

(No Model.)

C. C. TILGHMAN.
SAFETY EGG CRATE.

No. 449,981.

Patented Apr. 7, 1891.

Fig. 1.

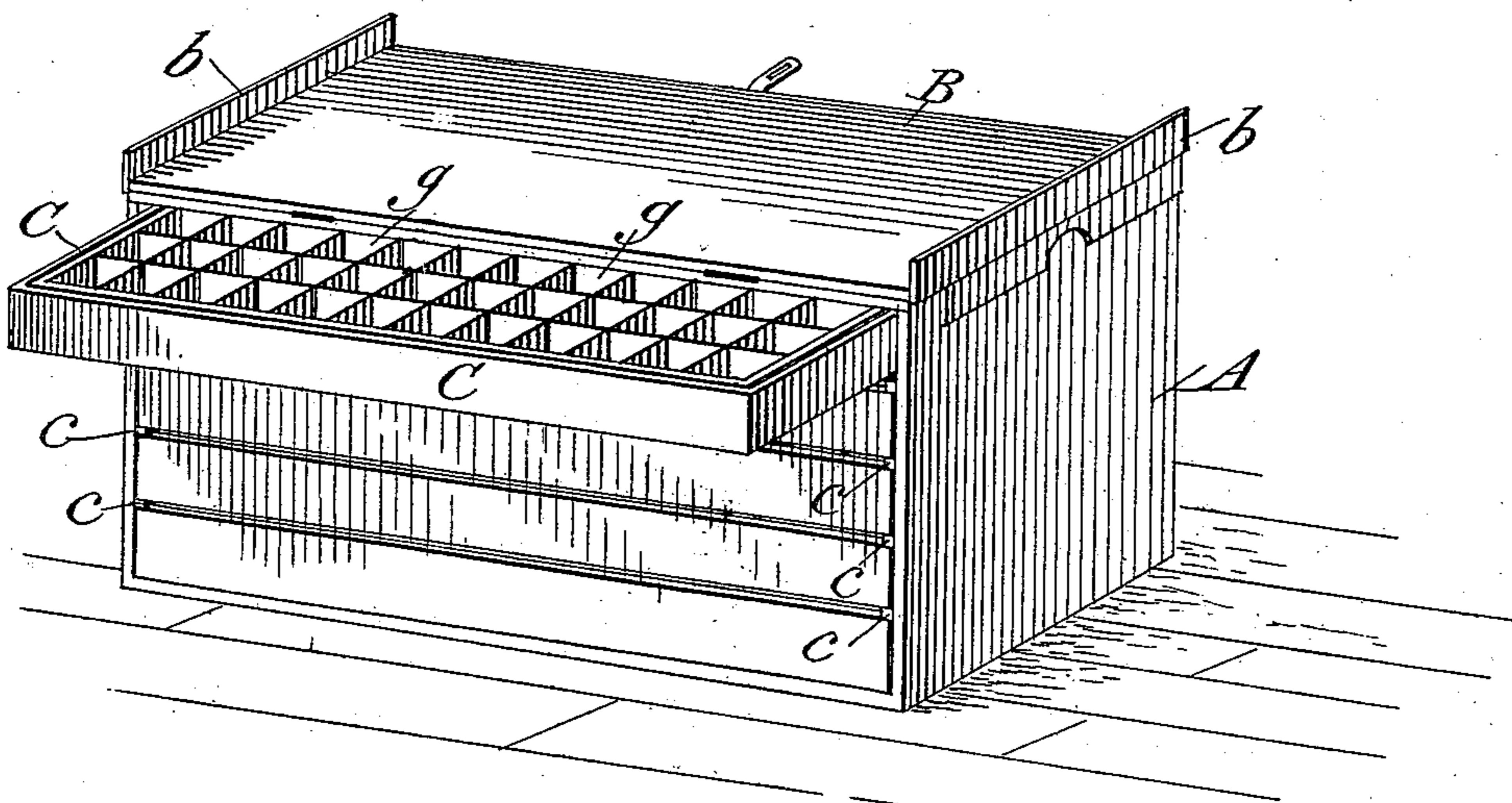


Fig. 2.

