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L. W. MACOMBER

BOTTLE CRATE

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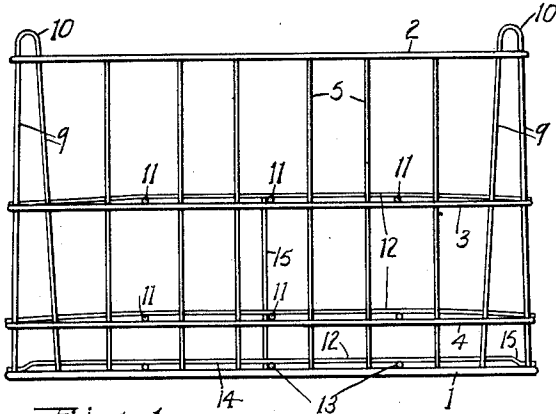


Fig-1-

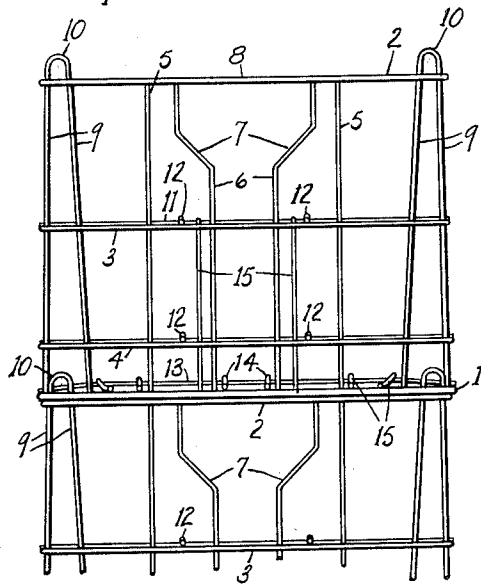


Fig-3-

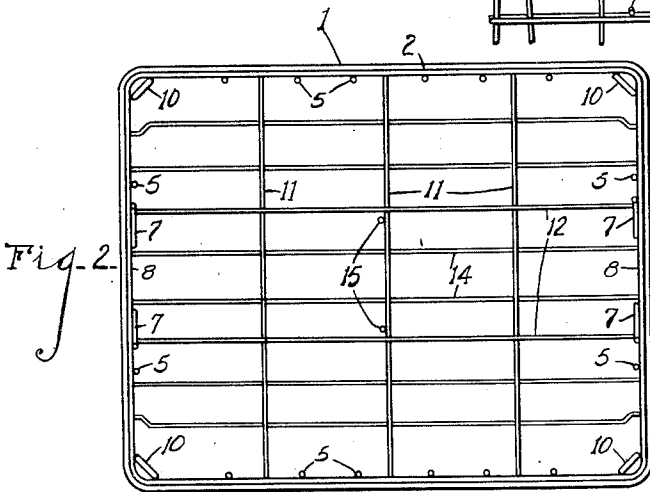


Fig-2-

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# UNITED STATES PATENT OFFICE.

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## BOTTLE CRATE.

Application filed December 27, 1927. Serial No. 242 536.

The main object of this invention is to provide a bottle crate for the handling of milk bottles and the like which facilitates the stacking of a plurality of crates, is very strong and at the same time is comparatively economical in structure.

Objects pertaining to details and economies of my invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure which embodies the features of my improvements is clearly illustrated in the accompanying drawing forming a part of this application, in which:

Fig. 1 is a side elevation of my improved bottle crate.

Fig. 2 is a plan view thereof.

Fig. 3 is a fragmentary end elevation of a pair of the crates superimposed one upon the other.

My improved crate as illustrated consists of a bottom frame member 1, top frame member 2 and intermediate frame members 3 and 4. The bottom frame member is preferably substantially heavier than the top and intermediate frame members and preferably the top frame member is of a gage exceeding that of the intermediate frame members. These frame members are continuous, that is, they are formed of heavy wire or rods bent to shape with the ends butt-welded together, and preferably have rounded corners as illustrated in Fig. 2.

