Feb. 12, 1924. 1,483,289

W. M. DOERING ET AL.

DISPLAY CARTON

Filed June 8, 1922 2 Sheets-Sheet 1

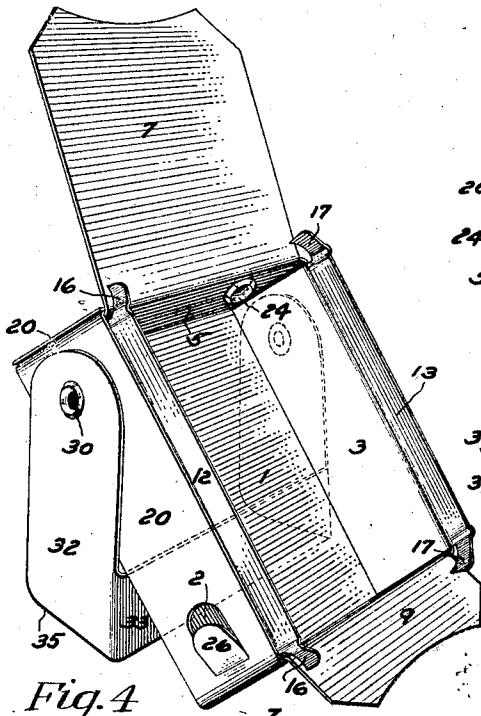


Fig.4

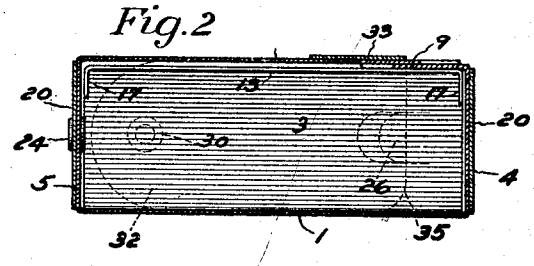


Fig.2

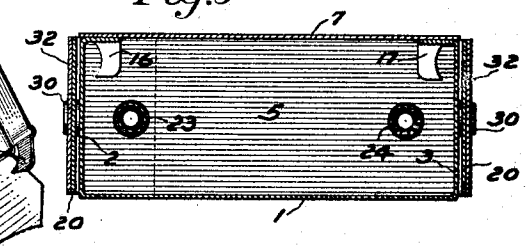


Fig.3