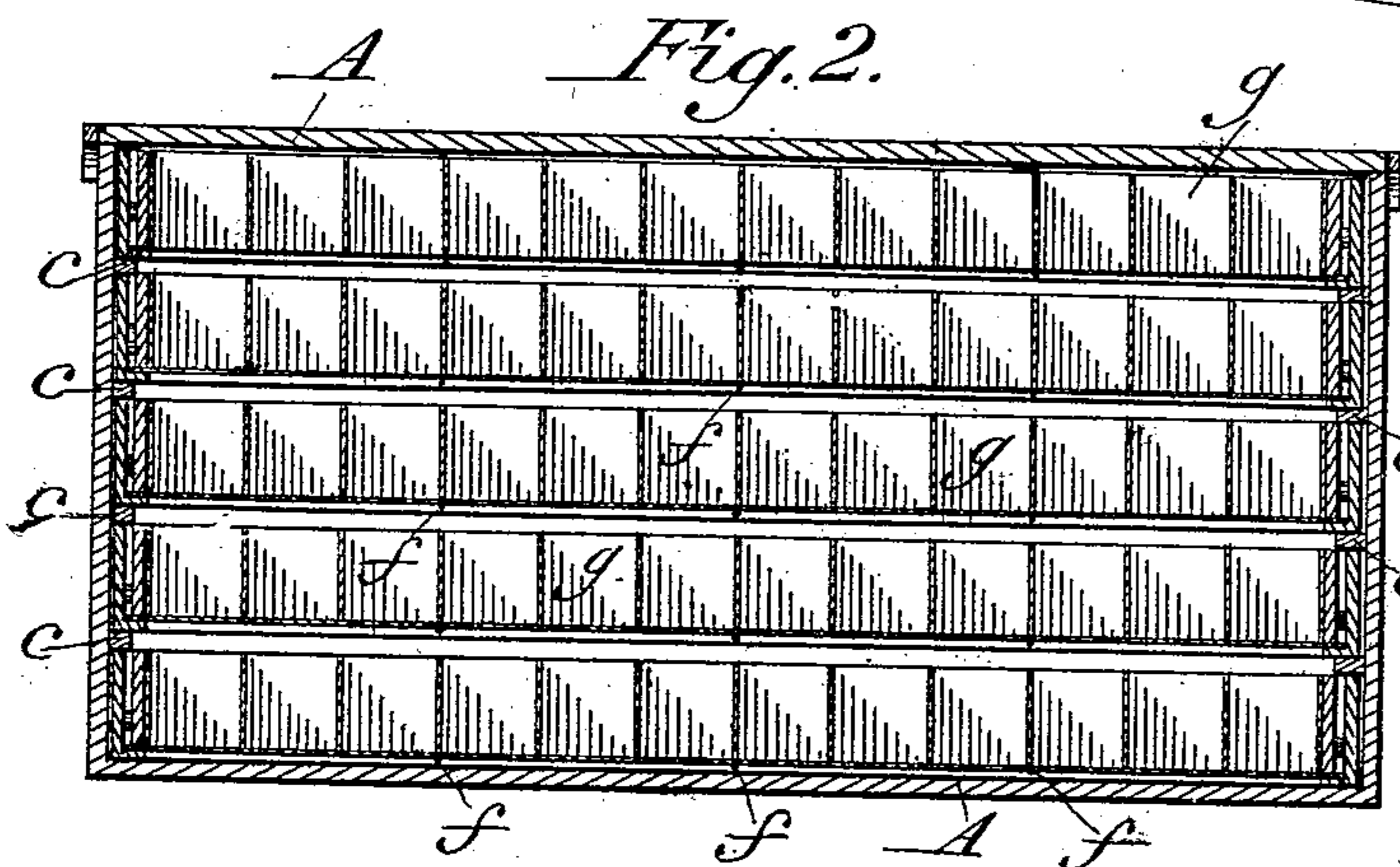


Fig. 3.

