

W. HUEY.
Egg Carrier and Crate.

No. 224,436.

Patented Feb. 10, 1880.

Fig. 1

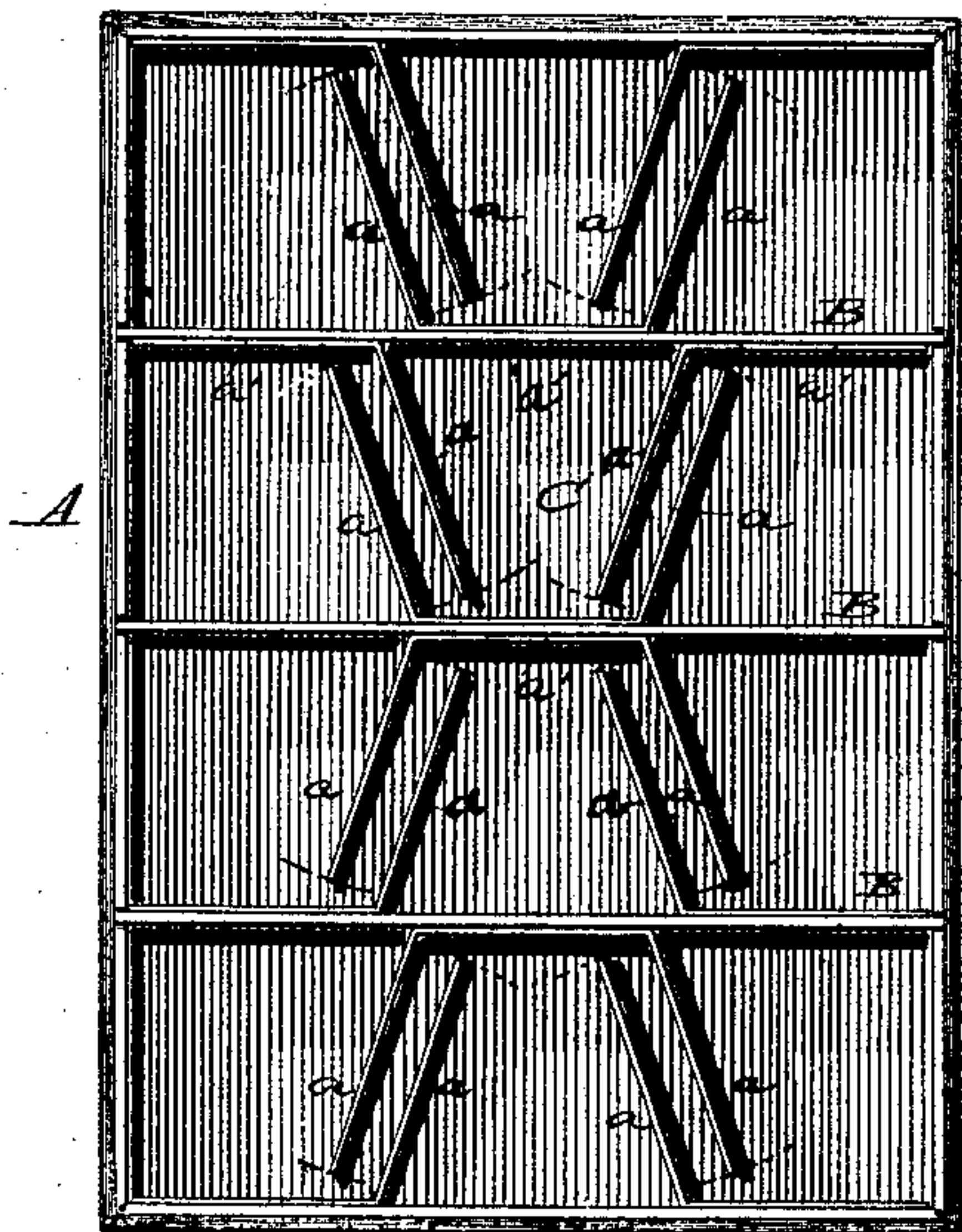


Fig. 2

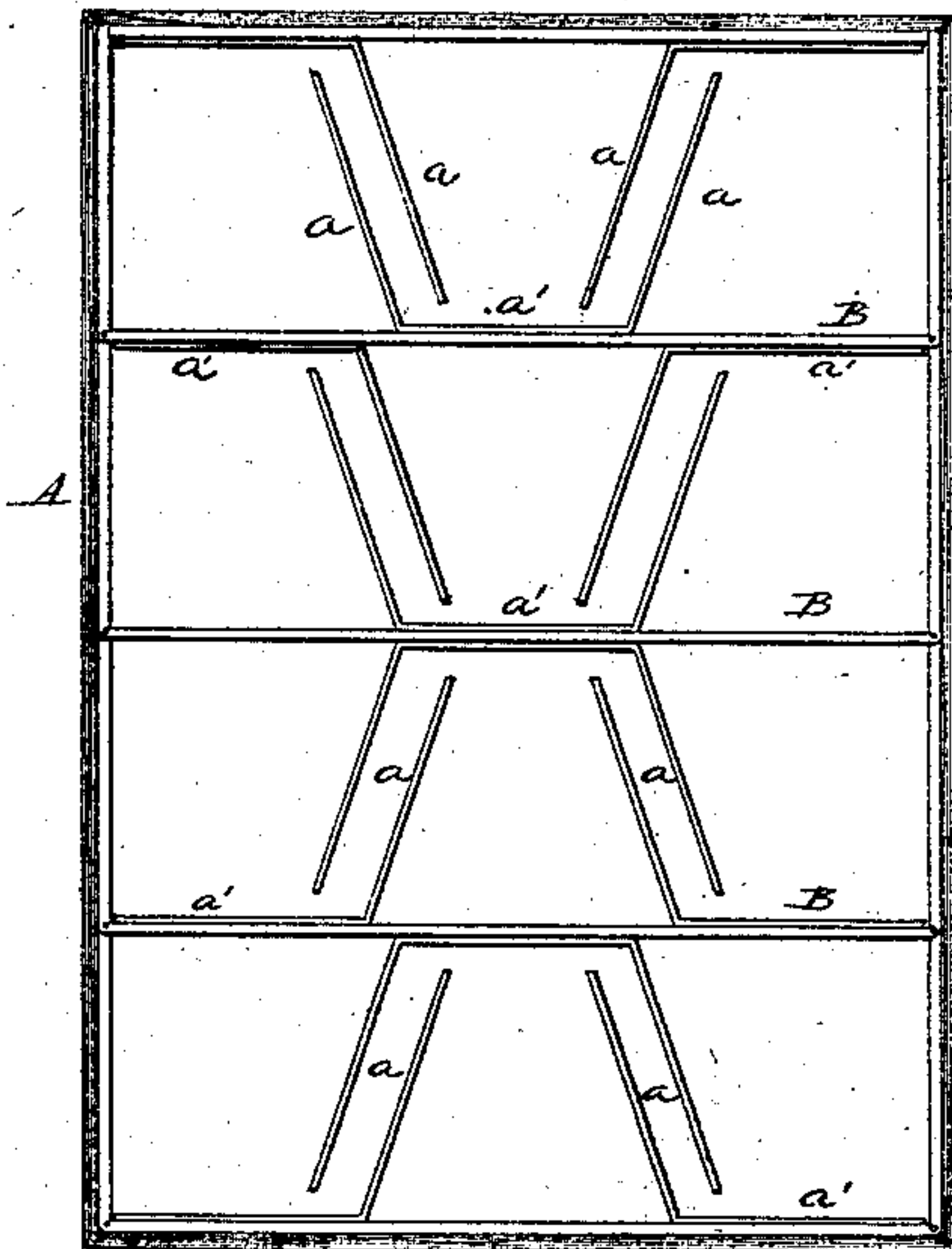


