

A. A. LE DOYEN.
 GRATE.
 APPLICATION FILED JULY 18, 1911.

1,019,665.

Patented Mar. 5, 1912.

2 SHEETS—SHEET 1.

FIG. 1.

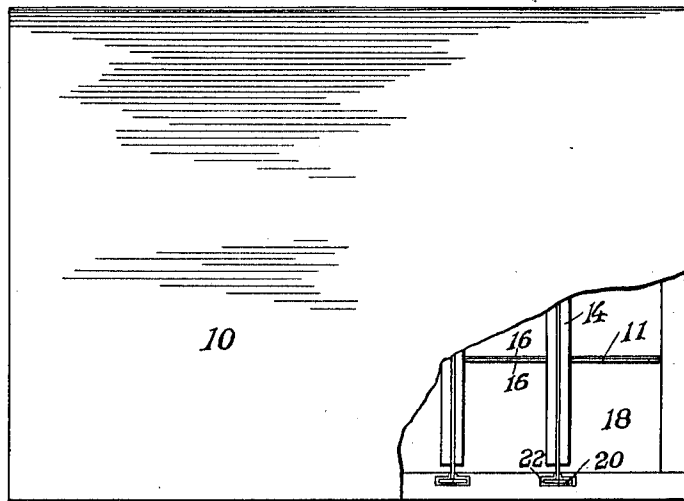
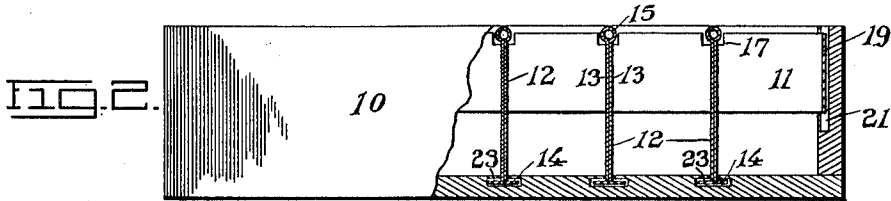
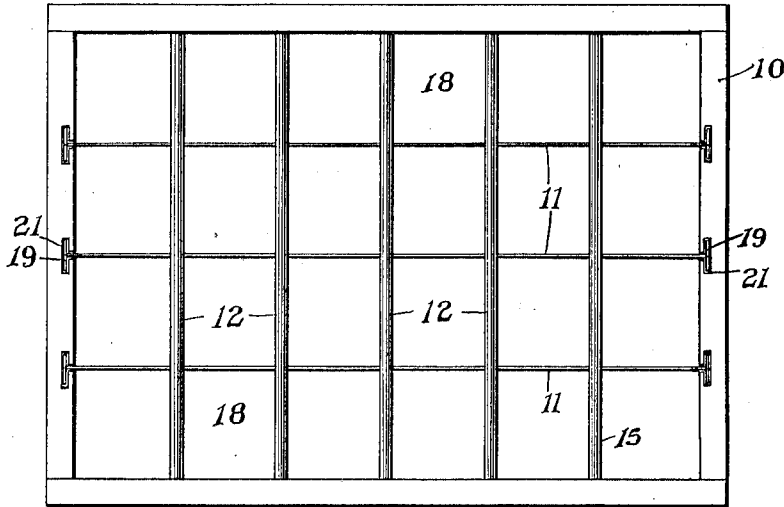


FIG. 3.

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Witnesses

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2 SHEETS—SHEET 2.

FIG. 4.

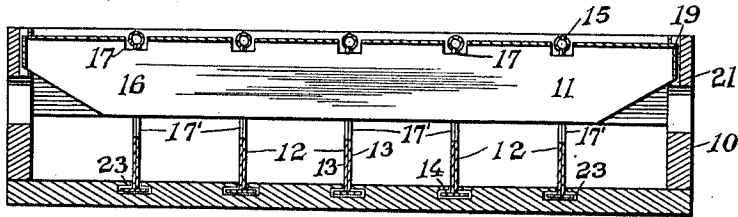


FIG. 5.

