

Oct. 13, 1959

G. W. WIEDENMEIER

2,908,437

PACKAGING BOX

Filed Sept. 17, 1956

2 Sheets-Sheet 1

Fig. 1.

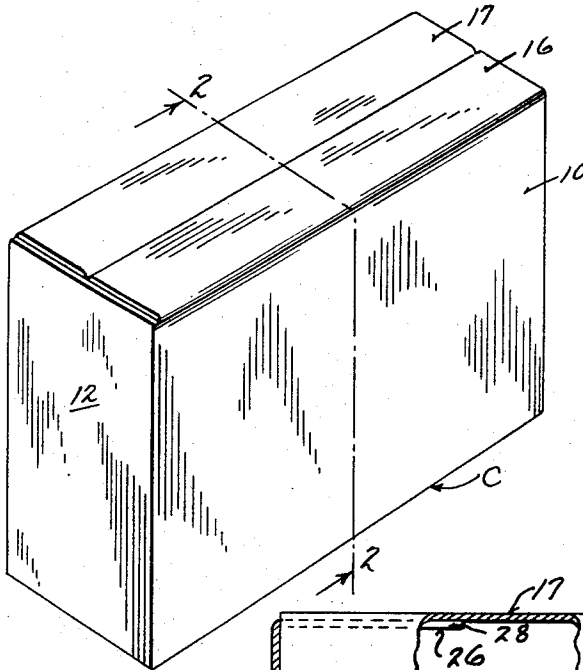


Fig. 2.

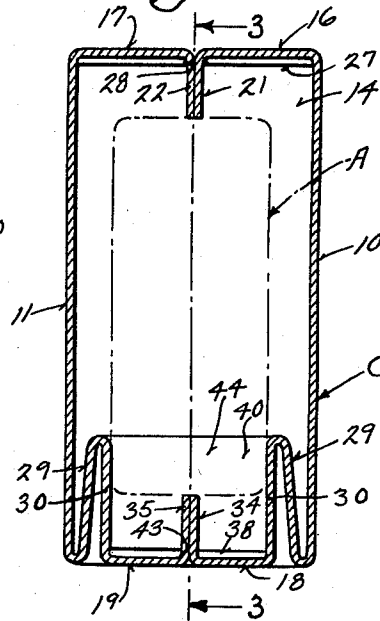
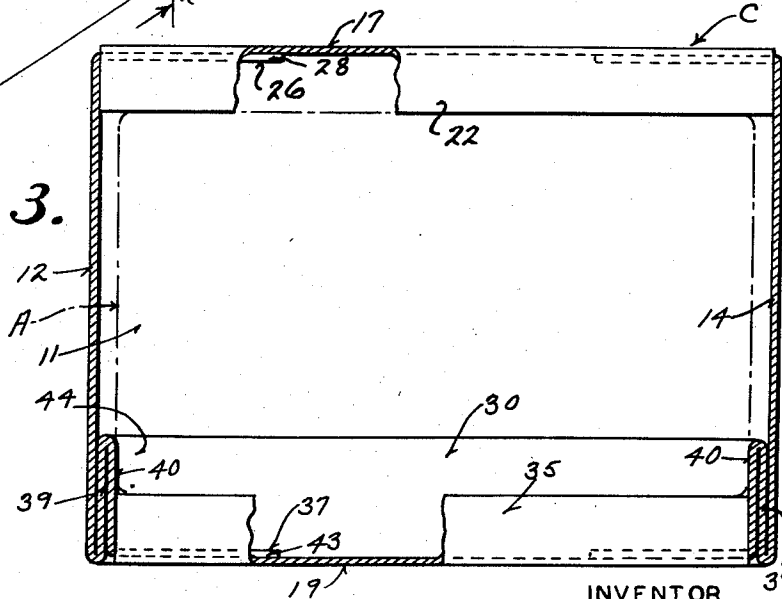


Fig. 3.



