

C. G. GLOVER.
CASING AND STAND.
APPLICATION FILED APR. 20, 1920.

1,407,526.

Patented Feb. 21, 1922.

2 SHEETS—SHEET 1.

Fig. 3.

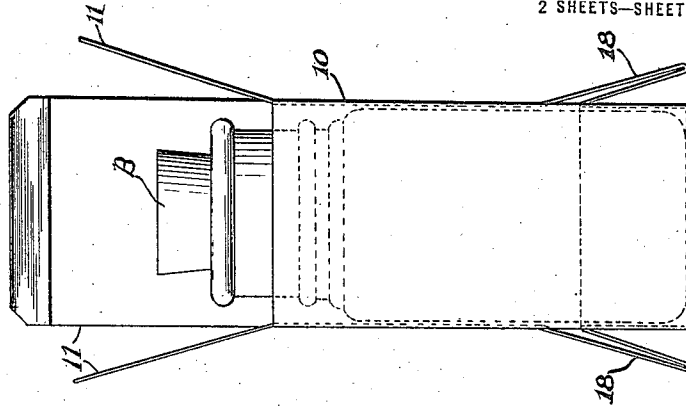


Fig. 1.

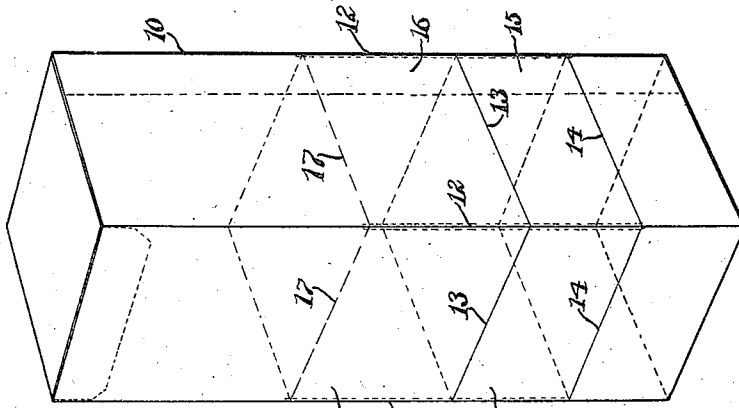
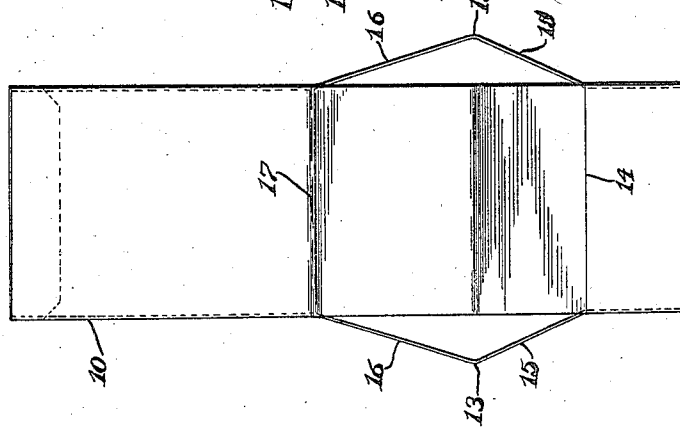


Fig. 2.



