(No Model.)

G. C. RICHARDS.

FRUIT BOX.

No. 524,564. Patented Aug. 14, 1894.

Fig. 1

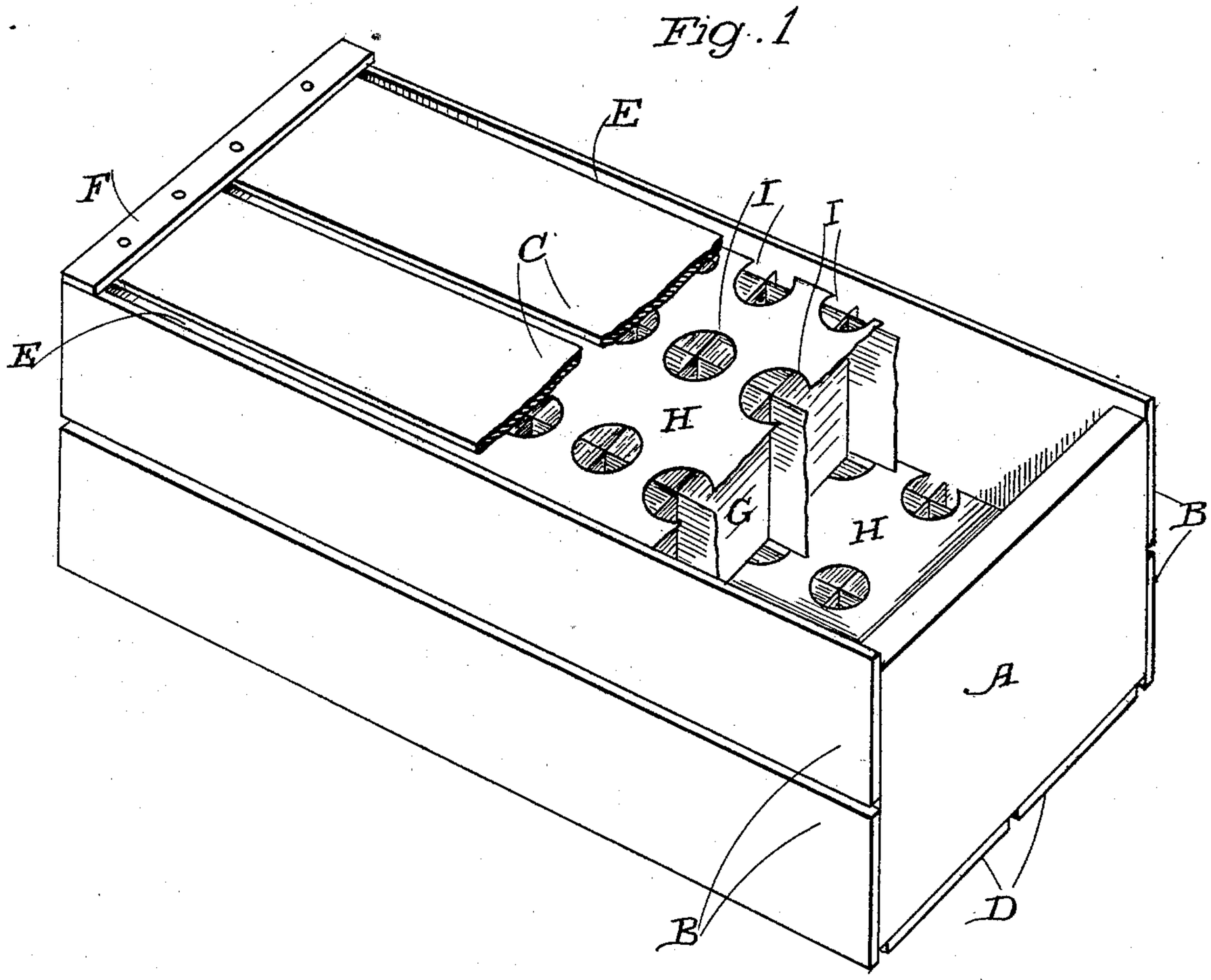
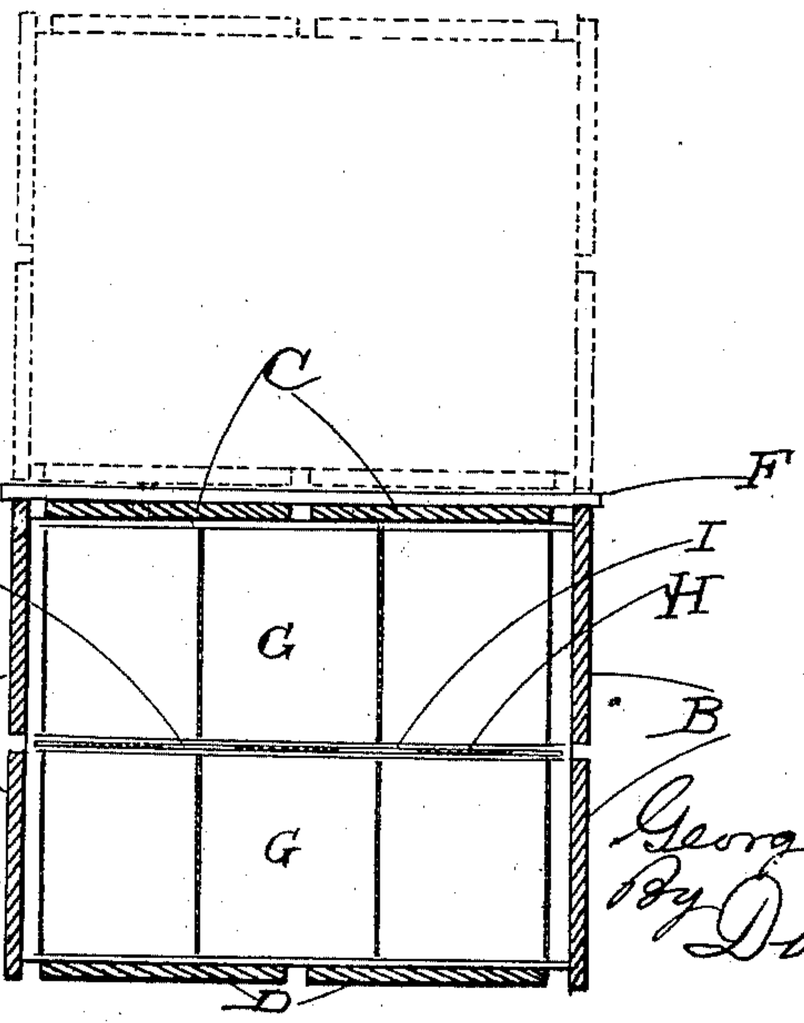


