Oct. 17, 1950 H. S. DEICHERT 2,526,335

BOTTLED BEVERAGE CASE

Filed Oct. 18, 1946 3 Sheets-Sheet 1

Fig. 1

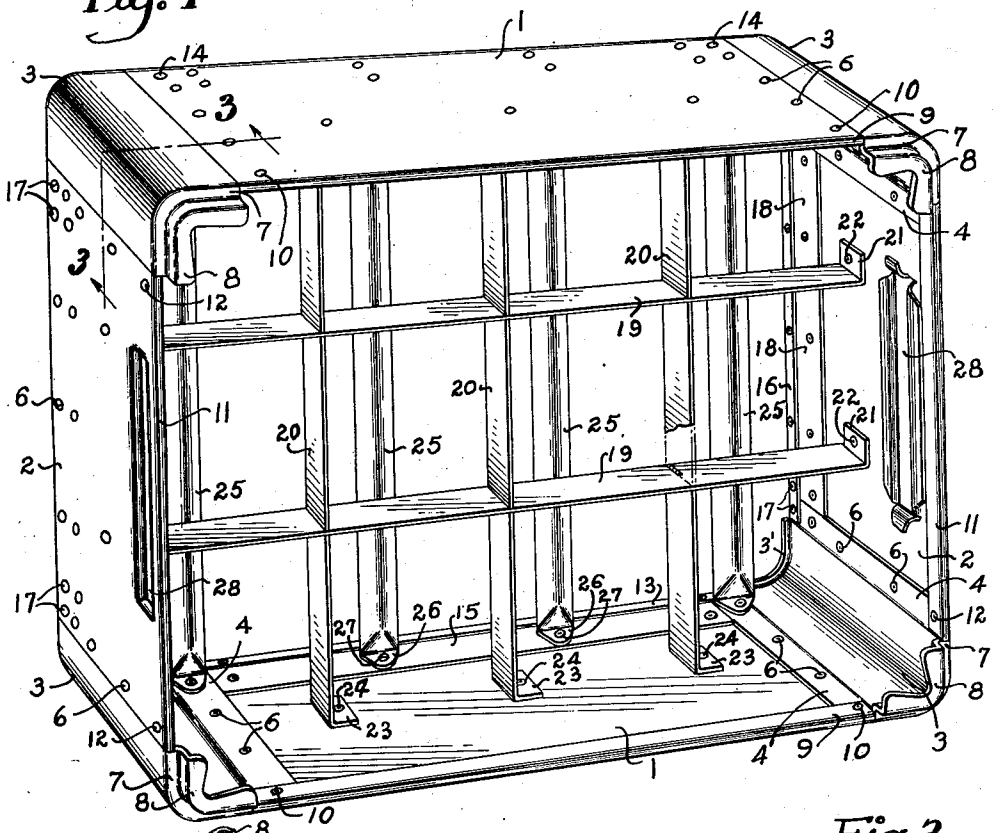


Fig. 2

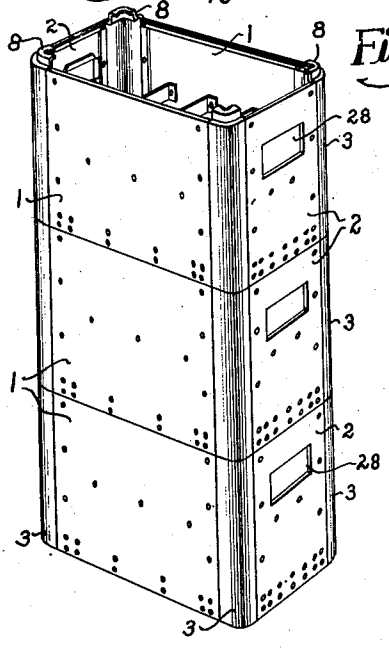
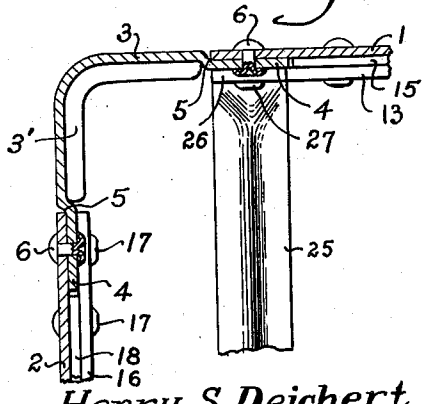


