible carry carton according to the present invention comprises a casing having side and end walls, a bottom and a top, a divider extending longitudinally of the casing centrally thereof, a plurality of spaced lateral dividers inclined downwardly and outwardly from opposite sides of the longitudinal divider and extending to the casing side walls, each of said lateral dividers being connected at its inner end to the longitudinal divider and at its outer end to a side wall at the bottom thereof, a handle slidably connected to the longitudinal divider for movement up and down with respect to the latter, and means on the longitudinal divider for limiting the upward movement of the handle, said handle being movable to an upper position projecting above the casing top and to a lower position completely within said casing.

An example of this invention is illustrated in the accompanying drawings, in which,

Figure 1 is a perspective view of a completely closed collapsible carry carton,

Figure 2 is a perspective view of the top of the closed carton with the carrying handle projecting outwardly therefrom,

Figure 3 is a flat lay-out of the piece of material which forms the longitudinal divider of the carton,

Figure 4 is a horizontal section taken on the line 4—4 of Figure 1, showing the longitudinal and transverse divider arrangement in plan,

Figure 5 is a fragmentary view similar to Figure 4 showing the carton in partly collapsed condition,

Figure 6 is a vertical section taken on the line 6—6 of Figure 4, showing the carrying handle in its upper or carrying position,

Figure 7 is a horizontal section taken on the line 7—7 of Figure 6,

Figure 8 is a vertical cross section taken on the line 8—8 of Figure 4, showing the handle in its upper position, and

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Figure 9 is a perspective view of the handle with its associated elements.

Referring to Figures 1 and 2 of the drawings, 10 is a collapsible carry carton made up of a casing 11 having side walls 12 and 13, end walls 14 and 15, a top 16, and a bottom 17. The top comprises side flaps 20 and 21 integrally connected respectively to the side walls 12 and 13, and end flaps 23 and 24 integrally connected respectively with end walls 14 and 15, see Figure 6. The bottom 17 is also made up of side and end flaps in the same manner as the top. The carton walls and flaps are formed of a single piece of suitable material, such as corrugated cardboard or fibre board, as is common in this art.

When the top 16 of the carton is closed, as in Figure 2, the edges of side flaps 20 and 21 come together as indicated at 28. The adjacent edges of these flaps are cut away to form a slot 29 extending longitudinally of the carton centrally thereof. In the preferred form of the invention, flaps 20 and 21 are respectively creased along lines 31 and 32 thereby forming small tabs 33 and 34 on opposite sides of slot 29 which may be pried upwardly into the position shown in Figure 2.

Figure 3 illustrates a single piece of material 38 cut to form a longitudinal divider 40 and two sets of transverse dividers 42 and 43 that are shown in the carton in Figures 4 to 8.

A blank 38 formed of corrugated cardboard, stiff cardboard or the like is scored longitudinally and centrally thereof along lines 42 so that it may be bent over to form a top edge 43. This folding over of the blank results in the formation of two sides 45 and 46. The sides 45 and 46 have a plurality of downwardly-extending diagonal slits or slots 48 and 49 which form the transverse dividers 42 and 43. It will be noted that the slits or slots 48 and 49 are substantially parallel to each other in Figure 3.

Side 45 of the longitudinal divider 40 is transversely creased along a plurality of spaced lines 53, each crease being located near the inner end of one of the transverse dividers 42 so that the latter may be bent outwardly from the longitudinal divider. The diagonal arrangement of slits 48 causes the transverse divider to extend outwardly and downwardly from the longitudinal divider. Each transverse divider 42 is creased near its outer end along line 55 extending transversely of the blank so that the outer end of said divider may be folded back into an attaching tab 56 lying substantially parallel with the longitudinal divider.

The transverse dividers 43 are creased and folded in the same manner as dividers 42. Each divider 43 is creased near its inner end along line 59 so that the divider may be folded outwardly relative to the longitudinal divider 40, at which time the transverse divider extends outwardly and downwardly from the longitudinal divider. Similarly, each transverse divider 43 is folded near its outer end along a line 61 to form an attaching tab 62 lying substantially parallel with the longitudinal divider.

Figures 4 to 8 show the longitudinal and transverse divider arrangement positioned within casing 11. The divider 40 extends longitudinally and centrally of the casing. Its ends reach to the end walls 14 and 15 of the casing. Its top edge 43 is spaced below the top of the casing, while its lower edge 65, see Figure 8, is spaced above the casing bottom. The transverse dividers 42 and 43 extend outwardly and downwardly from the longitudinal divider, and their respective tabs 56 and 62 extend along the side walls 12 and 13 of the casing at the bottoms of said walls, see particularly Figure 8. These attaching tabs are usually secured to the side walls by glue, but they may be secured in any other desired manner, such

as by means of staples. By referring to Figure 4, it will be seen that attaching tabs 56 and 62 are folded in opposite directions, that is, the tabs 56 extend towards one end of the carton casing, while tabs 62 extend towards the opposite end thereof. This arrangement makes it possible easily to move the casing walls 12 and 13 towards each other in order to collapse the carton, as indicated in Figure 5. The side and end flaps of the top and bottom of the casing project straight out therefrom when the carton is collapsed, as is common with cartons of this type.

