

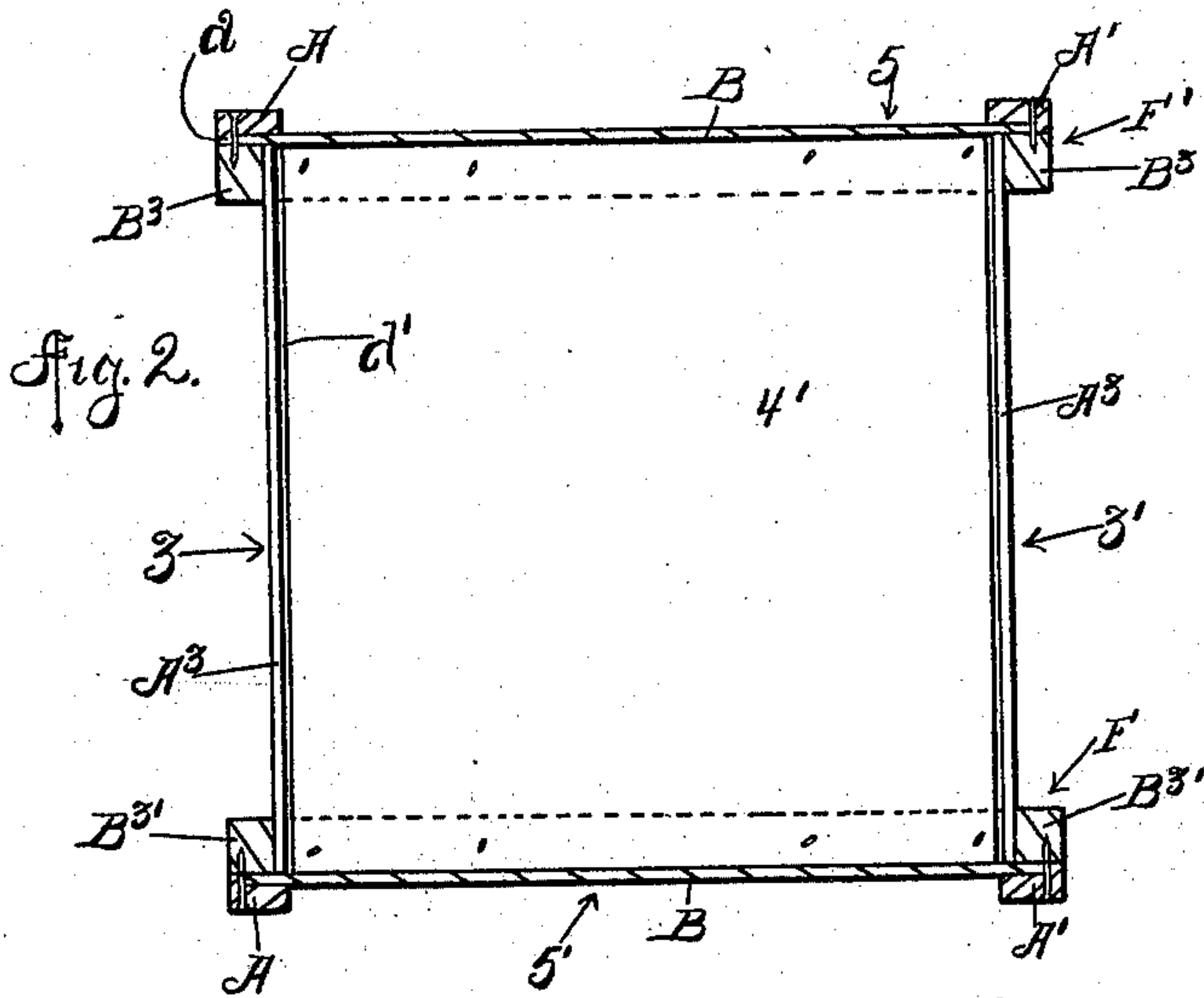
