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COMBINED COVER AND HANDLE STRUCTURE FOR PAPERBOARD BOXES

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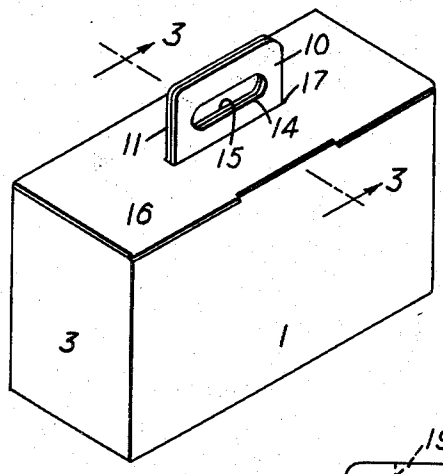


FIG. 1

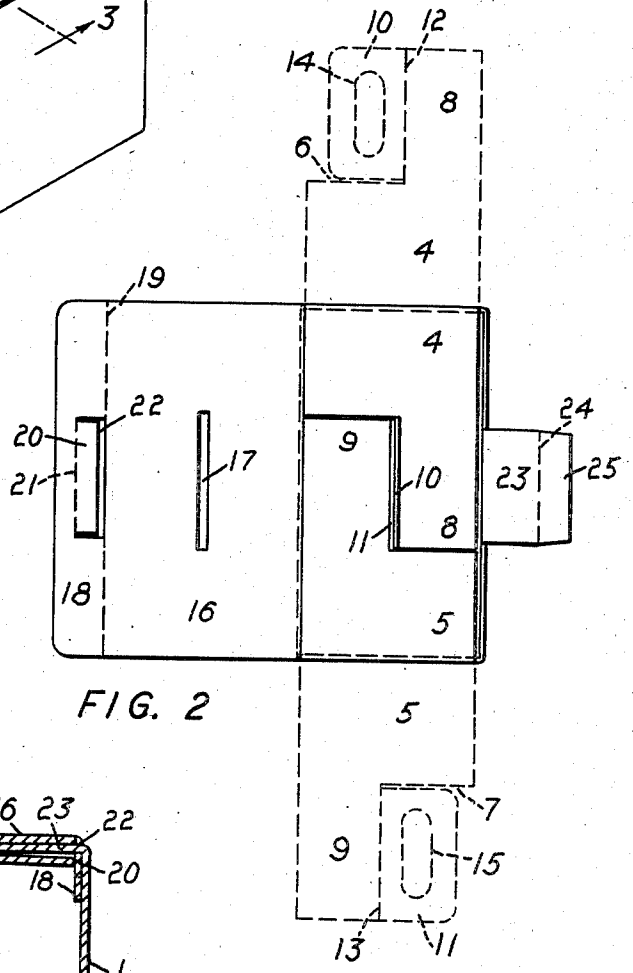


FIG. 2

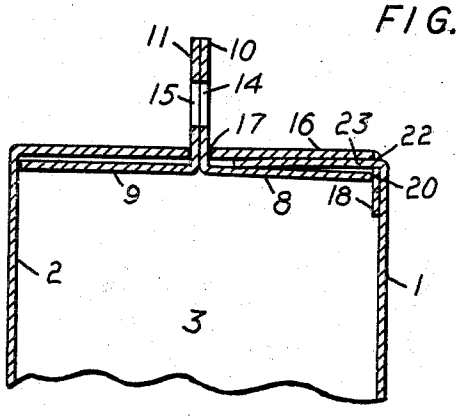


FIG. 3

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COMBINED COVER AND HANDLE STRUCTURE FOR PAPERBOARD BOXES

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3 Claims. (Cl. 229—44)

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This invention relates to combined cover and handle structure for paperboard boxes of the type having upright walls forming a rectangular enclosure.

The invention has for its object to provide a combined cover and handle in which the handle is formed by integral portions of cover members that are integral with the end walls of the box.

A further object is to provide a combined cover and handle which includes a hinged lid that is interlocked with the handle forming portion of the cover.

A further object of the invention is to provide a lid that has a lock which is tightened by weight imposed upon the handle member when the box is being carried.

Reference should be had to the accompanying drawings forming a part of this specification in which:

Figure 1 is a perspective view of a box to which the combined cover and carrying handle of the present invention is applied;

Fig. 2 is a top plan view of the box with the lid in open position, the lid locking tongue extending outwardly from the front wall and the handle forming cover flaps in closed position, the cover flaps with their hand grip forming portions being shown in dotted lines in extended position; and

Fig. 3 is a fragmentary vertical section taken on the line indicated at 3—3 in Fig. 1.

In the accompanying drawings the invention is shown applied to a paperboard box having front and rear walls 1 and 2 and end walls 3. The end walls 3 have extensions 4 and 5 which are hinged to their top edges and form cover flaps. Each of the flaps 4 and 5 is of a length greater than one-half the length of the box and the free ends of the flaps are provided with notches 6 and 7 which permit the free end portions of the flaps to interfit and lie in the same plane when the flaps are in box closing position. The notch 6 faces rearwardly and the notch 7 faces forwardly and each notch is of a depth slightly greater than one-half the width of the flap so as to provide end portions 8 and 9 which lie side by side when the flaps are in closed position.

