

P. & R. P. AITCHESON.
Bottle-Packing Case.

No. 200,161.

Patented Feb. 12, 1878.

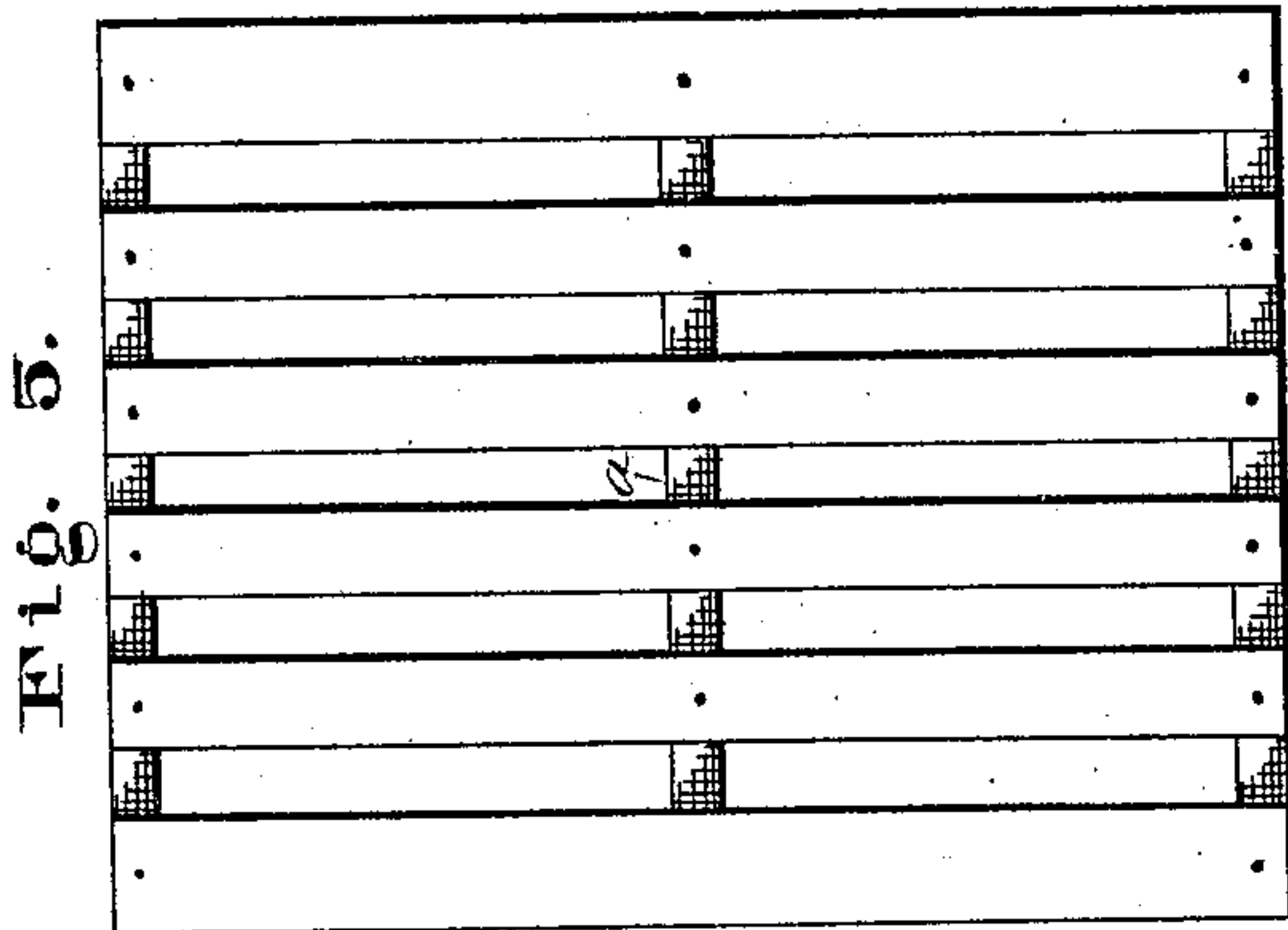
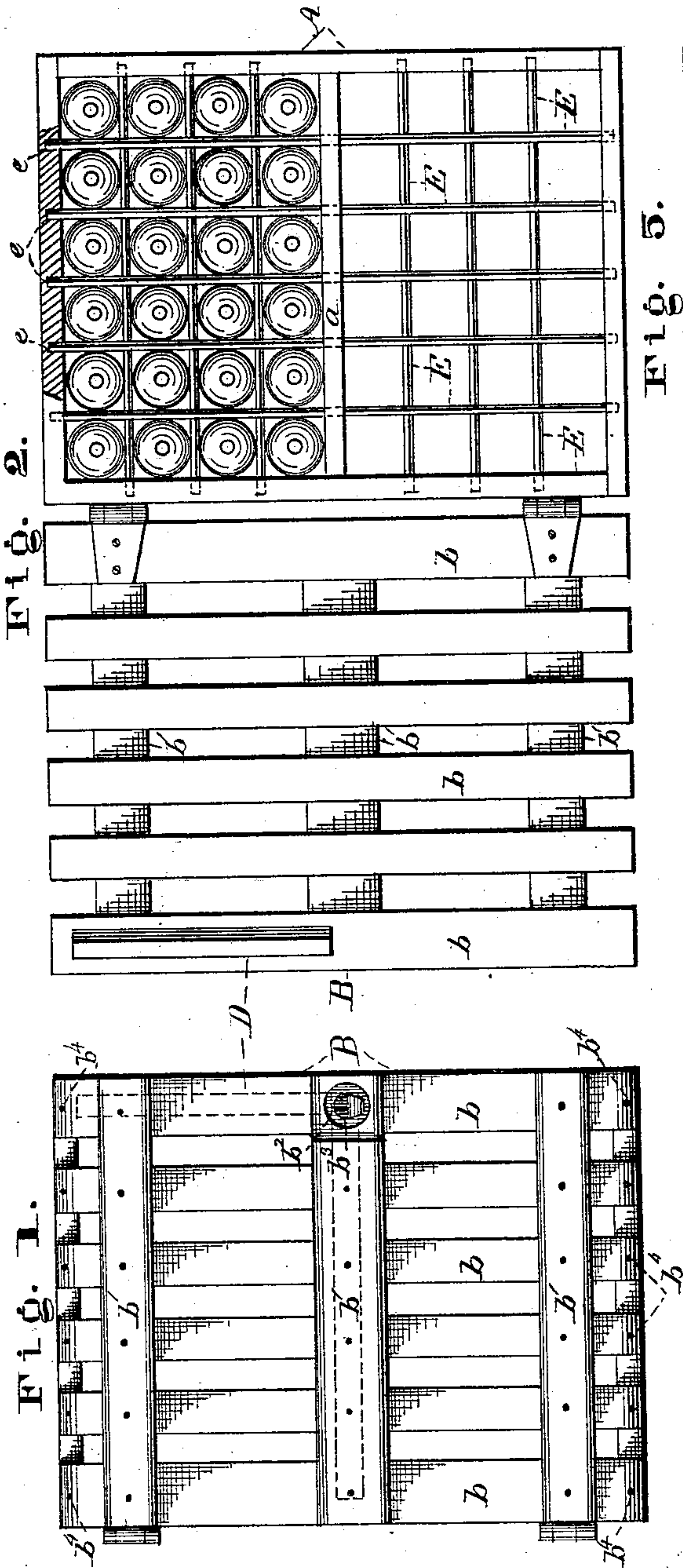