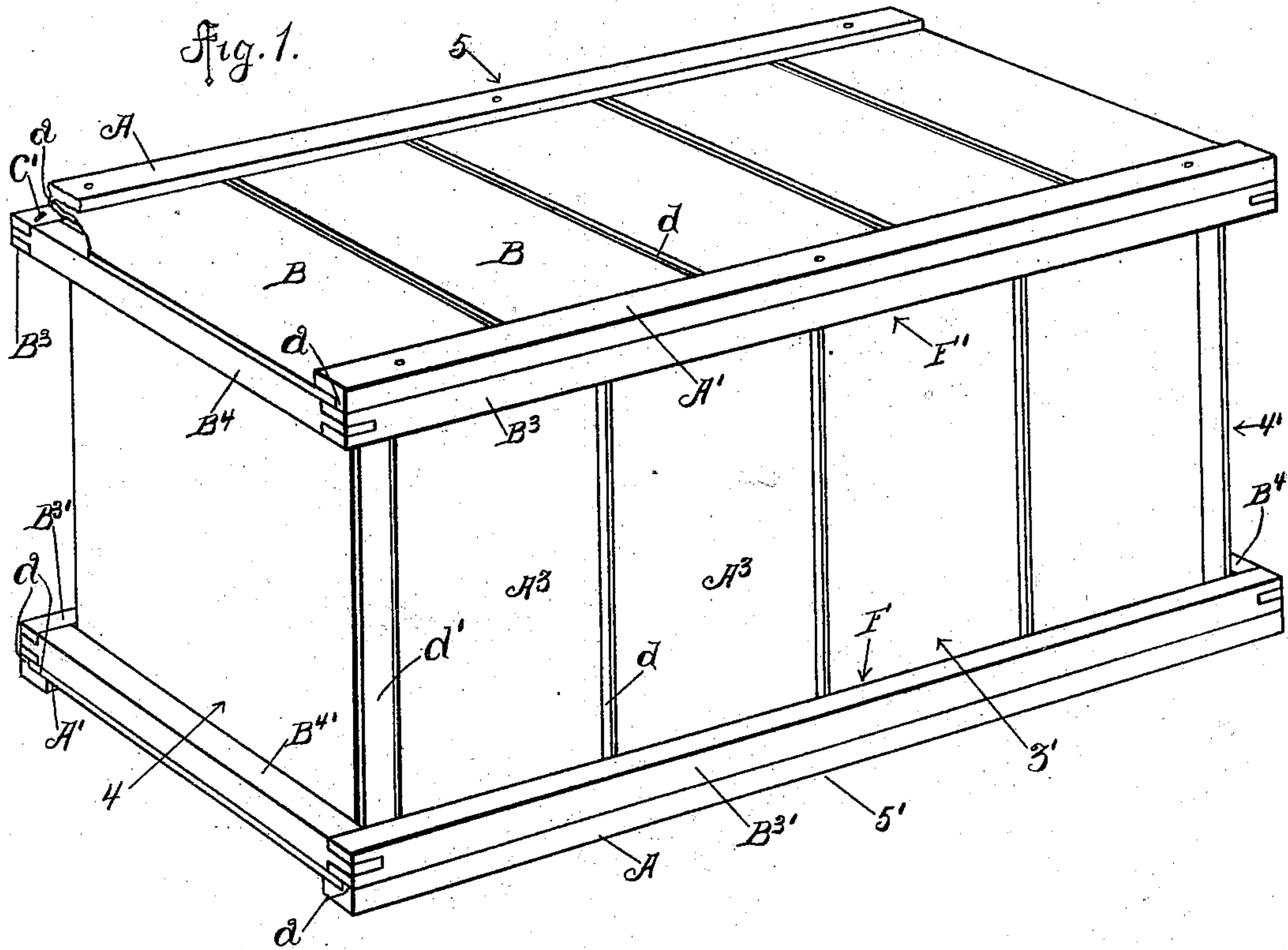
(No Model.)

