(No Model.)

W. F. THIEMEYER.

BOTTLE CASE.

No. 456,447. Patented July 21, 1891.

Fig. 1.

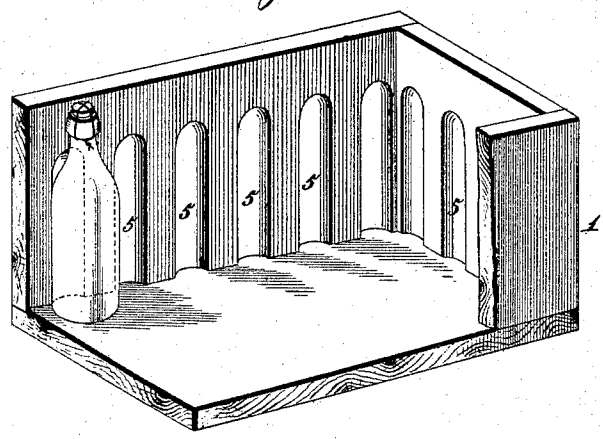


Fig. 2.

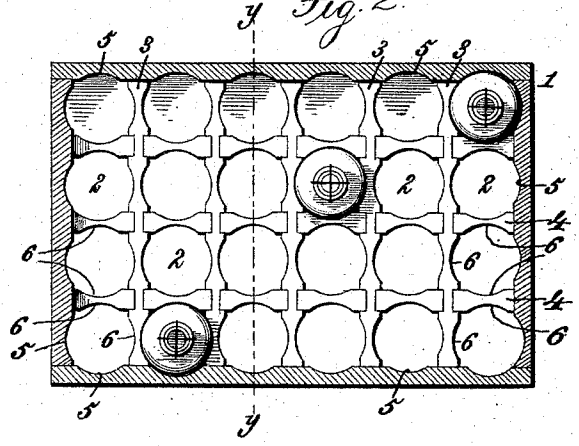
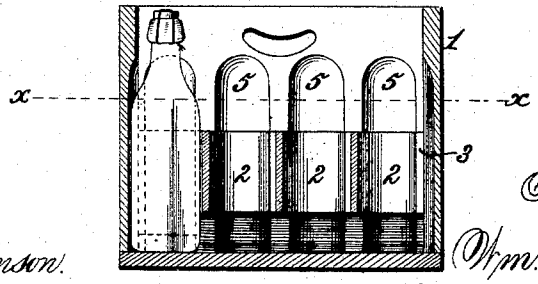


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM F. THIEMEYER, OF BALTIMORE, MARYLAND, ASSIGNOR TO J. H. THIEMEYER & CO., OF SAME PLACE.

BOTTLE-CASE.

SPECIFICATION forming part of Letters Patent No. 456,447, dated July 21, 1891.

Application filed December 26, 1889. Serial No. 335,014. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. THIEMEYER, a citizen of the United States, residing at Baltimore, Maryland, have invented certain new and useful Improvements in Bottle-Boxes, of which the following is a full, clear, and exact specification.

My invention relates to that class of boxes usually employed for carrying bottles containing beer, wine, soda, and mineral waters, and other liquids usually shipped in bottles, which boxes are so well known in the market as to require no specific description.

It is the purpose of my invention to provide a box of this character having a simple and novel construction, whereby the several bottles may be wholly separated from each other and securely retained in their relative positions, while a substantial economy is effected in the material composing the box.

The invention consists in the several novel features of construction and new combinations of parts hereinafter fully set forth, and then definitely pointed out in the claims following this specification.

The invention comprises a box or packing-case of the type mentioned having seats or recesses in the inner faces of its side and end walls, and, in conjunction therewith, similar seats or recesses formed in the interior frame opposite the seats or recesses in the walls of the box, whereby a material economy of lumber is effected in the aggregate and a close-fitting support is given to the bottles, the weight of the box being thereby lessened and its dimensions decreased without decreasing the strength or contracting its capacity for containing the required number of bottles.

To enable others skilled in the art to make, construct, and use my said invention, I will proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a broken perspective view of my improved box for packing and transporting bottles of beer, wine, and other liquids. Fig. 2 is a horizontal section of the same, taken on the line $x\ x$, Fig. 3. Fig. 3 is a vertical sectional view of the box, taken on the line $y\ y$, Fig. 2.