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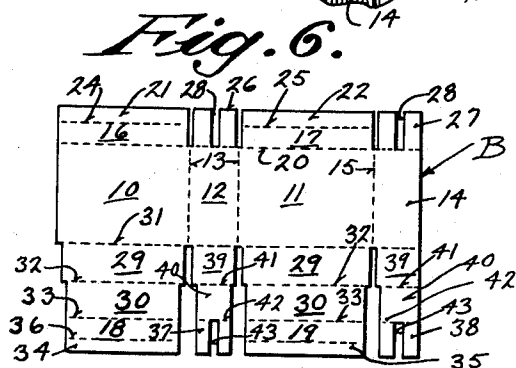
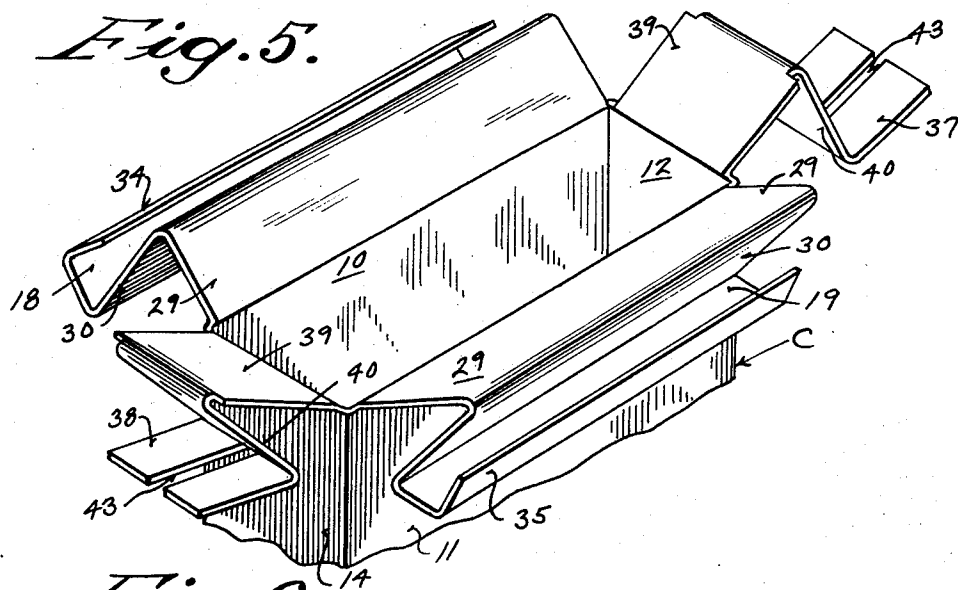
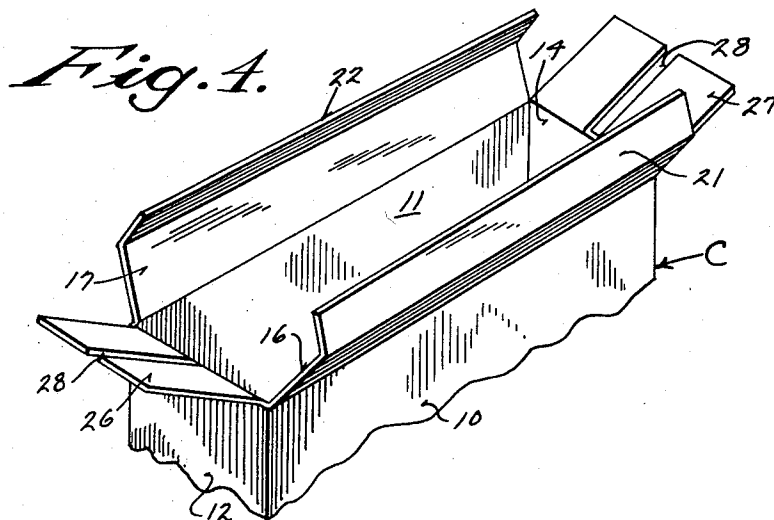
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2 Sheets-Sheet 2



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PACKAGING BOX

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Application September 17, 1956, Serial No. 610,063

2 Claims. (Cl. 229—39)

This invention appertains to containers or boxes for the shipping of fragile articles, such as portable radios and the like.