Fig. 3

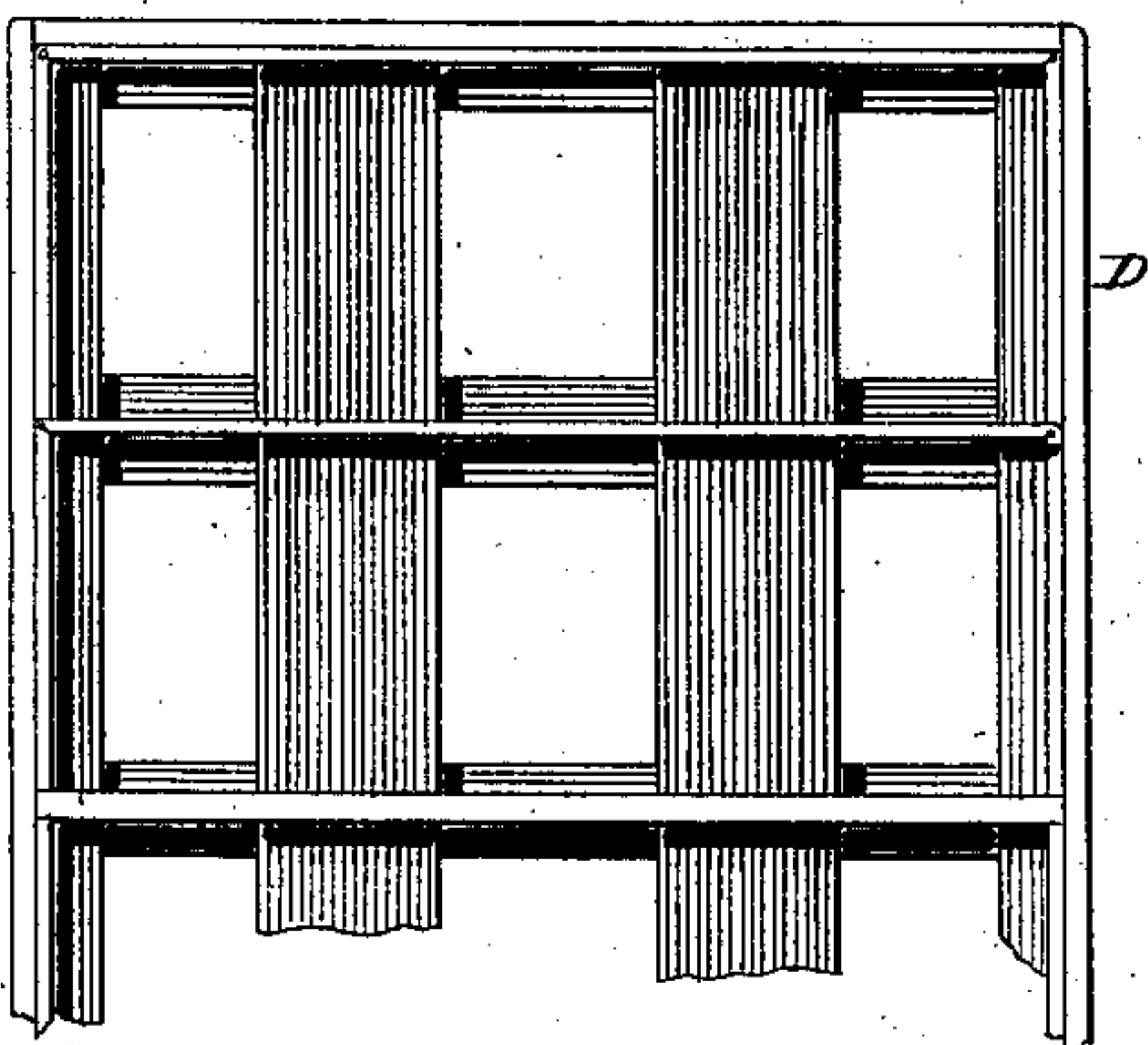


Fig. 4