Handgrip portions 10 and 11 are formed of material struck up from the flaps 4 and 5 to form the notches 6 and 7, the handgrip portions 10 and 11 being joined to the portions 8 and 9 of the flaps by fold lines 12 and 13 along longitudinal edges of the notches 6 and 7. The handgrip portions 10 and 11 are each adapted to be positioned at right angles to the flap to which it is joined and, when the flaps are swung to closed position

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as shown in Fig. 2, the handgrip portions 10 and 11 are disposed back to back in upright position. The portions 10 and 11 are provided with hand receiving slots 14 and 15 which register when the flaps are in box closing position as shown in full lines in Fig. 2. The cover flaps form a strong connection between the handle and the end walls of the box, serving not only as a cover but also as load carrying members when the box is carried by the handle.

In order to improve the external appearance of the box and to also increase the strength of the combined handle and cover, a lid 16 is preferably provided, the lid 16 forming a continuation of the rear wall 2 and being hinged to its top edge. The lid 16 is provided with a centrally disposed longitudinal slot 17 which is of a length corresponding to the length of the handgrip portions 10 and 11 and of a width to receive the abutting handgrip portions 10 and 11 when the lid 16 is swung down to box closing position. The lid 16 is preferably provided with a hinged tuck 18 along its free edge which is connected to the body of the lid by a fold line 19. The fold line 19 is parallel to the hinged edge of the lid and spaced therefrom a distance corresponding to the width of the box so that the tuck 18 is adapted to enter the top of the box between the front edges of the cover flaps 4 and 5 and lie in engagement with the interior of the front wall 1 as shown in Fig. 3 of the drawing.

The tuck 18 is provided with an integral gripping tab 20 which is struck up from the body of the tuck midway between its ends and which is joined to the body of the tuck along a fold line 21 spaced from and parallel to the fold line 19. The inner edge of the gripping tab 20 is severed from the lid along the line 19 and is movable inwardly to open a longitudinal slot 22 along the inner edge of the tuck.

The front wall 1 of the box has a centrally disposed lid locking tongue 23 which is of a width corresponding to the length of the slot 22 and which is adapted to be inserted into the slot 22 as the lid approaches its closed position. The tongue 23 has a fold line 24 extending across the same inwardly of its outer end to provide a readily bendable end portion 25 which can be readily entered into the slot 22 when the lid 16 is brought to a position where the tuck 18 is about to enter into the top of the box. The locking tongue 23 is forced into the slot 22 during the final closing movement of the lid 16 and lies between the end portion 8 of the flap 4 and the under side of the lid 16. The front edge of the flap 4 engages with

the inner face of the gripping tab **20** and tends to hold the same in gripping engagement with the locking tongue **23**.

When weight is imposed upon the handgrip portions **10** and **11**, the portion **8** of the flap **4** is drawn tightly against the interior of the locking tongue **23**, providing a firm interlock between the lid **16** and front wall **1** so that when the box is lifted by the handle members **10** and **11** the load is transmitted to the handle members through the front and rear walls as well as the end walls of the box.

It is to be understood that in accordance with the provisions of the patent statutes, variations and modifications of the specific devices herein shown and described may be made without departing from the spirit of the invention.

What I claim is:

1. A combined cover and handle for paperboard boxes having upright front, rear and end walls comprising a lid hinged to the top edge of the rear wall and having a longitudinally extending centrally disposed slot, said lid having a hinged tuck along its free edge that is provided with a longitudinal slot and that is engageable with the interior of the front wall, a locking tongue hinged to the top edge of the front wall and adapted to enter the tuck slot, and an inner cover flap hinged to the top edge of an end wall and provided with a handgrip portion projecting upwardly through the lid slot, said flap being engageable with the under side of said tongue to hold the same against the under side of said lid.

2. A combined cover and handle for paperboard boxes having upright front, rear and end walls comprising a lid hinged to the top edge of the rear wall and having a longitudinally extending centrally disposed slot, said lid having a hinged tuck along its free edge that is provided with a longitudinal slot and that is engageable with the interior of the front wall, a locking tongue hinged to the top edge of the front wall and adapted to enter the tuck slot, and an inner cover flap hinged to the top edge of each end wall, the two cover flaps having upstanding handgrip portions disposed back to back and projecting through the lid slot, one of said flaps being engageable with the under side of said locking tongue to hold the same against the under side of the lid.

3. A combined cover an handle for paperboard boxes having upright front, rear and end walls comprising a lid hinged to the top edge of the rear wall and forming a continuation thereof, said lid having a longitudinally extending centrally disposed slot and a hinged tuck along its free edge that is engageable with the interior of the front wall, said tuck having a locking tab struck up from the body thereof, said tab being hinged along a line spaced from the hinge line of the tuck and movable inwardly about its hinged edge to provide a slot extending along the hinge line of the tuck, a locking tongue hinged to the top edge of the front wall and adapted to enter the tuck slot, and an inner cover flap hinged to the top edge of each end wall and forming a continuation thereof, each flap being of a length greater than one-half the length of the box and the two flaps having handgrip portions integral with the free end portions thereof, said handgrip portions being disposed back to back and extending through said lid slot, one of said flaps being engageable with said tongue to hold the same against the under side of said lid and having an edge portion engaging said gripping tab to press the same into gripping engagement with said tongue.

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