Fig. 3.

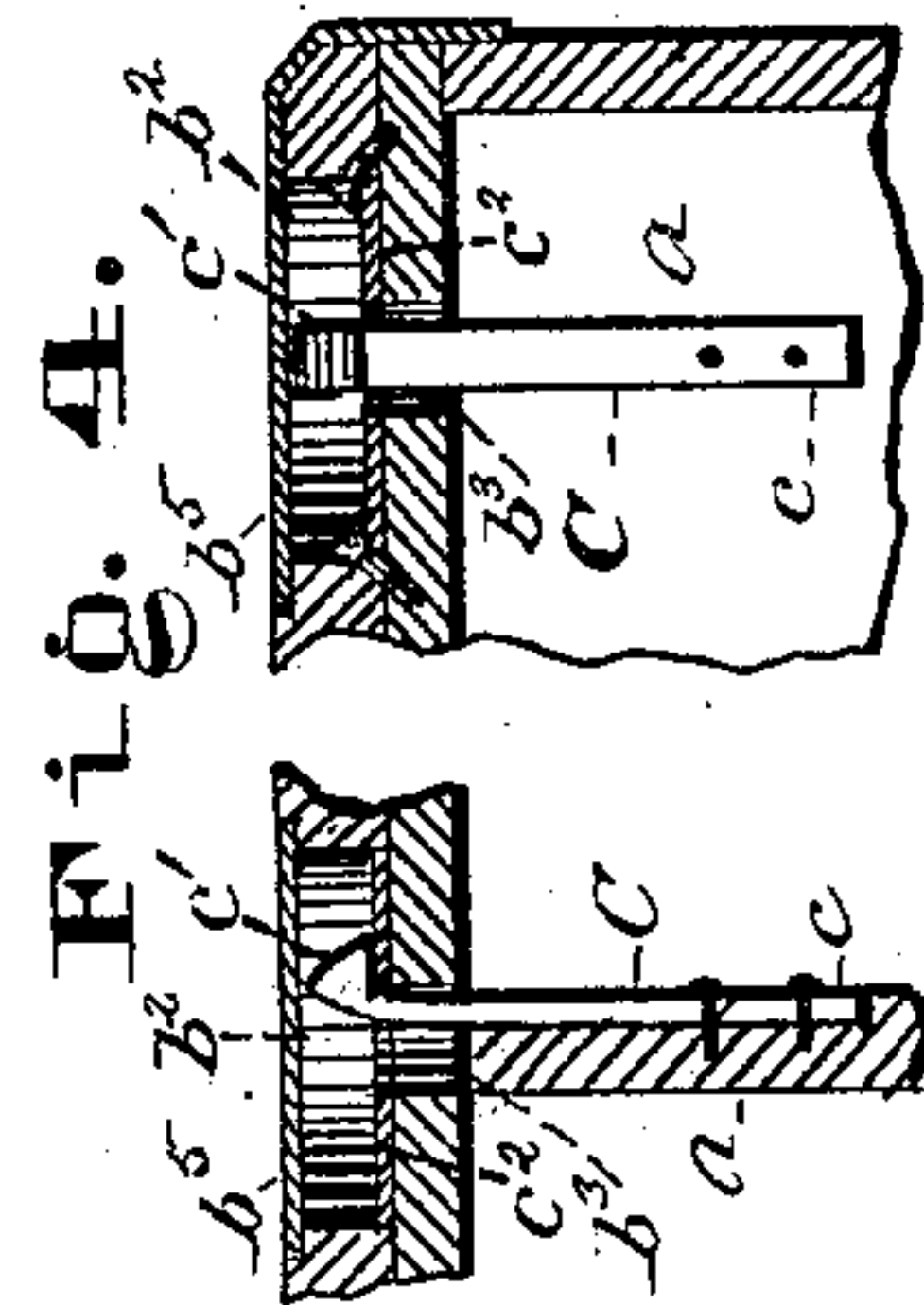


Fig. 4.

