Aug. 9, 1938. W. R. GRAHAM 2,126,461

DISPLAY BOX

Filed June 18, 1936 2 Sheets-Sheet 1

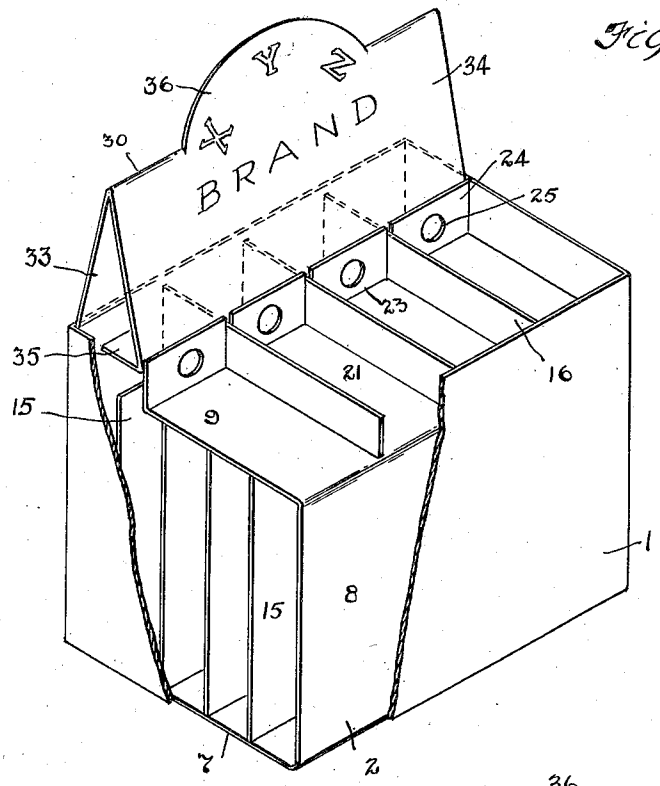


Fig. 1

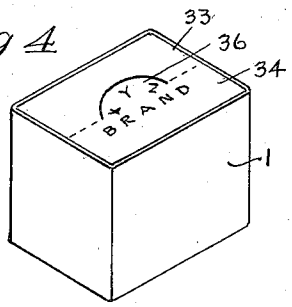


Fig. 4

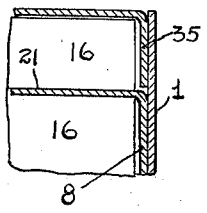


Fig. 5

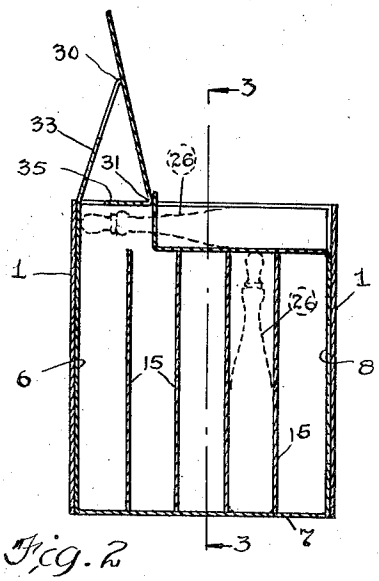


Fig. 2

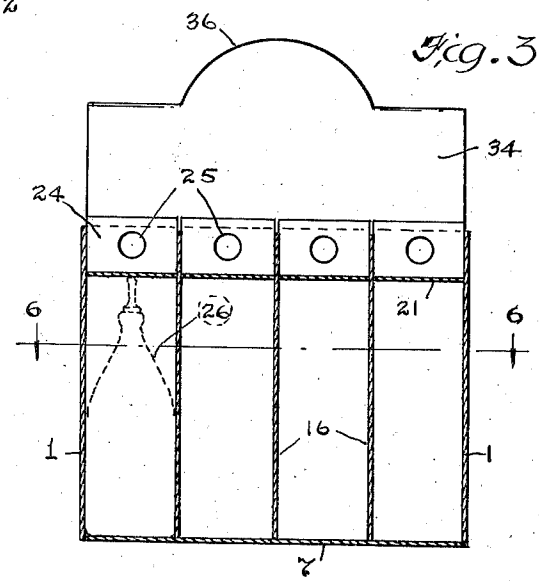


Fig. 3

INVENTOR.
William R. Graham.
BY Fay, Oberlin & Fay
ATTORNEYS.