The intermediate frame member 3 is spaced centrally between the top and bottom frame members while the intermediate frame member 4 is adjacent to but spaced from the bottom frame member 1.

The vertical slats 5 and 6 are arranged on the inner sides of the top, bottom and intermediate members and welded thereto. The slats 6 are the central end slats and have offsets 7 in their upper ends, see Fig. 3, providing end openings below the top frame member, the portions 8 of which between these offset ends 7 constitute hand-holds.

The horizontal frame members are further connected by the loop or hairpin-shaped corner members 9 which are formed of pieces of wire bent upon themselves into loop form with downwardly diverging arms. These corner members are arranged with their bights 10 projecting above the top frame member 2 and their arms disposed on the inside of and secured to the adjacent side

and end portions of the frame members by welding thereto. This not only provides reinforcing corner members but the projecting portions 10 constitute lugs adapted to engage within the corners of the bottom frame of a superimposed crate as shown in Fig. 3, thereby retaining the crates in alinement when they are stacked one upon another.

I provide a plurality of transverse and longitudinal partition members 11 and 12, the transverse partition members being arranged in vertically alined pairs and secured at their ends to the side portions of the intermediate frame members 3 and 4. The longitudinal partition members 12 are arranged in vertically alined pairs and secured at their ends to the end portions of these intermediate frame members, the partition members 11 and 12 being secured to each other at their crossing points.

Transverse bottom members 13 are arranged in vertical alinement with the partition members 11 and secured to the upper sides of the side portions of the bottom frame member while the longitudinal bottom members 14 are arranged in spaced pairs below the compartments formed by the partition members providing bottoms therefor.

These longitudinal bottom members have downwardly offset ends 15 welded to the upper sides of the end portions of the bottom frame member so that the main portions of the longitudinal bottom members are in a horizontal plane, although they are disposed above and welded to the transverse bottom members at the point of crossing.

To prevent sagging of the partition members when under load I preferably provide a pair of spaced vertical struts 15 which are welded to the sides of the central bottom member 13 and central transverse partition member 11.