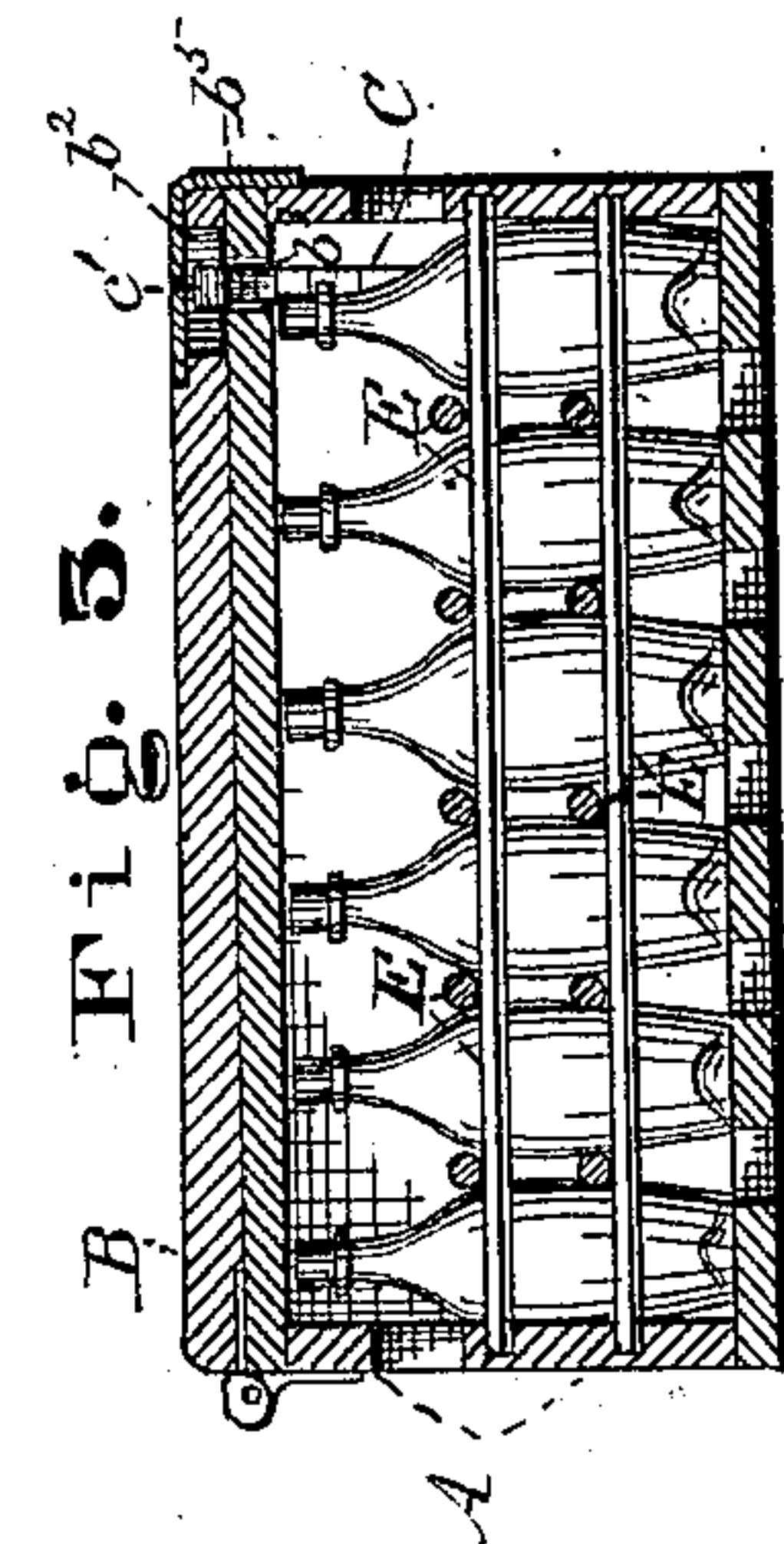


Fig. 5.

WITNESSES:

Patrick F. Gorman.
Julian A. Moore.

INVENTORS:

Peter Aitcheson
Robert P. Aitcheson

UNITED STATES PATENT OFFICE.

PETER AITCHESON AND ROBERT P. AITCHESON, OF ALEXANDRIA, VA.

IMPROVEMENT IN BOTTLE-PACKING CASES.