Aug. 9, 1938. W. R. GRAHAM 2,126,461

DISPLAY BOX

Filed June 18, 1936 2 Sheets-Sheet 2

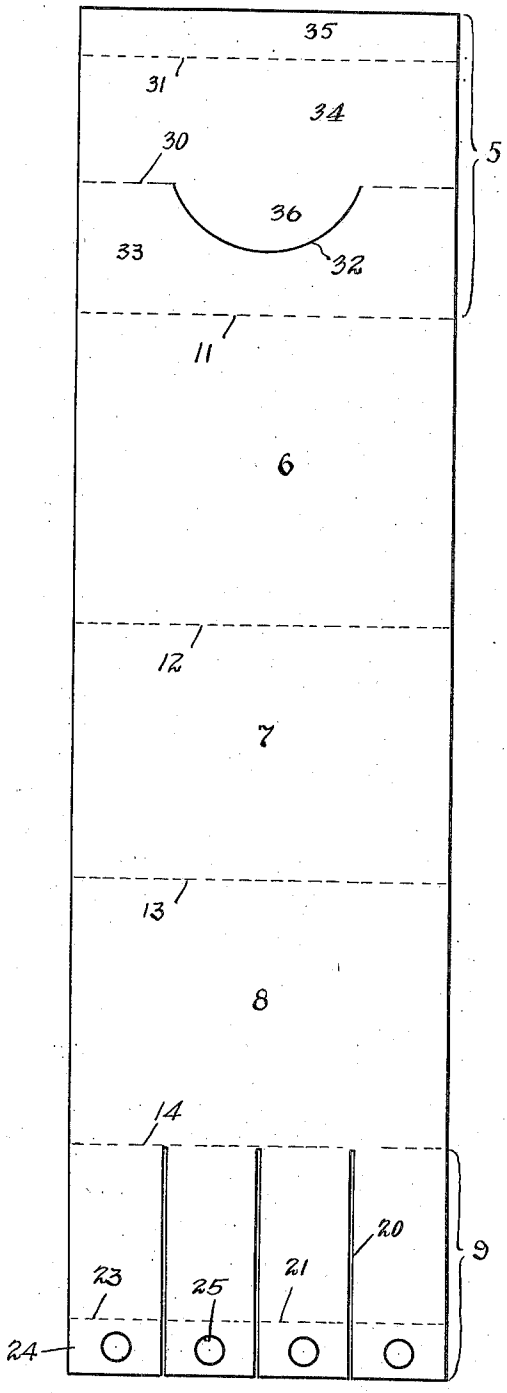


Fig. 9.

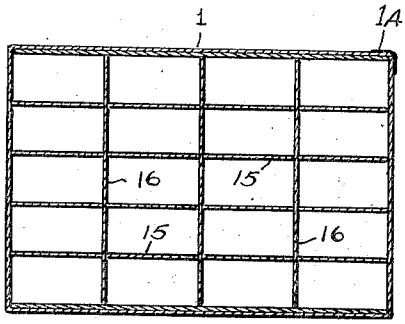


Fig 6

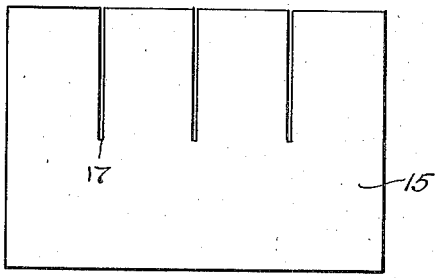


Fig. 7.