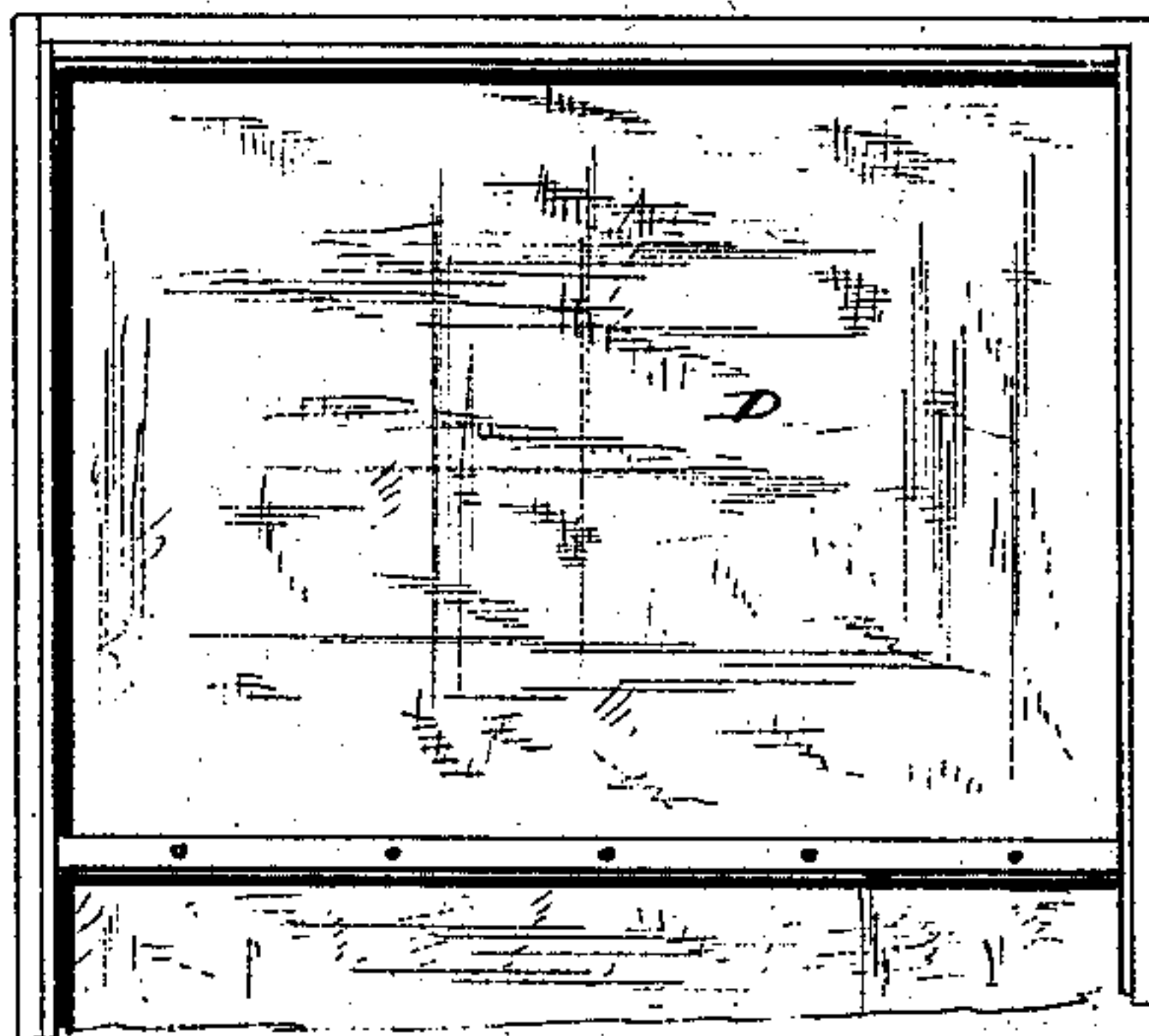


Fig. 5

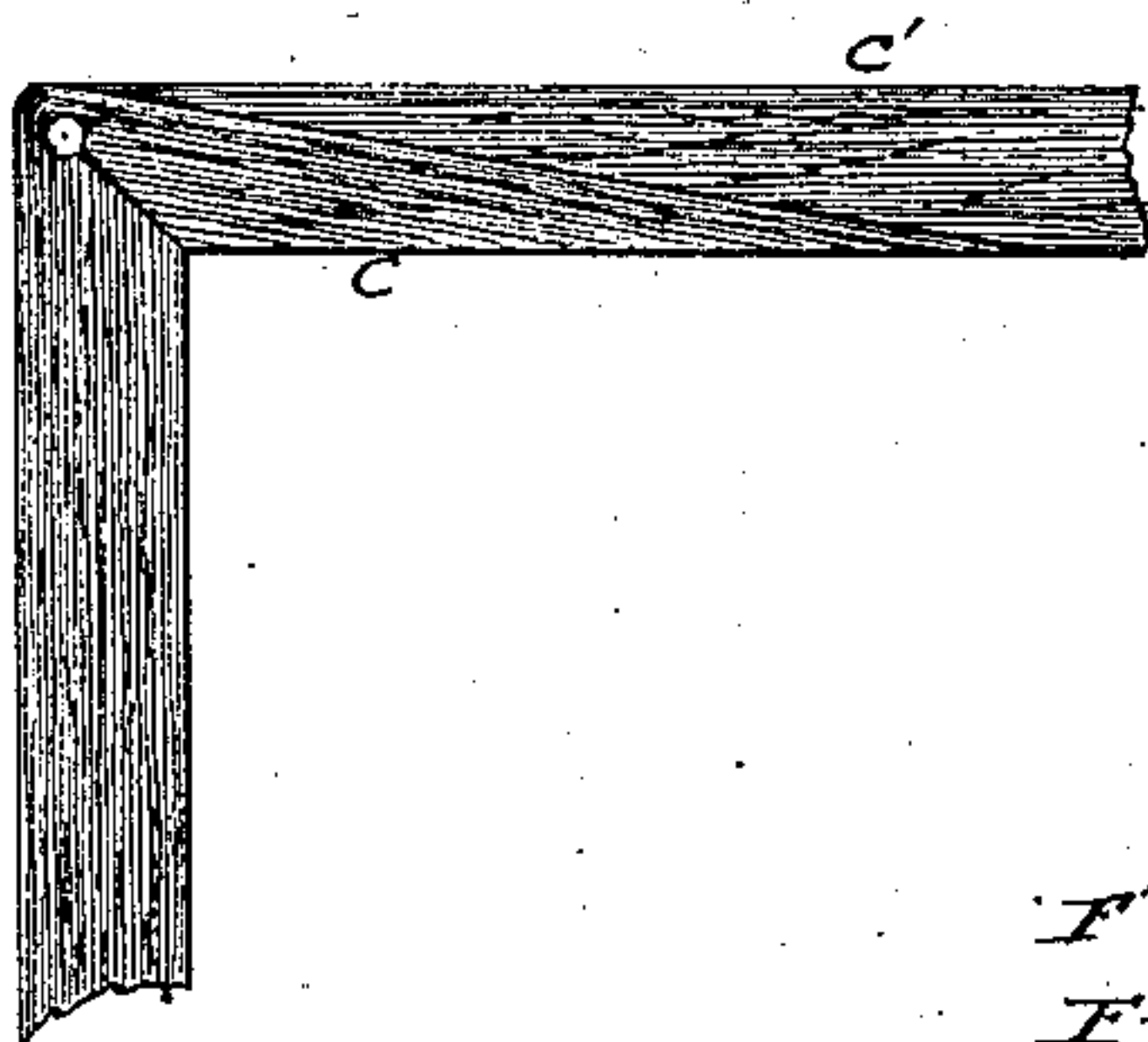


