July 1, 1930. W. J. LAUBENHEIMER 1,769,183

DISPLAY CARTON

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Fig. 1.

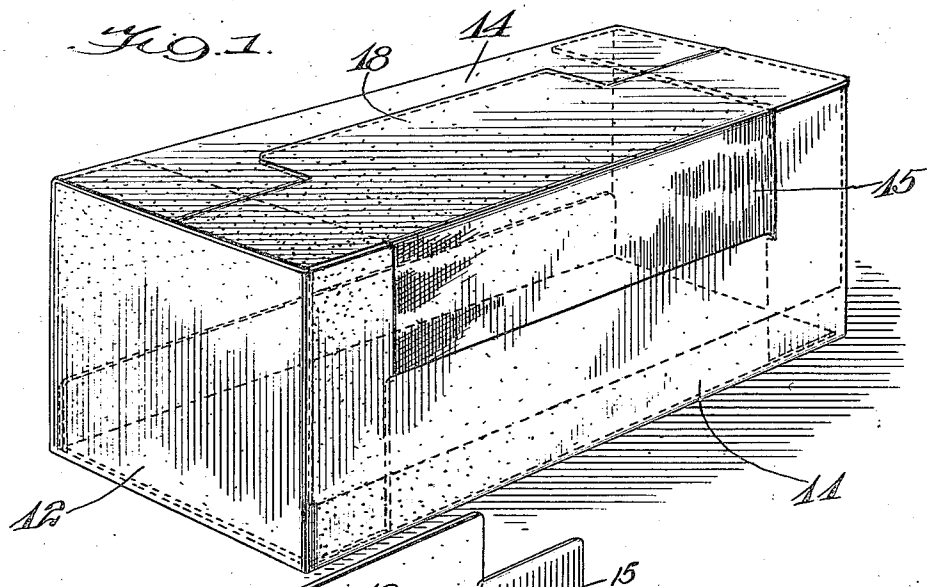
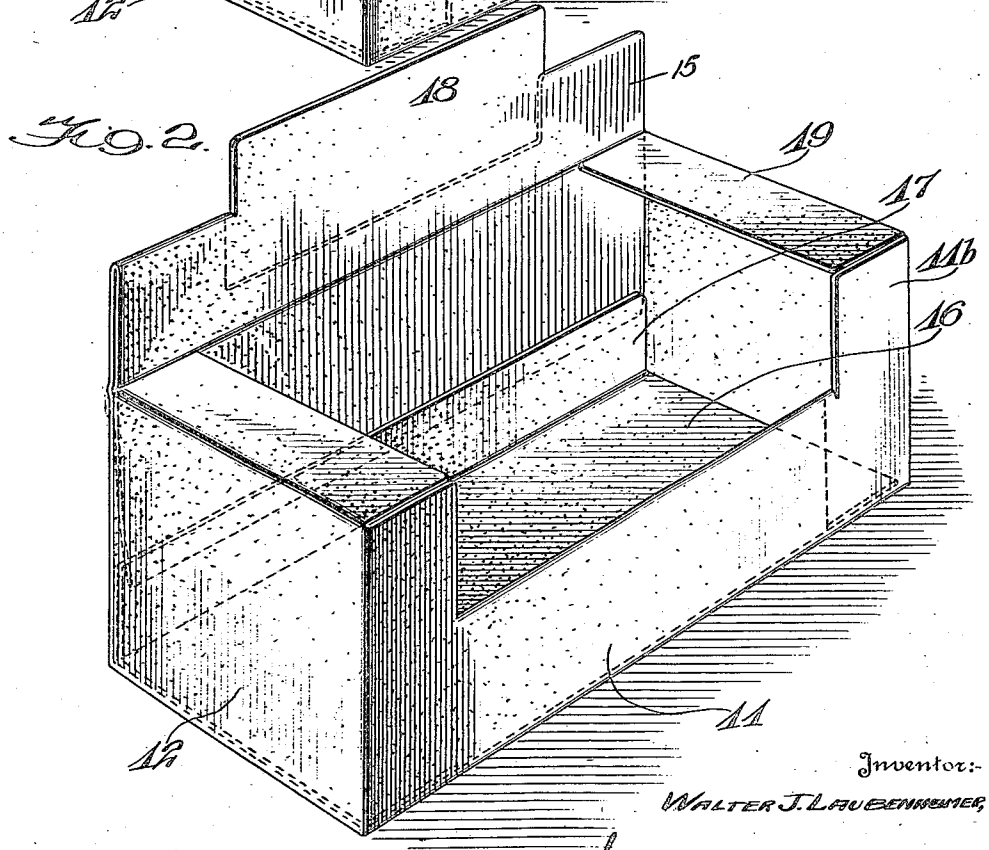


