March 19, 1946. R. H. BRADY ET AL 2,396,770

BOTTLE CASE

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Fig. 1.

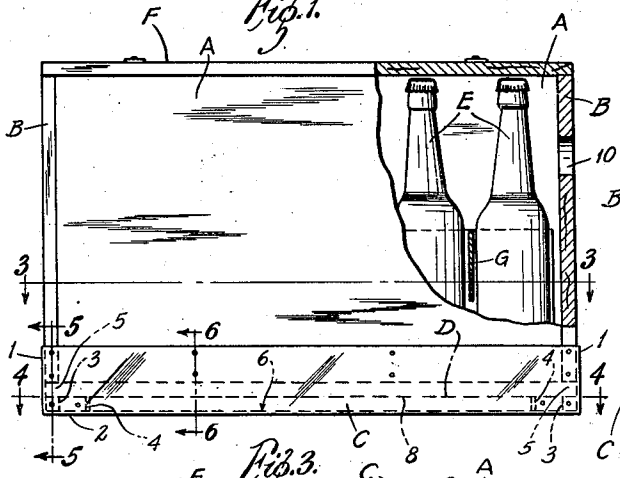


Fig. 2.

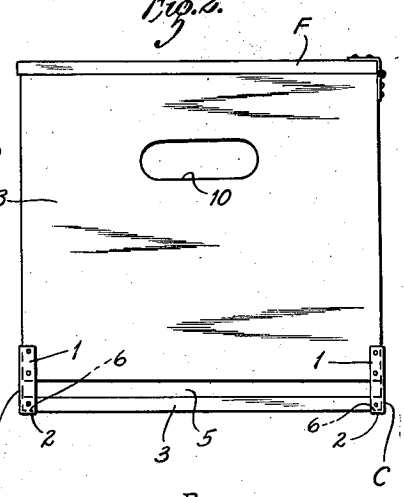


Fig. 3.

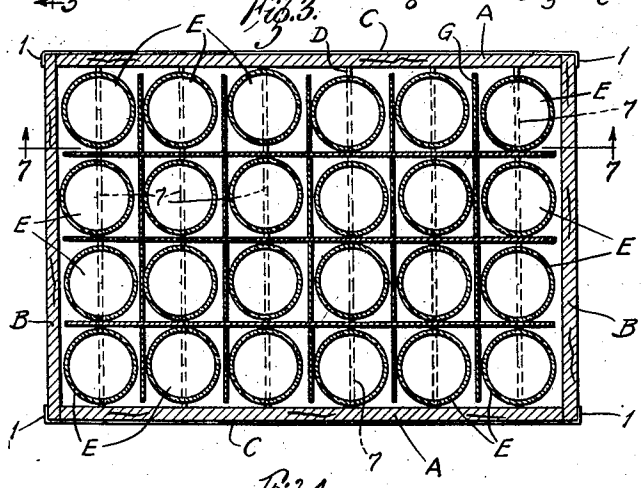


Fig. 5.

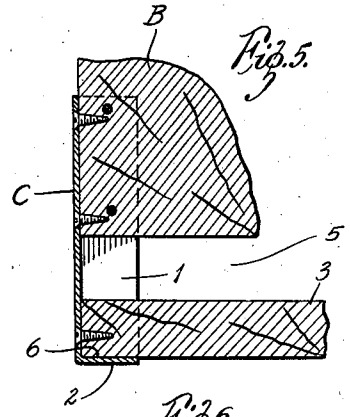


Fig. 4.