One of the primary objects of the invention is to provide a shipping container having novel means incorporated therewith and as an integral part thereof for effectively supporting an article therein against shock and spaced from the wall thereof, so that the article will be protected from external blows without the use of insertable supporting cushion blocks, shock absorbing spacing members and the like.

Another salient object of the invention is the provision of novel means for folding end and side flaps to form an effective cushioning pocket for receiving and holding the article being shipped.

A further important object of the invention is the provision of flanges formed on the side wall flaps held in correct position by the walls of slots formed in the end flaps, adapted to extend into the container and longitudinally thereof for firmly seating against the top and bottom of the article in the container to grip the article and form a cushioning seat therefor and to space the article from the top and bottom walls of the container.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described and claimed and illustrated in the accompanying drawings, in which drawings,

Figure 1 is a perspective view of the container in its set up closed position;

Figure 2 is a transverse sectional view through the container taken on the line 2—2 of Figure 1, looking in the direction of the arrows, the article being supported in the container being shown in dotted lines;

Figure 3 is a longitudinal sectional view through the container taken on the line 3—3 of Figure 2, looking in the direction of the arrows, the article being supported being also shown in dotted lines;

Figure 4 is a fragmentary perspective view of the upper end of the container prior to the closing of the side and end wall flaps;

Figure 5 is a fragmentary perspective view of the container showing the same in an inverted position and with the side and end wall flaps prior to the folding and closing thereof, and

Figure 6 is a plan view of the cut and scored blank utilized in the making of the container, Figure 6 being taken on a much smaller scale than Figures 1 to 5, inclusive.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter C generally indicates the improved shipping container and B the cut and scored blank from which the same can be formed.

The carton C includes spaced parallel side walls 10 and 11 connected by an integral end wall 12. The blank B is scored along spaced parallel lines 13 to define the

2

side walls 10 and 11 and the end wall 12. The side wall 11 has formed on one transverse edge thereof an end wall 14 and the blank is scored along the line 15 to define this end wall. In the folding of the blank on the lines 13 and 15, the outer edge of the end wall 14 and the outer edge of the side wall 10 are firmly united by an adhesive strip (not shown). The longitudinal edges of the side walls 10 and 11 have formed thereon integral top wall flaps 16 and 17 and bottom side flaps 18 and 19. The top side flaps 16 and 17 are defined by a longitudinally extending score line 20 which extends the entire length of the blank B. Formed on the longitudinal edges of the top side wall flaps 16 and 17 are inwardly bendable, longitudinally extending flanges 21 and 22. These flanges 21 and 22 are defined by longitudinally extending score lines 24 and 25 and these score lines extend the entire length of their respective side flaps 16 and 17. Formed on the upper edges of the end walls 12 and 14 are top end wall flaps 26 and 27 and these flaps are defined by the longitudinal score line 20, which as stated, extends the entire length of the blank. The flaps 26 and 27 have cut out therefrom slots 28 which define guide and holding means for the flanges 21 and 22, as will later appear. The flaps 18 and 19 are joined with the side walls 10 and 11 by inwardly folding cushioning flaps 29 and 30. The cushioning flaps 29 are foldable on the side walls 10 and 11 by providing a longitudinally extending score line 31, which extends the entire length of the blank B. The cushioning flaps 29 and 30 are foldable on themselves on score lines 32. The flaps 18 and 19 themselves are foldable on the cushioning flaps 30 by the use of longitudinally extending score lines 33. The outer edges of the flaps 18 and 19 have formed thereon inwardly folding flanges 34 and 35 and these flanges are defined by longitudinally extending score lines 36 which extend the entire length of the flaps 18 and 19.

Bottom end wall flaps 37 and 38 are also provided and these bottom end wall flaps are connected to the end walls 12 and 14 by foldable cushioning flaps 39 and 40. The flaps 39 are bendable on the score line 31, which as stated, extends the full length of the blank B. The cushioning flaps 39 and 40 are defined by score lines 41. The end wall flaps 37 and 38 are foldable on and are defined by score lines 42. The end wall flaps themselves are provided with central slots 43 which define guides and centering means for the flanges 34 and 35, as will later appear.

