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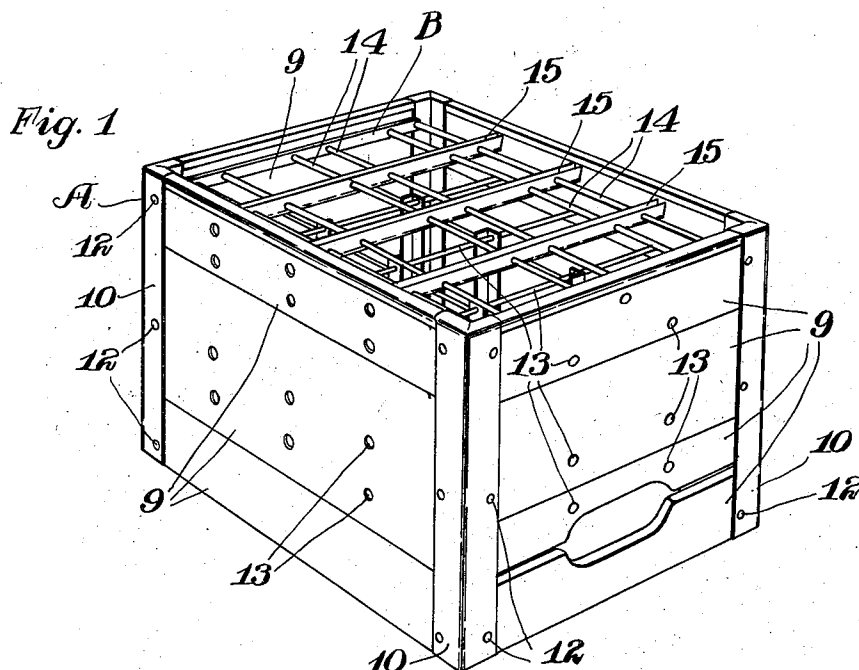
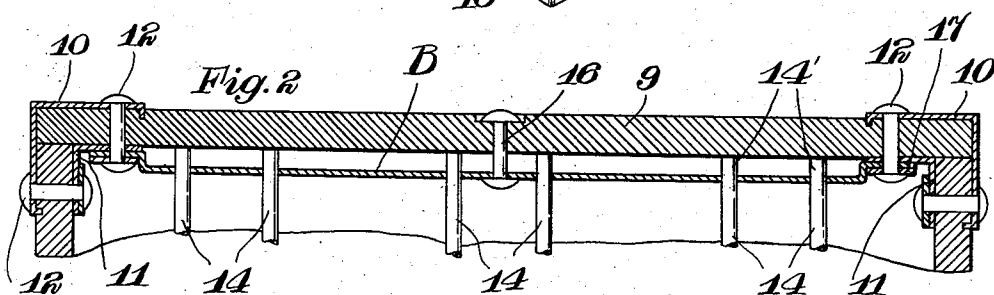
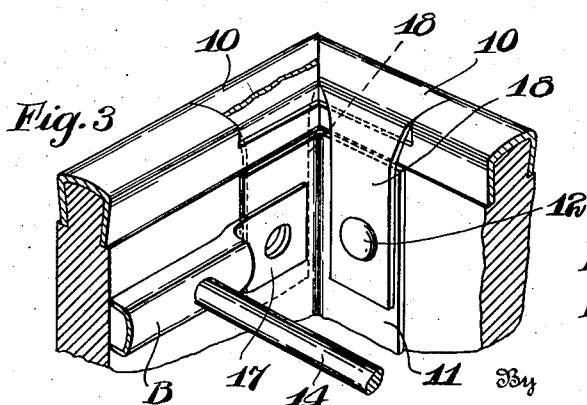
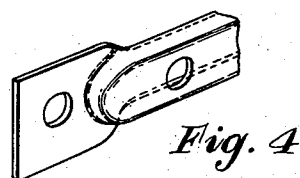
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2,092,855

