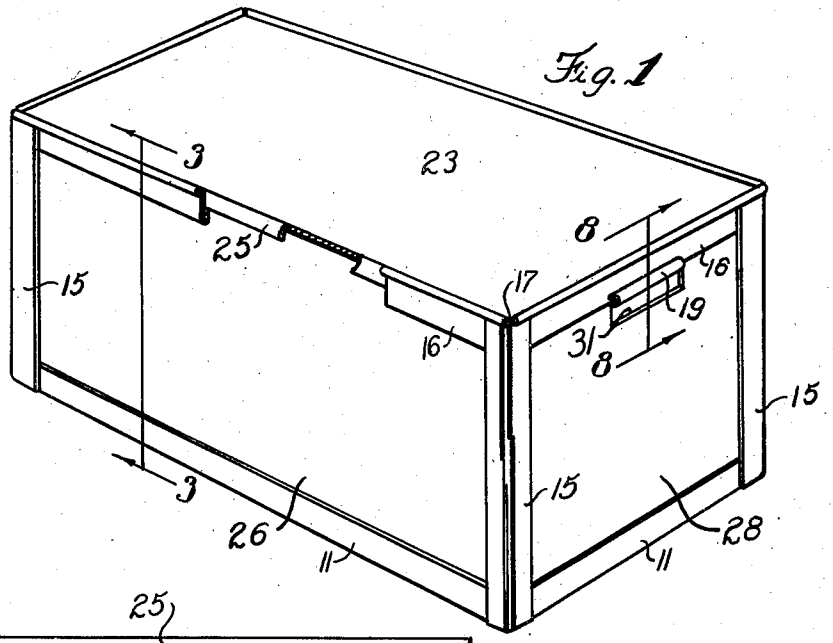
Feb. 8, 1944. C. L. LOCKE 2,341,150

BOTTLE SHIPPING CASE

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Fig. 1



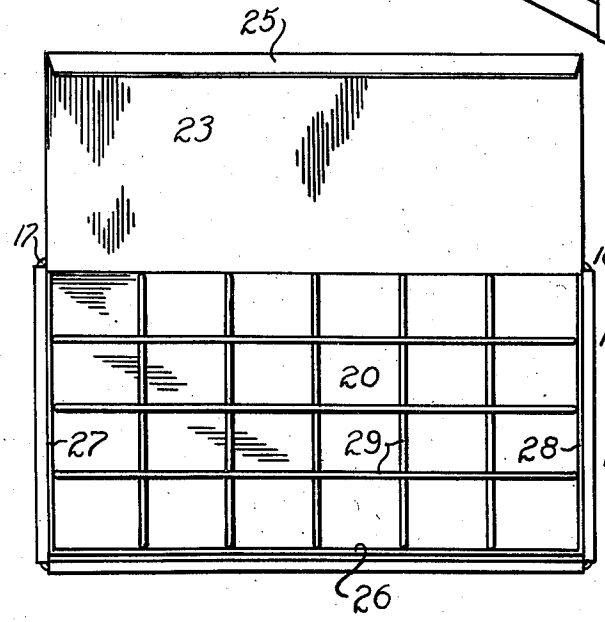


Fig. 2

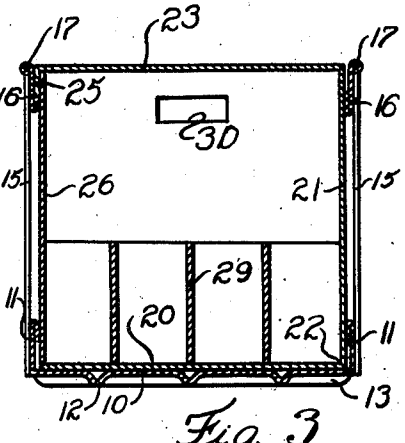


Fig. 3

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Feb. 8, 1944. C. L. LOCKE 2,341,150