Fig. 3



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Oct. 17, 1950 H. S. DEICHERT 2,526,335

BOTTLED BEVERAGE CASE

Filed Oct. 18, 1946 3 Sheets-Sheet 2

Fig. 4

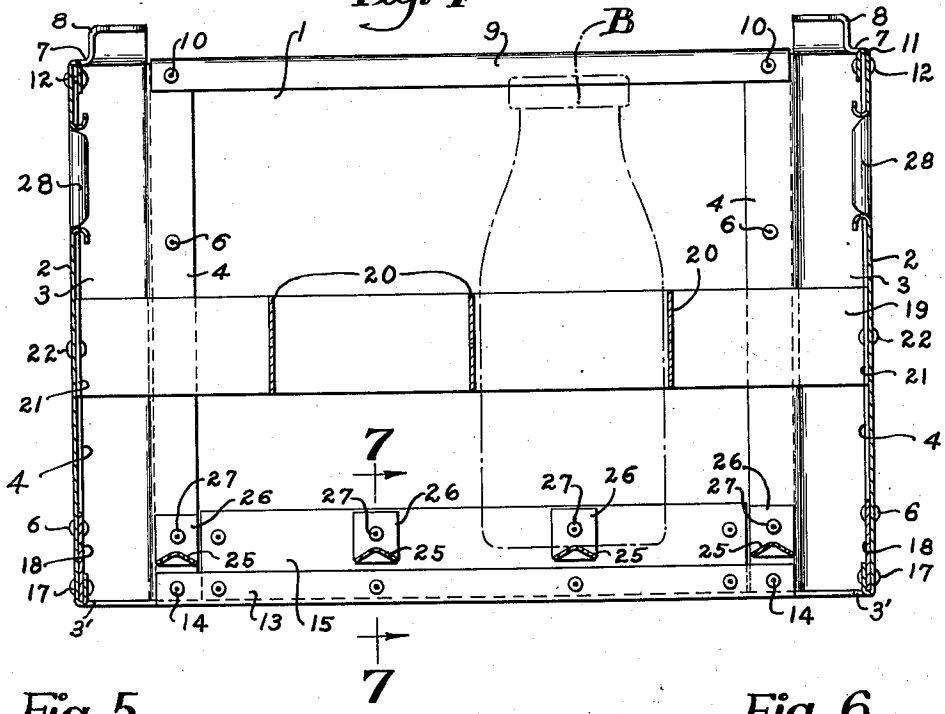


Fig. 5

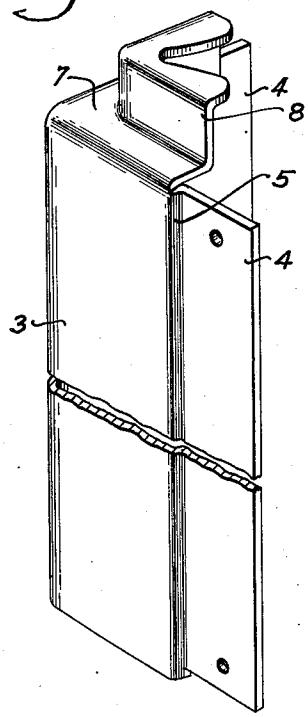


Fig. 6

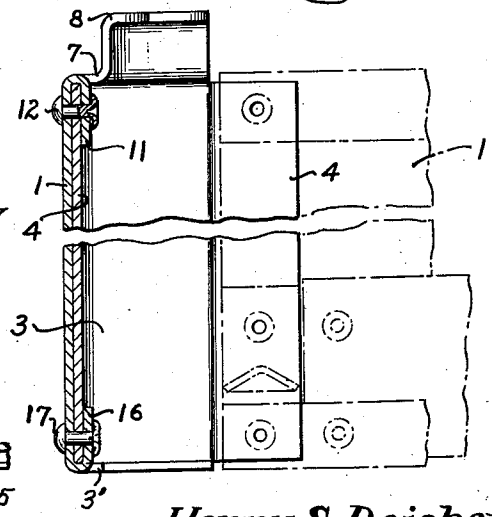
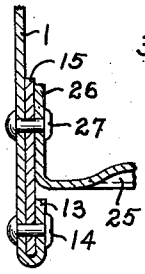


