

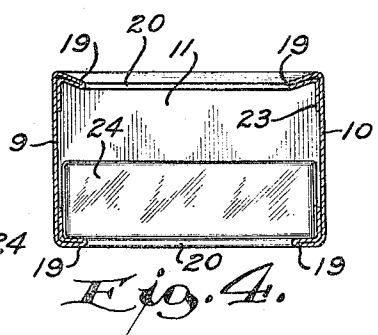
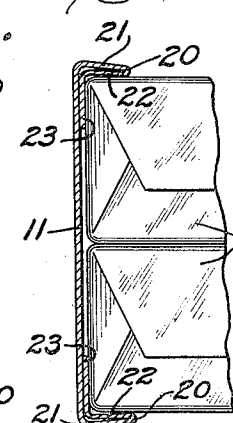
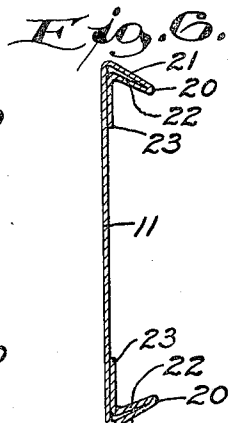
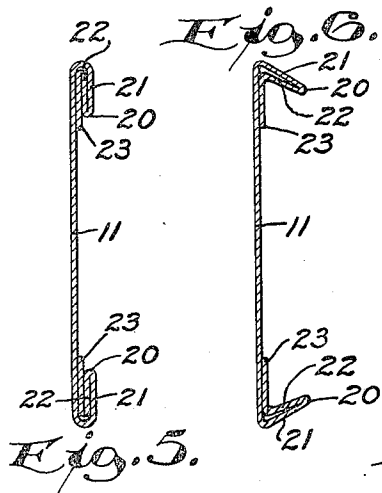
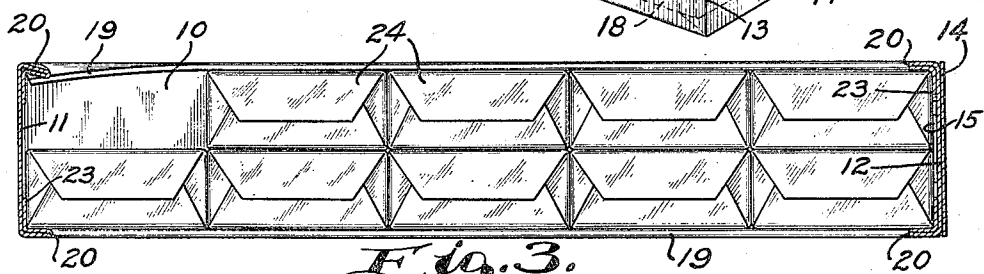
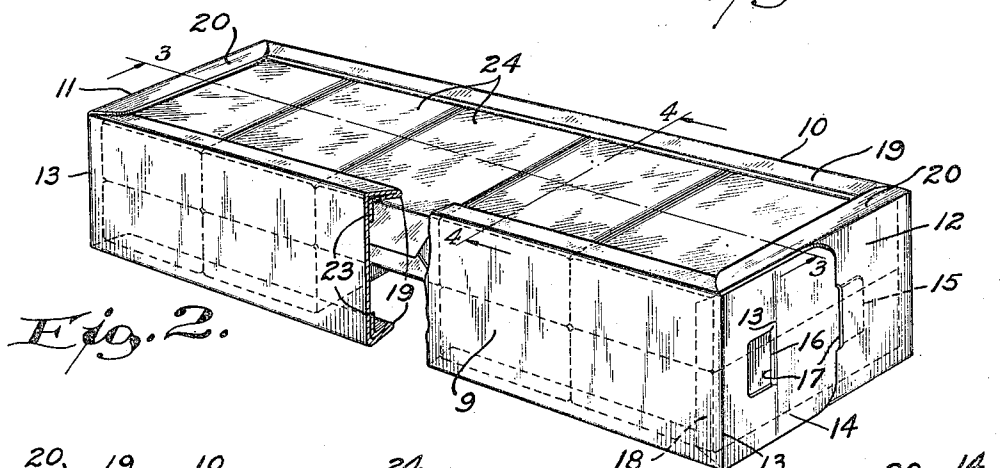
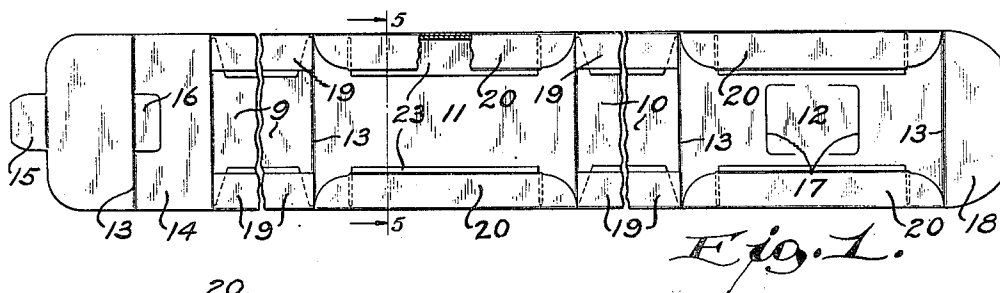
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S. LIGHTER

2,395,558

CARTON

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UNITED STATES PATENT OFFICE

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CARTON

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2 Claims. (Cl. 206—44)

The present invention relates in general to improvements in the art of packing diverse commodities for storage, transportation and merchandising, and relates more specifically to an improved carton for facilitating confinement of a group of individual articles or independent packages.

