(No Model.)

A. H. MORRISON & W. A. PRESTON.

SHIPPING BOX.

No. 323,714. Patented Aug. 4, 1885.

Fig. 1.

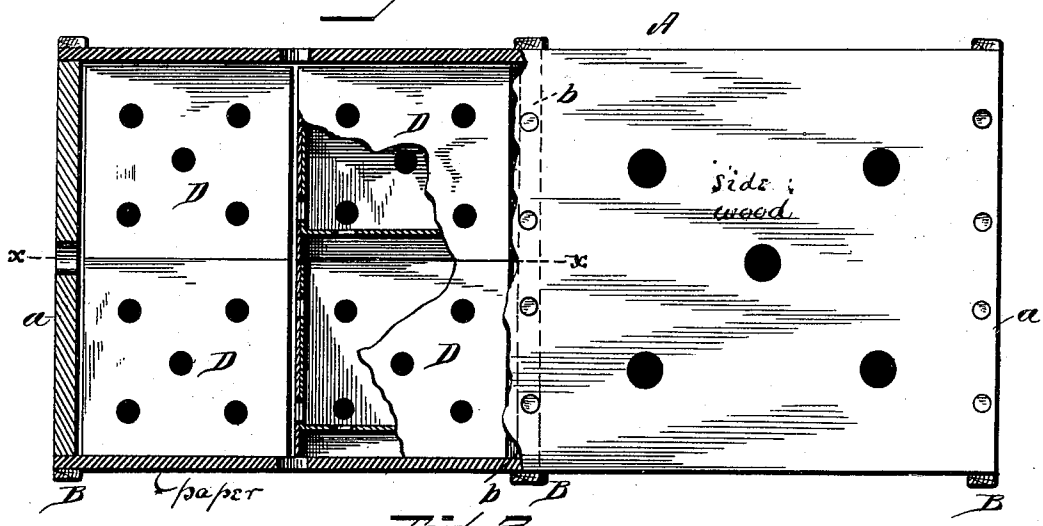


Fig. 2.

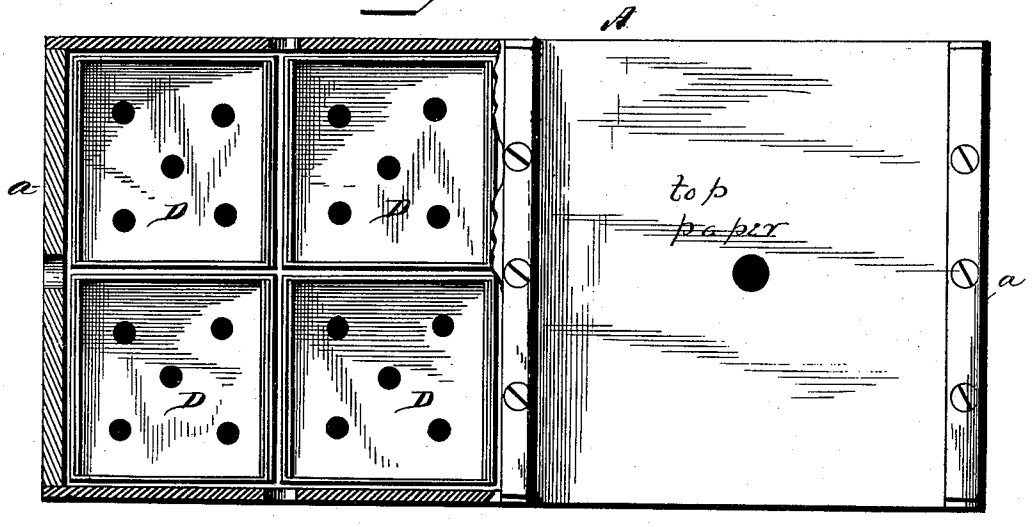
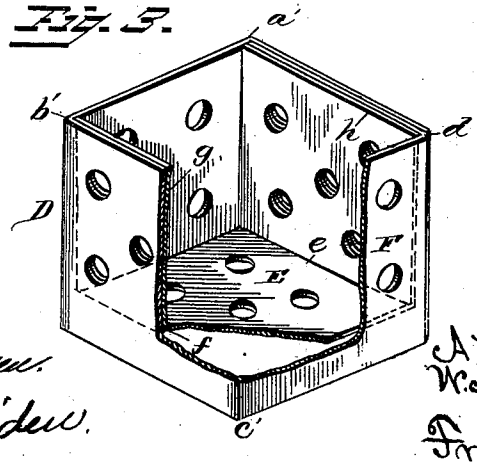


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALEXANDER H. MORRISON AND WALLACE A. PRESTON, OF ST. JOSEPH, MICHIGAN.

SHIPPING-BOX.

SPECIFICATION forming part of Letters Patent No. 323,714, dated August 4, 1885.

Application filed April 15, 1885. (No model.)

