This invention relates to a box which may be made of fibre board or the like, and in which one or more of the blanks which are used to make the box, are so cut and shaped as to provide for a handle by means of which the box may be carried.

Boxes wherein a blank, which is used in the making of a box, is provided with one or more apertures, or an apertured extension for forming a handle is not broadly new; however, the present invention contemplates a box employing a novel construction wherein a plurality of boxes can be handled and stacked one upon the other in the usual manner without interference of the handle construction on the box, but wherein, by a simple action, a suitable handle is provided which projects from the box so that it can be easily carried. In this regard, the invention aims to provide in the box blank, construction parts which serve to hold the handle providing portions down substantially flush with the side of the box, and in which these parts may be utilized for holding the handle providing portions in close proximity when used as a handle. Moreover, the invention contemplates the provision of this handle construction from blank material, wherein no more material is required in the making of the box than heretofore; in other words, no additional material is required over that used in a similar box provided with the handle construction.

In the accompanying drawings:

Fig. 1 is a plan view of a blank from which a box can be made.

Fig. 2 is a perspective view of a box in its completed form, illustrating the position of the parts when the same is to be stacked and handled.

Fig. 3 is a perspective illustration showing the handle in position ready to be used for the carrying of the box.

Fig. 4 is a sectional view taken along line 45—45 of Fig. 3.

Fig. 5 is a section taken on line 5—5 of Fig. 2.

The blank as shown herein is one for making what is known as a slotted end container. This blank is creased to form side walls 1 and 2, and end walls 3 and 4. As a matter of fact, all these walls are side walls, or may be termed such, but for convenience they may be termed end walls herein.

The blank is cut in from its edges to form bottom flaps on each of the walls before mentioned, as indicated by identical reference characters, but with the characters identified by the letter a. The blank is cut in from the other edge to form top flaps which, as shown in Fig. 1, bear the same reference characters identified by the letter b. A box of this character is well known in the art, and in shaping a box therefrom, the blank is folded on its crease lines with the end edges of the wall 1 and wall 2 secured together, as by means of glued tape, or overlapping the edges and gluing them together, or by stitches. The bottom of the box is then formed by folding the bottom blanks 1a to 4a inclusive in overlapped position, where they may be held by glue, stitches, or the like. The top or cover of the box is completed by overlapping the flaps 1b to 4b inclusive in similar manner.

However, in the present case, some of the top flaps are provided with additional flaps or extensions for the formation of a handle. The flap 1b has an extension 11 designed to form one portion of the handle, while the flap 2b has a similar extension 12 for forming a portion of the handle. Preferably, the blank is creased so that the extensions 11 and 12 are connected to their respective flaps on a hinge line. What may be termed ears or holding flaps 13 and 14 join onto the extension 12, the blank being creased preferably between the extension and the ears, while on the end of each ear is preferably an enlarged head portion, or tab 15 and 16. The extensions 11 and 12 have each an opening 17 and 18, which are similar in shape and which register in order to effect a hand hole, and these openings have a depression in a corner as at 20, for the reception of the enlarged holding tabs 15 and 16.

When this blank is folded up into a box, the flaps 1b to 4b inclusive are folded as above mentioned, to form the bottom. Flaps 1e and 2e are folded downwardly, as illustrated in Fig. 4, and then flaps 1d and 2d.
are folded over the same to effect the cover. The extensions 11 and 12 meet each other face to face with the openings 17 and 18 in registry. In order that the box may be handled and stacked either in storage or transportation, one of the extensions is folded back upon itself, as for example, the extension 11, with the extension 12 lying over the same, and with the extension 12 and its adjoining flap 25 lying substantially in one plane. This is illustrated in Fig. 2. Thus, the top of the case presents a substantially even flat surface so that another case may be stacked upon it. The securing ear 14 and its connected tab 16 are now tucked under the flap 16 at one end thereof, while the flap 13 and its tab 15 are tucked under the other end. This holds the top portions of the box down in flat position.

When it is desired to handle the box individually, as for example, when the box with its contents is sold in retail trade, the extensions 11 and 12 are positioned substantially to the vertical, as illustrated in Fig. 3, the flaps 13 and 14 being withdrawn from under the flap 16. Thus, the extensions 11 and 12, with their apertures in registry, form a handle by means of which the box may be carried. In order to hold the handle parts together, and for otherwise supporting the top structure of the box, the ears 13 and 14 are bent around the extension 11, and then the enlarged heads or tabs 15 and 16 are inserted through the said aligned apertures, with a slight twisting action of the material, and engaged in the recesses or notches 20, with the enlarged head portions engaging with the opposite face of extension 12 to retain the tabs in this position. In Fig. 3, one of the tabs is shown in its final position, while the other is shown in an intermediate position.