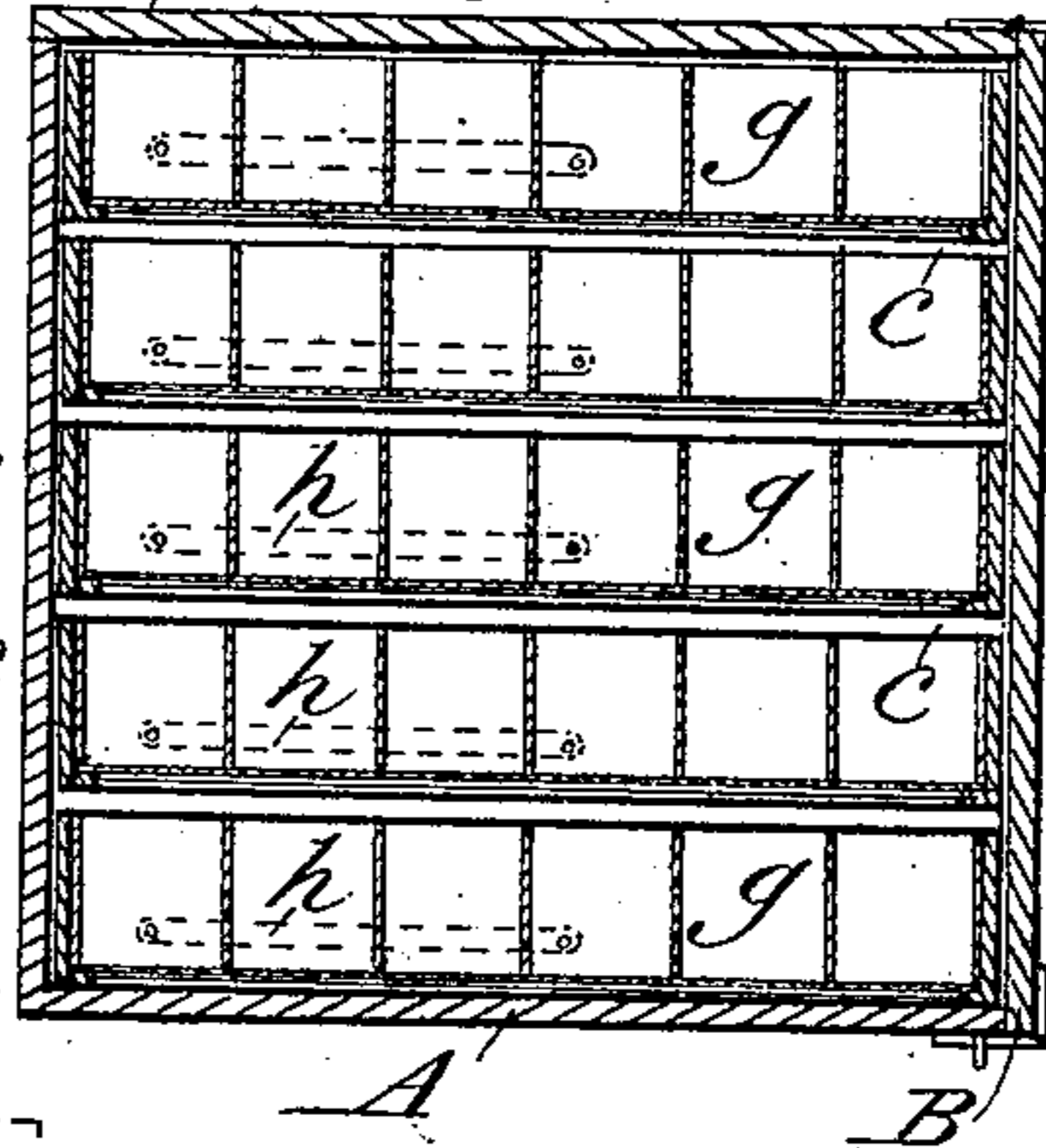
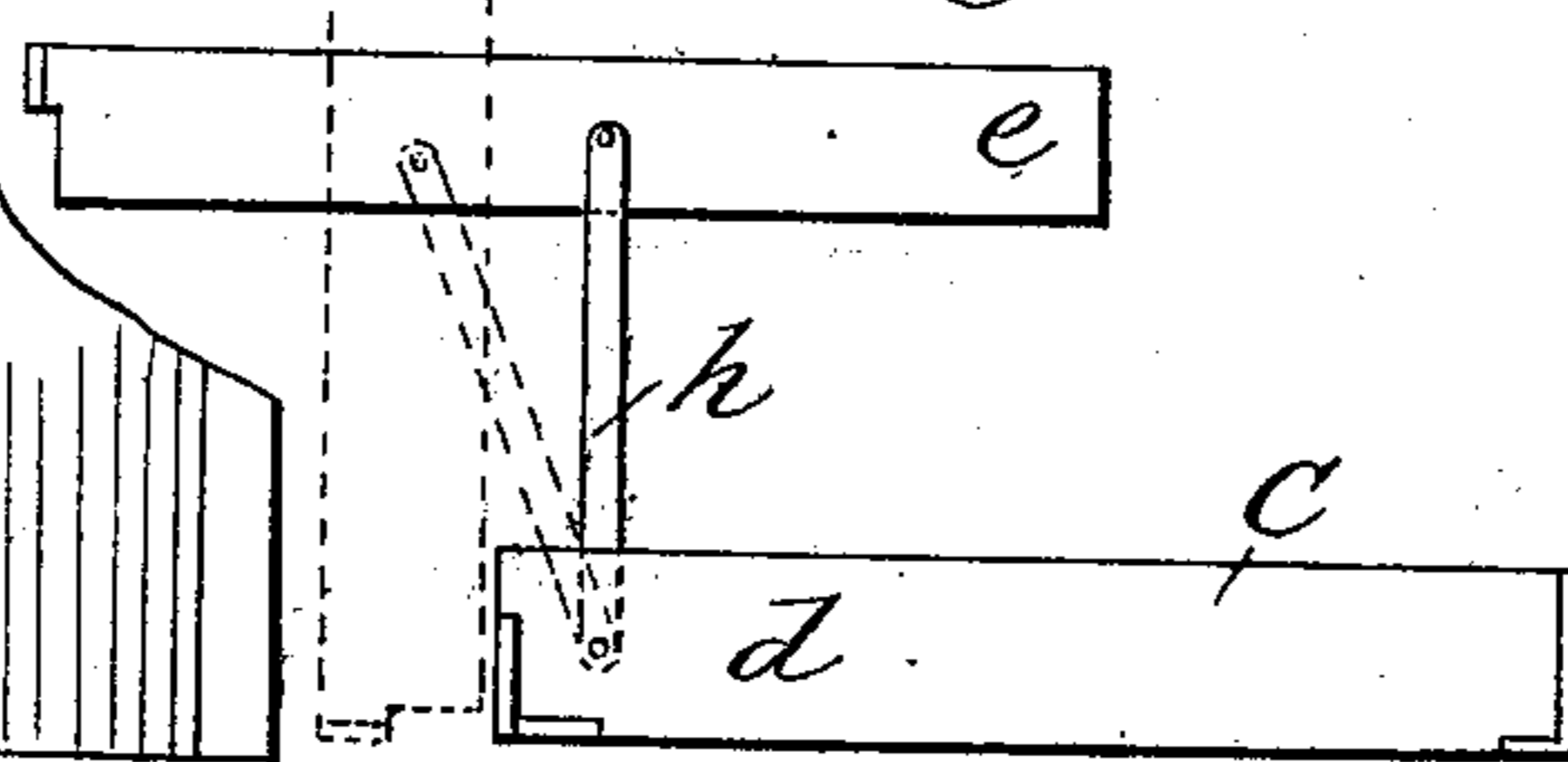


