No. 678,826. Patented July 16, 1901.

J. MATHY.

CRATE.

(No Model.) (Application filed Apr. 25, 1901.)

Fig. 1.

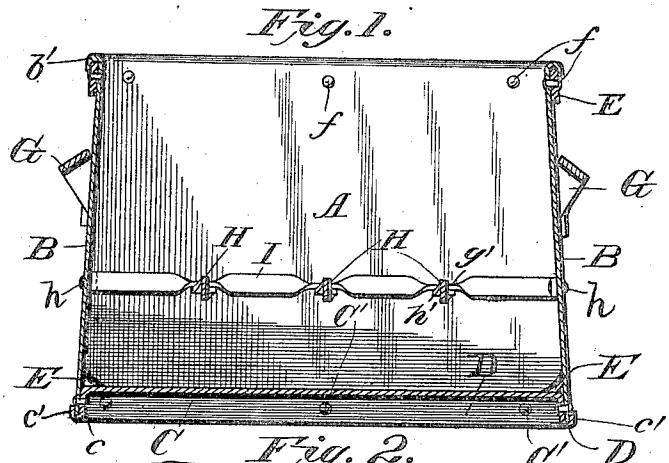


Fig. 2.

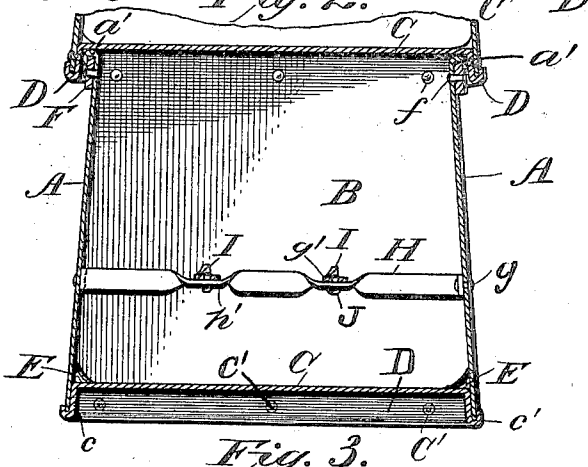
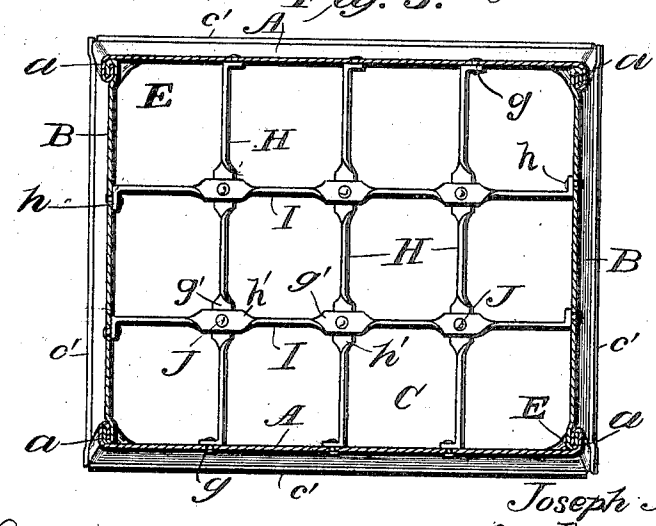


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH MATHY, OF WASHINGTON, DISTRICT OF COLUMBIA.

CRATE.

SPECIFICATION forming part of Letters Patent No. 678,826, dated July 16, 1901.

Application filed April 25, 1901. Serial No. 57,439. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MATHY, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Crates; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improved crate especially designed for transportation of bottled fluids, such as milk, beer, &c.; and one object of the invention is to provide a metallic crate which will hold the bottles like an ordinary wooden crate, but will also hold the fluids should a bottle or bottles be accidentally broken, thus keeping clean the wagon or car wherein the crates are being transported. Further, these metallic crates may be used as coolers and may be partly filled with ice, so as to maintain the milk, &c., at a low temperature, and when so used the full benefit of the ice is realized, as the water of liquefaction is retained in the crates.

Another object of the invention is to so construct the crates that they can be set one on top of another, an upper crate serving as a cover for the lower one and the lower crate serving as a base and holding the upper one in place.

The invention therefore consists in the novel metallic crate hereinafter claimed and described with reference to the accompanying drawings, in which—

Figure 1 is a longitudinal section, Fig. 2 a transverse section, and Fig. 3 a horizontal section, of the crate, illustrating the preferred construction thereof.

The crate is preferably rectangular and ordinarily constructed of a size large enough to hold a dozen quart-bottles of milk, or two dozen pint-bottles; but their size may be varied. The crates are open at top, and preferably their sides A and ends B incline inwardly from bottom to top, so that the crate is slightly smaller at top than at bottom, the particular object being to have the lower end of one crate fit upon the top of another, which enables the crates to be conveniently and securely packed on top of each other, with the upper crate covering the lower one. The bottom C of the crate is secured to the sides thereof by means of a downwardly-extending flange *c*, which flange is partially bent up over the lower edges of the sides and ends of the crate, as at *c'*, and the bends *c c'* and lower edges of the sides and ends form a stiff reinforced bottom rim D for the crate, while the bottom C is supported a half-inch or so above the bottom of this rim D. The joints between bottom C and sides and ends of crate may be soldered to make them water-tight, and fillers E, of lead or sheet metal, may be placed in the inner corners of the crate to facilitate cleansing thereof and to stiffen the corners, which are naturally subjected to most violent usage. The bottom C may be further attached to the sides and ends by rivets C', as shown, and preferably this bottom is made of heavier sheet metal than the sides and ends, as it is subjected to harder usage. The sides and ends may be connected by flanged joints *a* when made of separate pieces, as indicated in the drawings.