Fig. 7



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Oct. 17, 1950 H. S. DEICHERT 2,526,335

BOTTLED BEVERAGE CASE

Filed Oct. 18, 1946 3 Sheets-Sheet 3

Fig. 8

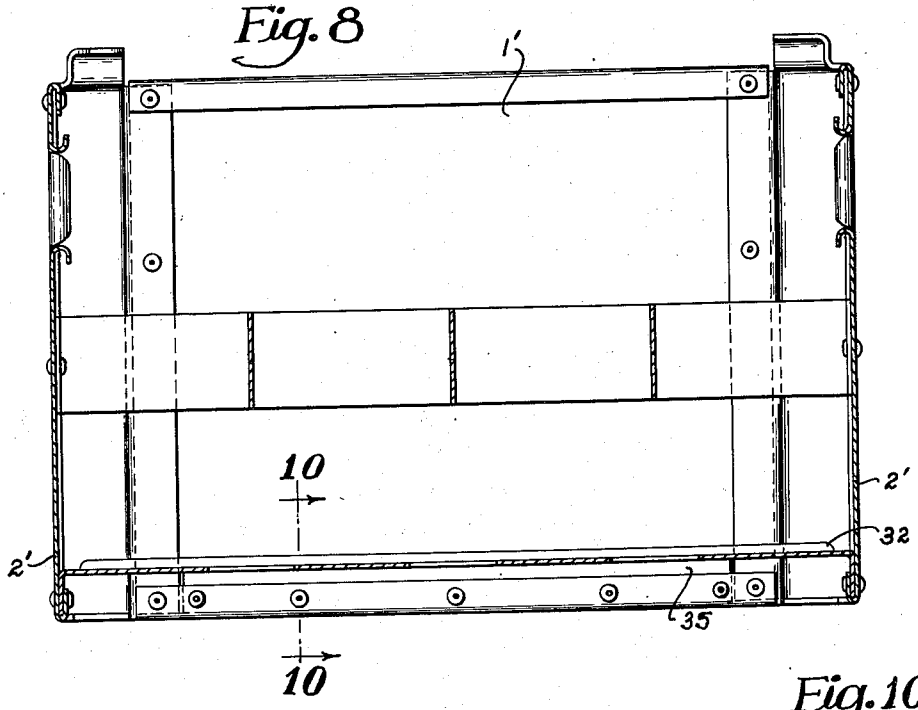


Fig. 10

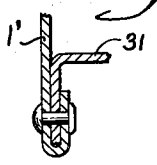
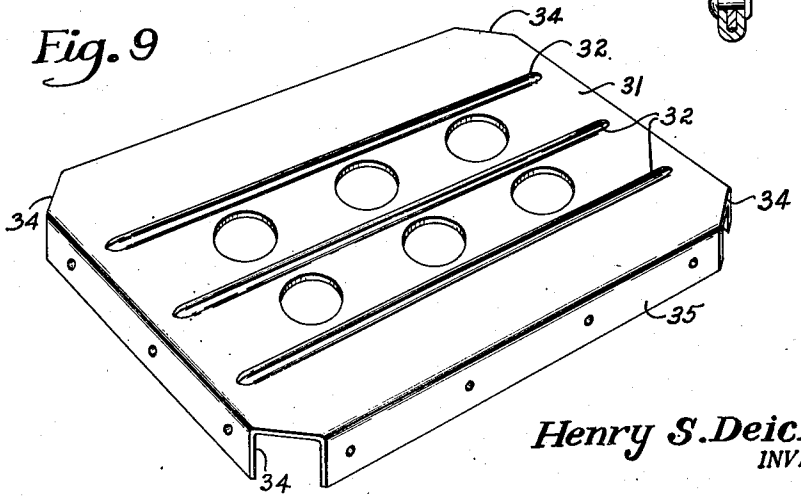


Fig. 9



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UNITED STATES PATENT OFFICE

2,526,335

BOTTLED BEVERAGE CASE

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Application October 18, 1946, Serial No. 703,939

4 Claims. (Cl. 220—4)

1

This invention relates to improvements in bottled beverage cases, particularly of the character used for the handling of milk bottles, and other containers of beverages which are adapted to be inserted removably in cases during transportation.