An object of the invention is to provide an improved article confining and display carton, which is simple in construction and efficient in use.

Many different types of cartons for simultaneously confining and displaying a group of nested independent articles such as soap bars or individual packages of diverse commodities, have heretofore been proposed and used with varying degrees of success; and it has been customary to utilize window openings covered with transparent sheet material in numerous prior display cartons in order to enable the purchasing public to see the confined articles when the cartons were stationed for display purposes. In most of these previous display cartons the structures were materially weakened by the provision of the window cut-outs, and the use of the window coverings entailed considerable added expense due to the labor and materials involved. In the previous cartons wherein the windows were not provided, the display feature was either omitted, or the enclosed articles could be displayed only by opening or removing a part of the carton structure. In all prior types of display cartons, excess stock was either utilized or stock was wasted in forming the boxes, and most of them lacked the desirable strength and rigidity, due to weakening of the structures in order to introduce the display characteristics therein.

It is therefore a more specific object of my present invention to provide a new and useful box or carton assemblage for simultaneously effectively confining and displaying a group of nested smaller articles or packages, and which is durable in construction and can be produced with minimum stock.

Another specific object of the present invention is to provide an improved package for a nested group of smaller articles, boxes or packs, wherein the smaller units are not only most effectively confined and protected, but are constantly visible for display purposes.

A further specific object of my invention is to produce an effective article confining and displaying carton in a simple manner from a ribbon of cardboard stock or the like and with minimum waste of material.

Still another specific object of the invention is to provide an improved carton structure which can be manufactured at moderate cost, which may be collapsed and compactly stacked for storage and shipment, and which is adapted to be quickly and conveniently assembled and loaded.

An additional specific object of this invention is to provide an improved article housing and display box which is attractive in appearance and obviates necessity of applying thereto content identifying printed matter by constantly subjecting portions of the confined articles to view, and which is moreover exceptionally strong and sufficiently durable to withstand rough handling.

These and other objects and advantages of the improvement will be apparent from the following detailed description.

A clear conception of an embodiment of the invention, and of the mode of utilizing my improved article confining and display cartons, may be had by referring to the drawing accompanying and forming a part of this specification wherein like reference characters designate the same or similar parts in the various views.

Fig. 1 is a fragmentary plan view of a flattened and dismantled carton embodying my invention, portions of the elongated opposite side walls having been broken away so as to shorten the structure;

Fig. 2 is a perspective view of a package utilizing one of the improved cartons, one of the side walls having been broken away to reveal the cross-section thereof and one of the adjacent confined articles having been omitted;

Fig. 3 is a longitudinal section through the package of Fig. 2, taken along the vertical plane of the line 3—3;

Fig. 4 is a transverse section through the package of Fig. 2, taken along the vertical plane of the line 4—4;

Fig. 5 is an enlarged transverse section through the carton blank of Fig. 1 taken along the line 5—5 and showing the edge flanges collapsed;

Fig. 6 is a similarly enlarged transverse section through one of the carton walls showing the edge flanges naturally distended; and

Fig. 7 is another likewise enlarged transverse section through the same wall showing the edge flanges clampingly engaging adjacent confined articles or packs.

While the invention has been illustrated and described herein as being embodied in a relatively long and narrow carton formed of a single sheet of cardboard and adapted to confine a nested group of small packs of a particular shape,

it is not my desire or intent to thereby unnecessarily restrict the scope or utility of the improvement which is advantageously applicable to cartons of various sizes and shapes.

Referring to Fig. 1 of the drawing, my improved carton blanks may be continuously produced from an advancing sheet or ribbon of cardboard stock, and each of the successive carton blanks severed from the advancing ribbon comprises a single unitary blank having two elongated side walls 9, 10 and a pair of shorter end walls 11, 12 aligned with and hingedly connected to the adjacent side walls along transverse score lines 13. The free end of the side wall 9 is provided with an integral transversely scored flap 14 having tongues 15, 16 formed thereon, and the end wall 12 which is farthest from the side wall 9 is provided with slits 17 with which the tongues 15, 16 of the flap 14 are adapted to interlock in order to retain the carton in assembled condition. The free end of the end wall 12 may also be provided with a shorter tongue 18 as shown, and each of the side walls 9, 10 has inwardly directed integral resilient flanges 19 extending along the opposite edges thereof while each end wall 11, 12 is provided with similar inwardly directed integral resilient flanges 20 along its opposite edges.