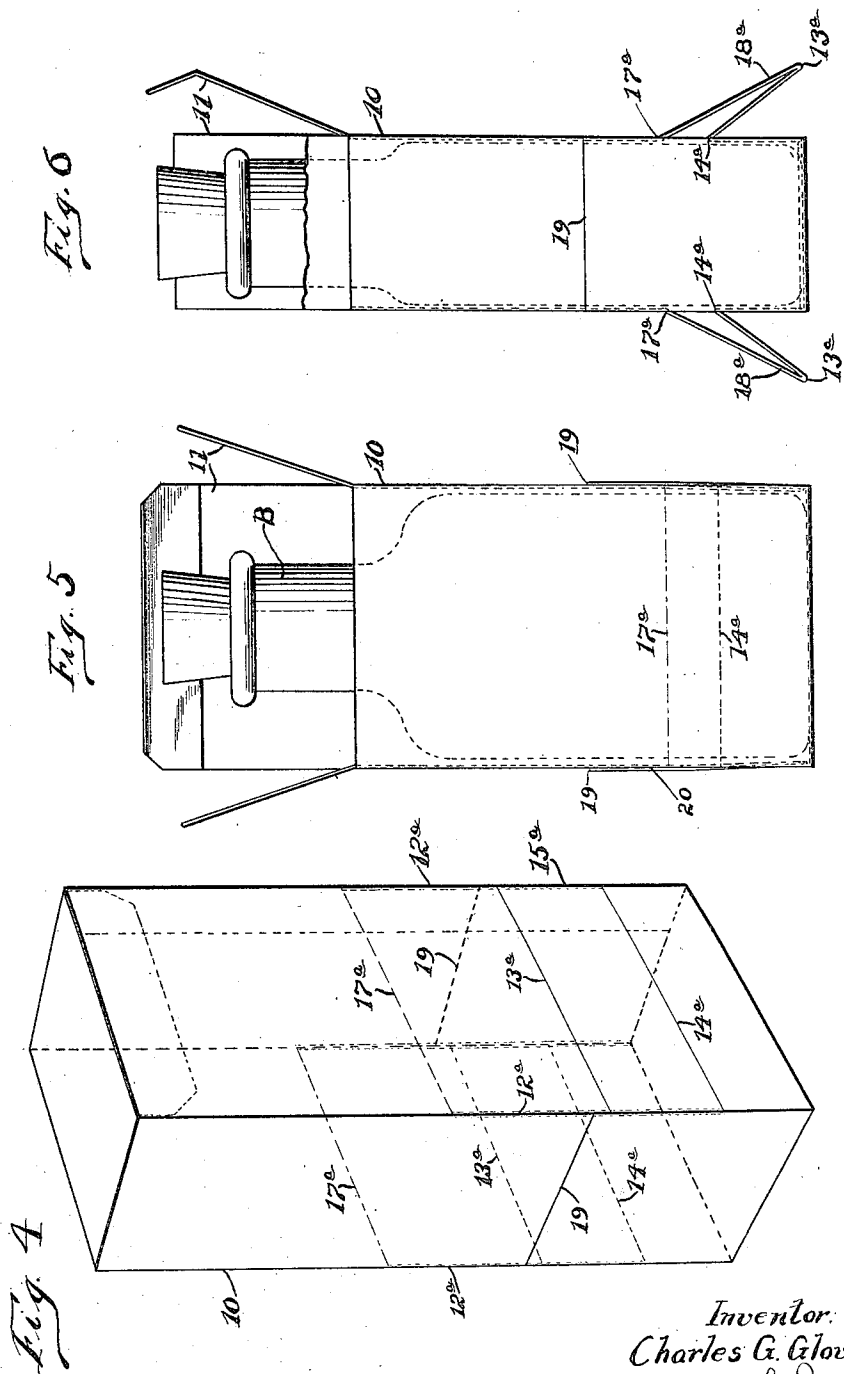
Inventor:
Charles G. Glover
by
Clyde L. Rogers, Atty.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHARLES G. GLOVER, OF WATERTOWN, MASSACHUSETTS.

CASING AND STAND.

1,407,526.

Specification of Letters Patent.

Patented Feb. 21, 1922.

Application filed April 20, 1920. Serial No. 375,282.

To all whom it may concern:

Be it known that I, CHARLES G. GLOVER, a citizen of the United States, and resident of Watertown, county of Middlesex, Commonwealth of Massachusetts, have invented an Improvement in Casings and Stands, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts in each of the several views.

