

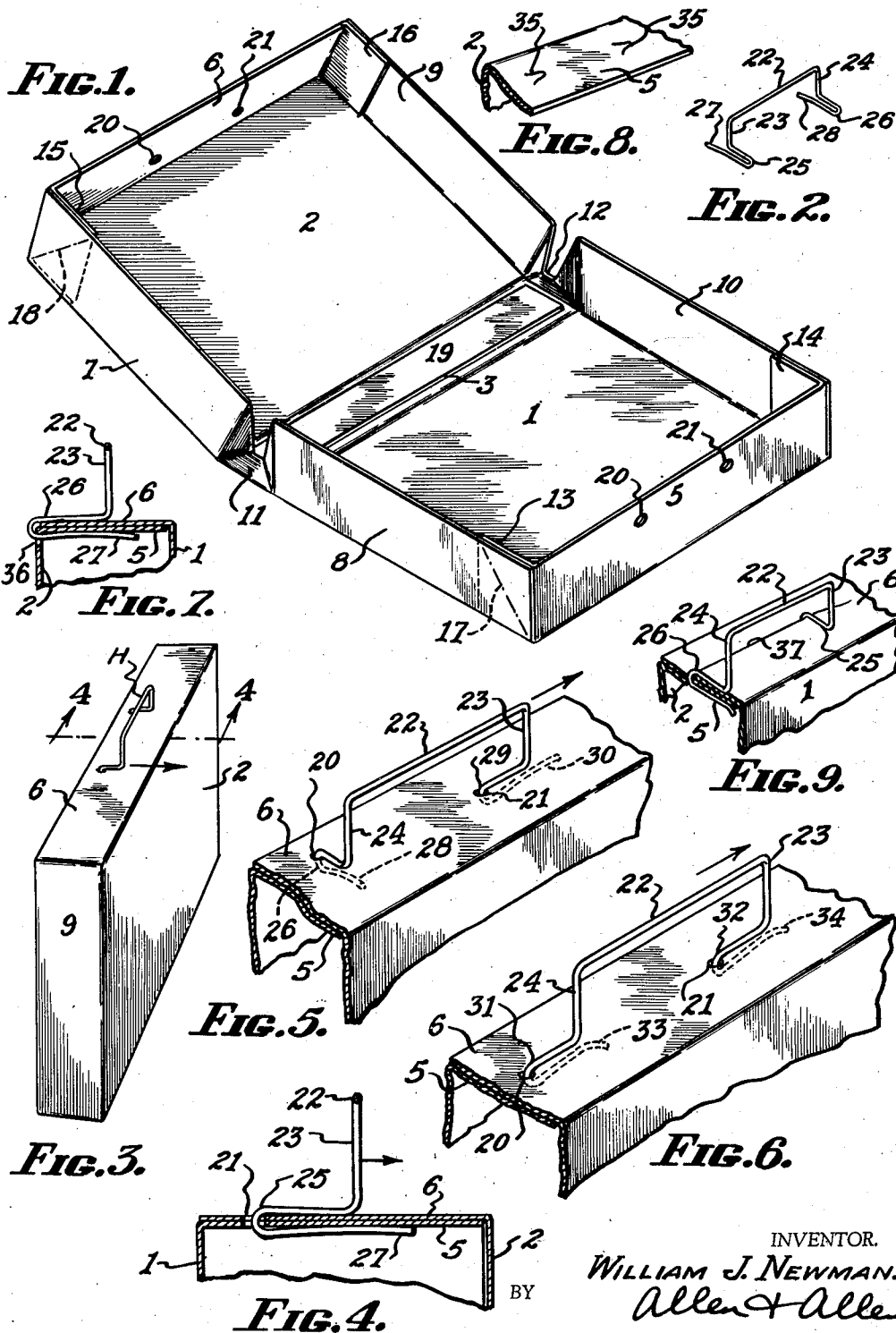
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CARRYING MEANS FOR CONTAINERS

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CARRYING MEANS FOR CONTAINERS

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1 Claim. (Cl. 229—52)