2 Sheets—Sheet 1.

C. A. NEWCOMB.
VENTILATIVE FRUIT BOX.

No. 547,278.

Patented Oct. 1, 1895.



Witnesses.

P. M. Harbison,
Alfred J. Townsend.

Inventor.
Charles A. Newcomb.
BY
Hazard & Townsend,
HIS ATTYS.

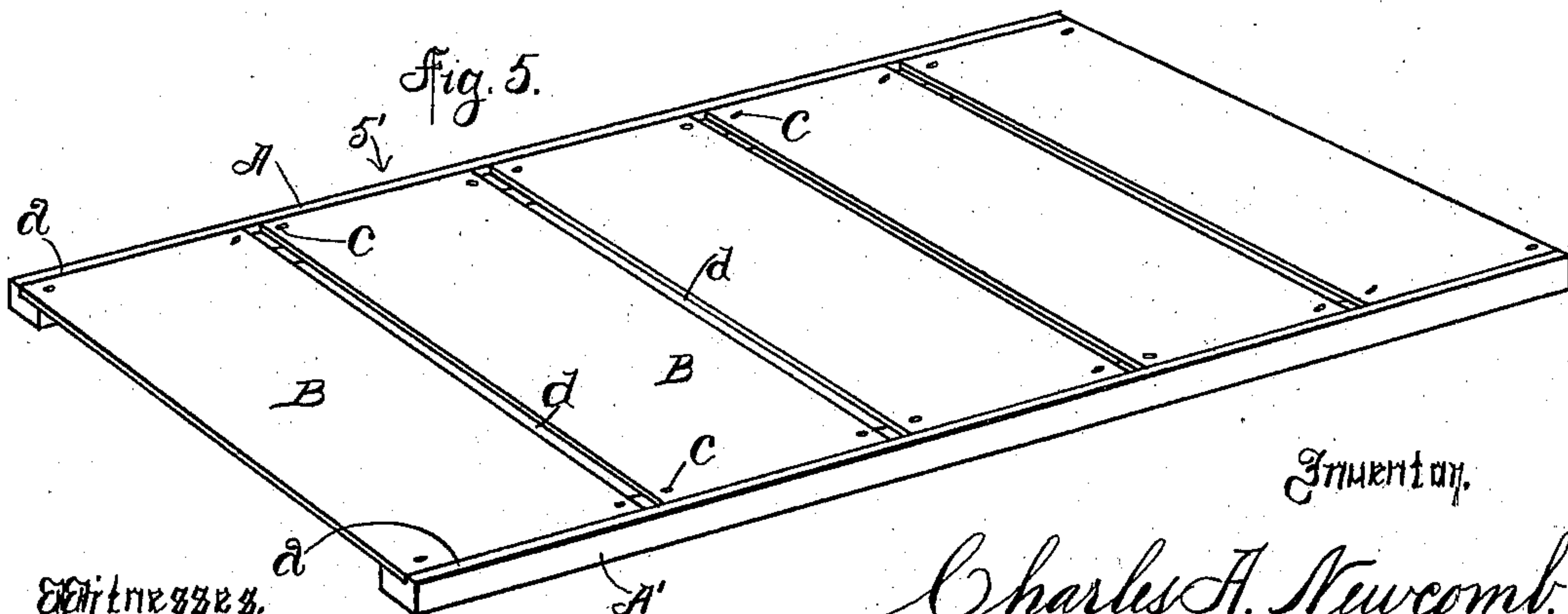
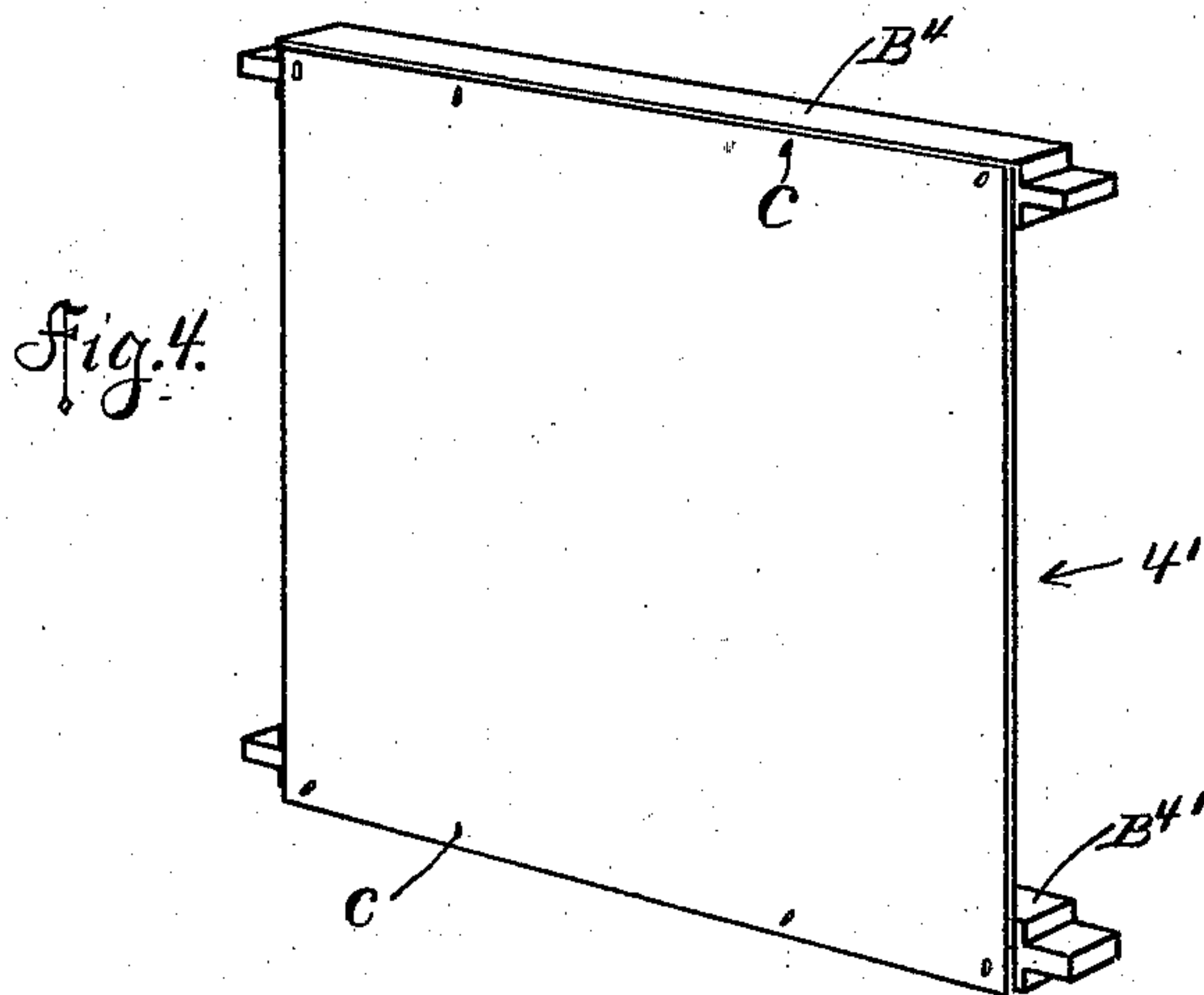
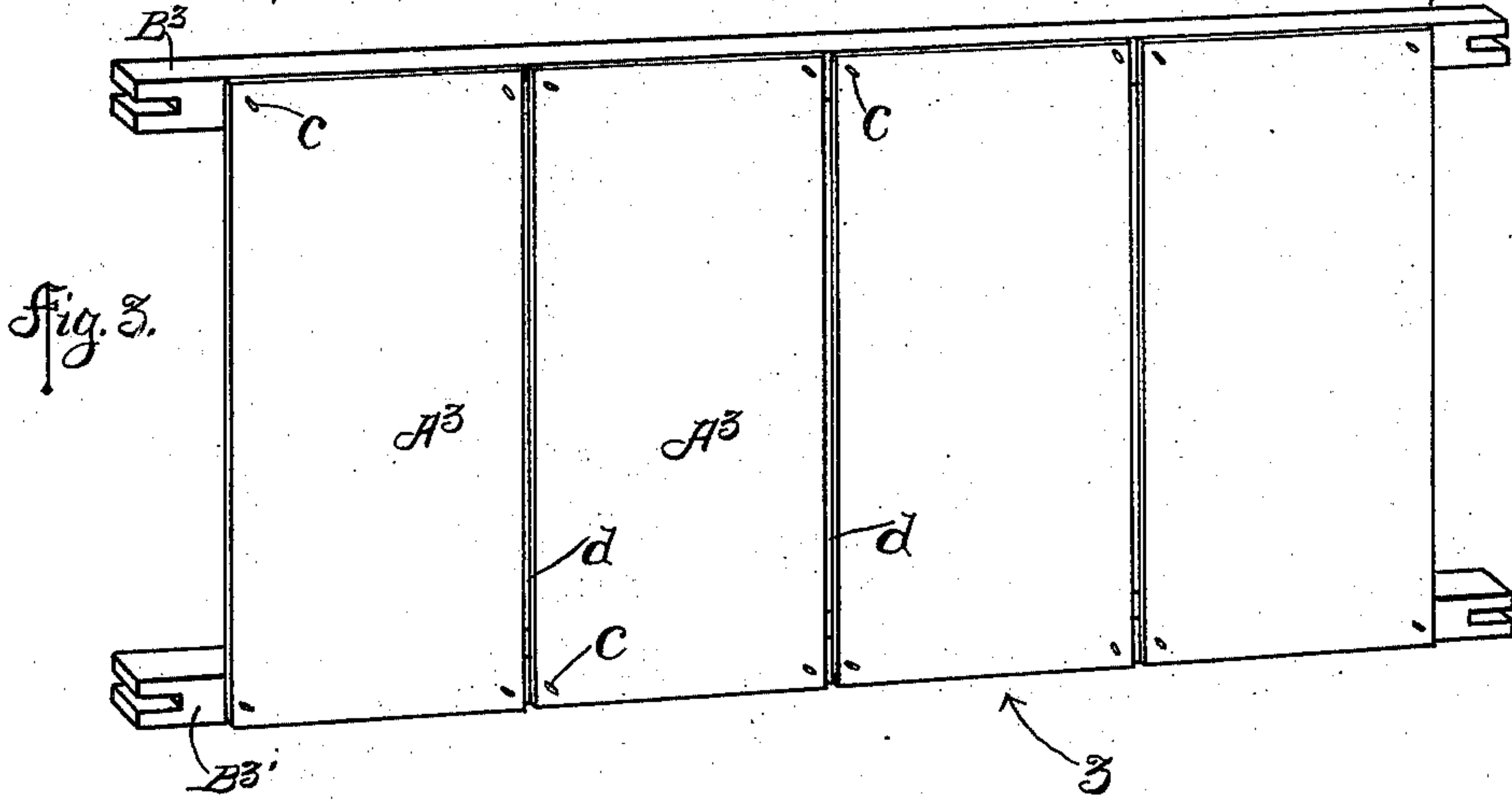
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UNITED STATES PATENT OFFICE.

