Jan. 3, 1961 W. TROGMAN 2,967,011

FOLDING BOXES AND HANDLES THEREFOR

Filed June 10, 1959 2 Sheets-Sheet 1

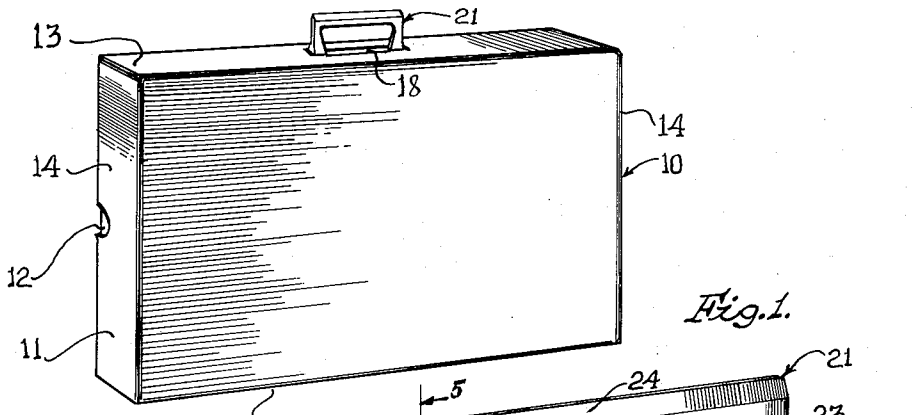



Fig. 1.

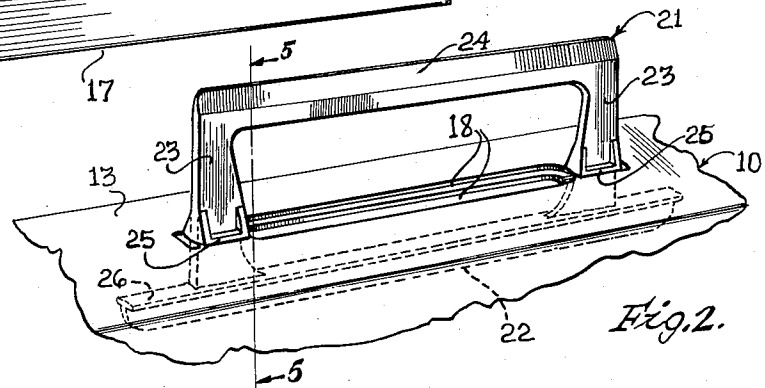



Fig. 2.

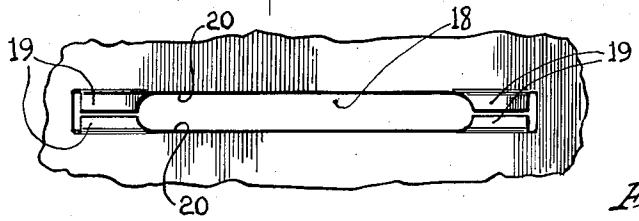



Fig. 3.

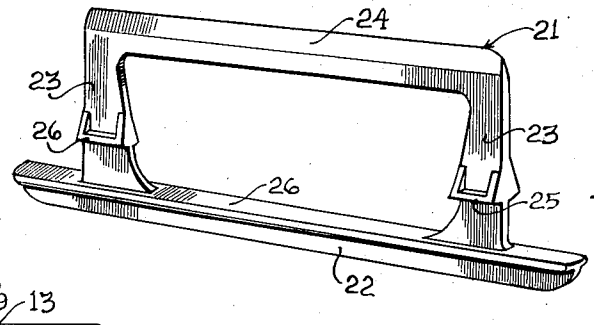



Fig. 4.

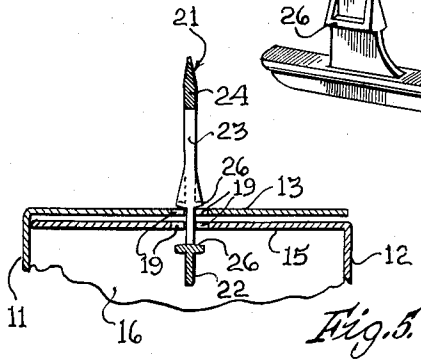



Fig. 5.