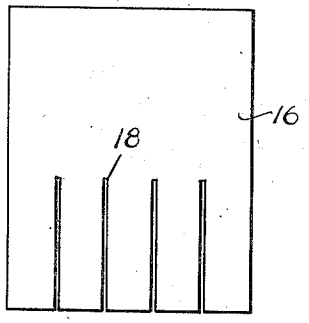


Fig. 8.

INVENTOR.
William R. Graham
BY Fay, Oberlin & Fay
ATTORNEYS

Patented Aug. 9, 1938 2,126,461

UNITED STATES PATENT OFFICE

2,126,461

DISPLAY BOX

William R. Graham, New York, N. Y., assignor to The Hinde and Dauch Paper Company, Sandusky, Ohio, a corporation of Ohio

Application June 18, 1936, Serial No. 85,873

6 Claims. (Cl. 206—44)

The invention herein relates to the manufacture of boxes for the combined purposes of shipment and display and is particularly adapted for manufacture in fiber board, either corrugated or otherwise.

The exposed surface material of the box may be ornamental having thereon, if desired, display matter and decorations appropriate to the character of the merchandise. Corrugated board is the preferred, but not essential, material of construction.

The box is of a general type known in the trade as the Lambert or slide, wherein a four-sided outer covering open at both ends receives a sliding interior element which actually carries the merchandise, the two ends which are missing in the outer jacket being present as parts of the inner slide.

Herein, one of the ends of the slide, which will hereafter be referred to as the lid (since that is the office it fills in the illustrative embodiment shown herewith), is so arranged in relation to certain of the interior features of the box that it occupies an upstanding position when the box is used as a counter display, and at the same time coacts with the said interior features assisting in the functions of those features, as described hereafter.

In general the functions to which my invention is directed are to present a part of the contents in attractive position to the view of customers, to prevent merchandise so displayed from being easily or surreptitiously removed, and to provide for the exposure of advertising matter immediately adjacent the displayed merchandise. The foregoing are of course in addition to the obvious use of the box as a container.

The aims of my invention, then, are to produce a box which is equally useful for shipping or display, which can be changed from a shipping box to a display box with a minimum of work and without any removal or re-arrangement of the contents, which permits the exposure to view of only selected elements of the contents while the other items are kept covered and away from dust, light, etc., which permits the exposed items to be shown in the major portion of their extent, which serves to lock the exposed items in their position for display and at the same time to interlock the display advertising set up with the goods, thus preventing any removal of goods without visible and audible disarrangement of the display set-up.

One of the purposes for which the box is particularly adapted is the display of bottled goods such as liquor or perfumery and is so described, although it is obviously adaptable to merchandise of other sorts within the scope of the principles of the invention.

To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawings and the following description set forth in detail certain structure embodying the invention, such disclosed means constituting, however, but one of various structural forms in which the principle of the invention may be used.

In the accompanying drawings:

Fig. 1 is a perspective view of the box set up as open on a counter in display position, certain parts being broken away to illustrate the construction;

Fig. 2 is a central vertical transverse section looking from the left of Fig. 1;

Fig. 3 is a vertical section on the plane 3—3 of Fig. 2;

Fig. 4 is a perspective of the box closed, on reduced scale;

Fig. 5 is a slightly enlarged detail corresponding to the upper right corner of Fig. 2 but with the lid closed;

Fig. 6 is a horizontal section on the plane 6—6, Fig. 3;

Fig. 7 is a longitudinal partition blank;

Fig. 8 is a transverse partition blank; and

Fig. 9 is a blank of the slide body without partitions.

Referring now to Figs. 1 and 6, the exterior case or jacket 1 is an open-ended four-sided piece with ends joined along one edge of the container as by an adhesive strip 1A, Fig. 6.

The slide, which is generally designed by the reference character 2 and shown as a blank in Fig. 9, consists of a lid 5, back 6, bottom 7, front 8 and tray 9. These major divisions are separated by creases for bends as indicated in Fig. 9 by the dotted lines 11, 12, 13 and 14.