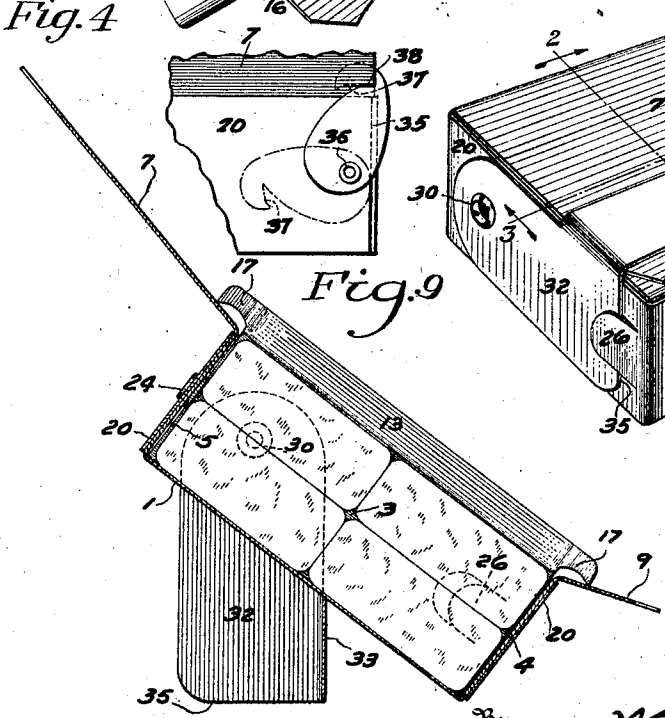


Fig.5

Fig.9

Fig.1

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Fig.6

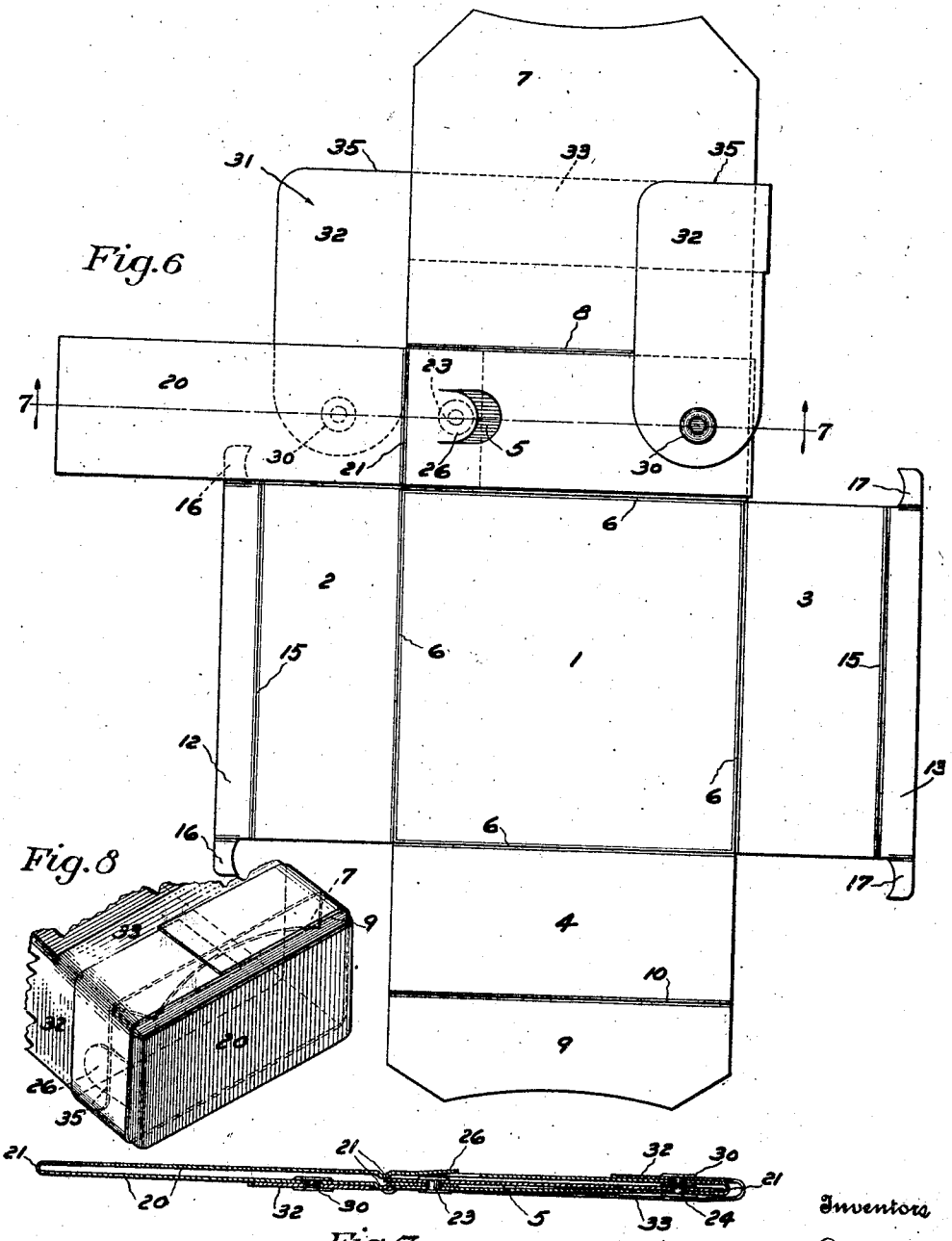


Fig.8

Fig.7

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UNITED STATES PATENT OFFICE.