My invention relates to handle means for boxes or other containers, and I shall describe it in connection with suit boxes or similar boxes employed in the retail merchandising of articles of apparel. It has long been realized that it would be distinctly advantageous to purchasers of clothing in carrying their purchases in boxes if the boxes could cheaply and expeditiously be provided with handles. A number of suggestions have been made for the provision of handle structures; but these suggestions have not met with wide favor. It will be evident that a satisfactory handle structure should in the first instance be an inexpensive one; second, it should be readily attachable by the clerk in the store, but in such a way as not to interfere with the ordinary or normal operation of closing and securing the box. Third, the operation of attachment should not itself be complicated or require a large series of manipulations or the device will not consistently be employed. Fourth, it should be of such character that it can only be used in the proper manner and cannot be insecurely or improperly attached. Fifth, it should be of such character as not to interfere with the shipment of the boxes in the knocked-down condition nor, if it comes with the boxes, should it be of such character that it will interfere with the setting up, filling or closing of the boxes in the normal way. Sixth, the handle should provide not only a convenient and comfortable means for carrying the package, but it should also be secure, not liable to accidental dislodgement and not of such character as will damage materials within the box. Seventh, it should be a type of device which will not interfere with the ready opening of the package by the customer.

Fundamental objects of my invention comprise the provision of structures meeting the above mentioned requirements.

Wire handle members for boxes have hitherto been suggested, but so far as I know, there has not hitherto been provided a structure which may be attached to a box by a simple operation after the box has been filled and closed (and/or sealed if desired) in the usual way. Therefore, an object of my invention is the provision of a handle structure of inexpensive character which can be attached to a box by a simple and rapid movement after the box has been filled and closed in the usual way. Yet another object of my invention is the provision of a structure engageable with a box by manipulations carried on wholly on the outside of a filled and closed box; and the provision of a handle which requires no manipulation of flaps or walls in the different ways, such as the attachment of the handle to one wall and the passing of the bail of the handle through a slit or orifice in another wall. Yet, again it is an object of my invention to

provide a handle structure which will serve as a lock for the box as long as it is attached thereto, yet, is readily and instantly detachable without impairing the usefulness of the box.

These and other objects of my invention which will be set forth hereinafter or will be apparent to one skilled in the art upon reading these specifications, I accomplish by that certain construction and arrangement of parts of which I shall now describe exemplary embodiments. Reference is made to the drawings, wherein:

Figure 1 is a perspective view of an exemplary clothing box prepared to receive the handle structures of my invention.

Fig. 2 is a perspective view of one form of my handle.

Fig. 3 is a perspective view of a box with the handle attached.

Fig. 4 shows the engagement of the handle with the box and is a sectional view taken along the line 4—4 of Fig. 3.

Fig. 5 is a fragmentary perspective view showing the use of another form of my handle structure.

Fig. 6 is a fragmentary view showing yet another form of handle structure affixed to a box.

Fig. 7 is a sectional view showing another way of attaching the handle of Fig. 2.

Fig. 8 is a fragmentary perspective showing a substitute for perforations.

Fig. 9 is a fragmentary perspective showing still another mode of attaching a handle.

My invention is not limited to the use of any particular form of box and is applicable to both one and two piece boxes. The one piece box has an advantage in that, when it is closed it need not be tied with string or sealed with tape at opposite edges, but will remain closed so long as contiguous walls are held together at the free edge. My handle means is of particular advantage in connection with such a box since it provides the only necessary means for holding the box closed.

I have illustrated such a box in Fig. 1. It is formed of paperboard, cut and scored to form a bottom 1, a top 2 and an intervening and integral side section 3. The bottom has a wall 5 opposite the section 3 and the top has a similar wall 6 at its opposite edge. The end edge portions of the box comprises walls 7, 8, 9 and 10. Adjacent pairs of these walls are connected by folding portions 11 and 12, as shown, adjacent the end wall 3. The wall 5 is connected respectively with walls 8 and 10 by flaps 13 and 14. Similarly, wall 6 is connected with walls 7 and 9 by flaps 15 and 16. These flaps are glued to the walls over triangular areas only; and the walls are provided with diagonal scores 17, 18 which permit the box to be formed and shipped in knocked-down condition. In such knocked-down condition, walls 6 and 5 lie re-

spectively against walls 2 and 1, flaps 13 and 14 lying against wall 5 and flaps 15 and 16 lying against wall 6. Walls 7 to 10 are folded along the diagonal scores. When the box is set up as shown, the square conformation of the flaps maintains it in erected form. At wall 3, a reinforcing strip 19 may be affixed if desired.

The box as thus far described is a clothing box which has been manufactured and sold in large numbers and forms no limitation upon this invention. Where it is desired to use this type of box, its mode of manufacture, shipment, setting up and use is not varied excepting that I provide in walls 5 and 6 a pair of registering perforations 20 and 21. By registering I mean that when the box has been filled and closed so that wall 6 overlies wall 5, the respective perforations 20 and 21 will register. These perforations are so small as to interfere in no way with the use of the box but merely large enough to accept the diameter of the wire of which the handle is made.