CHARLES A. NEWCOMB, OF RIVERSIDE, CALIFORNIA.

VENTILATIVE FRUIT-BOX.

SPECIFICATION forming part of Letters Patent No. 547,278, dated October 1, 1895.

Application filed March 1, 1895. Serial No. 540,221. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. NEWCOMB, a citizen of the United States, residing at Riverside, in the county of San Bernardino and State of California, have invented new and useful Improvements in Ventilative Fruit-Boxes, of which the following is a specification.

One object of my invention is to provide a fruit-box of minimum weight and maximum strength which will absolutely prevent the possibility of so packing the boxes in the cars as to prevent proper ventilation of the fruit.

A very important object of my invention is saving of lumber in the manufacture of fruit-boxes and consequent reduction of their cost; also, to enable the consumer to utilize all of the material he pays for, thus saving freightage from the mill to the place of fruit shipment upon a large amount of wastage which obtains in case of the present fruit-boxes.

Another object of my invention is to provide simple knockdown fruit-boxes which can be taken apart and shipped in small bulk and be put together again at very little cost, so that when reuse of boxes is desirable the used crates can be returned to the fruit-shipper at a minimum rate of expressage; also, to produce a fruit-box of very ornamental and attractive appearance.

It is a purpose of my invention to enable me to use thin veneers for shipping heavy packages of fruit and in order to avoid all danger of the box breaking by reason of the nails or other fastenings pulling through.

In marketing fruit it is frequently trucked before it finally reaches the consumer, and by the old form of boxes, in which the thin sides of the lowermost boxes rest upon the cross-bars of the truck, the sides become broken by reason of the heavy weight thereupon, and a portion of the fruit is bruised, rendering it unmarketable. By the time the fruit reaches the consumer practically every box has been subjected to this crushing action, and thus a large proportion of the fruit is rendered unsalable.

My improved fruit-box is made of thin veneers, which are so arranged within two frames as to be protected from any crushing and breaking while being trucked.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of my improved fruit-box ready for shipment. One corner is broken to show a staple. Fig. 2 is a vertical cross-sectional view. Fig. 3 is a view of the side section. Fig. 4 is a view of the end section. Fig. 5 is a view illustrating the top and bottom of the box.

My improved box is composed of six sections—viz., a top and bottom, two side sections, and two end sections. All of these sections are alike in one respect—that is to say, they consist solely of slats or sheets of veneer fastened at ends to two edge strips of wood. In the top and bottom sections the edge strips or cleats A A' are each rabbeted on one face, leaving a ledge α along one edge of the strips, and the slats or sheets of veneer B are seated in the rabbet with their inner faces (that is, the faces of the slats or sheets which will be on the inside of the box when the box is completed) flush with the face of the shoulders of the strips. Thus the top and bottom sections 5 and 5', respectively, are plain on one side and are provided on the other side at their long edges with projecting cleats formed by the edge strips A A', which extend from end to end of the section. This allows the top and bottom sections to fit snugly and smoothly upon the frames of the box when the same are assembled, as hereinafter described. The side sections 3 3' and the end sections 4 4' are made after one manner, and they are arranged complementary to each other, as hereinafter described, so that the four sections fit together to form the walls of the box. Each of the side sections consists of slats or sheets A³, of thin veneering and two thicker frame-strips B³ B^{3'}, fastened to the ends of the veneering on one side thereof and having their ends projecting beyond the veneering to attach to the ends of like frame-strips B⁴ B^{4'} on the end sections 4. The projecting ends of the frame-strips of the several sections are tongued and grooved or otherwise formed so as to fit together. In the drawings I have shown the ends of the frame-strips of the side sections grooved, and I have shown the ends of the frame-strips of the end sections tongued to fit such grooves. It is to