Fig. 6

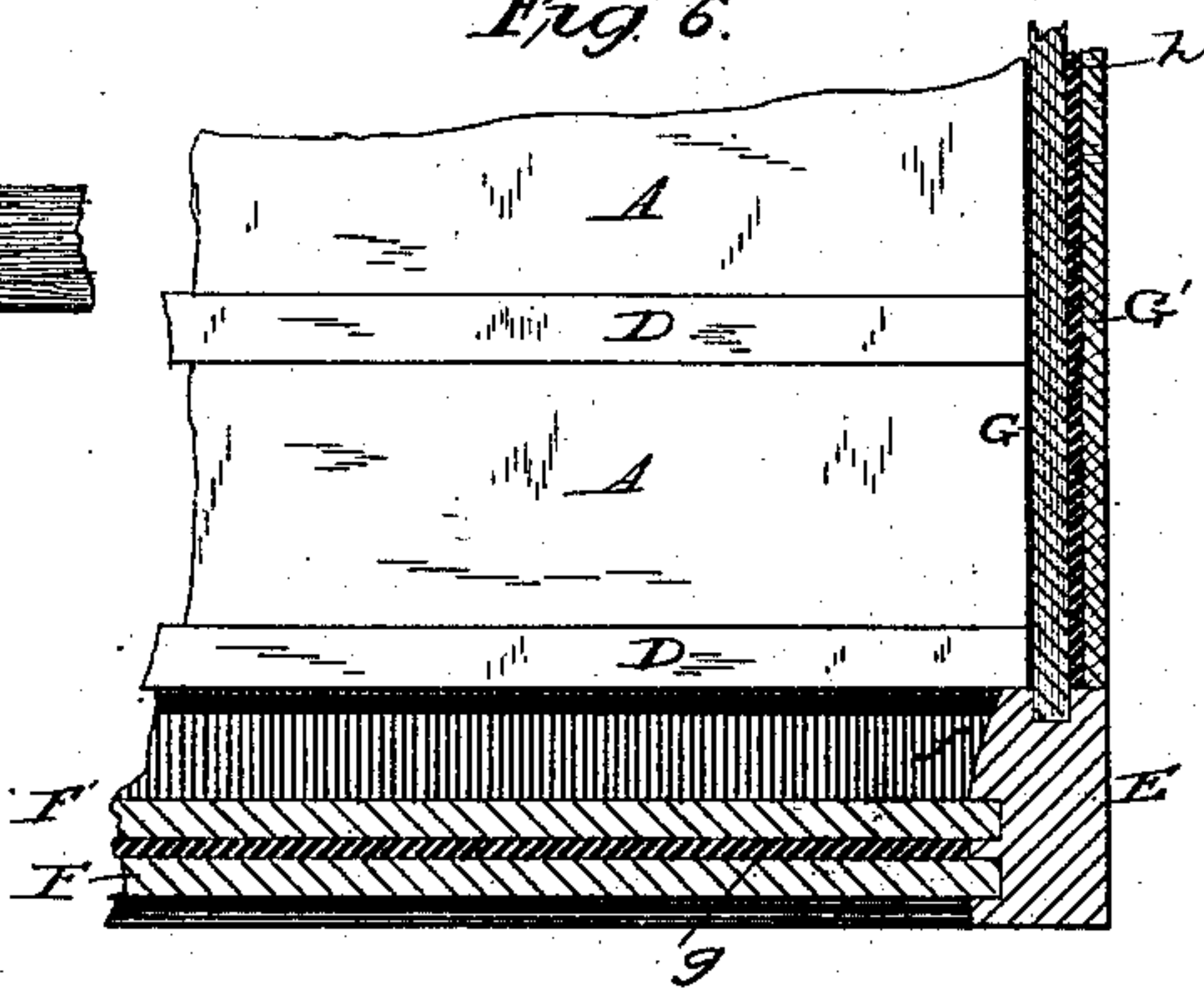


Fig. 7

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UNITED STATES PATENT OFFICE.