It has been the practice heretofore, to construct such beverage bottle cases ordinarily of wood, but this has required such heavy construction, that it has been impractical and objectionable due to the weight involved, the difficulty of cleaning the cases, and the scarcity of wood for manufacture thereof. Where it has been suggested to combine metal framework with the wooden sides, this has required so much weight as to be objectionable and has presented a difficulty in securing the metal structure to the wood, whereby it has not been satisfactory.

The primary object of this invention is to improve the construction of such bottled beverage cases, by providing for the manufacture thereof in such manner as to be light in weight, easy to handle, and which may be tiered without slipping relative to each other.

A further object of the invention is to so improve the construction of such cases as to facilitate the manufacture thereof, to permit the use of metal throughout, not only for the frame structure but also for the sides of the case, which provides a very sanitary construction due to the fact that it uses a non-absorbent material which may be sterilized easily and dries quickly.

In carrying out these objects, the case is constructed preferably of metal side walls joined together by corner brackets, which are so constructed as to stiffen and reinforce the sides of the case and also to be attached readily and securely to the side walls in such manner that the construction may be cleaned effectively. The corner brackets preferably have provision for interfitting relation with stacked adjacent cases. Provision is made for interconnecting the parts of the case in a rigid and secure manner for effective use thereof, and providing adequate reinforcement for the side walls and corners, whereby the case would have sufficient rigidity, even though constructed of relatively thin sheet metal. The bottom of the case is of open skeleton framework, joined to the side walls in a relation that will effectively support the beverage bottles and yet will provide for readily cleaning and sterilizing the case when desired.

This embodiment of the invention, together with a modification thereof, are illustrated in the accompanying drawings, in which:

2

Fig. 1 is a perspective view of one form of the case constructed according to this invention and illustrating particularly the top portion thereof;

Fig. 2 is a perspective view of a tier of cases in interlocked relation;

Fig. 3 is a transverse sectional view through the corner of the case, taken on the line 3—3 of Fig. 1;

Fig. 4 is a vertical longitudinal section through the case;

Fig. 5 is a perspective view of a corner bracket detached;

Fig. 6 is a fragmentary vertical section through the corner bracket and showing the side connection therewith;

Fig. 7 is a detail vertical cross section on the line 7—7 of Fig. 4;

Fig. 8 is a longitudinal section through a modified form of case;

Fig. 9 is a perspective view of the bottom detached, of the modified form of case; and

Fig. 10 is a detail cross section on the line 10—10 of Fig. 8.

Referring to the form of the invention shown in Figs. 1 to 7, the case is constructed, preferably, in rectangular form and of the character ordinarily used for containing and supporting milk bottles, as designated at B, in Fig. 4. However, it will be evident that the case may be used for containing any desired bottled beverages, particularly such as are adapted to be transported in these cases, such as bottled oils, food products packed in glass containers and the like.

In the form illustrated, the case comprises side and end walls, 1 and 2, each of which is shown as formed of a relatively thin sheet of sheet-metal, which is formed initially flat and adapted to be interconnected in a rectangular arrangement.

The side and end walls, 1 and 2, are joined together at each corner of the case, by a corner bracket 3, formed of sheet-metal and shaped for interfitting connection with the adjacent side and end walls. As shown in Fig. 3, each bracket 3 has lateral sides bent at angles to each other and preferably shaped to form a rounded corner. Each side of the corner bracket 3, has an offset extension 4 thereon, providing a shoulder 5 against which the adjacent edge of the corresponding side or end walls 1 and 2, abuts when said side or end wall is arranged in overlapping relation with the extension 4, and is substantially flush at its outer face with the adjacent side of the corner bracket 3, so as to provide a smooth external surface on the case, substan-

tially throughout the periphery thereof. Rivets 6 are shown as securing means for attaching the side and end walls 1 and 2 to the extensions 4 of the corner bracket 3, as shown more in detail in Figs. 3 and 6. These offset extensions 4 serve not only to attach the side and end walls to the corner brackets, but also as reinforcing means for these corner brackets to any extent that may be necessary.