Fig. 2.



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Fig. 5.

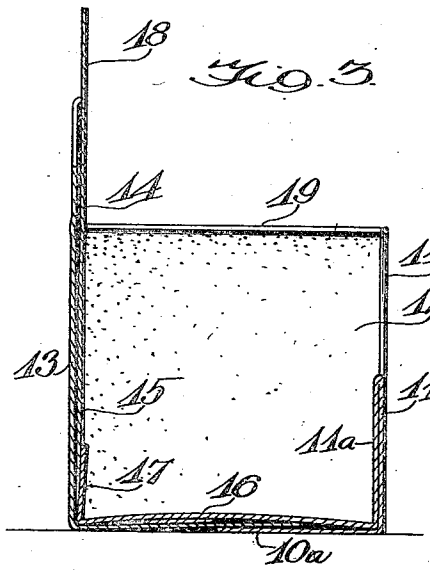


Fig. 4.

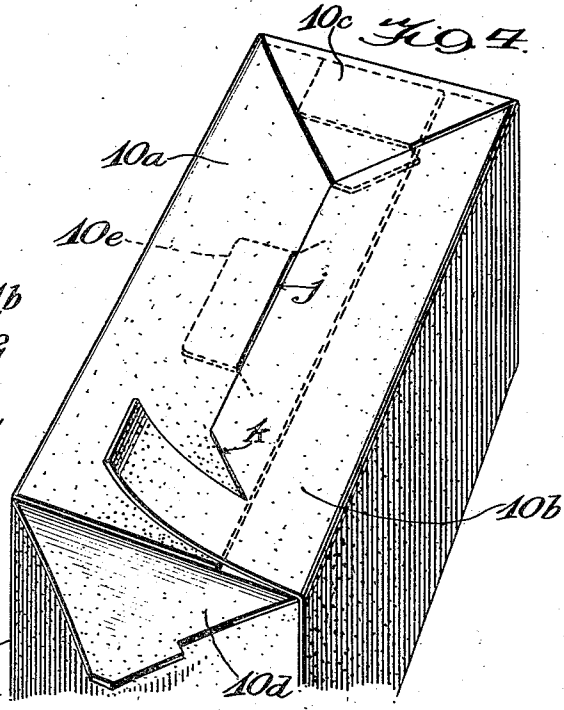
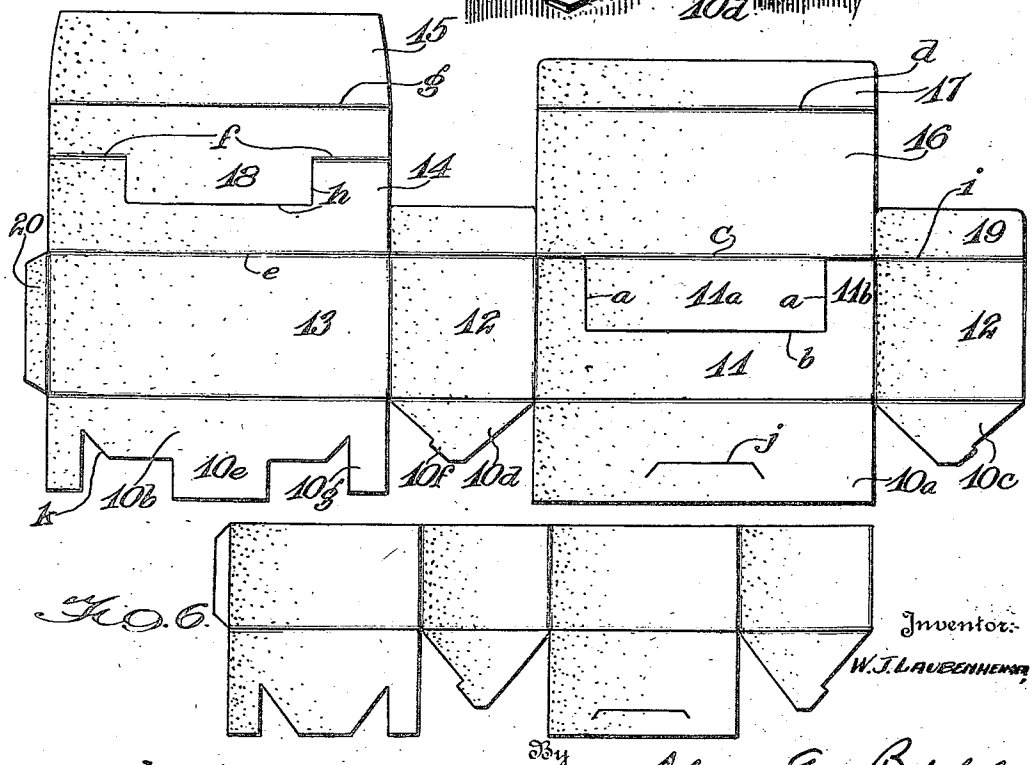