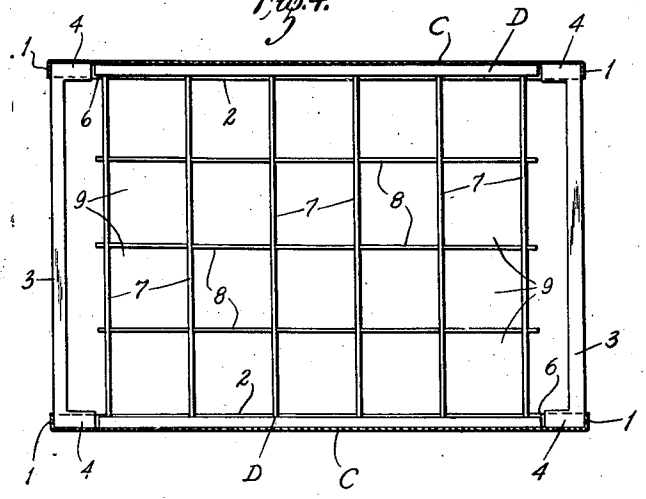
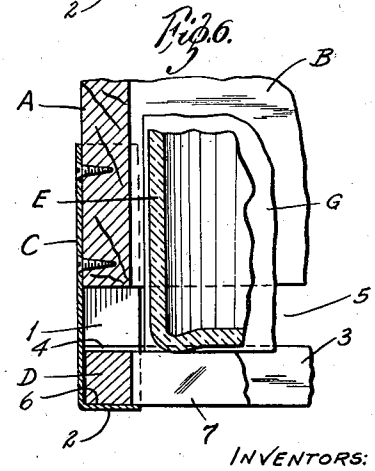


Fig. 6.



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Fig. 7.

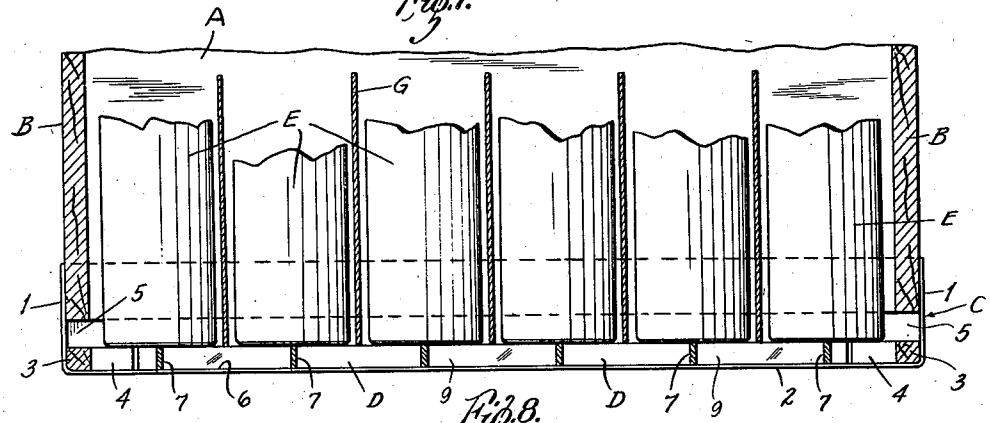


Fig. 8.

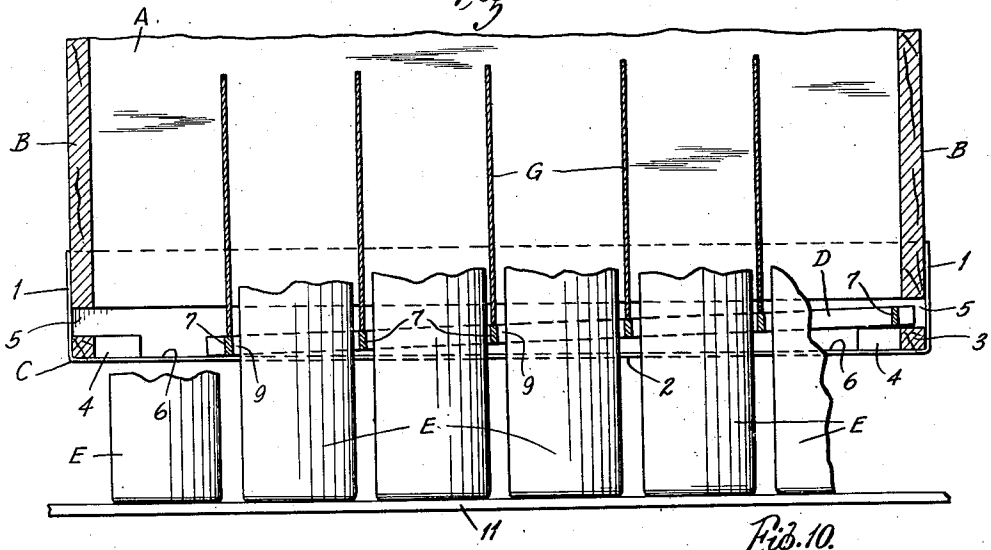


Fig. 9.