This invention relates to casings or envelopes for merchandise in general and particularly for goods of a liquid or flowable character contained in bottles. More particularly the invention consists in a casing, box, or envelope for bottles that is constructed and arranged to be converted or transformed at will into a stand adapted to hold the bottle against casual tipping over and also adapted to facilitate access to the contents of the bottle. A principal object of the invention is to provide a casing or envelope for bottled liquids or the like that is adapted to be folded or partially collapsed endwise along predetermined lines in a manner so that braces are produced at certain, or all, of the sides of the casing extending downward and outward from a point intermediate the height of the casing to the base thereof and preventing casual tipping over the bottle contained in the envelope. This endwise folding or partial collapsing of the casing also serves to expose the top and neck portion of the bottle so that the contents thereof may be more readily accessible. While herein shown as applied to the rectangular casing or box such as commonly made of paper board and with top and bottom closures, this showing is to be understood to be merely illustrative of the invention in its broader aspects, since the invention may be embodied equally as well in a casing or envelope without top or bottom, or either of them and it may also be embodied in casings or wrappers of any desired cross section, i. e. whether square, or oblong, or polygonal, or round. Likewise while for most uses paper board is a suitable and preferred material, it is to be understood that any suitable material is within the contemplation of the invention, the prime requisite being that it have at least a fair degree of stiffness and be capable of severance and pre-disposition to fold along pre-

determined lines. The foregoing and other objects and advantages of the invention will more fully appear from the following detailed description, and the distinctive features of novelty will be thereafter pointed out in the appended claims.

Referring to the drawings:

Fig. 1 is a perspective view showing a casing or envelope embodying the invention in one form thereof;

Fig. 2 is a front elevation showing the box or casing of Fig. 1 at the beginning of a folding or collapsing movement to convert it into a bracing stand;

Fig. 3 is an elevation showing the casing completely folded or collapsed and transformed into a bracing stand in accordance with my invention;

Fig. 4 is a perspective view showing a casing embodying the invention in a somewhat modified form especially adapted for oblong boxes;

Fig. 5 is a front elevation showing an oblong casing transformed into a bracing stand; and

Fig. 6 is an end view of the bracing stand of Fig. 5.

Referring first to Figures 1, 2, and 3, 10 indicates a box or casing of rectangular cross section, and as shown substantially square, adapted to encase a bottle B. This case is herein shown as formed with a bottom and with flaps 11 adapted to be folded in to constitute a top closure, but this closure of the bottom or top or either is optional and selective so far as the invention is concerned. In accordance with my invention this casing is adapted to be formed intermediate the length thereof with lengthwise extending slits 12, these slits in this form being along the corners of the box and relatively nearer the bottom of the box to permit the folding outward and downward of panel portions to constitute braces as now to be explained. Intermediate the length of the slits 12 the box has its sides transversely creased or otherwise weakened or pre-disposed to bend along the lines 13, these pre-disposed lines of bending being somewhat nearer to the lower than to the upper ends of the slits 12. The sides of the box are also preferably creased or otherwise pre-disposed to bend along the transverse lines 14 at the lower ends of the slits 12, though such creasing at this point is not wholly essential. With