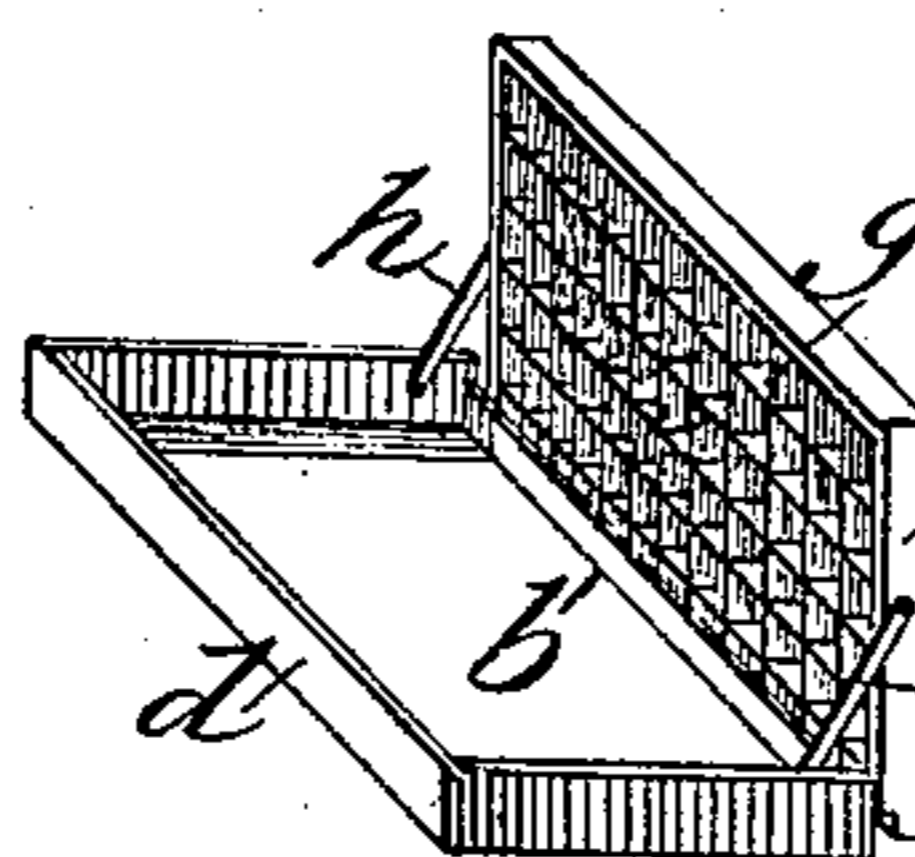
Fig. 4.