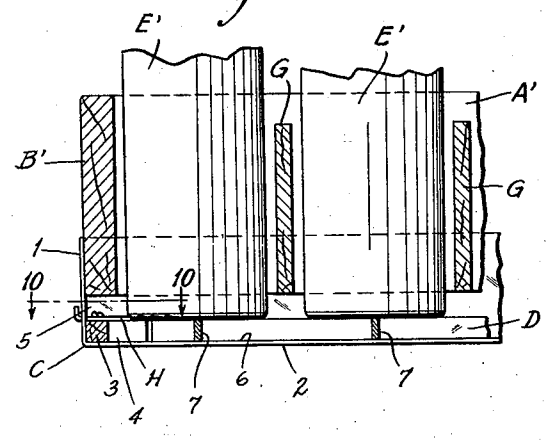
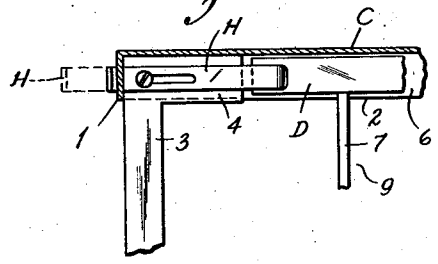


Fig. 10.



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UNITED STATES PATENT OFFICE

2,396,770

BOTTLE CASE

Robert H. Brady, St. Louis, and Emil O. Birkner, Pasadena Hills, Mo., assignors of one-third to Helen C. Reagan, one-sixth to Madeline V. Brady, both of St. Louis, and one-sixth to Gertrude M. Birkner, Pasadena Hills, Mo.

Application February 11, 1944, Serial No. 521,930

3 Claims. (Cl. 217—19)

This invention relates to a certain new and useful improvement in cases for the shipping and handling of beer bottles, soda-water bottles, and the like.

Our invention has for its chief object the provision of a bottle-case or the like uniquely constructed for enabling separation quickly, conveniently, and with little labor of the contained bottles and case.

Our invention has for another object the provision of a bottle-case or the like having a bottom-wall of open grid formation for normally supporting contained bottles and shiftable for bottle-registration for enabling ready removal of the case from about such bottles.

Our invention has for a further object the provision of a bottle case of the type and for the purpose stated which is simple in structure, which may be easily and cheaply constructed, and which is efficient in the performance of its intended functions.

And with the above and other objects in view, our invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawings (two sheets),

Figure 1 is a side elevational view, partly broken away and in section, of a bottle-case embodying our invention;

Figure 2 is an end elevational view of the case;

Figures 3 and 4 are sectional views of the case taken approximately on the respective lines 3—3 and 4—4, Figure 1, looking in the direction of the arrows;

Figures 5 and 6 are enlarged detail or fragmental sectional views of the case taken approximately on the respective lines 5—5 and 6—6, Figure 1, also looking in the direction of the arrows;

Figure 7 is an enlarged fragmental sectional view of a bottle-case of our invention, illustrating the case in filled normal handling or shipping condition;

Figure 8 is a similar view of the case, showing the case with its bottom wall shifted for bottle-registration and the case partially elevated for bottle-discharge;

Figure 9 is an enlarged detail sectional view of a slightly modified form of bottle-case also embodying our invention; and

Figure 10 is a detail sectional view taken approximately on the line 10—10, Figure 9.

Referring now more in detail and by reference characters to the drawings, which illustrate practical embodiments of our invention, the case is generally in the form of a rectangular-oblong box-like structure or shell and includes spaced parallel rigid companion side walls A, A, and spaced parallel rigid companion end walls B, B, of wood or other suitable material permanently fixed together in any suitable manner.