Each of the corner brackets 3 has an offset top portion 7 formed by drawing inward the sheet-metal at both of the lateral sides of the corner bracket, which top portion 7 terminates in an upstanding lug 8. While the lug 8 is formed integral with the corner bracket 3, it is offset inwardly from the side and end walls and is formed angularly, substantially parallel with the corner portion of the case, so as to project into the bottom of the superposed case when assembled thereon, in tier relation, as shown in Fig. 2.

The upper edge of each side wall 1, is turned over the upper edges of the adjacent corner bracket extensions 4, as shown at 9, and is riveted thereto, as at 10. This turned-over portion of the side wall not only provides a smooth upper edge on the case, but it also reinforces the side wall and forms a secure tight connection between the latter and the adjacent corner brackets. Each of the end walls 2 is also turned over the upper edges of the adjacent extensions 4 on the corner brackets, as shown at 11, and is likewise riveted thereto at 12.

At the bottom of the case, each of the side walls has a turned up portion 13, below the lower end of each extension 4, and embracing the latter, and is riveted thereto as shown at 14. A reinforcing strip 15 extends along each side wall 1, between the opposed corner brackets and is embraced by the turned-up portion 13. This strip 15 serves as additional reinforcement for the lower edge portion of the case, along opposite sides thereof.

In like manner, the lower edge of each end wall 2 is turned-up at 16, in embracing relation with the lower edges of the adjacent end corner brackets 3 and is riveted thereto at 17. An end reinforcing strip 18 extends between said corner brackets and the extensions 4 thereof, along the lower edge of each end wall 2, and is secured to the side wall by the turned-up portion 16.

A skeleton framework is formed intermediate the height of the side and end walls 1 and 2, by interconnected division members 19 and 20, which are notched and interfitted in customary manner to form openings therebetween for holding the bottles B, in separated relation. Each of the division members 19 is shown as secured in place by means of an offset end 21, riveted at 22 to each opposite end wall 2. In like manner, each of the transverse division members 20 has offset ends 23, riveted at 24 to each of the side walls 1. These division members 19 and 20 are preferably formed of thin strips of sheet metal.

The bottom of the case is formed by transverse supporting members 25 extending from side-to-side of the case and spaced apart at points approximately midway of each transverse row of receptacles formed between the division members 19 and 20, as will be evident, as shown in Fig. 4, in positions to support the bottles B, when these are inserted into the cells formed by the division members 19 and 20. Each of the support members 25 is formed of ribbed construction provided by shaping a strip of sheet metal of inverted V-form to give sufficient rigidity to the support member while, nevertheless, using a relatively thin strip of metal. Each of the support members 25, is mounted on the opposite side walls 1, by up-turned ends 26 thereon, secured by rivets 27 to the side walls, as shown in Figs. 4 and 7.

Hand-holds are formed in each of the opposite ends 2 of the case, as designated at 28, in Figs. 1 and 4. Each of these hand-holds is shown as formed by a slot, cut out of the end wall with the edges curved inward to provide a rounded edge on the cut-out hand-hold and to reinforce the periphery thereof.

The case is constructed throughout of relatively light weight sheet material, such as sheet steel, aluminum, or any other suitable material that may be applicable and obtainable. This provides a strong and rigid construction that may be manufactured at low cost and which, nevertheless, is light in weight to facilitate handling, even when filled with beverage bottles. At the same time, it is so constructed as to be sterilized easily and to provide for immediate re-use, because of its non-absorbent character which permits quick drying, after such cleaning action.

A modified form of the invention is shown in Figs. 8 to 10, which is similar in all respects with that shown in Figs. 1 to 7, except that it has a different form of bottom, as designated at 31. The bottom 31 is formed of a single sheet of metal which has longitudinally extending ribs 32, disposed in spaced relation on the surface thereof for stiffening of the bottom and to provide supports for the rows of bottles mounted in the case.