Attest:
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Fig. 5.

Fig. 6.



Inventor

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UNITED STATES PATENT OFFICE.

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SAFETY EGG-CRATE.

SPECIFICATION forming part of Letters Patent No. 449,981, dated April 7, 1891.

Application filed November 24, 1890. Serial No. 372,514. (No model.)

To all whom it may concern.

Be it known that I, CHARLES C. TILGHMAN, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Egg-Crates; and I do hereby 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.

The invention has relation to certain new and useful improvements in crates designed for the transportation and shipment of eggs, and has particular reference to the construction of the trays or drawers of the crate, whereby ready access may be had to the eggs for the purpose of examination or removal from the trays.

In the accompanying drawings, Figure 1 is a perspective view of an egg-crate provided with my improved trays, one of which appears partly drawn out. Fig. 2 is a longitudinal and Fig. 3 a transverse vertical section of the crate. Fig. 4 is a side elevation of one of the trays with the cell-frame thrown up. Fig. 5 is a bottom view of one of the trays, showing the supporting-wires. Fig. 6 is a small perspective of the tray, showing the cell-frame thrown up to permit the removal of the eggs.

Similar letters indicate like parts in all the figures.

Referring to the drawings, A denotes a box of any preferred size and shape, having a lid or door B hinged at the edge of one side and provided with any suitable fastening devices for locking the crate. The lid or door is advisedly provided with side flanges *b*, which overlap the ends of the box, and the box itself is also preferably formed with convenient hand-holes *a* to facilitate handling. Internally the box is provided at opposite sides or ends with small supporting strips or ledges *c*, upon which the trays are slid in and out of the box, and which are shaped and arranged to hold the trays only far enough apart to prevent the eggs in one from touching those of an adjacent tray.

The crate shown in the drawings is provided with five trays, each holding six dozen

eggs; but obviously the number of trays and the number of cells to each tray may be varied to suit the users. So far as thus described the construction and arrangement of the crate are those ordinarily employed and constitute no part of my invention, which relates, as before explained, to the trays or drawers, which I will now particularly describe.