MILK BOTTLE CASE

Filed July 5, 1934

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

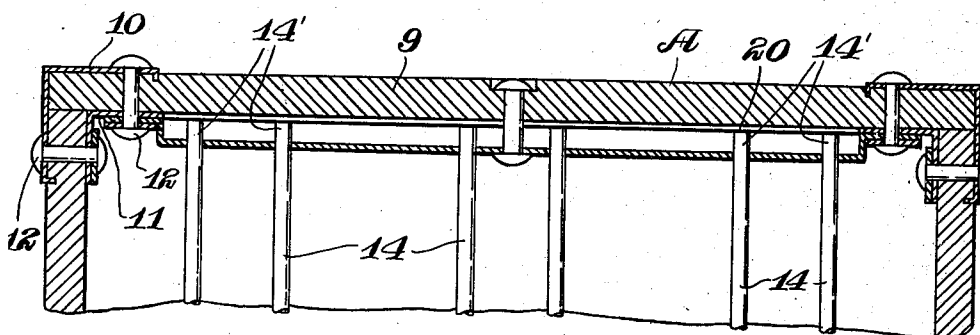


Fig. 5

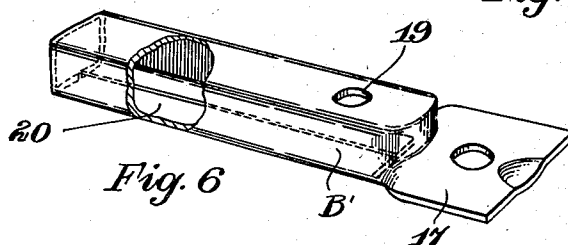


Fig. 6

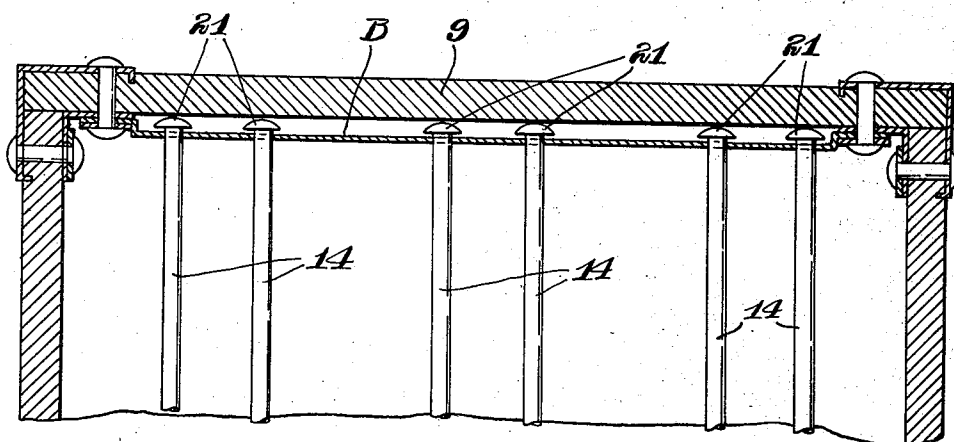


Fig. 7

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2,092,855

MILK BOTTLE CASE

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nant Company, Minneapolis, Minn., a corpora-
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8 Claims. (Cl. 217-20)

This invention relates to milk bottle cases and particularly cases which are made up of a series of wooden slats placed edge to edge and bound together at the corners by angle iron inner and outer members. A feature resides in providing a support for the wire members which form the bottom of the bottle compartments of the case. We provide a means of supporting the ends of the wires which form the bottoms of the bottle compartments which overcomes the weakening of the lower slats of the case which was an objection in old styles and former constructions of milk crates. Heretofore milk bottle crates and the like have been made with the wires which form the bottoms for the compartments of the case anchored in the lower wooden slat of the case, thus putting a strain on the lower slat and weakening the same by the rods running through the slat. The holes which support the rods in the lower slat wear, and finally the wear and tear on the lower slat in supporting these rods has a tendency to crack or break the slat and it must be replaced. We overcome this by providing a channel or tubular bracket bar which engages the ends of the rods which form the bottoms of the compartments and holds the rods supported in a manner so that the weight on the rods is carried by the channel and distributed to the corners of the case where the same is reinforced by the inner and outer angle iron members.