By the term perforations, I do not intend to be restricted to punched holes, but to comprehend slits, zones of weakening, incomplete perforations and the like. In Fig. 8, for example, I have shown the flap 5 as having U or V-shaped lines of cut therein at 35. These cuts leave slight tabs, as shown, which are easily depressed by the handle members. The formation of these cuts by means of cutting rules is an operation which is entirely consonant with the operation of cutting and scoring blanks in the usual way; it does not require a punching die, nor is there any punching to be removed.

In some instances, especially where the board of the box is light in weight, it is possible to sharpen the projecting ends of the handle members hereinafter described so that they may be employed to form their own perforations. This, however, is not ordinarily to be preferred.

In Fig. 2, I have shown one form of handle which I may use, comprising a bail portion 22 and arms 23 and 24 at the ends of the bail. At the ends of the arms the wire is reversely bent to form engagement loops 25 and 26 and the free end of the wire is carried out beyond the bail at each loop as shown at 27 and 28.

The mode of attaching the handle is simple and positive. After the box has been filled and closed, wall 6 will overlie wall 5 with the holes 20 and 21 registering. The projecting portions 27 and 28 of the ends of the wire of my handle are now passed respectively through holes 20 and 21 in both walls. It is easier to do this while holding this handle with the bail and arms parallel with the juxtaposed walls. When this is accomplished, the bail portion is rotated to a position in which it lies substantially normal to the plane of the juxtaposed walls, and the entire handle is then pushed in the direction of the arrows in Figs. 3 and 4. This results in the relatively tight engagement of walls 6 and 5 by the loops 25 and 26. The ends of the loops now lie essentially in the perforations, and the handle is not liable to accidental dislodgement. Fig. 3 shows the handle, indicated generally at H attached to the box and in carrying position. Fig. 4 shows the manner of engagement of the loops with the walls.

A variant mode of use of the handle of Fig. 2, especially available for the smaller boxes, is shown in Fig. 7. Here, instead of forming registering perforations in walls 5 and 6, perforations 36 (of any of the types mentioned above) are made in the wall 1 adjacent the line of articulation with wall 5. The handle is then put in position as

shown, the loops engaging and frictionally retaining walls 5 and 6.

Yet another mode is shown in Fig. 9 where a slit 37 (or individual slits for each attachment loop of the handle) is formed in walls 5 and 6, and the handle engaged as shown. The displacement of portions of the walls serves additionally as a lock to keep the box closed.

The structure shown in Fig. 5 involves only a variation in the position of the perforations and a re-orientation of one of the engagement loops. Like numerals have been used to indicate like parts in the handle. The attachment loop 29, however, and the projecting end 30 of the wire has been orientated to lie in the plane of the bail and arms. In attaching this handle, the wire end 30 is first passed through both perforations 21 in the walls 5 and 6 and the whole handle is moved in the direction of the arrows in this figure to effect the engagement there illustrated. Next the free end of the wire 28 (which in this instance is bent slightly downwardly) is passed through the registering perforations 20 of the walls 5 and 6, then the handle is rotated counter clockwise to bring the attachment loop into the engagement shown. It will be noted that movements in two directions are required for the engagement of this handle, so that the handle is not subject to accidental dislodgement in use.

In Fig. 6 the attachment loops 31 and 32 are both orientated in the plane of the arms. The free wire ends 33 and 34 are bent downwardly in a curved formation, sufficiently so that these free ends may be passed through perforations 20 and 21. When this is accomplished the entire handle is moved in the direction of the arrows into the engagement shown.

All of these handles are attachable from the outside to a box which has been filled and completely closed in the normal manner. Each of them is attachable by simple movements. Each of them is not liable to accidental dislodgement but may be readily removed from the box without destroying or impairing the box in any way when it is desired to open the box.

Modifications may be made in my invention without departing from the spirit of it.

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

In combination a box which when closed has superposed walls, said walls having registering perforations therein and a handle member engageable with said closed box wholly by outside manipulation and having portions for entering said perforations and for engaging said juxtaposed walls, said handle being a wire member having a bail with arms and engagement loops having substantially parallel legs of substantial length formed at the ends of said arms, free wire ends on said loops extending beyond the point of juncture of said loops and arms and forming means which may be passed through said juxtaposed perforations as an initial engagement operation, one of said loops lying substantially in the plane of said bail and arms and the other of said loops lying substantially in a plane normal thereto, whereby said first mentioned loop may be attached to said walls by a movement of said handle substantially in the plane of said bail and arms and the other of said loops may be attached to said walls by movement of the handle in a substantially rotary direction.

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