Specification forming part of Letters Patent No. **200,161**, dated February 12, 1878; application filed October 20, 1877.

To all whom it may concern:

Be it known that we, PETER AITCHESON and ROBERT P. AITCHESON, of Alexandria, in the county of Alexandria and State of Virginia, have invented new and useful Improvements in Packing-Cases for Bottles containing beer, wine, and other liquids; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a plan view of the invention, showing the construction of the cover or lid; Fig. 2, a plan view of the same, with the lid thrown back to show the arrangement of the interior of the box; Fig. 3, a transverse vertical section of the box, showing the double sets of rods or bars; Fig. 4, detail views of the fastening device with the seal in place; and Fig. 5, a reversed plan, showing the construction of the bottom of the box.

The object of the invention is the construction of a packing-case for bottles of beer, wine, or other liquids, which may be firmly and rigidly put together, but light and easy of transportation, and may, moreover, allow the bottles to be readily and securely packed, and be free, during transportation, from the liability of opening accidentally.

Our invention essentially consists of a wooden box of rectangular, square, or other convenient form, which, to secure lightness and save material, has its top or lid, bottom, front, and rear made of narrow strips or slats of plank, the ends alone being each made of a single piece, and each being furnished near the upper edge with a longitudinal slot, for convenience of carriage by hand, when necessary.

Through the center of the box runs a transverse vertical partition, dividing the interior into two equal and similar compartments. This partition has securely attached to one of its sides, near its front edge, a strong metallic vertical spring, having its upper end formed into a catching point or head, which, when the box is closed, passes through and engages the edge of a suitable opening made for its reception in the cover or lid of the box, there being interposed between the catching-head and the edge of said opening a washer, made of iron or other suitable material, to prevent the edge

of the opening from being broken or worn away by the spring-catch, and thus rendering the accidental opening of the box possible. Said washer is fixed in place by means of screws, which bind upon the edge of the same, or by other equivalent device.

The opening which the head of the spring-catch engages is situated at the bottom of a recess extending down from the upper surface of the lid, near its front edge, in the direction of its thickness, and having a depth greater than the height of the engaging-head of the spring-catch. Over this recess, when the box is closed, the seal is fixed, so that nothing can touch and disengage the head of the catch without first breaking the seal.

Firmly fixed to the inside of the lid, parallel to and near its front edge, is an auxiliary bar, which, when the box is closed, rests just within one of the equal compartments, with one of its ends against the side of the box and the other against the central partition. From the situation of this bar it is evident that, when the box is closed and the catch engaged, any pressure of the lid in a lateral direction will cause one or the other of the ends of said bar to bear strongly against either the side of the box or the central partition, and thus prevent the lateral displacement of the catch and the consequent opening of the box.

The interior of the box is divided into square cells or compartments, of a suitable size to permit a single bottle to fit snugly within each, by means of four sets of equidistant cylindrical wooden rods. Two of these sets of rods run from end to end of the box, and two from front to rear; and immediately above and resting upon, though not connected with, a set running in one of the above-mentioned directions is a set running in the other, thus forming two double sets, the upper members of which are at right angles to the lower. These two double sets, moreover, are so situated that one will touch the bottles, when in place, above and the other below the bulge or swell at points of equal diameter, so that (the wood of which the rods are made being, while sufficiently rigid for the designed purpose, slightly elastic) the bottles may be sprung into place, and afterward gently, yet securely, held, the thickness of the rods allowing sufficient room for

the accommodation of the widest portions of any two contiguous bottles without permitting one to touch the other. The ends of each rod fit into circular recesses made for their reception in the sides of the box, said recesses being in depth about two-thirds of the thickness of the sides, and of sufficient diameter to allow the ends of the rods to fit snugly therein. The longitudinal rods also pass through holes made for the purpose in the central partition, thus running through both of the equal compartments into which the interior of the box is divided.