Figure 9 clearly shows the carry handle 70 for this carton. The handle is preferably formed from a single piece of material such as corrugated cardboard, stiff cardboard or the like, bent over at 71 to form parallel sides 72 and 73 having aligned openings therein to form a hand hole 74. Although it is not absolutely necessary, it is preferable to provide shoulders 78 and 79 projecting from each end of the handle at the bottom thereof, said shoulders being adapted to extend longitudinally of the carton when the handle is in place. A handle body 83 is attached to handle 70 by one or more, and preferably two, strips 84 extending upwardly from the body into the space between the sides 72 and 73 of the handle. These strips are glued or otherwise secured to the handle. The body 80 is spaced below and extends parallel with the handle shoulders 78 and 79.

Figures 6 to 8 clearly show the handle and its associated elements mounted in the carton casing. The handle body 83 lies between and is slidable within the sides 45 and 46 of the longitudinal divider 40. Strips 84 extend upwardly through slots 87 and 88 in the top edge 43 of the divider. Thus, handle 70 is slidably connected to the longitudinal divider for movement up and down with respect thereto. This handle is movable to an upper position projecting through slot 29 above the casing top 16, as shown in Figures 2, 6 and 8. At this time, the upper edge 90 of the handle body 83 engages the folded-over top edge 43 of the longitudinal divider, and the handle shoulders 78 and 79 engage the under surfaces of the end flaps 23 and 24 of the casing. The handle body preferably extends the full length of the carton casing within the longitudinal divider, and the shoulders 78 and 79 extend to opposite ends of the casing. At this time, the weight of the casing and its contents are borne by the folded-over top edge 43 of the longitudinal divider and the carton cover.

The handle 70 is movable to a lower position where it is completely within the carton, the length of the strips 84 being such as to permit this. Figure 1 shows the carton with the handle completely beneath its top.

As the handle, handle shoulders and handle body all lie in the same plane as the longitudinal divider, the carton may be collapsed into its flat position without having to remove the handle. In other words, the handle does not interfere with the collapsing of the carton, and said handle always remains in its proper position centrally of the carton when the latter is erected. When the carton is set up with its bottom flaps secured in place, the longitudinal divider 40 and the transverse dividers 42 and 43 form cells 94, see Figures 4, 5 and 7, into which bottles or other articles may be placed. The weight of these bottles is carried by the bottom of the carton casing. The handle 70 is completely within the carton during storage and shipment. When it is desired to carry the carton, tabs 33 and 34 are lifted up, after which fingers may be inserted into the carton to grasp the handle in order that it may be pulled above the carton top, as shown in Figure 2. When the carton is carried by the handle, the main part of the load is supported by the transverse dividers that are connected to the side walls of the casing near the bottoms thereof. Normally the weight would tend to cause these side walls to bow inwardly, but the fact that the transverse dividers are connected to these walls, near the bottoms thereof

prevents this, since the carton bottom prevents the lower portions of the walls from moving inwardly. Should the side walls be allowed to move inwardly, they would be weakened by the flexing action thereof, and there would be a tendency for the glue between the divider ends and the walls to shear. However, the carton bottom practically eliminates this possibility, and the tabs 56 and 62 brace or support the side walls at the points where the latter are subjected to the greatest strain. Some of the load is taken by the handle shoulders 78 and 79 bearing against the under surface of the casing top.

What I claim as my invention is:

1. A collapsible carry carton comprising a casing having side and end walls, a bottom and a top, a divider extending longitudinally of the casing centrally thereof, a plurality of spaced lateral dividers inclined downwardly and outwardly from opposite sides of the longitudinal divider and extending to the casing side walls, each of said lateral dividers being connected at its inner end to the longitudinal divider and at its outer end to a side wall at the bottom thereof, a handle slidably connected to the longitudinal divider for movement up and down with respect to the latter, and means on the longitudinal divider for limiting the upward movement of the handle, said handle being movable to an upper position projecting above the casing top and to a lower position completely within said casing.

2. A collapsible carry carton as claimed in claim 1 in which the transverse dividers are integrally connected at one end to the longitudinal divider and are connected by suitable fastening means at their opposite ends to the casing side walls.

3. In a collapsible carry carton having side and end walls, a top and a bottom, a longitudinal and lateral divider arrangement comprising a single blank folded over to form a longitudinal divider having a top edge and two sides, said longitudinal divider having a slot in and centrally of the folded-over top edge thereof, each side of the longitudinal divider having a plurality of downwardly-extending diagonal slits forming transverse dividers, said transverse dividers being bent outwardly substantially at right angles to the longitudinal divider thereby extending outwardly and downwardly therefrom, a handle slidably extending through the longitudinal divider slot, and a handle body attached to the handle slidable between the sides of the longitudinal divider, said body extending longitudinally beyond the slot and substantially the length of the longitudinal divider.