The invention includes a reinforced supporting means for the ends of the rods which form the bottoms for the bottle compartments.

Further, our invention includes the construction of a milk bottle case or the like where rods or similar members are used as bottom members for the bottles to rest upon, and a means for supporting the ends of these rods which will distribute the weight carried by the rods to the corners and to several points of the case rather than at the individual points where the rod ordinarily would pass through the wall of the case.

The channel bracket bar further forms a reinforcing means across the end of the case between the corners. This makes a stronger crate construction as well as serving as a bracket bar for the ends of the compartment bottom rods.

In the drawings forming part of this specification:

Figure 1 illustrates a perspective of our milk case, looking at the bottom, viewing the compartment bottom forming rods and supporting of the same.

Figure 2 is an enlarged sectional detail show-

ing the bracket bar construction for supporting the ends of the compartment bottom forming rods.

Figure 3 illustrates an enlarged sectional perspective detail of one corner of our case.

Figure 4 is an enlarged detail of the end of the channel bracket bar.

Figure 5 is a sectional detail, similar to Figure 2, showing a different construction of the bracket bar which in this form has a tubular nature.

Figure 6 illustrates an enlarged perspective detail of the tubular bracket bar used in the construction of the crate illustrated in Figure 5.

Figure 7 is a sectional detail similar to Figure 2, showing the compartment bottom forming rods formed with heads on the ends thereof which are supported within the bracket channel bar.

Our milk bottle case A is made up of slats or members 9 which are placed edge to edge and are adapted to be reinforced and held together at the corners by metal outside corner members 10 and metal inside corner members 11. The corner angle members 10 and 11 are connected together by rivets 12 which extend through the wooden slat members.

The case A is divided into bottle compartments by a series of intersecting wires 13 which extend at right angles to each other and such as are shown herein. These wires 13 extend in different planes and run crosswise and longitudinally of the case A and extend through the wooden sides of the case. The ends of the rods are riveted over on the outside of the slat members 9 as illustrated in Figure 1.

To form a bottom for the milk bottle compartments formed in the case A, we provide parallelly extending pairs of rods 14. The rods 14 extend through the transversely disposed angle reinforcing members 15. Heretofore the ends of the rods 14 were anchored in the lower slat member 9 on each end of the crate similar to the anchoring of the rods 13. However, this old construction was inclined to weaken the lower slat member 9 where the rods 14 pass through the same, and therefore we have developed the channel bracket bar B which is held secured to the slats 9 of the case A by a central rivet 16, while the ends 17 are flattened and are secured by the rivets 12 between the surface of the inner angle member 11 and the tongue 18 which is formed on the outer angle member 10 and is folded over the bottom as illustrated in Figure 3. Thus the rods 14 have their ends 14' extending through the holes 19 formed in the channel

bracket bar B and abutting against a slat 9 which holds the rods against longitudinal movement. This provides a bracket for supporting the ends of the rods 14 and thus distributes the weight carried by the compartment bottom forming rods 14 along the channel B which is anchored at its ends to the corner members 10 and 11.

It will also be apparent that the channel bar B forms a reinforcing means extending across the end walls of the case A, thereby making the case A stronger in its construction and securely supporting the ends of the rods 14.

The bracket bar may be formed in a tubular construction such as B', illustrated in Figures 5 and 6, if it is desired. When the bracket bar B' is employed in the case A, the rods 14 extend through the holes 19 and the ends of the rods 14 will abut against the inner wall 20 of the tubular bracket bar B'. The wall 20 prevents the ends of the rods 14 from biting into the wooden slat 9 in any longitudinal movement of the rods 14.

We also make our crate in the form illustrated in Figure 7 with the ends of the rods 14 upset or formed with enlarged head portions 21. The heads 21 form a larger abutting end on the rods 14 so as to hold the same against a certain amount of longitudinal play and also provide a means of preventing the rods 14 from biting into the bottom slat 9 of the milk bottle case A.