Fig. 6.



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UNITED STATES PATENT OFFICE

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DISPLAY CARTON

Application filed September 18, 1926. Serial No. 136,278.

My invention relates to display cartons for counter use in stores or shops, and more particularly to such cartons as are also designed to serve as the regular containers of the goods, and my main object is to provide a carton of this kind which is built to stand the weight of the goods therein and keep its shape at all times.

A further object of my invention is to provide a display carton of the type referred to in which the bottom is slightly concave, lending the carton stability when placed on a counter or other flat surface.

A still further object of the invention is to design the novel display carton in one piece, from a blank which is peculiarly folded and locked.

A final, but nevertheless important object of the invention is to design the same on simple lines, that it may be handled with facility and manufactured at low cost.

With the above objects in view, and any others which may suggest themselves from the specification and claims to follow, a better understanding of the invention may be gained by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the novel display carton as closed, to function as a container for the goods;

Figure 2 is a similar view, the carton being open and in the form of a display stand;

Figure 3 is a cross-section of the carton when in the form shown in Figure 2;

Figure 4 is a perspective view of the lower portion of the carton inverted, with the bottom in process of being joined;

Figure 5 is a plan view of the blank from which the carton is formed; and

Figure 6 is a view similar to Figure 5, showing a modification.

Referring specifically to the drawings, the novel carton is preferably of rectangular form and has its base formed of complementary sections 10^a, 10^b, 10^c and 10^d. The front wall is shown at 11, the sides at 12, the back at 13, the lid at 14 and the skirt of the latter at 15.

Near the ends, the front wall is slitted partway down, as indicated at —*a*— to define the reduced upper portion 11^a, which is then folded down on the inside along the crease —*b*—. The stock is of sufficient length to permit the extension of the section 11^a—after it reaches the bottom—in rearward direction from a crease —*c*— to form an inner bottom 16. On reaching the back 13, the latter is creased at —*d*— to form a terminal upstanding wing 17.

Aside from its pivotal crease —*e*—, the lid has a two-part medial crease —*f*— and the crease —*g*— defining the skirt 15. The sections of the crease —*f*— start from the side edges and lead inwardly only to a U-shaped slit —*h*— defining a tab 18 within the area of the lid. When the article is in the form of a closed container—as indicated in Figure 1—the lid is in the usual position, and its skirt 15 is next inside the front wall 11, completing the latter in lieu of the cut-out or opening left by the previously folded-down section 11^a of the front wall. However, when the article is opened as a display stand, that portion of the lid which is below the two-part crease —*f*— is directed upwardly, while the balance of the lid—with the skirt 15 is extended—is swung forward, with the crease —*e*— as a pivot, to fold flatly upon the lower portion of the lid and the back 13, being at the same time tucked inside the terminal wing 17 of the inner bottom 16. This action places the tab 18 uppermost, lending it a crest effect.