In the drawings, the reference-numeral 1 designates the box, which is made of any suitable wood and of the ordinary size. Within the interior of the box is arranged a series of cells or compartments 2, Fig. 2, each of a size to contain a single bottle, said cells or compartments being formed of transverse strips or partitions 3 of wood or other material, combined with intersecting strips, partitions, or sections 4, running longitudinally of the box. The rectangular cells 2 are preferably raised somewhat above the bottom of the box, as shown in Fig. 3, in order to embrace the body of the bottle.

The four rectangular walls of the box are cut away or concaved opposite and in the line of a central vertical plane, passing through each partition and compartment, thus forming in the inner face of each wall of the box a series of depressions or concave seats 5, having a curvature which approximates the convexity of the bottles. These depressions or recesses 5 extend for some little distance above the top of the rectangular cells 2, in order that the bottles may enter such recesses as the bottles are inserted into the cells, and they also extend to the bottom of the box, upon which the bottles rest. The inner face of each of the four walls inclosing each of the said cells 2 are recessed or concaved, as shown at 6, to co-operate with the seats 5 in receiving the bottles. By this construction the box or case is not only rendered very light, but its strength is not materially lessened, while the formation in its walls of the seats for the bottles results in the saving of a considerable quantity of lumber in the construction of the boxes, since the contraction in length and width effected by means of the seats, while it is not great in any single box, is nevertheless the source of a marked economy in the aggregate in the manufacture of this class of boxes or packing-cases, as it admits of the compact and secure storage of the bottles, enables the boxes to be made of less length and width, and, lastly, the amount of lumber consumed in construction is sensibly decreased by reason of the increased interior produced by the concave seats, while the weight of the box is decreased without detracting from its strength.

It should be noted that the bottles may be

securely held or retained by the opposite concave seats, one formed in the inner face of the wall of the box and the other in the parallel face of the transverse or longitudinal strip 3 or 4, as the case may be. It will be readily seen that the bottles may be closely and firmly inclosed between these opposite concave vertical faces without regard to the seats or recesses formed in the strips inclosing the inner compartments or in said strips in conjunction with the inner walls of the box.

By my invention a box holding the same number of bottles of the same size will easily rest within the form of box heretofore used, besides being lighter and more compact.

I may form the concave vertical seats in the inner faces of the four rectangular walls of the box only, and not in the faces of the transverse and longitudinal strips or partitions 3 and 4, inclosing the separate bottle cells or compartments 2. I obtain by this construction the advantage of an extended contact with the body of the bottle upon one side thereof, whereby it is much more firmly and safely supported, and whereby, also, in the event of a sudden shock or a fall of the box upon its side or end the danger of breakage of the bottles lying against the outer walls and thereby directly exposed to the force of the blow is materially diminished, inasmuch as the contact is extended over a surface of the bottle, which is very large compared with the mere tangential contact which takes place when the outer walls are not recessed in the manner as shown in Fig. 1. At the angles of the box this function is particularly conspicuous, since the adjacency of the two end and side faces permits the formation of two of the concave seats or recesses for the support of the bottle.

I am aware that heretofore and prior to my invention a box for bottles has been manufactured in which the inward vertical faces of the transverse and longitudinal partition-strips have been provided with concave seats or recesses to receive the bottles, and I make no claim in this application to such a construction broadly.

Having thus described my invention, what I claim is—

1. A packing-box for containing bottles of beer and other fluids provided with an interior series of compartments formed by transverse and longitudinal partition strips or pieces, the four inner faces of the box-walls being provided with vertical concave seats or recesses for the bottles, extending from the bottom of the box to a point above the said partition-strips, substantially as described.

2. A packing-box for containing bottles of beer and other fluids and provided with a series of interior compartments formed by transverse and longitudinal strips or pieces, the four inner faces of the box being provided with vertical concave seats extending from the bottom of the box to a point above said strips, and the latter being provided with similarly-shaped seats extending from the upper to the lower edges thereof, substantially as described.

3. In a box for containing bottles of beer or other fluids, having a series of interior rectangular compartments formed by transverse and longitudinal strips or pieces raised above the bottom of the box, and a series of vertical concave seats or recesses formed in the inner faces of the box-walls opposite the center of each rectangular compartment and extending above and below said strips or pieces, substantially as described.

4. In a box for containing bottles of beer and other fluids and provided with interior supports for the bottles, and a series of vertical concave seats or recesses formed in the inner faces of the walls of the box at such points as to co-operate with the interior supports in sustaining the bottles, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM F. THIEMEYER.

Witnesses:
WM. J. DAVIS,
THOS. KELL BRADFORD.