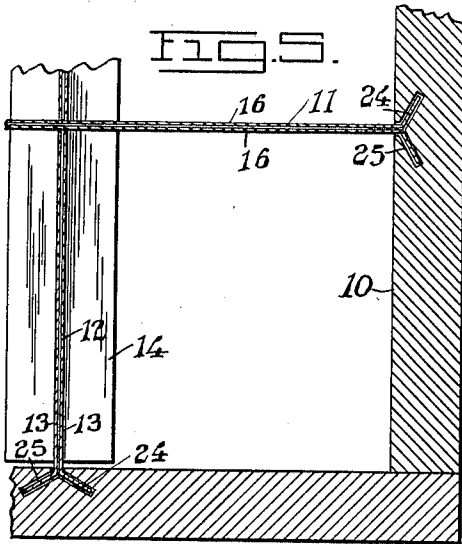


FIG. 6.

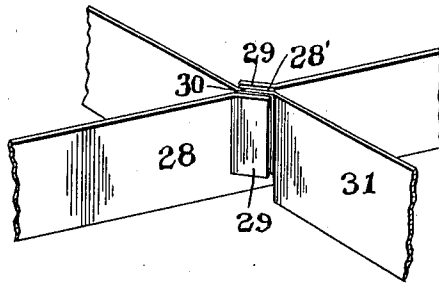
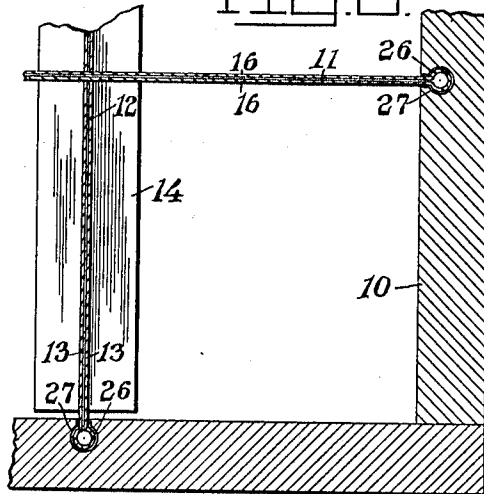


FIG. 7.

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UNITED STATES PATENT OFFICE.

ALFRED A. LE DOYEN, OF AUGUSTA, GEORGIA, ASSIGNOR OF ONE-FOURTH TO
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CRATE.

1,019,665.

Specification of Letters Patent.

Patented Mar. 5, 1912.

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To all whom it may concern:

Be it known that I, ALFRED A. LE DOYEN, a citizen of the United States, residing at Augusta, in the county of Richmond and State of Georgia, have invented new and useful Improvements in Crates, of which the following is a specification.

The invention relates to crates, and more particularly to the class of nest crates, boxes, or the like.

The primary object of the invention is the provision of a crate in which the nest thereof will be securely fastened within the same, so that bottled beer, milk, or the like may be held therein for transportation from one point to another.

Another object of the invention is the provision of a crate in which the nest partitions will be joined in a novel manner to the vertical walls and bottom of the crate for the locking thereof within the crate.

A further object of the invention is the provision of a crate in which the nest partitions will be held fast within the body of the crate through the medium of lock joints, so as to prevent the removal of the nest from the body, without the removal of the bottom of the body, thereby assuring strength and rigidity to the nest, so as to withstand the severe usage to which such crate is subjected in handling.

A still further object of the invention is the provision of a crate in which a nest is arranged therein for receiving the bottles, the parts being so joined as to give lightness to the crate, without minimizing the strength thereof.

A still further object of the invention is the provision of a crate of this character which is simple in construction, and inexpensive in manufacture.

Other objects of the invention will be in part obvious, and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combination of elements, and arrangement of parts, which will be exemplified in the construction hereinafter fully set forth, while the scope of the application of which will be pointed out in the following claims.

In the drawings: Figure 1 is a top plan view of a crate constructed in accordance with the invention. Fig. 2 is a side elevation thereof, the same being partly in sec-

tion. Fig. 3 is a bottom plan view, the same being partly broken away. Fig. 4 is a vertical longitudinal sectional view through the crate. Fig. 5 is a fragmentary detail view, showing a modified form of lock joint between the nest partitions and the crate body. Fig. 6 is a similar view to Fig. 5, showing a further modification. Fig. 7 is a similar view, showing a still further modification.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings by numerals, 10 designates the box or crate body which is formed of the sides, ends and a bottom composed of wood, metal or other suitable material, and secured together in any desirable manner, so as to give the requisite rigidity or strength to the body.