To all whom it may concern:

Be it known that we, ALEXANDER H. MORRISON and WALLACE A. PRESTON, citizens of the United States, residing at St. Joseph, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Shipping-Boxes; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention has relation to improvements in shipping boxes or crates to be used for the transportation of berries; and it consists in the construction, novel arrangement, and adaptation of devices, as will be hereinafter more fully set forth, and particularly pointed out in the claims appended.

An important desideratum in devices of this character is to lessen the expense of manufacture and to simplify the means of ventilation so as to keep berries cool and fresh. To do this at a minimum expense is the main object of the present invention.

Figure 1 is an elevation, partly in vertical section, of the crate. Fig. 2 is a horizontal section on line *x x*. Fig. 3 is a perspective view of the berry-box.

In carrying out our invention we provide a box or crate, A, which is preferably of rectangular elongated form. This box is constructed entirely of paper with the exception of the end walls, *a a*, and the middle transverse partition-wall, *b*, the sides, top, and bottom being composed of stout paper—such as pasteboard—and secured to the respective edges of the end and middle walls by means of screws or other suitable fastening devices. The bottom is secured to the said walls by cleats B, which are of a sufficient thickness to keep the said bottom from direct contact with any means of support, consequently forming a passage beneath the said bottom for the free circulation of air to the interior of the box through the ventilating-apertures. The cover may be provided in a similar manner to afford similar advantages for the box in case it should be placed face downward or another box placed upon it. The sides and ends, as well as the top and bottom, are provided with ventilating-apertures, as shown. This box is divided into two compartments of such a diameter as to conveniently receive and hold in a snug and compact manner a suitable number of small berry or fruit boxes, as will be presently explained.

D indicates the berry or fruit boxes that are placed in the outer case or box, A, and are made entirely of paper. In making these boxes D, we take a strip of pasteboard or other suitably-stiff paper and bend or crease it at the points *a' b' c' d*. We then bring the free ends to overlap each other in a vertical position, after which we take a strip, E, having perforations similar to that of the strip F, and bend it at *e* and *f*, the sections *g* and *h* being of less length than the width of the strip F. We then place this strip E within the walls of the strip F, which are brought together in rectangular contour, where they are secured together, care being taken to bring the middle section of the strip E, which forms the bottom of the box, above the lower edges of its side walls, to form a chamber or space beneath the same, thereby holding the bottom of the boxes from direct contact with the outer box or case. The perforations of these boxes D may be arranged in any suitable position, but are preferably in quincunx form, so that the said perforations may register with each other and form an uninterrupted air-passage from one box to the other, irrespective of the manner in which they are placed in the outer box or case. These boxes D are coated with shellac or other similar material on their outer sides. Thus it will be seen that should the berries in one box decay the liquid substance which might drain therefrom would be prevented from soaking through and into the next adjacent box, and consequently prevent the decomposition of the berries therein.

We are aware that wood and paper, singly and combined, have been used in the manufacture of boxes; also, that perforated walls have been used for ventilation; also, that cleats have been used to raise the box above

any surface on which it may be placed; and also, that perforated boxes have been used to carry small fruit; hence our invention is not to be considered as covering these elements, broadly. In making the sides, top, and bottom of our box of paper we produce a box of extreme cheapness and lightness when the purpose for which it is designed is considered. Its advantage over thin wood is apparent, as it will neither warp nor crack. Paper alone would not give sufficient strength; hence we provide the ends and interior partition of wood of sufficient thickness. The sides are secured to the lateral wooden walls by screws or any other known fastening device, and as little or no strain will come on them this fastening is sufficient; but with the top and bottom this is not so, the boxes during shipment being liable to be set wrong side up, as the weight of the contents must be borne by one or the other. To prevent the paper pulling or tearing away from the said fastenings, we provide the cleats coinciding with each transverse wall and, when secured, firmly holding the paper in place. The cleats also serve the function of elevating the box, which latter in itself is old. By perforating the top, bottom, sides, ends, and interior division, and providing smaller boxes perforated at the sides and bottom, and there provided with an air-chamber, though the latter smaller box may be old, the entire device insures a more complete ventilation than has heretofore been produced, while the cost of manufacture of the same, while not lessening the strength necessary for this class of boxes, is greatly reduced and the portability as much increased.

Having described our invention, what we claim is—

1. The improved shipping-case herein described, of rectangular contour, consisting, essentially, of the sides, top, and bottom of perforated paper, the ends and internal division of perforated wood, and cleats on top and bottom coincident with the wooden walls and secured thereto by fastening devices which pass through the top and bottom paper walls, substantially as and for the purpose specified.

2. A shipping-box designed to carry small fruit, consisting of a rectangular outer box with longitudinal perforated paper walls, transverse perforated wooden walls, transverse cleats on top and bottom coincident with said wooden walls, and fastenings securing the cleats to said walls with the paper walls interposed, and internal boxes, each having perforated sides and a bottom under which is formed an air-chamber, the whole arranged to insure a thoroughly ventilated, cheap, and portable fruit-carrier, substantially as and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

ALEXANDER H. MORRISON.
WALLACE A. PRESTON.

Witnesses:
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