

(No Model.)

J. W. & A. GLIDEWELL.  
CRATE.

No. 488,997.

Patented Jan. 3, 1893.

Fig. 1

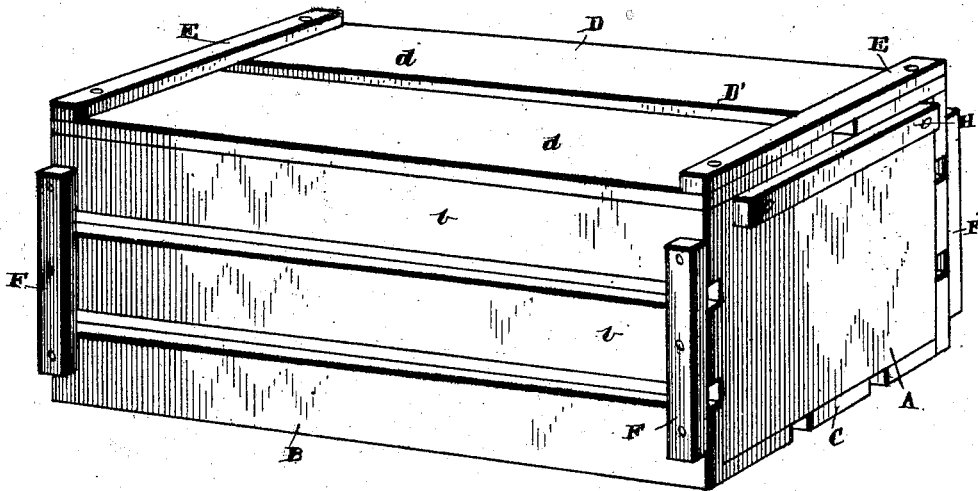


Fig. 2.

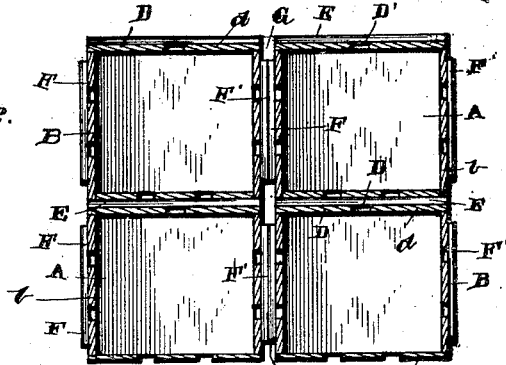
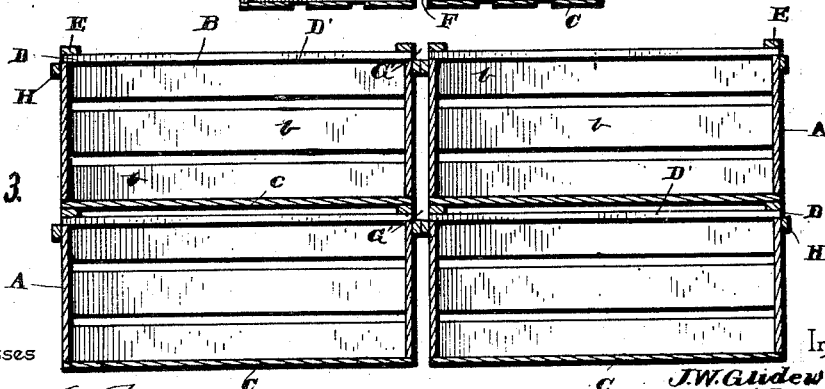


Fig. 3



Witnesses

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By their Attorneys,

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# UNITED STATES PATENT OFFICE.

JOHN W. GLIDEWELL AND ALFRED GLIDEWELL, OF GRAND ISLAND, FLORIDA.

## CRATE.

SPECIFICATION forming part of Letters Patent No. 488,997, dated January 3, 1893.

Application filed July 16, 1892, Serial No. 440,273. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN W. GLIDEWELL and ALFRED GLIDEWELL, citizens of the United States, residing at Grand Island, in the county of Lake and State of Florida, have invented a new and useful Crate, of which the following is a specification.

Our invention relates to improvements in crates for shipping fruit, &c., the object of which is to provide such a construction that a free circulation of air is permitted upon all sides of each crate, without regard to the manner in which the crates are stacked or tiered.

We have found that in shipping large quantities of perishable produce, the crates are not always arranged in accordance with any prescribed plan, namely, that which their construction demands, but are placed indiscriminately, one upon the other, thus cutting off and interrupting the circulation of air, to the injury of the goods.