BOTTLE SHIPPING CASE

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Fig. 5

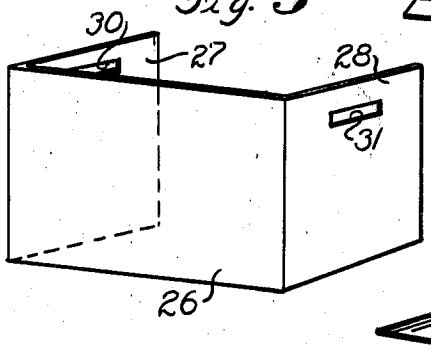


Fig. 4

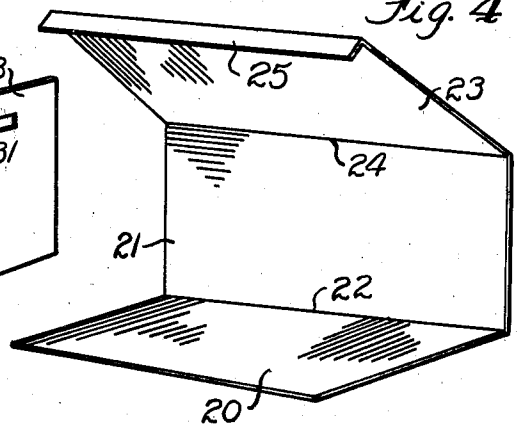
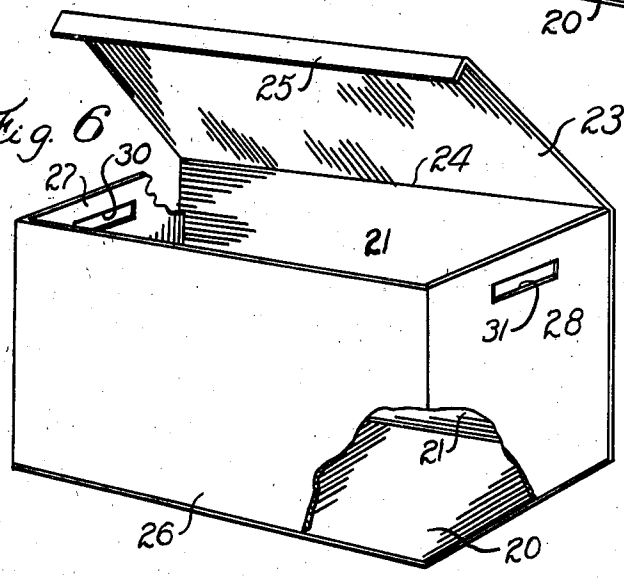


Fig. 6



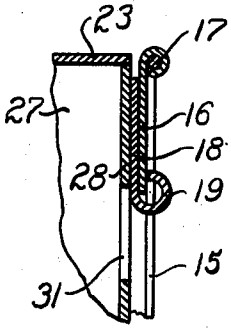


Fig. 8

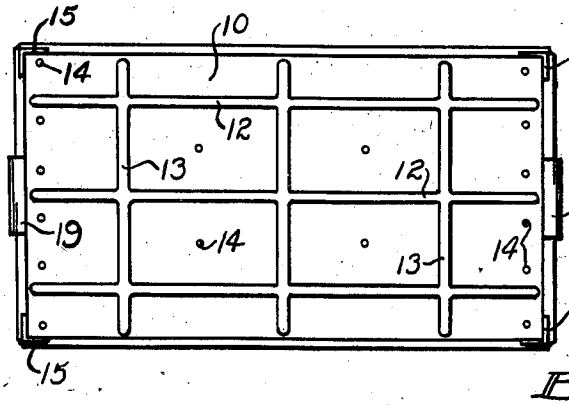


Fig. 7

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Patented Feb. 8, 1944 2,341,150

UNITED STATES PATENT OFFICE

2,341,150

BOTTLE SHIPPING CASE

Charles L. Locke, Indianapolis, Ind., assignor, by mesne assignments, to Guaranty Container Corporation, Indianapolis, Ind., a corporation of Indiana

Application October 17, 1940, Serial No. 361,499

2 Claims. (Cl. 229—28)

This invention relates to a shipping or delivery case for a plurality of bottles, containers, and the like.

A primary object of the invention is to provide dispensers of goods to be delivered in relatively small containers and particularly fragile containers with a case that has an initially low cost and one in which a fiber holder is reenforced by a metal framework in such manner that the fiber holder may be replaced frequently either on account of damage in transit or storage or to supply new advertising or display matter.

A further primary object of the invention is to provide a structure of the type above indicated wherein the fiber holder itself may be made very simply without stapled or glued corners or the like and without waste of stock or use of complicated dies. In fact the invention contemplates the reduction of the fiber holder to not more than two simply cut pieces of fiber board completely supported and retained in box-like shape by the metal reenforcing element. This metal reenforcing element is made to be sufficiently durable as to be used over and over again and is employed to permit stacking of the cases, one on the other, without any of the load being carried on the fiber holder itself.