Holes may be provided in the bottom 31, intermediate the ribs 32, if desired, to facilitate the drainage of liquid out of the case. The bottom 31 is cut-away at 34 at the corners thereof to provide holes at the corners of the case, permitting debris and other foreign matter to be washed out as the case is cleaned.

At opposite sides, the sheet-metal bottom 31 has down-turned flanges 35 thereon in interfitting relation with the up-turned lower edges of the side walls 1' in the manner described above in connection with the reinforcing construction 13—15 in Fig. 4. Likewise, the ends of the bottom 31 are turned downward as flanges in interfitting relation with the up-turned lower edges of the end walls 2', as described above in connection with the end structure shown in Fig. 6.

The lower end corner of each member 3 is inturned at 3' to form a guide which is adapted to register with and telescope over the projection 8 and to seat upon the shoulder 7.

The bottom structure shown in Figs. 8 to 10 presents a very rigid bottom for supporting the weight of the bottles, which bottom structure is effectively reinforced and secured by the interfitting relation thereof with the side and end walls of the case, without requiring any additional reinforcing strips secured therein.

While the invention has been illustrated and described in certain embodiments therein, it is recognized that these are merely illustrative of different forms of the invention and that variations and changes may be made therein, without departing from the invention, except as specified in the claims.

I claim:

1. A beverage bottle case comprising side walls and corner brackets for securing the side walls together in rigid relationship, each of the corner

brackets having lateral sides arranged substantially in alignment with the adjacent side walls of the case and having inwardly offset extensions on said lateral sides overlapping the adjacent side walls and secured thereto, said side walls of the case having the edge portons thereof turned over said extensions and secured thereto at each of the upper and lower edges of the side walls reinforcing said side walls at the top and bottom of the case, and a bottom structure for the case including edge strips arranged in interfitting relation with the up-turned lower edges of the side walls and secured rigidly thereto, bottle support members formed of angular strips of sheet metal having an apex formed on the upper surface and each end flattened and up-turned for rigid attachment to opposite lower sides of the case.

2. A beverage bottle case comprising side walls and corner brackets for securing the side walls together in rigid relationship, each of the corner brackets having lateral sides arranged substantially in alignment with the adjacent side walls of the case and having inwardly offset extensions on said lateral sides overlapping the adjacent side walls and secured thereto, said side walls of the case having the edge portions thereof turned over said extensions and secured thereto at each of the upper and lower edges of the side walls reinforcing said side walls at the top and bottom of the case, and a bottom structure for the case including edge strips arranged in interfitting relation with the up-turned lower edges of the side walls and secured rigidly thereto.

3. A beverage bottle case comprising side walls and corner brackets for securing the side walls together in rigid relationship, each of the corner brackets having lateral sides arranged substantially in alignment with the adjacent side walls of the case and having offset extensions on said lateral sides, and inturned flanges upset above and below the top and bottom edges, respectively, of the inwardly offset extensions, said brackets having an inturned flange upset above the top edge of the lateral extensions, and an upstanding lug offset inwardly from the adjacent side walls

carried upon said inturned flange, a complementary inturned integral flange formed on the lower end of each of said corner brackets so another case may be supported thereby, said side walls of the case having the top and bottom edge portions thereof turned over and covering the top and bottom edges, respectively, of the inwardly offset extensions, the top and bottom portions of said turned-over edges being substantially in alignment with the top and bottom surfaces, respectively, of the inturned flanges.

4. A beverage bottle case comprising side walls and corner brackets for securing the side walls together in rigid relationship, each of the corner brackets having inwardly offset extensions on the lateral sides thereof and an integal upstanding lug thereon offset inwardly from the adjacent side walls for interfitting relation with a complementary inturned integral flange formed on the lower end of each of said corner brackets so another case may be supported thereby, said side walls of the case having the edge portions thereof turned over said extensions and secured thereto at each of the upper and lower edges of the side walls reinforcing said side walls at the top and bottom of the case, and a bottom structure for the case including edge strips arranged in interfitting relation with the upturned lower edges of the side walls and secured rigidly thereto.

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