Our invention, therefore, consists in constructing the crate so as to insure a free circulation of air on all sides of each crate in all positions thereof, and thus guard against the mistakes of inexperienced parties.

Our improved crate is illustrated in the drawings, wherein;—

Figure 1 is a perspective view; Fig. 2 is a vertical sectional view of a tier of crates, taken transversely through the latter; Fig. 3 is a similar view taken longitudinally through the crates.

The heads, or ends, A A, of our improved crate are solid, being formed, each, of a single piece, as shown; the object of this construction being to enable the crates to be marked or stenciled on the ends as being the most convenient place. When marked upon the ends the crates need not be moved to learn their destination, whereas when marked on top or side extra handling is required. The sides, B B, and the bottom, C, are each formed of three slats, *b, b, b*, &c., and *c, c, c*, said slats being placed at intervals or separated so as to allow free circulation of air through the crate, from side to side. The top, D, comprises two parts or sections, *d, d'*, which are separated about one-inch, at their adjacent edges, the slot, or space, D', thus formed, extending the entire length of the crate, as

shown. This slot, or space, in connection with the intervals between the strips in the bottom of the crate, allows free circulation of air upward through the carrier. The parts, or sections, *d d'*, are connected together by the transverse cleats, E E, equal in length to the width of the crate and flush at their ends with the sides thereof. These cleats are two in number, as shown, none being placed at the center of the top, and are flush at their outer edges with the heads or ends of the crate, so as to be directly over the edges of the said heads or ends, whereby the weight of super-imposed crates is carried by the solid heads or ends, and not by the slats which comprise the sides of the carrier.

Cleats, F F and F' F', are secured to the sides of the crate, two upon each side, at the ends, the outer edges of the said cleats being flush with the heads or ends of the crate as in the case of the top cleats, above described. The cleats, F and F', however, differ from the top cleats in that they do not extend the entire height or width of the crate, but terminate, at each end, short of the edge of the side to which they are attached. That is, the side cleats terminate at their ends short of the top and bottom of the crate, thus leaving an air-space, G, at the extremity of each side cleat. No intermediate side-cleats are used. Each side is provided with two cleats, each of which is flush with the adjacent head, and opposite the edge of said head, so that in case of lateral pressure upon the crates the strain is sustained by the column of heads, as in the matter of weight, or vertical pressure.

To hold the heads of contiguous crates out of contact, and provide hand-holds for convenience in handling, each head is provided at its upper edge with a transverse, or horizontal bar, H, flush at its upper edge with the upper edge of the head, and terminating at its ends short of the side edges of the head. Thus, an air-space, G', is provided at each end of each bar, to allow circulation of air between the heads and prevent moisture from collecting. Therefore, the cleats or bars which are used in connection with our improved crate, are as follows: two upon the top which extend entirely across and terminate at the sides of the crate; two upon each side, which extend partially across and ter-

minate short of the top and bottom so as to form air-spaces; and one upon each head or end, which extends partly across and terminates short of the sides to form similar air-spaces. The top and side cleats are flush at their outer edges with the head, so that the weight or pressure of adjoining or super-imposed crates cannot spring or distort the sides or top. No intermediate cleats, (which, obviously, would receive a portion of the weight or pressure of adjoining crates, and thus spring the strips) are employed. The end bars are secured to the heads, flush with their upper edges, and terminate short of the sides, to provide air-spaces, said bars being adapted for use as hand-holds, and as means for separating the ends of contiguous crates.

Crates constructed in accordance with our invention cannot be stacked, or tiered in any way which will prevent a free circulation of air upon all sides.

Having thus described our invention, what we claim and desire to secure by Letters Patent of the United States, is;—

In a crate, the slatted bottom and sides, the slats being disposed longitudinally and separated at their adjacent edges to provide in-

tervening spaces, the solid heads to which the extremities of the slats composing the bottom and sides are attached, a sectional top having its sections separated to provide intervening spaces, the vertical side cleats secured to the sides near their ends and terminating short of the bottom and top, the transverse top cleats terminating at their ends flush with the sides of the crate, said top and side cleats being flush at their outer sides with the heads, and horizontal end cleats attached to the heads with their upper sides flush with the upper edges thereof and terminating short of the side edges of the same, whereby when a series of crates are arranged in tiers, air-spaces are formed between the sides, bottom, top and heads of each crate and the respectively adjacent sides of the surrounding crates, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN W. GLIDEWELL.

ALFRED GLIDEWELL.

Witnesses:

A. M. DEWITT,

J. W. KIMBALL.