be understood, however, that I wish my claim to cover the construction even though the tongue and groove were omitted and the ends of the frame-strips were joined together in some other suitable way—such, for instance, as being notched together or mitered together and fastened with nails. The above description of the side sections applies to the end sections, in which like parts are indicated by like letters with the addition of a suitable numeral index.

I prefer to fasten the veneers to the strips by staples *c*, as indicated in the drawings, but do not desire to limit my claim to such fastening. It is my design to have the sections made at the mill and shipped in that form to the consumer. This avoids all freightage upon waste, and the consumer who orders a given number of boxes is assured of having his order exactly filled without the necessity of paying for any waste material, and yet the material is in compact form for shipping.

When the sections have reached the place from which it is desired to ship the fruit, the shipper constructs the box in the following manner: The side and end sections are assembled together with the frame-strips outermost, and the projecting ends of the frame-strips are fastened together by staples *c'*, as shown, or by nails, screws, or any other suitable means. Thus the four walls of the box are formed and consist of two outwardly-projecting frames *F' F*, running around the top and bottom of the walls, respectively, and within such frames the veneer strips which form the sides and ends of the box. The bottom is then placed upon one of said frames *F*, with the veneer side toward the frame and the cleats projecting. The bottom section is then fastened to the frame by nails, screws, or any other suitable means, thus completing five sides of the box. When the box is filled with fruit, the top is placed upon the top frame *F'*, with the veneer side toward such frame, and the top is then secured in place by nails or other suitable means, and the box is ready for shipment. The top and bottom sections each have one plain face and are each equal in length to the frame-strips of the side sections and equal in width to the total width of the box from side to side—that is, they are just the size of the frames *F* and *F'*. When the box is thus completed, it is bound at top and bottom with rigid frames *F* and *F'*, which project outward, so that an unobstructed ventilative channel is formed entirely around the box between the frames *F* and *F'* and extends from end to end along all

sides of the box, and also horizontally across the ends of the box, thus insuring ventilation around the box when the same is stored in the car or warehouse. In practice I set the veneers with spaces *d* between them, so that sufficient ventilation is allowed between the slats or sheets of veneer at each side and at the top and also at the corners of the box.

In fastening the side and end sections of the box together I prefer to use staples, inserting them from the sides of the frame-strips, which will be covered by the top or bottom sections when the box is completed, thus hiding any appearance of fastening except the brads or other fasteners by which the top or bottom is secured to the body of the box. I have constructed a perfect orange-box of the capacity ruling for such boxes in California (viz., inside dimension eleven and one-half by eleven and three-fourths by twenty-three inches) out of two and one-half feet of lumber. This I do by using one-eighth-inch stuff for veneers, three-quarter-inch stuff for frame-strips, and three-eighth-inch stuff for top and bottom cleats. One-eighth-inch veneers are sufficient and can be cut by a veneer-slicing machine, thus saving the sawkerfs necessary for cutting thicker stuff, so that there is practically no waste material. By this form of construction, in which the veneers are surrounded by strong rigid frames, there is no strain whatever upon the nails, staples, or other fasteners which secure the veneers to the frame-strips or to the top and bottom cleats. All the outward strain is borne by such frame-strips and by such cleats. This is specially desirable in orange-boxes, for the reason that such boxes are packed under a heavy pressure, in order to provide against the jostling of the fruit which would result when the oranges had become reduced in size by evaporation in transit.

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

The box comprising the side and end sections composed of the veneers and frame strips united to form the top and bottom frames with the veneers within the frame; and the bottom section having one plain face and composed of the veneer with a cleat along each of two opposite sides only, and fastened to the bottom frame with the plain face fitted to such frame.

CHARLES A. NEWCOMB.

Witnesses:

JAMES R. TOWNSEND,
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