

June 10, 1930.

C. O. TODD

1,762,900

DISPLAY BOX

Filed June 9, 1927

FIG.-1

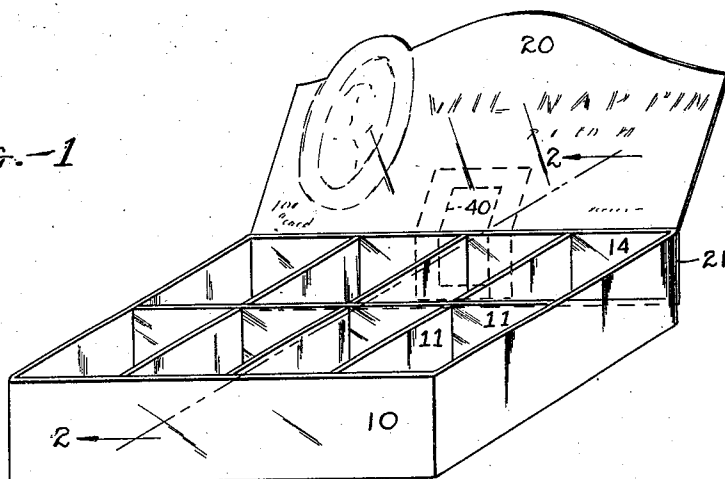


FIG.- 2

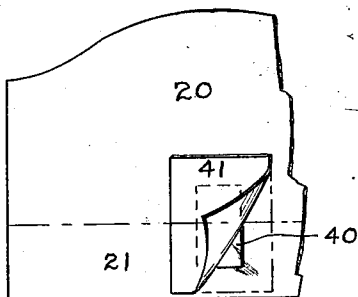
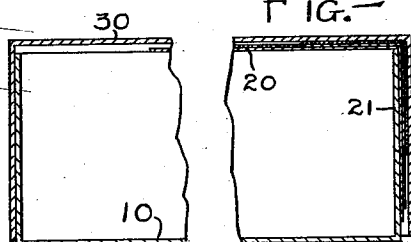


FIG.- 4

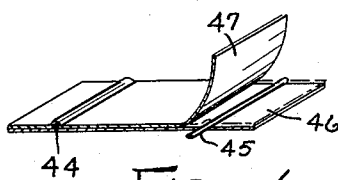


FIG.- 6

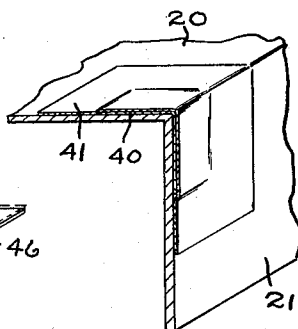
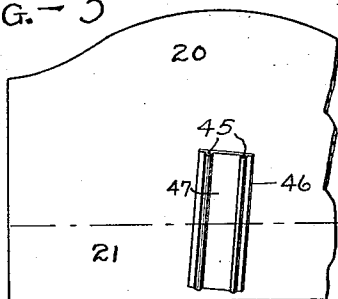


FIG.- 3

FIG.- 5



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DISPLAY BOX

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This invention relates to display boxes adapted to exhibit goods on a counter or in a showcase, and more especially pasteboard or wooden boxes such as for instance as are used for notions, druggists articles, cigars, etc. It is very desirable to provide such a box with an explanatory flap or hinged lid rising from the rear end thereof but foldable onto the top of the box when not in use. When such panels have been heretofore employed, there has been difficulty in making them stand substantially upright.

The object of this invention is to provide such a box with a very simple permanent attachment, which while not interfering with the folding of the flap or lid will hold it in open position for display whenever desired. I am aware that various removable fixtures have been devised for holding open the lids of cigar boxes, but such devices are comparatively cumbersome and require removal whenever the box is to be closed, and moreover are too expensive or impractical to enable their use on a pasteboard box.

To the above end, I have provided a stiffening device in the form of a thin metallic member of pliable character which is secured to the flap across the hinge axis thereof and close to such axis. Such metallic member is adapted to be bent an indefinite number of times in the same region without breaking. It has sufficient stiffness to hold the flap in its upwardly extending position against displacement by air currents or slight forces, but does not interfere with the flap being folded down whenever desired, nor does it have a spring action tending to return it.

I have found I can accomplish the desired result by gluing or otherwise securing to the flap or lid a suitable retainer holding the pliant metallic member in position across the hinge.

In carrying out my invention it is desirable that the metal stiffener in crossing the hinge axis lie close to it, so that the stiffener will not buckle when the hinged panel bends back and forth. In the case of a wooden box—a cigar box for instance—the hinge axis is usually at the intersection of the underside of the lid with the outer surface at the

rear wall of the box. In such case it is desirable to place my stiffener on the front or underside of the lid and on the top and inner face of the rear wall of the box. Pasteboard boxes are frequently made of thin enough material so that the hinge axis is close to either face and accordingly the stiffener can be placed either on the front or the rear of the flap. In this case it is desirable to place it on the rear so that it is hidden from view when the box is open.