WILLIAM M. DOERING AND CHARLES J. DOERING, OF CINCINNATI, OHIO.

DISPLAY CARTON.

Application filed June 8, 1922. Serial No. 566,346.

To all whom it may concern:

Be it known that we, WILLIAM M. DOERING and CHARLES J. DOERING, citizens of the United States, and residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Display Cartons, of which the following specification is a full disclosure.

This invention relates to a collapsible or knock-down carton, and has among its objects the provision of a collapsible carton which will serve as a container and display-holder for the contents of the carton.

Another object of the invention is the provision of means attached to and foldable with the carton to knock-down position, which means act as a prop or stay for the carton when in display position, and which also act as a strap or retainer for holding the overlapped lid or cover flaps of said carton when the carton is set up.

An additional object of the invention is the provision of a carton which can be conveniently, positively and quickly sealed by the application of a single strip of gummed paper, providing a means, when said paper is fractured, of showing that the package or carton has been tampered with.

The features of the invention will be more fully set forth in the description of the accompanying drawings, forming a part of this application, in which:

Figure 1 is a perspective view of our improved carton in closed position.

Figure 2 is a vertical section on line 2, 2, Fig. 1.

Figure 3 is a similar section on line 3, 3, Fig. 1.

Figure 4 is a perspective view of the carton in its display position.

Figure 5 is a vertical section of the carton in its display position.

Figure 6 is a plan view of the carton in knock-down condition.

Figure 7 is a section on line 7, 7, Fig. 6.

Figure 8 is a view, similar to Fig. 1, showing the sealing strip applied.

Figure 9 is a fragmentary rear elevation of the carton in its set-up condition, showing a modified means for sustaining the lid in open position.

Referring to Figure 6, the carton is illustrated in knock-down or collapsed position and consists of a cardboard blank cut and scored to provide a rectangular central or base section 1, having extensions forming the side walls or sections 2, 3, 4 and 5, of the carton, each folding at an angle to the base respectively along a scored line 6. These side walls, as illustrated, are approximately of equal dimensions for a given shape and size of carton, but such proportion is not material to the carton structure nor followed in producing varying shapes and sizes. For the purpose of identification, the opposing walls 2, 3, will be designated as "side walls" and the walls 4, 5, as "end walls."

The relatively large cover section or flap 7, as a continuation of the end section 5, is formed by bending along the scored line 8, and a smaller second cover section or flap 9 is formed as a continuation of the end section 4, by bending along the scored line 10, the outer edges of said cover or lid sections being designed to overlap when closing the carton, (Figs. 1 and 2). The side sections 2, 3, are provided with elongated flaps respectively 12, 13, formed as continuations of said sides, and are foldable inwardly and parallel with the bottom 1 or at an angle to the side sections respectively along a scored line 15. These flaps respectively are provided at their ends with tabs 16, 17, designed to fold inwardly against the ends of the carton in its set-up or boxed-up condition, and said tabs further act as means for holding the lids or covers in their open position when the carton is used as a display rack, (see Figs. 4 and 5).

In order to hold the sides and end sections of the carton together in box-like relation, a retaining band 20 is provided comprising a strip of a width substantially equal to the short dimension or height of the said side and end sections, and of a length sufficient to removably circumscribe the perimeter of the set-up carton, and to allow for the lapping and fastening of the ends thereof, to form a rectangular foldable or collapsible retaining band, which can be slipped over and about the sides of the carton and which is scored at the corners, as at 21, to facilitate folding or bending.

In folding up or setting up the carton from its knock-down condition, the sides 2, 3, and the end 4, are first raised to a vertical position, after which the retaining band is slipped over and around the sides, enveloping the same. This operation brings the end 5, to which said band is attached, into position to complete the formation of

the sides of the carton, the cover flaps 7, 9, overlapping the horizontally disposed flaps 12, 13. One of the sections of the band is attached to the end section 5 by suitable fasteners or eyelets 23, 24, the fastener 23 acting to connect the overlapping opposite ends of said band. The band is provided at its sides, adjacent the sides 2, 3, of the carton body and near the front of said band, with locking tabs 26, the function of which will be hereinafter described.