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FOLDING BOXES AND HANDLES THEREFOR

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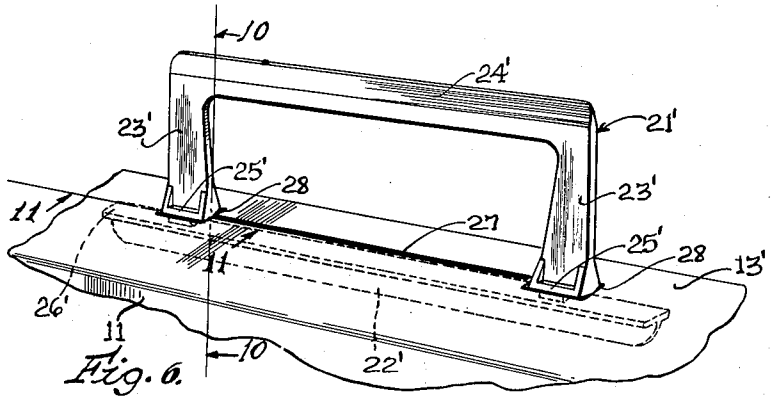


Fig. 6.

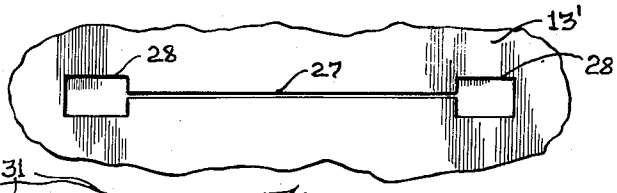


Fig. 7.

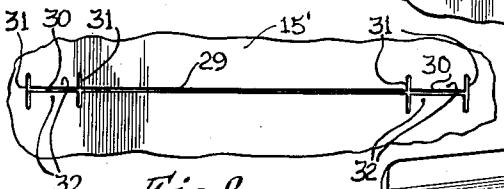


Fig. 8.

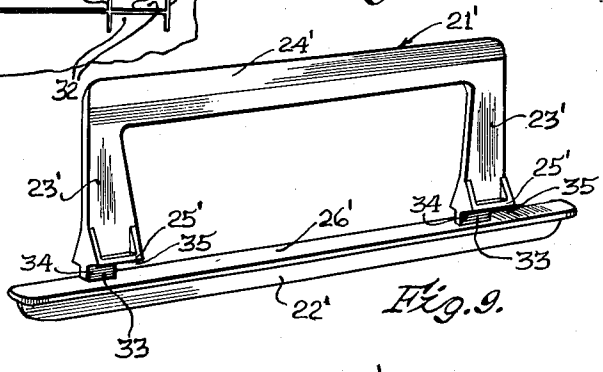


Fig. 9.

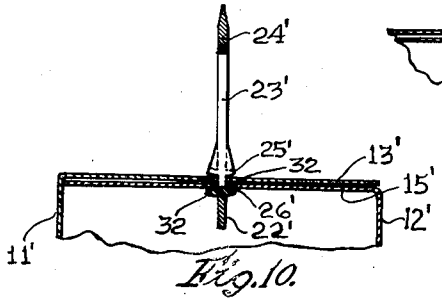


Fig. 10.

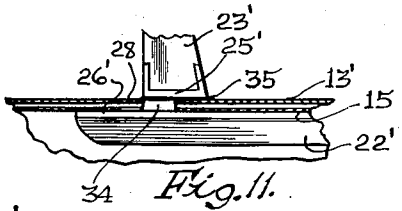


Fig. 11.

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2,967,011

# FOLDING BOXES AND HANDLES THEREFOR

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4 Claims. (Cl. 229—52)

This invention relates to new and useful improvements in folding boxes and handles therefor, and more particularly to that type of box fabricated from fibrous materials such as cardboard and the like, such boxes being especially adaptable for having packed therein certain clothing or wearing apparel such as men's and women's suits, overcoats and the like.

More particularly, the invention has as its object the provision of a simple and inexpensive arrangement for associating with the box a suitable handle whereby the box may be conveniently carried about.