Around the upper edge of the crate is secured a stiffening-band F, of metal, such as hoop-iron, and the upper edges of the sides and ends are preferably flanged over this band, as at *a' b'*. This band may be further secured both by solder and by rivets *f*, as indicated in the drawings.

Lifts or handholds G, of strap metal, may be riveted to the ends, as shown, by which the crate can be easily handled.

Within the crate is a grating which, while it may be of other desired construction and also removable, if desired, I preferably make of strap metal. As shown, this grating is composed of a series of transverse straps H and a series of longitudinally-disposed straps I, intersecting straps H. These straps are preferably riveted at their ends to the sides and ends of the crate, as at *g h*, so as to permanently fasten the grating in position, and the straps are arranged vertically edgewise, as shown, so as to give greater bearing-surface against bottles, &c., and be most yielding in the direction in which the bottles would naturally press against them at their intersections. However, the straps are preferably given a half-twist, so as to lie flatwise and against each other, as shown at *g' h'*, and at their intersections are preferably secured together by rivets J, as shown. This construc-

tion secures the grating permanently in the crate, and the grate-bars form stays to bind the sides and ends firmly together and hold the crate in proper form against both internal or external strain or pressure.

I prefer to make the crate out of heavy sheet-iron, galvanized to prevent corrosive action of water thereupon, and for convenience in construction and for the purpose of more tightly and securely closing the joints and smoothing rough edges I preferably galvanize the crates after they are completely made. This gives thorough protection to every exposed point and joint of the crate and is a great practical advantage in the construction thereof.

Having thus described my invention, what I therefore claim as new, and desire to secure by Letters Patent thereon, is—

1. The herein-described metallic crate, substantially as described; having a grating composed of a series of transversely-disposed straps riveted at their ends to the sides of the crate and thereby staying and bracing the sides, and a series of longitudinally-disposed straps, riveted at their ends to the ends of the crate and thereby staying and bracing the ends, said straps being arranged vertically edgewise, but twisted flatwise at their points of intersection, and being also connected together at intersecting points, for the purpose and substantially as described.

2. The herein-described metallic crate having a depending rim or flange on its lower side to uphold its bottom, and having its sides and ends inclined so that its top is smaller than its bottom; and a grating therein composed of a series of intersecting metal straps connected at points of intersection and riveted at their ends to the ends and sides of the crate, substantially as described.

3. The herein-described metal crate, having its sides and ends inclined inwardly and its bottom inset and flanged and connected to the sides and ends to form a depending stiffening-rim on the lower side of the crate, a stiffening-band around the top edge of the crate over which the sides and ends are flanged, one crate being adapted to fit onto the top of another like crate to form a cover therefor, substantially as and for the purpose described.

4. The herein-described crate having its sides, ends, and bottom formed of sheet metal, the bottom being connected to the lower edges of the ends and sides by a downturned and upturned flange and by rivets, substantially as described; and a grating in said crate composed of intersecting metallic bars arranged vertically edgewise, but bent flatwise at their points of intersection and riveted together, substantially as specified.

5. The herein-described crate having its sides, ends and bottom formed of sheet metal, a depending rim or flange on its lower side to keep its bottom out of contact with the floor, and a strengthening or reinforcing band around the upper edge of the crate, the bottom rim of one crate being adapted to fit onto the top of a like crate; and a grating composed of intersecting metal straps having their ends riveted to the ends and sides of the crate, and riveted to each other at their points of intersection, all substantially as described.

6. A metallic crate having a depending stiffening-rim formed on its lower edges to uphold its bottom, a stiffening-band around its top edges, and fillers in its inner corners; and a grating in the crate composed of a series of longitudinal straps riveted at their ends to the ends of the crate, and a series of transverse straps riveted at their ends to the sides of the crate, said straps being united at their intersecting points and forming stays or braces between the sides and ends of the crate, substantially as described.

7. The herein-described metal crate having its bottom flanged and so connected to the sides and ends as to form a depending stiffening-rim on the lower side of the crate, a stiffening-band around the top edge of the crate over which the sides and ends are flanged, one crate being adapted to fit onto the top of another like crate to form a cover therefor, and fillers in the inner corners of the crate, the crate being galvanized after it is manufactured; and a grating in the crate composed of parallel transverse and longitudinal metal straps riveted at their ends to the ends or sides of the crate, and connected at their intersections, said straps bracing the body of the crate substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH MATHY.

In presence of—
JAMES R. MANSFIELD,
ARTHUR E. DOWELL.