WILLIAM HUEY, OF CAMBRIDGE, MARYLAND, ASSIGNOR TO HIMSELF AND JOSEPH D. RICHARDS, OF SAME PLACE.

EGG CARRIER AND CRATE.

SPECIFICATION forming part of Letters Patent No. 224,436, dated February 10, 1880.

Application filed November 13, 1879.

To all whom it may concern:

Be it known that I, WILLIAM HUEY, of Cambridge, in the county of Dorchester and State of Maryland, have invented a new and Improved Egg Carrier and Crate; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of the egg-cell case, looking into the cells. Fig. 2 is a plan view of a modification of the same when constructed without a permanent bottom. Figs. 3 and 4 are partial plan views of two kinds of detachable false bottoms designed to be used in connection with the case, as shown in Fig. 2. Fig. 5 is an enlarged view of the joint connecting the ends of the blank which forms the side walls of the cell-case. Fig. 6 is a partial view, in vertical section, of a crate, showing the cell-cases as packed therein. Fig. 7 is an edge view of the wooden blank for forming the four side walls of the cell-case.

My invention is designed to provide an improved means for transporting eggs and other fragile or perishable articles; and it consists, first, in a case formed with parallel partitions subdivided into cells for the eggs or other articles by elastic wings secured flexibly upon one side to the parallel partitions and overlapping at their free ends to form expansible cells or pockets to receive and protect the eggs.

The invention also consists in the manner of connecting the rectangular side walls of the cell-case when all four of said walls are made in one piece, and in the peculiar construction of the crate for holding the cell-cases, as hereinafter fully described.

In the drawings, A represents the rectangular cell-case, having parallel partitions B, the spaces between which are subdivided by the flexible wings *a* to form the cells or pockets, each of which cells is adapted to receive an egg or other equivalent article.

As shown, the size of the cells to the case is out of proportion, on account of the limited space of the drawings. In practice the cells are of a size to receive an egg, while the case

is large enough to contain many more cells than are shown.

The wings *a* are formed of thin strips of wood grooved and bent crosswise of the partition, so that the wings of one partition lap past those of the next, while their rigid portions *a'* are securely tacked to the partitions. In arranging these wings those of one partition are so placed as to lap inside of the bend of those of the next partition, so that the tendency of each wing to straighten itself, with its base-piece *a'*, will cause the wings to move away from each other instead of locking against each other. This insures the free and flexible action of each wing, and not only adapts the cells to eggs of larger size by expansion, but forms an elastic lateral bearing for the eggs to hold them in place and prevent breakage.

In order to facilitate the removal of the eggs at the end of the route, two methods of construction may be resorted to. As the first method, the cell-case may have a permanent bottom, C, and the partitions B and their wings be made detachable, so as to slide in or out of grooves in the side walls, as shown in Fig. 1, in which case the partitions are first removed and the eggs left remaining on the bottom, so that they can be readily grasped by the hand for removal.

As the second method, I may fix the partitions B rigidly in the side walls of the case and dispense with the bottom C to the case, as shown in Fig. 2. In this event I employ a subjacent or supplemental bottom, D, with each cell-case, and remove the eggs by first lifting off from them the entire cell-case with its partition and subdividing wings, leaving the eggs resting loose upon the false bottom D, from which they may be readily removed. This false bottom I may either make in the form of a partitioned frame, as in Fig. 3, or in the form of a canvas or cloth diaphragm stretched in a marginal frame, as in Fig. 4. I do not claim, however, these supplemental frames or false bottoms as being new in themselves, but may find it desirable to use them in connection with the feature of my invention before described.

In constructing the rectangular side walls of

the cell-case I make them of a single piece of straight stuff, as shown in Fig. 7, which is grooved at four points, *b*, by the machine at the same time it is cut.