The sides 12 are extended from top crease lines —*i*— with wings 19, which are folded inwardly to match the end portions 11^b of the front wall, to lend a show-case effect.

Passing to the bottom, it will be observed, that the section 10^a is medially cut with a longitudinal slit —*j*— whose ends are extended laterally a short distance. When forming the bottom, the section 10^a thereof is uppermost. The section 10^b is then folded under the section 10^a, and locked to the latter by inserting a projecting tongue 10^e into the slit —*j*— as indicated in Figure 4. This locking arrangement, due to the stiffness and weight of the box stock, permits the sections 10^a and 10^b to break slightly from pressure in an inward direction, but to remain firm when pressure is exerted thereon outwardly. In other

words, since the bottom 10^a, 10^b is concaved at the site of 10^e, *j* as aforesaid, and 10^e lies against the inner surface of 10^a, the weight of the goods in the box on tab 10^e causes it to be frictionally held against pulling out of slot *j*. Near its ends, the bottom section 10^b is cut on bias lines —*k*— to afford receptacles for tongues 10^f forming extensions of the terminal sections 10^c and 10^d when these sections are folded under the bottom as so far assembled. The sections 10^c and 10^d also fold upon terminal tabs 10^g formed from the section 10^b adjacent to the biased edges —*k*—.

In a display carton of elongated form, the tongue 10^e is necessarily a specially reduced part, as making the same of greater width would necessitate a larger slit —*j*— and may unduly weaken the bottom section 10^a. However, where the carton is shortened to an extent where the bottom is more nearly square, the section 10^b being already narrower may be used in part as the tongue, without reducing it further in width. Strength, which is a feature of a compact bottom, is thus retained. Fig. 6 shows a blank for a short carton.

With the formation of the novel display carton understood, it will be well to point out its advantageous features. Thus, by folding double the semi-open front with the portion 11^a, and extending the latter to form the inner bottom 16 and the back lining wing 17, the goods-supporting and retaining portions of the carton are reinforced, and the inside thereof given a finished appearance. The doubling of the back in forward direction has the same objects, so that the carton as a display stand is strong, firm and presents a smooth appearance which is noticeable after part or all of the goods have been sold, as contrasted with rough tabs, locking tongues or edges so frequently apparent in display cartons of prevalent types after goods have been removed from them. The smooth outer and inner surfaces of my carton may of course be enhanced by bearing reading matter and illustrations advertising the goods, so that the removal of the latter will not lessen the attracting value of the display, and the carton will speak for the goods even when all have been sold.

Relative to the peculiar formation of the bottom, it will be seen, as previously suggested, that when the sections 10^a and 10^b are interlocked, they will resist outward stress by closing more firmly, and therefore lending a safe support to the goods. The bottom can only unlock when pressure is exerted on it from the outside. The nature of the joint between the bottom sections gives the bottom a concave tendency, which enables it to seat with its marginal edges and corners squarely upon the counter or other flat surface on which the display carton is set. The latter thus rests evenly on its base and does not rock or roll as is the tendency of cartons whose formation subjects the base to warping or distorting stresses. In my carton, such stresses are counteracted by the binding effect of the interlocked bottom sections which draws on these with an inward tendency, thereby also retaining the walls of the container in place. The inner reinforcing and lining elements add to the strength of the container for the support of the goods, at the same time presenting a smooth interior surface.

The terminal tabs 10^g serve to reinforce the bottom sections 10^a at the ends, with the aid of the terminal sections 10^c and 10^d thereunder. The biased edges of the section 10^b are cut as forward in the direction of their engagement with the tongues 10^f as practicable so as to well overlap them and prevent their accidental disengagement.