When the blank of Fig. 9 is folded up and inserted in the jacket 1, interengaged interior partitions, made up in the usual manner of such blanks as are shown in Figs. 7 and 8, are placed inside, forming a cellular arrangement which is conventional except that the longitudinal partitions 15 terminate at the tray 9 instead of going the entire height of the box. The transverse partitions 16 are the full height of the box, and hence taller than the partitions 15 to project up through the tray 9 and thus form display

spaces in the tray. The partitions 15 and 16 interfit by means of the usual slots such as 17 and 18.

The tray 9 is slotted as at 20 longitudinally of the blank and thus transversely of the assembled box, forming a plurality of tongues such as 21. These tongues are all grooved for bending on the line 23, thus providing a tab 24 on the end of the tongue, such tabs being opened through as at 25 to receive part of an article of merchandise, for example the neck of a bottle 26. The height of the tabs 24 is substantially equal to the excess height of the partitions 16 above the partitions 15, and the spacing of the slots 20 in the portion 9 is equal to the spacing of the slots 17 in the partitions 15.

The lid of the box, portion 5 of Fig. 9, is creased across the blank along lines 30 and 31, the line 30 being interrupted by a through cut along the arc 32. The cut at 32 is herein shown as a circular arc, but may be of any suitable shape and relative size for the display purposes hereafter explained in detail.

The scores 30 and 31 divide the lid 5 into sections 33, 34 and 35. In a box of the proportions selected to illustrate the invention, the sections 33 and 34 are of about the same size, except that the portion 34 includes the upstanding section 36 which is freed by the cut 32. Thus when the box is set up sections 34 and 36 together form a unitary display panel, Fig. 1, supported behind by section 33. A closing tuck 35, joined to 34 along the line 31, slips down between the front face of the casing 1 and the front upper ends of the partitions 16 when the box is closed. When the lid is set up for display, this tuck is turned back out of the way.

In assembly the blank of Fig. 9 is folded around the cellular structure 15, 16, with the tongues 21 laid horizontal and the tops of the transverse partitions 16 projecting up through the slots 20. The tabs 24 are bent up to a vertical position.

In using my box the vertical cellular compartments are filled with bottles such as 26, Fig. 2, and a bottle 26 is also laid in each of the compartments of the tray 9 with its neck thrust through the opening 25 in the upstanding tab 24. The proportions of the box are proper to hold the bottles snugly without other packing or padding. For example, in the illustration the bottle 26 is a perfume bottle with a long ornamental glass stopper, and the combined height of bottle and stopper is such as to fit snugly either upright in the main body of the box or laid in the tray. The principle is of course applicable to other merchandise.

When the box is placed on a counter for display, the lid 5 is opened, bent sharply along the fold 30, and the tuck 35 turned back to the concealed position of Figs. 1 and 2. Thus the combined sections 34, 36 stand up as a display panel or easel, which is kept from sliding forward by the fact that the edge along the line 31 catches behind the tabs 24, while the tabs 24 in turn are prevented from tilting forward by the bearing of the edges of the openings 25 upon the necks of the bottles. The exposed display panel may be printed with such advertising matter or the like as may be desired. It will be observed that such matter, being on the outer face, also serves as a label when the box is closed, Fig. 4.

Should a light-fingered individual attempt to abstract a bottle when the box is standing open as in Fig. 1, the tab 24 acting as a collar prevents ready removal of the bottle. My invention also tends to act as a signal device, because if the thief tries to pull out the bottle quickly with one hand, the tab 24 and tongue 21 will be pulled up, and the bottle neck will lift the edge 31 from its engagement behind the other tabs 24, thus allowing the panel 34 to slide forward by the natural resilient tendency of bent fiber board to straighten itself out, and the set-up shown in Fig. 1 will be generally disarranged. Thus it will at least be necessary for a thief to work with both hands in an effort to remove the bottle surreptitiously since he will need one hand to hold the tab 24 in place and the other to lift the bottle. This will make his efforts more obvious and a little slower, and thus tend to attract attention. Again, an attempt simply to remove the bottle by one hand by lifting the bottom of the bottle upward above the edge of the casing 1, at the same time tilting the tab 24 backward, preparatory to a straight pull, will also be likely to cause a drop of the panel 34, because the backward tilt of any of the tabs 24 will push the edge 31 back out of engagement with the other tabs, and the forward resilient spring of the panel 34, due to the inherent resiliency of the material when such backwardly tilted tab 24 is released, will ordinarily cause the panel 34 to jump over the tabs. At the same time such movement of the panel 34 and striking its edge upon other parts of the box makes some noise which also aids in attracting attention.