5 I do not claim to be the first to cut the blank for a box and groove it for bending in the same operation.

In joining the lapped ends of the blank at *c* *c'*, however, I do not make a reverse bevel or chamfer at the ends, but cut the ends with the same bevel—*i. e.*, the two feather-edges of the ends are on the same side. Then, in order to fasten them with a smooth joint, I bend the short end *c* at more than a right angle (see Fig. 5) until its outer uncut side inclines to the angle of the cut in the other end, *c'*. This se-
15 cures for me a double result. In the first place, when the parts are glued I do not have to glue against the ends of the grain of the wood on both faces of the joint, but on one face have the smooth, straight, and uncut grain, which gives greater adhesive power for the glue. In the second place, by making the taper the same at both ends, or, in other words, by making
25 the feather-edge of the taper on the same side of the board, I am enabled to cut these beveled edges at the ends of the blank by the same machine and in the same operation which cuts the blank from a block and grooves it. In making use of this feature of my invention
30 I do not confine the same to its application in a cell-case, as the same principle of joining the walls of the rectangular case may be applied to a crate or other form of box.

35 In shipping the cell-cases they are arranged in the crate in tiers, one above another, with the false bottoms intervening, if false bottoms are used.

This crate I construct with bottom corner
40 strips, *E*, Fig. 6, having a groove at the top and two upon its inner sides. Into these two grooves of the bottom corner strip, *E*, are fitted the two bottoms *F* *F'* of the crate, between which is interposed a lining of pasteboard, *g*.

45 In the upper groove of the strip *E* is arranged the lower edge of the inner wall, *G*, of the crate, in which the grain runs vertically, while around the outside of this wall *G* is arranged the single bent blank *G'*, forming the
50 outer wall, in which the grain runs horizontally, as in the egg-cell case, and between which inner and outer wall a layer of pasteboard, *h*, is interposed. This construction of crate is not only very strong, but is proof
55 against extreme heat or cold, and leaves a projecting ledge, *f*, upon the inside, which constitutes a marginal support which sustains the first cell-case.

With respect to the double-walled structure
60 of the crate with a non-conducting lining be-

tween, I would state that I do not claim this, broadly, as I am aware that it is a common construction in refrigerator-boxes. When, however, the corner strip is constructed with its grooves and the shoulder *f*, it not only
65 gives room for connecting the two walls, but it makes a solid corner to resist the knocks to which this portion of a crate is subjected, and its shoulder *f*, by sustaining the bottom cell-case at its edges, allows the bottom of the
70 same to have springing room when set down suddenly, and thus avoid such concussion on the bottom of the cell-cases as would result in the breaking of the eggs.

By the above-described apparatus I have a
75 complete and effective device for shipping eggs and other perishable or fragile commodities, which is strong, substantial, and easily manipulated, securing perfect protection against breakage without embodying such
80 great weight as to involve heavy express charges.

Having thus described my invention, what I claim as new is—

1. An egg-carrier or cell-case consisting of
85 an inclosing-frame having partitions, as described, and subdividing flexible wings, with the free ends of the wings of one partition overlapping the free ends of the wings of the next partition, substantially as described. 90

2. An egg-carrier or cell-case consisting of an inclosing-frame having partitions, as described, and flexible overlapping wings, with the free ends of the wings of one partition ar-
95 ranged within the bend of the wings of the next partition, substantially as and for the purpose described.

3. The combination, with a cell-case having a permanent bottom, of a set of detachable partitions having subdividing flexible wings
100 fixed to the partition at one end and free at the other, as set forth.

4. A rectangular box or case frame having its side walls bent from a single piece of material and cut with the same bevel at the ends
105 *c c'*, and said ends *c c'* united with the straight surface of *c* contiguous to the cross-cut surface of *c'*, as set forth.

5. A crate having a corner strip, *E*, constructed with grooves to receive the side and
110 bottom walls of the crate, combined with said walls, as described, with the wall *G* set away from the inner edge of the strip, so as to leave a marginal supporting ledge or shoulder, *f*, for the cases, as described.

WILLIAM HUEY.

Witnesses:

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