Pivoted as at 30, at the rear of the side sections of the band 20 and centrally of their widths, is a foldable single-pieced combined prop or stay and cover retaining element, generally designated at 31, comprising two pivoted side sections 32 equal in width to one another and to the band 20, and connected by a cross or connecting strap 33, which functions to engage the overlapped lids or covers, of the carton when closed, to hold said lids or covers thus closed, and which also functions as a support engageable with the botton of the carton, to support the same in display position. As shown, the combined prop or stay and cover-retaining element can be swung to the front or top of the carton, or to its rear or bottom, to perform the double function above mentioned. When in a position to retain the lids or covers in closed position, the forward short edges 35, of the sections 32, frictionally engage between the locking tabs 26 and the side sections of the band 20, to securely hold the cover-retaining element in its locking position, (see Fig. 1).

When the carton is functioning as a display-container, the lids or covers are held in open position by the tabs 16, 17, which are then so disposed as to form substantially linear extensions of the flaps 12, 13, to engage the inner surfaces of the covers at each side of the same adjacent the fold lines.

The parts are arranged to lie flat when the carton is in knock-down position, as shown in Fig. 1. The carton wall enveloping band 20 folds with two of its adjoining sections, one over the outside of the end wall 5, and the second section over the inside of the said wall, and the other two sections of the band, one upon another, in a longitudinally extended position from one edge of the carton side wall 5. The folding sections 32, 32, of the strap 33, follow with the section of the enveloping band to which they are connected. The strap portion 33 lies parallel with the cover flap 7, and across the outside face of the cover flap, so that the parts are all in position for conveniently bringing them to their set-up position.

In setting up the carton, it is preferable to bend up the side walls 2, 3, and end wall 4, folding their edges or tucking flaps inwardly, after which the enveloping band 20 is folded or swung to a rectangular position to embrace the carton side walls and end wall 4, swinging or bending the end wall 5 to its angle or set-up position. The carton walls are inserted through the band, the band thereby completely enveloping the wall of the carton and holding the same in their set-up position. The band is shown as of a width dimension approximately the height of the carton walls, and thereby provides a double side wall carton structure. The width dimension, however, may be lesser and extended around the carton wall as a binding tape, in which instance, it may be desirable to provide the side walls with end tucking flaps to avoid open corners. The cover flaps 7 and 9 are next folded to cover the carton opening after which the strap 33 is swung downward over and upon the cover flaps, as shown in Fig. 1, with the free edges of the side sections 32, 33, engaged with the locking tabs 26, 26.

For displaying the contents of the carton, the strap is swung around the end of the carton to a position shown in Fig. 4, providing a stay or prop for the carton, to support the carton in an angular position, and the cover flaps are swung open and held open by the tabs 16, 17, extending from the tucking flaps 12, 13, of the side walls; the cover flaps printed to provide for advertisement displays.

As shown in Fig. 8, a strip of gummed paper is pasted about the forward portion of the closed carton, and is pasted to and overlaps the front edges of the cover-retaining element, the forward portions of the band 20 and locking tabs 26, both covers at their overlapping junction, and to the bottom of the carton, thus forming a simple seal for the closed carton providing means for the detection of tampering.

In Figure 9 is shown a modification in which the tucking flaps 13 and tabs 17 are dispensed with, a latch member 35 being employed in lieu thereof for sustaining the lid 7 in its open position. The latch member is pivoted at 36 to the band 20 and has a slit 37 engaged at its outer end engageable with a corresponding slit 38 of the cover 7. The latch member when disengaged from the cover is adapted to be swung to the position shown in dot-and-dash lines.