These and many other objects and advantages of the invention will become apparent to those versed in the art in the following description of one particular form of the invention as illustrated in the accompanying drawings, in which

Fig. 1 is a view in perspective of a structure embodying the invention;

Fig. 2, a top plan view with the holder in an open position;

Fig. 3, a vertical transverse section on the line 3—3 in Fig. 1;

Fig. 4, a view in perspective of one of the fiber holder elements;

Fig. 5, a view in perspective of the other of the fiber holder elements;

Fig. 6, a view in perspective of the two fiber holder elements assembled in their relation as maintained by the metal case;

Fig. 7, a bottom plan view of the metal case; and

Fig. 8, a detail on an enlarged scale in section on the line 8—8 in Fig. 1.

Like characters of reference indicate like parts throughout the several views in the drawings.

A metal supporting case is formed to have a metallic floor 10 with an upturned flange 11 entirely therearound, thereby forming in effect a rectangular tray. Preferably this floor 10 is provided with a plurality of longitudinally and transversely disposed downwardly extending ribs 12 and 13 respectively crossing each other a plurality of times remote from their ends, formed by pressing metal downwardly from the inner or top side of the floor 10. The purpose of these ribs is to space the floor of the case upwardly the height of the ribs so that moisture from a storage floor or the like will not be directly conducted through openings in the case floor. Another object of these ribs is to provide a reduced area of support of the floor to permit free sliding of the case on truck floors and the like and also to permit handling of the case, either lengthwise or transversely, on roller conveyors. The floor 10 is preferably provided with a plurality of drain holes 14, herein shown as being located primarily toward the ends of the floor 10 although the exact location and the number of the holes may be varied to suit individual requirements. In any event these holes are provided for drainage should containers over the floor 10 become broken and thereby spill fluid onto the floor.

To each corner of the floor 10 about the flange 11 is secured an upright post 15 in an L-shape so as to extend around the corner of the flange 11 in each instance to have a leg of the post secured on the end and the side respectively portions of the flange 11 by any suitable means, such as by welding. The upper ends of these posts 15, four in number, terminate at the desired elevation and carry therewithin at their top ends a metal band 16 to extend entirely around in a rectangular shape in parallelism with the upturned flange 11. The top edge of the band 16 is preferably rolled outwardly and over a reenforcing wire 17 to give added thickness to the top edge and to increase the rigidity of the band. Also the under edge of the band 16 as well as the top edge of the flange 11 is preferably folded around upwardly and downwardly respectively, as indicated in Fig. 3, to form rounded edges.

Intermediate the central portions of the end or transverse parts of the top band 16 is fixed a plate 18 to the inner side thereof to have a lower edge rolled around cylindrically to extend under the band 16 and come around and upwardly and back against the outer face of the band to form a roll 19, as best indicated in Fig. 8. These rolls 19 form convenient grips by which the case may be lifted.

The description so far given applies to the "permanent" part of the case. As shown by the drawings, the lower flange 11 and the upper band

16 are each relatively narrow so that there are left openings of considerable size, both on the sides and ends between the posts 15.

A container, preferably made out of fiber board either in solid form or in the corrugated paper form depending primarily upon the relative costs of the two materials and also upon the use to which the holder is to be put, is formed to fit within the metal framework above described. In the simplest form herein shown, one piece of the fiber board is scored to be folded as indicated in Fig. 4 wherein there is a rectangular floor piece 20 of such dimensions that it will fit within the metallic case above described and rest on the floor 10. From that floor piece 20 extends a side wall 21 integrally therefrom along the fold line 22. This side wall 21 is given the proper dimension to have it extend from the floor piece 20 vertically upwardly within the flange 11 and the top band 16 to the top edge of the band 16 or preferably just therebelow, as indicated in Fig. 3.

Then a cover piece 23 extending integrally from the side piece 21 from a fold line 24 at the top of the piece 21 is formed to have substantially the same dimensions as the floor piece 20 and a retaining flap 25 is turned downwardly along the outer line of the cover 23.