this formation upon a pressing downward of the top portion of the box the side portions 15 of the box between the lines 13, 14 will bend outward together with the portions 16 between the lines 13 and the plane of the tops of the slits 12 as indicated at 17. This bending outward in a preliminary stage is indicated in Figure 2 and upon a continuation thereof the panels 15 are pressed downward so that they, together with the panels 16 along side thereof, constitute diagonal braces 18 extending downward to the plane of the box bottom as shown in Figure 3. For this purpose it is to be understood that the lines of bending 13, 14 are so arranged with respect to the height of the box that the panels 15 are slightly greater in height than the distance from the lines 14 to the bottom of the box, and the panels 16 are somewhat longer than the panels 15 which results in a certain tension or stress when the panels are folded to constitute the braces 18, keeping these braces in operative position. While the slits 12 are thus essential in the transformation of the box or casing into a stand, it is optional whether these slits be formed in the box at the time of manufacture, or merely designations thereof be then produced, leaving the user to produce the actual slits. Thus the box as manufactured and supplied to the trade may be either slitted, or slit designations may be formed thereon, or it may be weakened along the lines for slitting by perforations or by series of short slits with intermediate uncut portions, or any other preferred indication for the pre-determined slits provided. It is also to be understood that while it is essential for the proper transformation of the box into a stand that the box be transversely creased or otherwise predisposed to bend along the definite lines 13, it is not so essential that it be actually creased or otherwise particularly pre-disposed to bend along the lines 14 since as the panel portions 15, 16 start to bend outward, this bending will be necessarily along approximately the lines 14 which meet the lower extremities of the slits 12. If desired the box may be also pre-disposed to bend along the lines 17, but this is usually not preferable, since the spring tension created by the pressing outward of the panels 16 contributes materially to the tensioned or stressed holding of the braces 18 in position as already explained after the box is collapsed into a stand. In the boxes of square cross section, the described folding or collapsing of the panel portions to constitute braces is preferably provided on all four sides, but in the case of oblong boxes having two wide sides and two relatively narrow sides, it may be preferred to provide these braces on the two wide sides of the box only. Such a construction is illustrated in Figures 4, 5, and 6. In this case the wide sides of the box are created or transversely pre-disposed to bend along the lines 13^a. The vertical slits, or designations for slits 12^a, are in this case shown as formed in the corners of the box in like manner already described. In this form the two narrower sides of the box do not provide panel portions to fold outward but they are transversely slitted as indicated at 19 so that the portion above such slits may telescope downward along-side the lower portion as indicated at 20 in Figure 5. In this case the braces 18^a are produced upon the wide sides of the box in the same manner as in the first described form and the top and neck portion of the bottle B is exposed above the top of the box in the same way. It will be understood that while in this form the slits 19 in the narrow sides of the box are shown as extending straight across the box or horizontally, this is merely illustrative and any preferred arrangement of such slits may be employed so long as these narrow sides are slitted entirely across the same to permit the end portions thereof to move towards each other in the collapsing or endwise contraction of the box to form the braces as described. In the application of the invention to a round or polygonal wrapper encasing a round or oval bottle, casing may be provided with any required multiplicity of lengthwise or vertical slits producing thus a polygonal arrangement of the panels which are transformed into braces upon the collapsing of the box as already described. In such a form as well as in those described in detail, the lengthwise slits may be produced by a suitable severance device incorporated in the box and adapted to predetermine the lines along which the slits would appear. While having other and more general fields of usefulness the invention is well adapted and designed to provide a combined wrapper and stand for bottled goods such as liquid shoe dressing, liniments, medicines and the like. After the casing has been transformed into a stand as shown in Figures 3 and 6, it may either be left in that form to support the bottle against casual tipping over while its contents are being used, or if desired the casing may be restored to its original form by again pulling the top of the box upward which will restore the braces 18 into the form of the straight panels, 15, 16. I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

Having described my invention, what I

claim as new and desire to secure by Letters Patent is:

1. A casing having longitudinal slits and pre-disposed for transverse bending along lines adapted to produce a plurality of downwardly extending braces upon collapsing of the casing to transform the same into a stand.

2. A casing having pre-designated slits extending lengthwise thereof and pre-disposed lines of folding extending transversely thereof intermediate the length of the casing, relatively arranged to produce downwardly extending braces at opposite sides of the casing upon endwise contraction thereof.

3. A casing for bottles and the like slitted lengthwise along spaced apart lines intermediate the length thereof and pre-disposed for folding along transverse lines also intermediate the length thereof to produce a plurality of downwardly projecting braces extending substantially to the plane of the bottom of the casing upon endwise contraction of the casing.

4. A casing for bottles and the like slitted lengthwise intermediate the length thereof and relatively nearer its bottom, and pre-disposed for folding along transverse lines

also intermediate its length and relatively nearer its bottom to define a plurality of panels adapted to be folded outward and downward upon endwise contraction of the casing to produce a plurality of downwardly projecting braces extending substantially to the plane of the bottom of the casing.

5. A casing for bottles and the like, rectangular in cross section with lengthwise slit designations on intermediate portions of the corners thereof and pre-disposed for the folding of opposite sides thereof along lines intersecting such slit designations, and spaced to produce panels adapted to fold outward and downward upon endwise contraction of the casing to produce opposite braces at opposite sides of the casing extending substantially to the plane of the bottom of the casing.

6. A casing for bottles and the like pre-designated and pre-disposed for endwise contraction to fold panels outward and downward therefrom and produce thereby opposite braces extending substantially to the plane of the bottom of the casing.

In testimony whereof, I have signed my name to this specification.

CHARLES G. GLOVER.