In addition a further object of the invention is the provision of a handle having an arrangement for cooperating with the wall portions of the box for latching the box sections in telescoped relation with respect to each other, such provision also serving the purpose of maintaining the handle when attached to the box in a position where it can be conveniently grasped by the hand.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of a box and handle attached thereto, embodying my invention;

Fig. 2 is an enlarged fragmentary perspective view of box section and my improved handle as shown in Fig. 1;

Fig. 3 is an enlarged fragmentary top plan view of the top wall of the outer section of the box shown in Fig. 1;

Fig. 4 is a perspective view of the handle embodied in my invention;

Fig. 5 is a sectional detail view taken substantially on line 5—5 of Fig. 2;

Fig. 6 is a fragmentary sectional detail view similar to Fig. 2 but showing a modified form of construction;

Fig. 7 is a fragmentary plan view of the top wall of the outer section of the box illustrated in Fig. 6;

Fig. 8 is a fragmentary sectional detail view of the top wall of the inner section of the box shown in Fig. 6;

Fig. 9 is a perspective view of the handle shown in Fig. 6;

Fig. 10 is a sectional detail view taken substantially on line 10—10 of Fig. 6; and

Fig. 11 is a fragmentary sectional detail view taken substantially on line 11—11 of Fig. 6.

Referring now more particularly to Figs. 1 to 5 of the drawings, my improved box is indicated generally at 10. Such box is preferably formed of cardboard or similar fibrous material. It comprises two sections 11 and 12 telescopically arranged with respect to each other when in closed position. The outer section 11 comprises a top wall 13 and end walls 14 beneath which the top wall 15 and end walls 16 of the bottom section 12 are arranged. The bottom walls 17 of the box are integrally joined together in hinged fashion by any suitable arrangement. Each of the top walls 13 and 15 are provided with similarly shaped slots 18. At opposite ends of each slot 18 are latching tabs 19 arranged in pairs with the tab of each pair in opposed relation with respect to each other and extending in a direction transversely of the slot 18 from the long edges 20 thereof.

The slots of the top walls 13 and 15 register with each other when the box sections are in telescopic position with respect to each other.

The handle which is associated with the box 10 is indicated generally at 21. Such handle is preferably formed of plastic material, however any material suitable for the purpose may be used. The handle includes the suspension bar 22 which is adapted to be disposed beneath the top wall 15 and bear thereagainst when the box is being carried about. Formed integral with the bar 22 are right angularly extending connecting bars 23 having their outer end portions integrally formed with a handle bar 24.

On opposite sides of the connecting bars 23 and extending transversely with respect thereto are laterally extending ribs or stops 25, spaced a suitable distance from the top edge 26 of the suspension bar 22.

The handle is applied to the box 10 when the slots are in registration with respect to each other. This is accomplished by threading the bar 22 through the registering slots 18 so as to dispose the latch tabs 19 between the ribs 25 and the enlarged top edge 26 of the suspension bar 22. It will be noted that the top edge 26 of the bar 22 is wider than the thickness of the remaining portion of the bar, this to provide a relatively flat edge portion engageable against the wall 15 when the box is being carried about. When the handle is in applied position as shown in Fig. 2, the ribs 25 will prevent the handle from dropping into the box. When the handle is grasped by the hand, the bar 22 will engage the wall 15 of the bottom section 12 thus suspending the box from the bar 22 while the same is being carried about.

In Figs. 6 to 10 inclusive, I have illustrated a modified form of construction over that shown in Figs. 1 to 5 inclusive. In this form of construction, the top wall 13' of the outer section 11 of the box is provided with an elongated slit 27. The ends of this slit 27 terminate into rectangular openings 28. The top wall 13' of the inner section 12 of the box is likewise provided with an elongated slit 29 which registers with the slit 27 when the box sections are in telescopic relation with respect to each other. The slit 29 terminates into extension slits 30, the ends of which terminate into cross slits 31 arranged in pairs as shown in Fig. 8. The slit 30 and the slits 31 of each pair define oppositely disposed latching tabs 32.