Each tray C comprises a body portion *d* and a cell-frame *e*. The body is formed of wooden side and end pieces, as usual; but the bottom *b'*, instead of being formed, as heretofore, with small seats or openings for the eggs, is preferably imperforate, and is formed of paper or straw-board or other yielding material having the requisite stiffness. This bottom is not attached to the sides or ends of the body, but is merely laid upon and supported by small wires *f* or strips of any other suitable material stretched across from side to side of the body. Three wires only are shown in the drawings, arranged transversely; but obviously any number may be used, and they may be arranged in any manner. The cell-frames *e* are made of such size and shape as to fit snugly into the body of the trays, and are provided with any suitable number of open-bottomed cells *g*. The drawings show the ordinary pasteboard cells attached interiorly to the sides and ends of the frame; but any other form of cell may be employed. These cell-frames are hinged to the sides of the trays, so as to be raised up and folded back out of the way to permit the eggs to be removed from the tray by hand. Instead of hinging them at their rear edge to the trays, as has been heretofore proposed, I connect them by means of links *h*, pivoted to the inner sides of the body of the tray near the rear corners, as shown, the links being pivotally connected at their opposite ends at about the center of the outer sides of the cell-frames, as shown in Figs. 4 and 6 of the drawings. Were the cell-frame hinged to the body of the tray at the rear edge, when the frame is thrown back the eggs in the rear cells would be liable to be cracked or broken; but by hinging it to the tray, as above described and shown, it is permitted to be lifted verti-

cally out of the tray-body while in a horizontal position, as shown in full lines in Fig. 3, and thrown back out of the way and tilted into the position shown in dotted lines in the same figure, where it will stand upon its end without other support than the links, thus permitting both hands to be used in taking the eggs out of the tray. This has been found in actual practice to be a great improvement over the manner of hinging the cell-frames at their edge to the edge of the tray-body. It is also found that an imperforate bottom for the tray without seats or nests for the eggs is preferable to the usual perforated or reticulated bottom, inasmuch as the eggs are left loose in the tray when the cell-frame is lifted and may be taken out by handfuls instead of having to be removed one at a time, as when the perforated bottoms are used.

With the trays constructed and arranged as above described there is practically no danger of breakage in transportation, as the eggs cannot come in contact with each other or with any rigid part of the crate. The supporting-strips *c* separate the trays sufficiently to prevent the contents of one tray from pressing on the one beneath. These strips, however, are not essential, as the tray-bodies may be made deep enough for the trays to rest upon each other without danger to their contents.

In arranging the wires *f* to support the bottoms *b'* of the trays I stretch them across, so that they shall underlie the partition-strips between the cells in the frames above, thus further insuring against danger of breaking the eggs.

I do not limit myself to the exact location and arrangement of the hinge between the tray-body and the cell-frame or the exact form or number of hinges employed, as it is obvious that the same may be varied within certain limits without departing from the spirit or scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. A tray for egg-crates, consisting of a body part and a cell-frame, the latter carrying a se-

ries of open-ended cells and adapted to fit within the tray and being pivotally connected thereto by links pivoted at one end to the sides of the cell-frame near the center and at their opposite end to the sides of the tray-body near its rear edge, whereby the cell-frame may be lifted bodily out of the tray and folded back into a vertical position, leaving the eggs in the tray and free to be removed, substantially as described.

2. A tray for egg-crates, consisting of a body part having an imperforate bottom and a cell-frame, the latter carrying a series of open-ended cells and adapted to fit within the tray and being pivotally connected thereto by links pivoted at one end to the sides of the frame near its center and at the opposite end to the sides of the tray-body near its rear edge, whereby the tray may be filled through the open-topped cells and the cell-frame may be raised bodily, leaving the eggs loose in the tray and free to be removed, substantially as described.

3. In a tray for egg-crates, the combination of the body part *b*, the wires *f*, stretched thereacross, the removable imperforate yielding bottom *b'*, supported by said wires, the frame *e*, carrying the open-bottomed cells *g*, and the links *h*, pivoted to the sides of the cell-frame near the center and to the tray sides near their rear corners, substantially as described.

4. In an egg-crate, the combination of the box *A*, the lid *B*, and the supporting-strips *c* with the trays *C*, the wires *f*, stretched thereacross, the imperforate removable yielding bottoms resting thereon, and the cell-frames filling the trays and fitting therein and pivoted to the sides thereof by the links *h*, pivotally connected at their forward ends to the outer sides of the cell-frames near the center and at their rear ends to the inner sides of the tray-body near their rear corners, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES C. TILGHMAN.

Witnesses:

RICHARD J. FOARD,
R. E. LEE GOLDSBOROUGH.