Extending flatwise along the lower marginal portion of the outer face of, and suitably fixed to, the side walls A, are suitable metallic strips or sections C, C, which are of such size or dimensions as to extend suitably below the plane of the lower margin of the side walls A and end walls B and for lateral marginal bending to provide right-angular end-flanges 1, 1, and right-angular side or bottom-flanges 2, 2.

Suitably fixed to the strip-end and bottom-flanges 1, 2, and by such flanges suitably supported in respective registration with, and in spaced relation downwardly from, the side and end walls A, B, are cross-bars 3, 3, and right-angular bar-extensions 4, 4, whereby the case is provided in its opposite ends with respective ways or slots, as at 5, opening outwardly to the exterior and inwardly to a seat, as at 6, provided by the bottom-flanges 2 intermediate the opposite sets of block-forming bar-extensions 4 for accommodating and slidably supporting a correspondingly sized bottom wall D, which is suitably constructed of connected or joined cross-strips or members 7, 8, and in the reticular form of an open grid having openings, as at 9, intermediate its crossing members 7, 8, of a size or dimension to freely accommodate the particular bottles E that the case is constructed to contain for handling or shipping.

The case also includes a preferably hinged lid F and for convenience in handling has hand holes 10 in its end walls B. Preferably also the case is equipped with suitable more or less cushion bottle-separators G for preventing bottle-breakage.

So constructed, the bottom wall D normally complements the case side and end walls A, B, fits more or less snugly upon the seat 6, as best seen in Figures 4 and 7, being removably or shiftably confined to its seat by the end-blocks 4, and when in such normal position the bottles E that the particular case is designed to accommodate rest on, and are supported in the case by, the several bottom cross-members 7, 8, as best seen in Figures 3 and 7. The case may then be employed in shipping and handling as conveniently and efficiently as present-day solid, permanent bottom cases, removal of its contained bottles E

or accidental displacement of bottom B being obviated by the closed cover F.

One or more or all of the contained bottles E may, of course, on the lid F being opened, be removed upwardly from the case for consumption of the contents thereof. Or to remove all the several contained bottles E, filled or empty, the filled or partially filled case is disposed upon a table, conveyor, or other place of support, as at 11, Figure 8, and the bottom D manually tilted and endwise shifted to ride over a pair of the end-blocks 4 and its several openings 9 caused to register with the several contained bottles E, when the case may be bodily elevated, as indicated in Figure 8, from about the bottles E, which latter are now conveniently exposed on the support 11 for cleaning and refilling. On the bottom D being reversely shifted to normal seated position, the case is ready for refilling.

The modified structure or case fragmentally illustrated in Figure 9 is substantially identical with the case illustrated in Figures 1 and 2, except that the case upright walls A', B', are of reduced height relatively to the contained bottles E', a cover is omitted, and the case is equipped with a shiftable clip H or other suitable expedient to efficiently retain the bottom D to its seat during case shipping or handling.

The case fulfills in every respect the objects stated, and it is to be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the case may be made and substituted for those herein shown and described without departing from the nature and principle of our invention.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:

1. In a bottle-case, a box-like shell including connected side and end walls, a bar, a pair of strips secured to and depending from the side walls, said strips being marginally flanged at their ends for relatively engaging said bar, inwardly bent flanges on said strips forming slideways, one of said end walls being provided with a slot opening to said ways, and a bottom wall of open grid-formation adapted for movement through said slot to fit shiftably in said ways.

2. In a bottle-case, a box-like shell including connected side and end walls, co-operable bars and strips, the former having lateral extensions and the latter being joined to the side walls and marginally flanged in the provision of supports for said bars, said strips further being flanged inwardly to form juxtaposed parallel slideways intermediate said extensions, one of said end walls being provided with a slot opening to said ways, and a bottom-wall adapted for movement through said slot to fit removably in said ways.

3. In a bottle case, a box-like shell including connected side and end walls, co-operable bars and strips, the former having lateral extensions and the latter being joined to the side walls and marginally flanged in the provision of supports for said bars, said strips further being flanged inwardly to form juxtaposed parallel slideways intermediate said extensions, one of said walls being provided with a slot opening to said ways, a bottom-wall adapted for movement through said slot to fit removably in said ways, and means for releasably retaining said bottom wall to said seat.

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