Then to complete the walls of the fiber holder, a second piece, as shown in Fig. 5, is formed to have a major side wall 26 conforming in dimensions to the side wall 21 of the first piece. From the ends of this side wall 26 are turned the end walls 27 and 28 respectively. These end walls are dimensioned to position the wall 26 substantially against the inner sides of the flange 11 and band 16 as well as the opposite wall 21 of the other piece of the holder. The first holder piece, as shown in Fig. 4, is placed within the metal case and then the second piece, as shown in Fig. 5, is placed therein, assuming the box shape as shown in Fig. 6. Then the divider boards 29 are dropped within the holder. These divider boards, of course, maintain the ends 27 and 28 in position against the end portions of the lower flange 11 and the top band 16. The cover 23 may then be brought down and the flap 25 inserted over the outside of the wall 26 and inside of the band 16, the under edge of the flap 25 terminating immediately above the inner upturned edge of the band 16 to rest preferably directly thereon. Preferably the end walls 27 and 28 of the holder are provided with hand holes 30 and 31 respectively to be located immediately at the hand holds 19 of the metal case so that these holes may serve to permit entrance therethrough of the fingers of the operator.

In further reference to the positioning of the two fiber holder pieces within the metal case, the wall 21 is preferably given a sufficient horizontal length to have the free vertical edges of the end walls 27 and 28 abut the inner face of the wall 21 as best indicated in Fig. 6. Contact by these end walls 27 and 28 with the end portions of the flange 11 and band 16 prevent those side walls from slipping outwardly from that abutting relationship. As above indicated, the divider boards 29, when dropped within the fiber holder, maintain the end pieces 27 and 28 in contact with the flange 11 and band 16 on each end.

Thus it is to be seen that with the more or less permanent metallic case, an inner enclosing fiber holder is provided that is sufficiently simple in construction that it may be replaced on each shipment or distribution of the goods to be carried in the case. In this manner, a new, sanitary, clean holder is available with each shipment of goods and furthermore the exposed area of the side and end walls of the fiber holder may carry advertising matter or trade-marks and the like to be varied in accordance with the particular goods within the holder and also to be varied with the different seasons of the year if so desired. As opposed to the heretofore use of a fiber carton without metal reenforcing, there is less cost involved by the use of the present invention on each trip of the metal case. Also there is the important advantage in the present invention by reason of the fact that when the old cases are picked up from the customer's place of business, it is generally the practice to pick up the same number of cases that have been previously delivered and this means that in this number there may be cases supplied by other distributors or manufacturers so that in one pick-up group there may be cases carrying the names of several different manufacturers. This situation required a cost of sorting and returning and exchanging cases. With the present invention, if this situation arises where a case is returned with the name of a manufacturer other than the one picking up the case, all that is necessary is to remove the fiber holder and replace it with the correct one, a matter of extremely low cost as compared to the cost of a fiber carton sufficiently heavy in construction to stand shipment without the metal supporting case. All of this is accomplished without any set-up cost as to stitching, stapling, or gluing operations.

While I have herein shown and described my invention in the one particular form, it is obvious that structural changes may be employed such, for example, as in the details of design of the fiber holder and also in the exact formation of the supporting metal case, without departing from the spirit of the invention and I, therefore, do not desire to be limited to that precise form beyond the limitations as may be imposed by the following claims.

I claim:

1. In a shipping case, a fixed rigid support comprising a floor of sheet metal with an upwardly extending marginal flange and a plurality of longitudinal and transverse depending ribs located inwardly of the marginal flange and crossing each other a plurality of times remote from their ends, said floor having a plurality of drainage holes between the ribs, L-shaped corner members extending upwardly from the floor and an encircling band secured to said members spaced above the floor and having a pair of oppositely disposed grip rolls; and a separate, replaceable fiber holder with free wall members fitted within the support to be maintained in box-like shape thereby, said holder resting on said floor and extending upwardly within said band, said holder comprising one section having a bottom piece, a side wall piece and a top enclosing piece, and a second section separate from the first section and having two end walls and a side wall hinged to the end walls, each of said end walls having a hand hole cooperating with the respective grip rolls of the top band.

2. In a shipping case, a fixed rigid support comprising a floor of one piece continuous metal with a plurality of intersecting ribs distributed over the whole floor and having perforations between the ribs, corner members extending upwardly from the floor and an encircling band secured to said members spaced above the floor

having case-end portions; a plate fixed to each case-end portion having its lower edge formed under the band into a hand grip roll; and a separate, replaceable fiber holder comprising two separate sections each formed from an initially flat blank with free wall members fitted within the support to be maintained in complete box-like shape and against outward displacement thereby, said holder resting on said floor and extending upwardly within said band and having hand holes cooperating with the grip rolls of the band; and divider members in the holder resisting inward movement of the otherwise said free wall members.

CHARLES L. LOCKE.