Accordingly, it will be noted that the top of this box remains in flat position so that it can be handled, stacked, etc., in the usual manner without interference by the handle flaps, and yet the flaps can be easily moved to handle providing position. Moreover, the flaps which serve to hold the top in flat position, also serve for securing the handle parts together and thus lend strength to the construction while the box is being carried by the handle. This is especially desirable where the contents of a box is relatively heavy, as for example, bottled or canned goods. Moreover, the holding flaps are provided without involving the use of extra material, inasmuch as the material beyond the flaps 36 and 46 which would otherwise be wasted.

It will be noted that the blank is cut so as to provide for a connection of relatively small dimension between the ears and tabs, into which the material bounding the hand hole fits when the handle is completely set up. This aids in keeping the ears and tabs in the hand hole to retain the handle in operating position.

Claims:
1. In a box of fibre board or the like, a blank having flaps adapted to be folded to form the cover of the box, an extension on a flap adapted to be folded from said cover and having an aperture therein to form a handle for the box, and an ear associated with said handle extension and adapted to engage said extension with a cover flap to hold said extension substantially flush with said cover, whereby said handle extension does not interfere with the stacking of a plurality of said boxes.
2. In a box of fibre board or the like, a blank having flaps adapted to be folded to form the cover of the box, an extension on two of the flaps, said extensions meeting each other face to face and each having an aperture therein which register to form a hand hole, and ears associated with the extensions and adapted to hold said extensions in folded position on said cover by interengaging a cover flap and an extension whereby said extensions do not interfere with the stacking of a plurality of said boxes.
3. In a box of fibre board or the like, a blank having a pair of flaps adapted to be folded to form the cover of the box, said flaps meeting substantially on a center line of the cover, extensions on the said flaps which meet face to face to form a handle, said extensions having registered apertures to form a hand hole, and ears on one of said extensions adapted to be engaged under a cover flap to hold said extensions substantially flush with the cover of the box.
4. In a box of fibre board or the like, a blank having a pair of flaps adapted to be folded to form the cover of the box, said flaps meeting substantially on a center line of the cover, extensions on the said flaps which meet face to face to form a handle, said extensions having registered apertures to form a hand hole, and ears on one of said extensions adapted to be engaged under a cover flap to hold said extensions substantially flush with the cover of the box, said ears being foldable as regards the extension to which they are connected so as to be foldable around the said two extensions to aid in holding the extensions together when they are positioned substantially perpendicular as regards the cover to form a handle.
5. In a box of fibre board or the like, a blank having a pair of flaps adapted to be folded to form the cover of the box, said flaps meeting substantially on a center line of the cover, extensions on the said flaps which meet face to face to form a handle, said extensions having registered apertures to form a hand hole, ears on one of said extensions adapted to be engaged under a cover flap to hold said exten-
sions substantially flush with the cover of the box, said ears being connected with the ends of said extension and being foldable around the adjacent extension to aid in holding the two extensions together when the same are positioned substantially perpendicular to the cover to form a handle.

6. In a box of fibre board or the like, a blank having a pair of flaps adapted to be folded to form the cover of the box, said flaps meeting substantially on a center line of the cover, extensions on the said flaps which meet face to face to form a handle, said extensions having registered apertures to form a hand hole, ears on one of said extensions adapted to be engaged under a cover flap to hold said extensions substantially flush with the cover of the box, said ears being connected with the ends of said extension and being foldable around the adjacent extension to aid in holding the two extensions together when the same are positioned substantially perpendicular of the cover to form a handle, and said ears having tab portions adapted to be inserted through the said aligned apertures.

7. In a box of fibre board or the like, a blank having a pair of flaps adapted to be folded to form the cover of the box, said flaps meeting substantially on a center line of the cover, extensions on the said flaps which meet face to face to form a handle, said extensions having registered apertures to form a hand hole, ears on one of said extensions adapted to be engaged under a cover flap to hold said extensions substantially flush with the cover of the box, said ears being connected with the ends of said extension and being foldable around the other extension to aid in holding the two extensions together when the same are positioned substantially perpendicular of the cover to form a handle, and enlarged tabs on said ears for insertion through the said aligned apertures.

In testimony whereof I affix my signature.

HOWARD G. ALLEN.