My improved crate is very strong and rigid and while adapted for heavy loads such, for instance, as bottles of milk, the crate illustrated having a capacity of twelve quarts, the crate may be kept in a sanitary condition and bottles are fully exposed for chilling. A plurality of crates may be stacked one upon the other without danger of the superimposed crates slipping off.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A bottle crate comprising top and bottom and intermediate continuous frame members having rounded corners, one of said intermediate frame members being disposed centrally between the top and bottom frame members and the other adjacent to but spaced from the bottom frame member, upright side and end slats welded to the inner sides of said frame members, corner members formed of loops of wire having downwardly diverging arms disposed at the corners of the crates with their bights projecting above the top frame member and with their arms welded to the inner sides of the adjacent side and end portions of the frame members, longitudinal and transverse partition members disposed horizontally in vertically alined spaced crossed relation and welded to each other and to said intermediate frame members providing a series of compartments, transverse bottom members welded at their ends to the upper side of said bottom frame member, and longitudinal bottom members disposed in spaced pairs below said compartments and welded to said transverse bottom members, said longitudinal bottom members having downwardly offset ends welded to the end portions of said bottom frame member.
2. A bottle crate comprising top and bottom intermediate continuous frame members having rounded corners, one of said intermediate frame members being disposed centrally between the top and bottom frame members and the other adjacent to but spaced from the bottom frame member, upright side and end slats welded to the inner sides of said frame members, corner members formed of loops of wire having downwardly diverging arms disposed at the corners of the crates with their bights projecting above the top frame member and with their arms welded to the inner sides of the adjacent side and end portions of the frame members, longitudinal and transverse partition members disposed horizontally in vertically alined spaced crossed relation and welded to each other and to said intermediate frame members providing a series of compartments, transverse bottom members welded at their ends to the upper side of said bottom frame member, and longitudinal bottom members disposed below said compartments and welded to said transverse bottom members, said longitudinal bottom members having downwardly offset ends welded to the end portions of said bottom frame member, and spaced upright strut members welded to the central transverse partition members and to the central transverse bottom member.
3. A bottle crate comprising top and bottom and intermediate continuous frame members having rounded corners, one of said intermediate frame members being disposed centrally between the top and bottom frame members and the other adjacent to but spaced from the bottom frame member, upright side and end slats welded to the inner sides of said frame members, the upper ends of the central pair of end slats being outwardly offset providing a hand opening below the top frame member permitting the grasping thereof at opposite ends of the crate, corner members formed of loops of wire having downwardly diverging arms disposed at the corners of the crates with their bights projecting above the top frame member and with their arms welded to the inner sides of the adjacent side and end portions of the frame members, longitudinal and transverse partition members disposed horizontally in vertically alined spaced crossed relation and welded to each other and to said intermediate frame members providing a series of compartments, transverse bottom members welded at their ends to the upper side of said bottom frame member, and longitudinal bottom members disposed below said compartments and welded to said transverse bottom members and welded to the end portions of said bottom frame member.
4. A bottle crate comprising top and bottom and intermediate frame members, upright side and end slats welded to the inner sides of said frame members, corner members formed of loops of wire having downwardly diverging arms disposed at the corners of the crates with their bights projecting above the top frame member and with their arms welded to the inner sides of the adjacent side and end portions of the frame members, longitudinal and transverse partition members disposed horizontally in vertically alined spaced cross relation and welded to said intermediate frame members providing a series of compartments, transverse bottom members disposed in vertical alinement with the transverse partition members and welded at their ends to the upper side of said bottom frame member, longitudinal bottom members disposed in spaced pairs below said compartments and welded to said transverse bottom members, said longitudinal bottom members having downwardly offset ends welded to the end portions of said bottom frame member, and spaced upright strut members welded to the central transverse partition members and to the central transverse bottom member.
5. A bottle crate comprising top and bottom and intermediate continuous frame members, upright side and end slats welded to the inner sides of said frame members, corner members formed of loops of wire having downwardly diverging arms disposed at the corners of the crates with their bights projecting above the top frame member and with their arms welded to the inner sides of the adjacent side and end portions of the frame members, longitudinal and transverse partition members disposed horizontally in vertically alined spaced cross relation and welded to said intermediate frame members providing a series of com-

partments, transverse bottom members welded at their ends to the upper side of said bottom frame member, longitudinal bottom members disposed below said compartments and welded to said transverse bottom members and to the end portions of said bottom frame member, and spaced upright strut members welded to the central transverse partition members and to the central transverse bottom member.

6. A bottle crate comprising top and bottom and intermediate continuous frame members, upright side and end slats welded to the inner sides of said frame members, corner members formed of loops of wire having downwardly diverging arms disposed at the corners of the crates with their bights projecting above the top frame member and with their arms welded to the inner sides of the adjacent side and end portions of the frame members, longitudinal and transverse partition members disposed horizontally in vertically alined spaced cross relation and welded to said intermediate frame members providing a series of compartments, transverse bottom members disposed in vertical alinement with the transverse partition members and welded at their ends to the upper side of said bottom frame member, and longitudinal bottom members disposed in spaced pairs below said com-

partments and welded to said transverse bottom members, said longitudinal bottom members having downwardly offset ends welded to the end portions of said bottom frame member.

7. A bottle crate comprising top and bottom and intermediate continuous frame members, upright side and end slats welded to the inner sides of said frame members, corner members formed of loops of wire having downwardly diverging arms disposed at the corners of the crates with their bights projecting above the top frame member and with their arms welded to the inner sides of the adjacent side and end portions of the frame members, longitudinal and transverse partition members disposed horizontally in vertically alined spaced cross relation and welded to said intermediate frame members providing a series of compartments, transverse bottom members welded at their ends to the upper side of said bottom frame member, and longitudinal bottom members disposed below said compartments and welded to said transverse bottom members and to the end portions of said bottom frame member.

In witness whereof I have hereunto set my hand.

LYNN W. MACOMBER.