Having described our invention, we claim:

1. The combination with a carton formed by folding, to provide a bottom, sides and two overlappable covers, a collapsible band attached to said carton, and adapted to circumscribe and support the sides thereof, and a collapsible combined prop and cover-retaining means, attached to said band, adapted to retain said covers when closed and overlapped, and adjustable for the support of said carton in contents-displaying position.

2. The combination with a carton formed

from a blank by folding to provide a bottom, sides, and two overlappable covers, a foldable band, having one of its sides attached to one of the sides of said carton and adapted to circumscribe the same to support the sides thereof, and a collapsible combined prop and cover-retaining element pivoted to said band, adapted to be adjusted to retain said covers in closed position, and further adapted for adjustment to support said carton in display position.

3. In a carton formed from a blank by folding to provide a bottom, sides, and two overlappable covers of unequal area, foldable flaps formed as extensions of two opposite parallel sides of said carton, each provided with terminal tabs, a foldable band having one of its sides attached to one of the sides of said carton, and adapted to circumscribe the same to support the sides thereof, and a collapsible combined prop and cover-retaining element, pivoted to said band and adapted to retain said covers in closed and overlapped positions and further adapted for adjustment to support said carton in display position.

4. In a carton formed from a blank by folding to provide a bottom, sides, and two overlappable covers of unequal area, foldable flaps formed as extensions of two opposite parallel sides of said carton, each provided with terminal tabs, a foldable band of equal width with said carton sides, attached by one of its sides to one of said carton sides and adapted to circumscribe the same to support the sides thereof, and a collapsible combined prop and cover-retaining element pivoted to said band and adapted to retain said covers in closed and overlapped position, and further adapted to form a support for said carton in display position, and means forming part of said band, for lockingly engaging said prop and cover-retaining element when in cover-retaining position.

5. A carton having a bottom, sides and overlappable covers, foldable flaps formed as extensions of two opposite parallel sides, of said carton, each with terminal tabs, a foldable band attached to one side of said carton, and adapted to circumscribe the same to support the sides thereof, and a foldable combined prop and cover-retaining element pivoted to said band, adapted to overlap the overlapped ends of said covers adjacent the opposite end of said carton, said prop and cover-retaining element being adjustable to a position for supporting the said carton in display position, and said tabs acting to maintain said covers in their open positions.

6. In a carton, formed from a blank by folding to provide a bottom, sides, and two overlappable covers of unequal area, a foldable band attached to said carton, designed to removably circumscribe the same to support the sides thereof, said foldable band being engageable and disengageable from said sides, foldable prop and cover-retaining means pivoted to said band adapted to retain said covers in enclosed and overlapped position and to support said carton in display position.

7. A collapsible carton, comprising a body blank of a base section, side wall sections extending respectively from the edges of said base, cover flaps extending respectively from relatively opposite side walls and tucking flaps extending from the other opposite side walls, each tucking flap having tabs respectively at opposite ends, said tabs adapted to engage with respective cover flaps for holding the same in their open position, and a foldable band fixed to one of the side walls, adapted to envelop the side walls in their set-up position.

8. A collapsible carton, comprising a body having a base and foldable side walls, a cover flap for the carton extending integrally from one of the side walls, and a foldable band for enveloping the side walls in their set-up position fixed to one of the side walls, a cover locking device for holding said cover flap in open position, said device pivoted to said foldable band and providing a slit coactible with the corresponding slit on said cover flap.

9. A carton, comprising a body having a base, side walls and cover integrally united and foldable to collapse in set up position, a foldable band for enveloping the side walls in their set up position, fixed to one of the side walls, a foldable member hingedly fixed to two opposite sides of said foldable band, adapted when the carton is set up to be swung to alternate positions, in one position providing a strap across the cover when closed, and in a second position providing a prop for supporting the carton in an inclined contents display position.

In witness whereof, we hereunto subscribe our names, as attested by the two subscribing witnesses.

WM. M. DOERING.
CHAS. J. DOERING.

Witnesses:
R. KISTNER,
L. A. BECK.