Upon the setting up of the body portion of the box by folding the side walls 10 and 11 on the end wall 12 and by folding the end wall 14 on the side wall 11 and the connecting of the end wall 14 with the side wall 10, the bottom of the box is then folded on its various score lines, as will now be set forth. The cushioning flaps 29 and 30 are bent on the score lines 32 and are then folded inwardly of the box along side of the side walls 10 and 11 forming substantially inverted V-shaped cushioning members. The end cushioning flaps 39 and 40 are folded on end score lines 41 and are brought into the box in close relation to the end walls 12 and 14 to define substantially inverted V-shaped cushioning members. The end flaps 37 and 38 are folded on the cushioning flaps 40 so as to lie substantially in a horizontal plane. The flaps 18 and 19 are now brought toward one another and their flanges 34 and 35 are swung into parallel and abutting relation and are pushed through the slots 43. Thus, these abutting flanges 34 and 35 extend into the body of the box and are held in such position by the walls of the slots 43. As heretofore stated, the cushioning flaps 29 and 30 extend longitudinally of the body of the box and the cushioning flaps 39 and 40 extend transversely of the box and these flaps define an interior cushioning pocket 44

for receiving the article A indicated in dotted lines in Figures 2 and 3. The abutting flanges 35 and 34 extend into this pocket, as best shown in Figures 2 and 3 and support the article A above the bottom wall construction. The cushioning side flanges 29 and 30 space the article from the side walls 10 and 11 and the cushioning end flanges 39 and 40 space the article from the end walls 12 and 14.

With the article in place in the box and in the pocket 44, the top of the box can now be folded and this is accomplished by bending the end flaps 26 and 27 inwardly until the same reach a horizontal plane, after which the side flaps 16 and 17 are folded toward one another with the flanges 21 and 22 in parallel and abutting relation. These flanges are inserted through the slots 28 and into the body of the box and into intimate and tight contact with the top of the article A. These flanges 21 and 22 effectively space the article from the top wall construction of the box.

Thus the article is effectively supported and cushioned and spaced from the walls of the box.

If desired, the top wall construction of the box can be the same as the bottom wall construction of the box and in this instance a cushioning and receiving pocket is not only formed at the bottom of the box but also at the top of the box.

Other changes in details may be made without departing from the spirit or the scope of the invention, but what I claim as new is:

1. A closure construction for cartons for shipping fragile articles of the type including side and end walls, said closure construction including foldable end flaps and V-shaped cushioning flaps connecting the end walls with the end flaps, the cushioning flaps being disposed in the interior of the carton with the end flaps disposed in a horizontal plane, said end flaps being provided with central guide and holding slots; side flaps, V-shaped cushioning flaps connecting the side flaps with the side walls and said cushioning flaps being disposed in the interior of the carton, and locking flanges formed on the outer edges of the side flaps arranged in abutting parallel relation with each other when the side flaps are swung over the

end flaps, said locking flanges being insertable through the slots of the end flaps into the carton and terminating below said V-shaped cushioning flaps to engage an article placed in the carton, said V-shaped cushioning end and side flaps defining an interior pocket for the article placed in the carton and said V-shaped cushioning end and side flaps spacing said article from the end and side walls of the carton.

2. A container for shipping fragile articles comprising side and end walls, bottom end wall sealing flaps, foldable V-shaped cushioning flaps connecting the end flaps with the end walls, said cushioning flaps being foldable against the inner surfaces of the end walls, said end flaps having central slots, bottom side wall flaps, V-shaped cushioning flaps joining the side flaps with the side walls and insertable in the container alongside of the side walls, flanges formed on the side flaps movable into abutting engagement upon the swinging of the side flaps toward one another, said flanges being insertable through the slots of the bottom end flaps into the container and terminating below said V-shaped cushioning flaps, said end and side cushioning flaps defining an interior pocket for the reception of the article being shipped; top end wall flaps having centrally disposed slots, top side wall sealing flaps movable over the top end flaps, and holding flanges formed on the top side flaps movable into abutting engagement upon the swinging of the top side wall flaps over the top end wall flaps with the flanges insertable through the slots of the top end wall flaps.

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