Arranged within the body is a bottle nest, comprising spaced parallel longitudinal partitions 11, and transverse partitions 12, the same being preferably constructed from metal, and said partitions 11 are of less depth than the partitions 12, which latter are each formed of a single sheet of material, bent to provide double walls 13 arranged in contacting relation to each other, the free edges of the walls being outturned to form locking flanges 14 at the bottom of the said partitions, while at the top edges of the same is provided a tubiform beading 15, thereby materially strengthening the partitions. Each partition 11 is formed of a single piece of metal bent to provide double walls 16, contiguous to each other, the upper edges of said partitions being formed with notches 17 for receiving the beading 15 on the partitions 12, which latter are provided with alining slots 17', through which are passed the said partitions 11, so as to form independent pockets 18 between the partitions for receiving bottles which are held from any displacement, during the transportation of the crate or otherwise handling thereof. The opposite ends of the partitions 11 and 12 are formed with outturned locking flanges 19 and 20, respectively, the flanges 19 being adapted to engage in T-shaped vertical slots 21 formed in the ends of the crate body 10, said slots 21 opening through the top edges of the said ends and extending only partially through the latter, while the flanges 20 engage in T-shaped slots 22 formed vertically in the sides of the crate body 10 and

open through the bottom edges thereof. However, these slots 22 extend through a greater portion of the width of the sides, but terminate spaced from the top edges thereof. Formed in the bottom of the body 10, transversely thereof, are T-shaped slots 23 which open through the inner face of the said bottom, and through opposite longitudinal side edges thereof. In the slots 23 are engaged the locking flanges 14, at the bottom edges of the partitions 12.

In assembling the crate with the bottle nest therein, it is necessary to first engage the flanges 20 of the transverse partitions in the sides of the box body, then pass the longitudinal partitions 11 through the slots 17' in the partitions 12, it being understood of course that the end locking flanges 19 are formed upon the said partitions 11 subsequent to the passing of the same through the slots 17', and after the flanges 19 are formed, the ends are placed between the sides of the crate body, so that the said flanges 19 will engage in the slots 21, and finally the bottom is slid laterally on the box body 10, whereupon the flanges 14 at the bottom edges of the partitions 12 will engage in the slots 23 in said bottom, and the said bottom is then fastened to the side and end walls in any ordinary manner.

In Fig. 5, there is shown a slight modification of lock joint for the partitions, each being formed with diverging flanges 24 which engage in correspondingly shaped slots 25 formed in the wall adjacent thereto of the crate body.

In Fig. 6, there is shown a still further modification of lock joint for the partitions, wherein each partition is provided with a curled or tubiform beading 26, which engages in a circular-shaped groove 27 formed in the wall adjacent thereto of the box body, the said groove being of a corresponding size to the beading 26 on the partitions.

In Fig. 7, the longitudinal partitions 28 are each provided with slots 28', the edges confronting the same being outturned in reverse directions to form reversely disposed diagonal locking tongues 29 which are adapted to engage abutment shoulders 30 formed on the transverse partitions 31 which are passed through the slots 28' in the longitudinal

partitions 28, the said shoulders 30 on the partitions 31 being adjacent to the locking tongues 29 for engagement thereby. Thus, in this manner the partitions will be interlocked with each other, thereby preventing any lateral movement or any tendency to longitudinal movement.

By the above construction, all of the parts of the box are so united and braced as to provide a structure in which none of the parts can work loose and cause rattling, while at the same time, the rigidity obtained is such as to enable the box to withstand the rough treatment to which the same is subjected in transportation and handling.

From the foregoing, taken in connection with the accompanying drawings, it is thought that the construction and manner of assembling the parts of the invention will be thoroughly understood, without requiring a more extended explanation.

What is claimed is:

1. In a crate, a body including sides, ends and a bottom, the ends being provided with vertical slots opening through their upper edges, the sides being provided with slots opening through their bottom edges, the said bottom being provided with transverse slots opening through the opposite longitudinal edges and the inner face thereof, and a nest having lock-joint flanges engaging in the slots in the sides, ends, and bottom.

2. In a crate, a body including sides, ends and a bottom, the ends being provided with vertical slots opening through their upper edges, the sides being provided with slots opening through their bottom edges, the said bottom being provided with transverse slots opening through the opposite longitudinal edges and the inner face thereof, longitudinal partitions having end flanges engaged in the slots in the end walls, and transverse partitions provided with end and bottom flanges engaged in the slots in the sides and bottom.

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

ALFRED A. LE DOYEN.

Witnesses:

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T. S. LYONS.