In the design of the blank for the carton, a glued or permanent fastening is only required for its lateral formation, a tab 20 extending from the free end of the back 13 being provided for this purpose. When this tab is glued and tucked in the corresponding side 12, the joint is invisible from the front or sides of the carton, and the latter is therefore neat-appearing from all points of the patron's view, since no other joined edges, tongues, tabs or other mechanical features are visible or present to mar the effect of the display.

A display carton is thus had which is in one piece, of simple design, inexpensive construction and attractive value At the same time it eliminates the need of a shipping or storing container for the goods, as it serves threefold, namely, as the regular container for shipment or storage, as a combined container and display stand, and purely as a display poster for the advertisement of the goods. The preferred forms of the novel display carton have been shown and described, but many modifications and designs may be developed therefrom without departing from the principle of the invention; and I desire to include all such modifications and designs as coming within the scope and spirit of the appended claims.

I claim:—

1. In a folded blank container having a closure carried by one wall and adapted to be folded upon itself to provide an upstanding display portion, said closure when folded having a depending portion adapted to extend below the top edge of such wall, the wall of the container opposite said aforementioned wall having a U-shaped incision intermediate its ends extending from the top edge thereof in the direction of the bottom of the container, the section enclosed by said incision being bent downwardly against said front wall portions to reinforce the same, and a bottom ply carried by the end of said down-

wardly bent portions and having an upstanding tab at the opposite side of the container, said tab lying against the first mentioned wall of said container and there being adapted to engage the depending portion of said closure to hold overlying portion of the closure contiguous and such depending portions in flat contact with the first mentioned wall of the container.

2. The combination set forth in claim 1, and inturned flaps carried by the other opposed walls of said container and having their edges adjacent said first mentioned wall and adapted to engage the depending portion of said closure.

3. A folded blank display carton or container having bottom, front, rear and end walls, a closure carried by the rear wall and including a display portion, said display portion being adapted to be bent upon the inner surface of the adjacent closure portion and its carrying wall to disclose the contents of the container, an inner bottom portion carried by the front wall of the container and having an upturned edge lying against the rear wall and adapted to impinge against the depending display portion of said closure whereby to hold same contiguous with said rear wall, a main bottom disposed outwardly of said inner bottom and comprising a pair of opposed sections carried by the side walls, said sections being foldable upon one another in overlapping relationship, the outer section having a medial tab and the inner section having a medial incision to receive such tab, the outer of said bottom wall sections having extensions of a length equal to the length of said outer section tab and projecting considerably beyond the midway point between the front and rear walls, said outer bottom wall section also having cutouts opening from its free edge at each end adjacent said extensions, said cutouts having a biased wall, and flaps carried by the end walls of the container and overlying the ends of said bottom sections, said flaps having one wall cut on a bias corresponding to the bias of the aforementioned wall of said cutouts, a tab projecting from the bias wall of said end wall flaps for protection between the two bottom wall sections whereby to lock the same in place and complete the bottom structure, said outer bottom section extensions reinforcing said bottom at the end thereof.

4. In a folded blank container, an inner bottom portion carried by the upper part of the front wall, an outer bottom portion comprising sections carried by the front and rear walls at the bottom edges thereof, said sections being foldable upon one another in overlapping relationship, the outer section having a medial tab and the inner section having a medial incision to receive such tab, the outer of said bottom wall sections having extensions of a length equal to the length of said outer section tab and projecting considerably beyond the midway point between the front and rear walls, said outer bottom wall section also having cutouts opening from its free edge at each end adjacent said extensions, said cutouts having a biased wall, and flaps carried by the end walls of the container and overlying the ends of said bottom sections, said flaps having one wall cut on a bias corresponding to the bias of the aforementioned wall of said cutouts, a tab projecting from the bias wall of said end wall flaps for protection between the two bottom wall sections whereby to lock the same in place and complete the bottom structure, said outer bottom section extensions reinforcing said bottom at the end thereof.

In testimony whereof I affix my signature.

WALTER J. LAUBENHEIMER.