In the accompanying drawing, A represents the box, provided with the transverse central partition *a* and the hinged cover or lid B, as shown, said lid being composed, as seen in Fig. 1, of the longitudinal strips or slats *b* and the superior transverse slats *b*¹, in the front end of the central one of which latter is the recess *b*², having at its bottom the opening *b*³, for the accommodation of the head of the spring-catch. The longitudinal slats *b* are secured at their ends to the ends of the box by the screws or nails *b*⁴ *b*⁴, or their equivalents, as shown in Fig. 1, and the transverse slats *b*¹ are secured to those running longitudinally in a similar manner. When the box is packed and closed the seal *b*⁵ is fastened over the recess *b*².

C represents the vertical spring, securely attached at its lower end *c* to the central partition *a*, and provided at its upper end with the catching point or head *c*¹, between which and the edge of the opening *b*³ is interposed the washer *c*², made of iron or other suitable material.

D, Fig. 2, is the auxiliary bar, firmly fixed to the inner surface of the cover B, near and parallel to the front edge of the same. The dotted lines in Fig. 1 show that when the box is closed the bar rests just within the box, with one end touching the end of the same and the other end touching the central partition *a*.

E E, Figs. 2 and 3, represent the cylindrical wooden bars which divide the box into cells or compartments. In Fig. 2 they are represented in plan, showing their arrangement in sets at right angles to each other, the insertion of their ends into the circular recesses *e e*, made for their reception in the sides of the box, and the manner in which the longitudinal bars pass through the openings made for their reception in the central partition *a*.

In Fig. 3 the box is represented in section, showing that the double sets of bars are each composed of two single sets at right angles, which, while not connected together, are in juxtaposition.

It is to be remarked that separate bars in each set are placed a little closer together than the greatest diameter of any one of the bottles to be packed, yet are not so near as to allow the swelling or bulging portions of any two contiguous bottles to touch. Also, that

the two double sets of bars are placed so as to clasp the bottles when in position where their diameters are equal above and below the bulge.

It will be readily seen from the foregoing that, on account of the wooden bars being slightly elastic, each bottle, in the act of packing, may be sprung into place, and, when in place, will be gently, yet firmly, held by the contiguous bars. This result would not follow if the bars were made of metal, as they then, if sufficiently slender to be elastic, would not give room for the accommodation of the bulge of the bottles, or, if thick enough for this purpose, would be unfit because of their rigidity and weight.

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

1. In a packing-case for bottles containing beer, wine or other liquids, the combination, with the box A and cover or lid B, provided with the recess *b*² and opening *b*³, of the vertical spring C, catching-point *c*¹, washer *c*², and seal *b*⁵, substantially as shown and described, for the purpose specified.

2. In a packing-case for bottles containing beer, wine, or other liquid, the combination, with the box A, provided with the transverse central partition *a*, and cover or lid B, provided with recess *b*² and opening *b*³, of the vertical spring C, catching-point *c*¹, washer *c*², seal *b*⁵, and auxiliary bar D, substantially as shown and described, for the purpose specified.

3. In a packing-case for bottles containing beer, wine, or other liquid, the combination, with the box A, having its ends and sides provided with the circular recesses *e e*, of the two double sets of equidistant independent elastic cylindrical rods E, each rod being of somewhat greater diameter than double the height of the bulge of any bottle to be packed, each set having the same number of members, and the two sets having their corresponding member parallel and arranged respectively in the same vertical plane, substantially as shown, to hold bottles with a bulge by lateral pressure above and below the same, so that the open case may be inverted without discharging its contents.

4. The packing-case for bottles herein described, consisting essentially of the box A, provided with the transverse central partition *a*, cover or lid B, provided with the recess *b*², opening *b*³, and auxiliary bar D, spring C, provided with catching-head *c*¹, washer *c*², and the two double sets of equidistant cylindrical wooden rods E E, all constructed and arranged substantially as herein shown and described, for the purposes set forth.

PETER AITCHESON.

ROBERT P. AITCHESON.

Witnesses:

FRANCIS A. KERBY,
T. E. GRIMES.