My invention is very useful for instance with pasteboard display boxes having removable covers and display flaps secured to the rear wall of the box and foldable onto the top thereof. One of the objects of the invention is to provide the holding device in such form that it will in nowise interfere with placing the cover on the box in the usual manner.

The invention is hereinafter more fully described in connection with the drawings, which illustrate two embodiments of it, and the essential novel features are summarized in the claims.

In the drawings, Fig. 1 is a perspective view of a display box provided with one form of my flap-supporting device; Fig. 2 is a vertical transverse section of such box, with the display flap folded and the box cover in place; Fig. 3 is a vertical transverse section on a larger scale through the folded flap and hinge stiffening member; Fig. 4 is a fragmentary rear elevation of the flap extended, showing this form of stiffener with the paper retainer partly turned back; Fig. 5 is a similar view of the display flap with a modified form of stiffening device; Fig. 6 is an enlarged cross sectional perspective of this form of the stiffening device.

As shown in Figs. 1 and 2, 10 designates the box, shown as having vertical partitions 11 dividing it into compartments, 20 designates the display flap which has a lower portion 21 glued to the rear wall 14 of the box. This flap is adapted to be folded down on top of the box about a hinge axis along the line of the top of the rear wall 14. The flap may be suitably scored along such line to enable easier folding.

30 designates the box cover which has side walls adapted to embrace the walls of the box with the usual snugness in the case of the front and ends, while at the rear there is sufficient clearance to allow for the anchorage of the flap as well as for the stiffening device, about to be described, though such clearance is exaggerated in Fig. 2.

My retaining device, as explained, comprises a metallic member of special character secured to the flap across its hinge axis. Such member is shown in Figs. 1 to 4 as comprising a thin rectangular plate 40 secured in place by a larger sheet of paper 41 extending behind the plate 40 and glued to the plate and beyond it to the flap. I have found by experience that I can accomplish the result by using a very pliable piece of brass, copper or other soft metal or alloy of a thickness of about one hundredth of an inch.

In place of the metallic plate, I found good results can be accomplished by securing a plurality of pliable wires to the flap across the hinge. In this case, the wires are preferably previously placed between two paper sheets glued together and then such device is glued to the flap. This is illustrated in Figs. 5 and 6, wherein the two wires are designated 45 and the two sheets embracing them, 46 and 47.

It will be noticed that whichever form of retainer is provided, it is not necessary that it be located with precision so long as it crosses the hinge axis. This is illustrated in Fig. 5, wherein the stiffener is shown to be slightly skewed with reference to the vertical. This enables the device to be applied to the flap with the minimum of labor. It is applied in an unbent form while the flap is flat and thereafter the bending of the flap bends the metal in a corresponding line.

It will be seen that my stiffening device is not visible from the front when the flap is extended. It serves the very desirable purpose of holding this flap in its upright and display position, without interfering with the flap being folded down whenever desired and the box cover applied as usual.

I claim:

1. The combination of a pasteboard box, a paper flap glued to the rear wall of the box and scored along the line of the top of the rear wall of the box and thereby foldable onto the top of the box, a cover, the walls of which are adapted to embrace said box with its flap folded, a pliable thin metallic member in approximately vertical position across the hinge axis of the flap, and paper covering the metallic member and extending laterally beyond it and glued to the rear face of the flap both above and below the hinge axis thereof.

2. The combination of a box, a flap hingedly connected to the rear wall of the box and extending upwardly and adapted to fold down on top of the box along the hinge axis,

a thin pliable metallic member held across the hinge axis and in contact throughout its length with the surface of the flap by means of a retainer extending laterally beyond the member and secured to the rear face of the flap beyond opposite edges of the member.

3. As a new article of manufacture, a box having walls and a flap so connected to one of the walls that it may fold on an axis adjacent the top of such wall into a horizontal position on top of the box or an inclined position upwardly and outwardly from such wall, and a stiffening device secured to the foldable portion of the flap above and substantially down to the hinge axis and held rigid with the box wall below and substantially up to the hinge axis, whereby the stiffening device will not bow away from the flap when the latter extends backwardly at an obtuse angle to the box wall.

4. A box comprising walls and a flap so secured to one of the walls that it may fold on an axis adjacent the top of such wall into a horizontal position on top of the box or an inclined position upwardly and backwardly from such wall and a thin pliable metallic member held across the hinge axis in a substantially upright direction and held in contact with the foldable portion of the flap and substantially down to the hinge axis, and rigid with the wall substantially up to the axis, such retention being by means of a retainer extending laterally beyond the metallic member.

5. A pasteboard box comprising a bottom and walls, and a pasteboard flap glued to the rear wall of the box proper and scored adjacent the top of such wall, whereby the lower portion of the flap is rigid with the wall and the upper portion foldable to lie on top of the box or extend at an inclined position upwardly and backwardly therefrom, and a thin pliable metallic member held across the hinge axis and secured to the foldable portion of the flap just above the hinge axis and rigid with the wall below and up to the hinge axis, whereby the metallic member will not bow away from the flap when the latter extends backwardly at an obtuse angle to the box wall.

In testimony whereof, I hereunto affix my signature.

CHARLES O. TODD.