The formation of the resilient flanges 19, 20 is important, and each of these flanges comprises an outer portion 21 foldably connected to the free edge of the adjacent wall, an inner narrower flange portion 22 foldably connected to the swinging edge of the adjacent flange portion 21, and an attaching portion 23 foldably connected to the inner edge of the inner flange portion 22 and being adhesively attached to the inner surface of the adjacent carton side wall, see Figs. 5, 6 and 7. The inner edge of the flange portion 22 is disposed a slight distance away from the corresponding inner edge of the adjacent portion 21, thereby constantly biasing the flange assemblage toward the inner surface of the adjacent wall, as shown in Fig. 6. The flange portions 21, 22, 23 are all formed from the same sheet of stock from which the remainder of the carton is formed, and in order to cause the flanges 19, 20 to be permanently inwardly biased toward the interior of the carton so as to clampingly engage a group of nested articles 24 housed within the carton, these retaining flanges 19, 20 are preferably formed with the portions 21, 22, 23 thereof in superimposed and compressed relationship as illustrated in Figs. 1 and 5. When the flanges 19, 20 are so formed and the adhesive which connects the portions 23 with the adjacent walls 9, 10, 11, 12 has dried, the flanges 19, 20 will naturally assume positions such as shown in Fig. 6 during initial assembly of each carton, and will resiliently clamp the intervening packs or articles 24 when the carton is finally loaded. As shown in the drawing, each article 24 consists of an independent package such as a cigarette pack of rectangular prismatic shape, but these articles 24 may be bars of soap or other commodity, or they may be other types of packs, preferably of regular and uniform prismatic shape so that they can be closely and neatly nested.

When the carton blanks have been constructed as above described and are still in collapsed condition as shown in Fig. 1, then they may be stacked and snugly confined in groups for convenient storage and shipment, and when it is desired to load the cartons it is only necessary to assemble the blanks in the manner shown in

Figs. 2, 3 and 4. When a carton has been thus assembled by causing the tongues 15, 16 to interlock with the slits 17, the assembled carton may be readily loaded with a group of nested articles 24 and the flanges 19, 20 will then resiliently engage the adjacent surfaces of the articles 24 and will maintain the same snugly confined. The openings at the top and bottom of each carton and between the flanges 19, 20 thereof provide enlarged windows through which the confined articles are constantly visible, and the relatively thick and resilient flanges besides defining the margins of these window openings, also materially re-enforce the adjacent side walls 9, 10 and end walls 11, 12 and thus provide a durable carton assemblage. In large cartons, the flanges 19, 20 are relatively narrow as compared to the open top and bottom of each carton, thus saving considerable stock by virtue of the fact that no top and bottom enclosure is necessary.

From the foregoing detailed description it will be apparent that my present invention provides an improved carton structure which is simple and durable in construction and which is moreover highly effective in actual use. The improved cartons can be readily and quickly manufactured from a continuous ribbon of stock and at minimum cost, and when assembled, the cartons not only protectively confine the articles 24, but simultaneously display these articles for merchandising purposes. The resilient article retaining flanges besides re-enforcing the carton structure, also hold the articles firmly in position due to the inward biasing thereof, and this biased disposition of the flanges is automatically obtained by constructing the flanges in the manner described. The improved cartons can obviously be made of any size and shape and may be compactly stacked for storage and shipment, and assembly of the individual cartons can be quickly effected by a novice. The final packages produced with the improved cartons are extremely neat and attractive in appearance, and by virtue of the fact that the confined goods are constantly open to view, it is unnecessary to provide the cartons with printed matter for the purpose of identifying the contents thereof. The articles 24 are moreover readily removable from the cartons without removing covers of other parts of the assemblage, and the improvement has proven highly successful in actual use.

It should be understood that it is not desired to limit this invention to the exact details of construction or to the precise mode of use, herein shown and described, for various modifications within the scope of the claims may occur to persons skilled in the art.

I claim:

1. A carton comprising, a series of hingedly connected walls forming a collapsible article embracing band, each of said walls having integral continuous article engaging flanges extending along its opposite edges and inwardly with respect to the adjacent article engaging wall surface, each of said flanges consisting of an outer strip directly hingedly connected to the adjacent wall edge, and an inner slightly narrower strip normally disposed at an acute angle relative to said wall and having one edge connected to the swinging portion of said outer strip and its opposite edge secured to said wall surface inwardly of the hinge which connects the outer strip to the wall, whereby said flanges are biased to swing toward each other and toward said wall surface and may be collapsed thereagainst.

2. A carton comprising, a series of hingedly connected walls forming a collapsible article embracing band, each of said walls having integral continuous article engaging flanges extending along its opposite edges and inwardly with respect to the adjacent article engaging wall surface, each of said flanges consisting of an outer strip swingably and directly connected to the adjacent wall edge, an inner slightly narrower strip normally disposed at an acute angle relative to said

5 wall and having one edge connected to the swinging portion of said outer strip and extending toward said wall surface, whereby said flanges are biased to swing toward each other and toward said wall surface and may be collapsed thereagainst, and a flange retaining strip securing the opposite edge of said inner strip to said wall surface inwardly of the swinging connection between said outer strip and said wall edge.

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