The handle for this form of box is indicated at 21'. Such handle includes a suspension bar 22' which is adapted to engage the top wall of the inner section of the box. Extending upwardly from the bar 22' are integral connecting bars 23', the ends of which terminate into a handle bar 24'.

Extending transversely of the connecting bars 23' and laterally therefrom are ribs 25' spaced from the relatively flat top edge 26' on the bar 22', to provide latching grooves 33. The web portions 34 between each of the connecting bars 23' and the suspension bar 22' are partially removed to provide a latching slot 35 which extends in the same general direction with respect to the long axis of the bar 22'. The handle shown in the form of Figs. 6 to 11 inclusive is mounted to the box by threading the bar 22' through the slits 27 and 29. This will dispose the unremoved portion of the webs 34 within the slits 28 with the latching tabs 32 disposed beneath the ribs 25' thus latching the top and bottom

sections of the box in telescoped position with respect to each other. When the handle 21' is grasped by the hand, the box will be suspended from the suspension bar 22' to permit the convenient carrying of the box.

After the suspension bar 22' has been inserted through the slits 29 and after the unremoved web portions 34 are disposed between the latching tabs 32, the handle 21' is shifted to the right as viewed in Fig. 9. By shifting the handle in this direction, adjacent portions of the top walls 13' and 15' will be confined in the slots 35 thus completing the latching together of the box sections. By employment of the handle shown in Figs. 1 to 5 inclusive as well as that shown in Figs. 6 to 11 inclusive, it is unnecessary to use string or adhesive tape for securing the box sections together. The box sections are latched together by the handle which serves to provide a means for carrying the box about.

My improved box handles may be formed of such material as will best serve the purpose and can be manufactured at an economical cost.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A handle for a box comprising an elongated suspension bar, a handle bar in spaced parallel relation to the suspension bar, extension bars at opposite ends of said suspension bar and connecting the latter with the handle bar so as to provide a rectangularly shaped handle having an unobstructed hand receiving opening, transversely laterally extending ribs formed on said extension bars on opposite sides thereof and in spaced relation with respect to the suspension bar, said extension bars having box latch means formed therein cooperating with said ribs and said suspension bar to removably connect said handle to the box.

2. A handle comprising a suspension bar, a handle bar in spaced parallel relation with respect to the bar, extension bars integrally connecting the handle bar and the suspension bar so as to provide a rectangularly shaped handle having an unobstructed hand receiving opening, said extension bars having slots formed therein in the same general direction from corresponding edge portions of the extension bars for receiving therein a portion of a box so as to removably connect the handle thereto.

3. A handle comprising a suspension bar, a handle bar in spaced parallel relation with respect to the bar, extension bars integrally connecting the handle bar and the suspension bar so as to provide a rectangularly shaped handle providing an unobstructed hand receiving opening, transversely laterally extending ribs formed on said extension bars on opposite sides thereof and in spaced relation with respect to said suspension bar, said extension bars having slots formed therein in the same general direction from corresponding edge portions of the extension bars, and at the opposite ends of the extension bar extending beyond the point of connection of the suspension bar with said extension bars, said slots cooperating with said ribs and said suspension bar to removably connect said handle to a box.

4. A box of the class described including two sections telescopically arranged with respect to each other when in closed position, each of said box sections having top walls and each top wall being provided with an elongated slot with the slot of one wall in registration with the slot of the other wall, each of said slots at their opposite end portions having a pair of latching tabs with the latching tabs of each pair extending inwardly toward each other from the long edges of the slot, a handle bar threaded through said slots, said handle bar having a spaced parallelly extending suspension bar disposed beneath said slots and of a length to extend beyond the ends thereof, extension bars connecting said handle bar to said suspension bar so as to provide a rectangular shaped handle having an unobstructed hand receiving opening exposed beyond said top walls of said box sections, said extension bars adjacent their connection to said suspension bar provided with laterally extending latching ribs beneath which said latching tabs are positioned when said handle is threaded through said slots, said extension bars adjacent their connection to said suspension bar and beneath said latching ribs having slots formed therein extending in the same general direction so as to receive adjacent portions of the top wall of each of the box sections and to cooperate with said latching ribs and latching tabs so as to removably connect the handle to said box.

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