It will be observed, as particularly shown in Fig. 2, that the edge along the line 31 preferably fits only by a shallow engagement behind the upper edges of the tabs 24, by reason of the fact that the tab 35 lies on the tops of the partitions 16. When the box is made of corrugated board or other usual packaging material having some resiliency, the lid is always under some tendency to straighten itself at the bends 30 and 31. A rather weak frictional interlock is thus utilized to hold up the panel 34, with the result that any disturbance of the merchandise can readily cause the lifting of the edge 31 followed by the dropping of the panel 34, as already described.

Although it is ordinarily contemplated that all of the compartments of the tray will be kept filled, this is not necessary, because the presence of a single bottle in the tray will maintain the interlock between one of the elements 24 and the edge of 31, so long as the bottle is not tampered with.

From the foregoing it will be seen that I have invented a box useful equally for transportation and display, with theft preventing features which do not interfere in any way with its other uses nor require a complex construction.

Since only a few items are displayed, the absence of any one will be quickly noticed. The box has the further advantage that it need not be full in order to be used advantageously for show purposes. Whether the compartments formed by 15, 16 are full or empty is of no consequence.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the structure herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

What I claim is:

1. In a box of the character described, an inner and an outer lid, said inner lid constituting a tray formed of a plurality of tongues laid hori-

zontally from front to rear, said tongues including upstanding rear tabs, said tabs being apertured, thereby to act as collars for merchandise laid on said tongues and projecting through said tabs, the distance from front to rear of said box being equal to the height of said merchandise, and partitions extending from the bottom of said box between said tongues.

2. In a box of the character described, an inner and an outer lid, said inner lid constituting a tray formed of a plurality of tongues laid horizontally from front to rear, said tongues including upstanding rear tabs, said tabs being apertured, thereby to act as collars for merchandise laid on said tongues and projecting through said tabs.

3. A box comprising a storage compartment, a display tray on top of said compartment adapted to contain part of the contents of the box, an upstanding wall in said tray spaced from an opposite wall of the box a distance equal to the distance between portions of articles contained in the box which portions are engaged respectively by the box wall and the tray wall, a lid, a hinging attachment for said lid at the back of the box, a tongue along the front edge of the lid, a bending crease transverse to said lid between said hinge and said tongue, said tray wall being spaced from the hinge of the lid and presenting upstanding portions facing the lid hinge.

4. In a box, in combination, a lid, a tray therebelow, an upstanding wall in said tray intermediate front and back of the box, edges within said wall defining openings adapted to contact merchandise in said tray, a lid of dimensions not less than the top area of the box, hinge means for said lid spaced from said tray wall, portions of said wall standing above the merchandise in said tray, said portions including shallow exposed faces directed toward said hinge and engageable with an edge only of said lid, thereby, when so engaged, holding said lid with middle sprung up.

5. In a box of the character described, superposed upper and lower cells of equal bottom area, the lower cells comprising space for concealed merchandise, the upper cells comprising space for exposed merchandise, the upper cells including collars attached to the cell bottom and interengaging with the merchandise therein and presenting areas higher than the engaged merchandise and standing in a path of movement of other members of the box to retain said other members selectively in predetermined position under stress, and to release such retention by slight movement.

6. A box comprising a lid hinged approximately medially upon itself and also to the back of the box, tabs within said box exposed by raising said lid, said tabs including portions having upstanding faces directed toward the back of the box and being adapted to engage a forward edge of said lid and by such engagement to hold the lid in a ridge arrangement, and elements adjoining said tabs and in the downward path of said lid edge when the same is engaged behind said tabs, the upper edges of said last named elements being slightly below the top edges of said tabs.

WILLIAM R. GRAHAM.