With this form and construction of milk bottle case A, we provide a stronger and more practical milk case which is adapted to provide a better wearing construction and overcome any weakening by the supporting of the rods 14 in the slats of the case. It will be apparent that when milk bottles are carried in the case A and the case is subjected to hard wear and rough handling, it is extremely important that the compartment bottom forming rods 14 be well supported so that the milk bottles carried on the same will not have a tendency to crack or break the bottom end slats 9. This we have accomplished by our bracket channel bar B and tubular bar B' which not only forms a substantial means for holding the ends of the rods 14, but also acts as a brace bar from corner to corner across the ends of the case A. The angle corner members 10 and 11 provide a strong and substantial supporting means for the ends of the bars B and B' and distribute the load carried by these members into the corners of the case.

It is apparent that the channel and tubular bracket bars may be made of any suitable material or in any form and construction wherein they provide a reinforced support for the ends of the rods 14, leaving the rods free from direct load supporting contact, with the lower slats 9 taking the strain off of these slats. It will also be clear that the bracket bar may be varied within the scope of the following claims as may be apparent to those skilled in the art.

We claim:

1. A milk bottle case including, walls forming the body of the case, bottle compartments formed in said case body by a series of intersecting rods, bottom rods extending across said compartments on which the bottles are adapted to rest, and channel means for supporting the ends of said rods, means for securing said channel means with the open side thereof abutting the inner wall surface, said channel means distributing the weight carried by said bottom rods along said channel and to the points of attachment thereof with said body.

2. An end support for bottom rods for a milk bottle case including, a channel member including a channel base having openings therein into which the rods are adapted to be anchored, and means for supporting said channel to the body of a case in a manner to distribute the load carried by the channel received from the rods.

3. Bottle cases and the like having side walls formed of wooden slats having inner and outer surfaces, angle iron members for connecting said slats together at the corners, bracket bar means extending over the inner surface of a wall and having a portion thereof spaced from and parallel to said wall secured at the ends to said angle iron corner members, and bottom forming members carried by said bracket bar means.

4. Bottle cases and the like comprising, walls formed of wooden slats, means for connecting said slats together to reinforce the same inwardly and outwardly at the corners, bottom forming members extending between the sides of said case adjacent the bottom edge thereof, and tubular bracket means extending along the walls of said case having openings in one side thereof for supporting the ends of said bottom forming members which terminate within said tubular member to distribute the load carried by said bottom forming members along said tubular bracket means.

5. A milk bottle case and the like including, a tubular channel brace member, and a series of pairs of rod members having their ends terminated and anchored within said tubular channel brace member to form a reinforced bottom support for bottles carried by said case.

6. A milk bottle case and the like including, side walls formed of nonmetallic slats positioned edge to edge, reinforcing corner angle members for connecting said slats together, longitudinally disposed pairs of rods extending across the bottom of said case to form supporting means for the bottles carried by said case, and tubular channel bracket bars having openings therein for accommodating the ends of said rods which terminate within said hollow bracket bars anchored at the corners and between the ends thereof to the walls of said case adapted to distribute the weight carried by said rods to said tubular channel bar.

7. A milk bottle case comprising, walls formed of nonmetallic slats, means for connecting and reinforcing said slats at the corners to form the body of said case, bottle compartments formed in said case, compartment bottom forming rods straight from one end to the other extending across the bottoms of the bottle compartments, channel bracket bar means having openings therein for accommodating the ends of said compartment bottom forming rods, and guard means for preventing the ends of said bottom forming rods from biting into the surface of said slats adjacent thereto.

8. A brace bar means for compartment bottom forming rods for bottle cases including, a channel member, openings formed in said channel member for receiving the ends of the bottom forming rods, means for anchoring said channel member to the side of the bottle case, and guard means opposite said openings for the ends of said compartment bottom forming rods to overcome the end thrust wear of the bottom forming rods.

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