Fig. 2



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UNITED STATES PATENT OFFICE.

GEORGE C. RICHARDS, OF SAN FRANCISCO, CALIFORNIA.

FRUIT-BOX.

SPECIFICATION forming part of Letters Patent No. 524,564, dated August 14, 1894.

Application filed May 14, 1894. Serial No. 511,227. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. RICHARDS, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Fruit-Boxes; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improved construction for boxes for the transportation of fruit.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of a box of my construction, a part being broken away, showing the interior. Fig. 2 is a transverse section showing the arrangement of the boxes for transportation.

In the construction of fruit boxes for transportation, it is customary to nail the sides upon the end pieces in such a manner that they do not extend quite to the upper and lower edges of these end pieces, the bottom and top being nailed on so as to extend approximately to the full width of the end pieces. Channels or spaces are left between the two, upon the sides, for the admission of air to circulate through the contents of the box. This construction is objectionable because when the boxes are piled up in the cars for transportation, and what are known as car strips are laid across the tops of the boxes to support the next tier, they press the top and bottom of the boxes inwardly on account of the shortness of the sides until the fruit is pressed and damaged.

In my construction I have improved the boxes by so constructing them that each box provides a support for these car strips and prevents any pressure upon the top and bottom of the box. I also subdivide the interior of the box into cells to separate each article of fruit from the others, and provide an improved method for ventilating the whole.

A A are the end pieces of the box made of sufficient thickness to receive the nails by which the sides B B are secured to them. These sides are made of one or more boards each separated from each other, when more than one is used, sufficiently to allow air to enter through the slot or channel thus formed.

For cherries, strawberries and small fruits, the boxes are made shallow and the sides consist of a single narrow strip. The upper and lower edges of these side pieces extend above and below the top and bottom of the end pieces a distance equal to the thickness of the top and bottom pieces C and D, so that when the top and bottom are in place, they will be approximately flush with the upper and lower edges of the side pieces. The top and bottom are also made of two boards, each slightly separated along the center to admit of a circulation of air, and they are sufficiently narrower than the distance between the sides to leave channels E between the sides and the edges of the top and bottom for the free admission of air at these points.

F F are transverse strips extending across the top boards, at each end, and holding them together. These strips project far enough to rest upon the upper edges of the side boards as shown. It will be seen that when the boxes are piled up in tiers, one above the other, these end pieces will act to support the boxes above, and what are known as the car strips which are laid across at intermediate points, will rest upon the upper edges of the sides of the boxes, and will make no pressure whatever upon the tops and bottoms, and these latter will, therefore, remain straight and will not be pressed in upon the contained fruit. This construction makes the boxes stronger to resist pressure, and enables me to make the boxes of much thinner material than ordinary which is a considerable saving in lumber.

The interior of the box is fitted with partitions fitted to and crossing each other as shown at G, thus dividing the box into little spaces of a size proportionate to the kind of fruit which is to be transported, such as peaches, plums, apricots, &c. When used for the larger fruits, each of these pieces is intended to contain a single article of fruit which may also be wrapped in tissue paper, if desired. For the smaller fruits, a quantity sufficient to fill it is placed in each compartment. Each tier of these partitions G is separated from the one above by a horizontal partition H. The essential feature of these horizontal partitions is a series of openings I which are made at such points that they will lie over the meeting angles of the chambers

formed by the partitions so that each opening acts as a ventilator for the meeting angles of four adjacent compartments, and no openings are made directly over the center of these compartments where the pressure and weight of the fruit lies.

By reason of the vertical channels made in the bottoms of the boxes, instead of the side edges, I have found that a better circulation of air takes place and the holes made through the horizontal partitions are in such position that the circulation is unimpeded as it passes up through the corners which are not occupied by the fruit.

The vertical strips which form the compartments, support the horizontal partitions and tiers above, and as they stand on edge, have sufficient stiffness to relieve the bottom of the box, of much of the weight, and thus prevent its sagging when lifted.

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

An improved fruit box comprising the ends thereof, the sides formed of boards or strips separated along their adjoining edges and projecting at their opposite edges beyond the top and bottom of the ends a distance equal to the thickness of the top and bottom of the box, said top and bottom being formed of boards or strips separated along their meeting edges and having their outer edges terminating short of the inner walls of the projecting portions of said sides to form ventilating spaces, strips extending across the ends of the top and bottom boards or strips and secured to said ends of the box with their outer ends resting upon the top edges of said sides, interior partitions dividing the box into a series of compartments in tiers one above the other, and horizontal partitions extending between each tier of compartments and having openings made in them coincident with the angles of the compartments above and below whereby each opening communicates with the four adjacent compartments, substantially as herein described.

In witness whereof I have hereunto set my hand.

GEORGE C. RICHARDS.

Witnesses:
GEO. H. STRONG,
S. H. NOURSE.