4. A collapsible carry carton as claimed in claim 3 including shoulders connected to the handle spaced above the handle body and extending substantially parallel with the latter, said shoulders when the handle is moved upwardly engaging the under surface of the carton top when the handle body engages the folded-over top of the longitudinal divider.

5. In a collapsible carry carton having side and end walls, a top and a bottom, a longitudinal and lateral divider arrangement comprising a single blank folded over to form a longitudinal divider having a top edge and two sides, said longitudinal divider having a slot in and centrally of the folded-over top edge thereof, each side of the longitudinal divider having a plurality of downwardly-extending diagonal slits forming transverse dividers, said transverse dividers being bent outwardly substantially at right angles to the longitudinal divider thereby extending outwardly and downwardly therefrom, a handle slidably extending through the longitudinal divider slot, and a handle body attached to the handle slidable between the sides of the longitudinal divider, said body extending longitudinally beyond the slot and substantially the length of the longitudinal divider, said handle being long enough to project above the carton top when the handle body engages the folded-over top of the longitudinal divider and being movable downwardly to a position completely within the carton.

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6. In a collapsible carry carton having side and end walls, a top and a bottom, a longitudinal and lateral divider arrangement comprising a single blank folded over to form a longitudinal divider having a top edge and two sides, said longitudinal divider having a slot in and centrally of the folded-over top edge thereof, each side of the longitudinal divider having a plurality of downwardly-extending diagonal slits forming transverse dividers, said transverse dividers being bent outwardly substantially at right angles to the longitudinal divider thereby extending outwardly and downwardly therefrom, the outer ends of the transverse dividers being bent over to form attaching tabs lying substantially parallel to the longitudinal divider, said tabs being secured to adjacent side walls of the carton near the bottoms of said walls, a handle slidably extending through the longitudinal divider slot, and a handle body attached to the handle slidable between the sides of the longitudinal divider, said body extending longitudinally beyond the slot and substantially the length of the longitudinal divider.

7. A collapsible carry carton comprising a casing having side and end walls, a bottom and a top, a divider extending longitudinally of the casing centrally thereof, said divider including two vertical sides secured together along the upper edges thereof, said longitudinal divider having a slot therein at the secured upper edges of the sides thereof, a plurality of spaced lateral dividers inclined downwardly and outwardly from opposite sides of the longitudinal divider and extending to the casing side walls, each of said lateral dividers being connected at its inner end to the longitudinal divider and at its outer end to a side wall at the bottom thereof, a handle slidable within the longitudinal divider and extending through the divider slot, and means attached to the handle within the longitudinal divider for engaging the secured upper edges of said longitudinal divider to limit the upward movement of the handle, said handle being movable to an upper position projecting above the casing top and to a lower position completely within said casing.

8. A collapsible carry carton comprising a casing having side and end walls, a bottom and a top, a divider extending longitudinally of the casing centrally thereof, said divider including two vertical sides secured together along the upper edges thereof, said longitudinal divider having a slot therein at the secured upper edges of the sides thereof, each side of the longitudinal divider having a plurality of downwardly-extending diagonal slits forming transverse dividers, said dividers being bent outwardly substantially at right angles to the longitudinal divider thereby extending outwardly and downwardly therefrom

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and being connected at their outer ends to the side walls at the bottoms thereof, a handle slidable within the longitudinal divider and extending through the divider slot, and means attached to the handle within the longitudinal divider for engaging the secured upper edges of said longitudinal divider to limit the upward movement of the handle, said handle being movable to an upper position projecting above the casing top and to a lower position completely within said casing.

9. A collapsible carry carton comprising a casing having side and end walls, a bottom and a top, said top having a longitudinally-extending slot therein centrally thereof, a divider extending longitudinally of the casing centrally thereof, said divider being formed from a single blank folded over to form a top edge and two sides with a slot in and centrally of said folded-over edge, each side of the longitudinal divider having a plurality of downwardly-extending diagonal slits forming transverse dividers, said dividers being bent outwardly substantially at right angles to the longitudinal divider thereby extending outwardly and downwardly therefrom and being connected at their outer ends to the side walls at the bottoms thereof, a handle slidable within the longitudinal divider and extending through the divider slot and aligned with and capable of sliding through the casing top slot, and a handle body attached to the handle within and slidable between the sides of the longitudinal divider, said handle body extending longitudinally of the longitudinal divider beyond the slot in the top of the latter sufficiently to engage the folded-over top of the divider when the handle is drawn upwardly, said body having a lower edge spaced from the casing bottom when the body is in engagement with the folded-over divider edge and touching said bottom when the handle is moved downwardly completely within the casing, said handle being long enough to project through the casing top slot and above the casing top when the handle body engages the folded-over top of the longitudinal divider and being movable downwardly through the casing top slot to a position completely within the casing.

References Cited in the file of this patent

UNITED STATES PATENTS

45	2,545,589	Samsing	Mar. 20, 1951
	2,660,361	Tyrseck	Nov. 24, 1953
	2,687,232	Arneson	Aug. 24, 1954
	2,704,617	Stieve	Mar. 22, 1955

FOREIGN PATENTS

50	462,374	Canada	Jan. 10, 1950
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