

No. 627,745.

Patented June 27, 1899.

D. A. DEMOREST.
FOLDING EGG CASE.

(Application filed Oct. 3, 1898.)

(No Model.)

FIG. 1

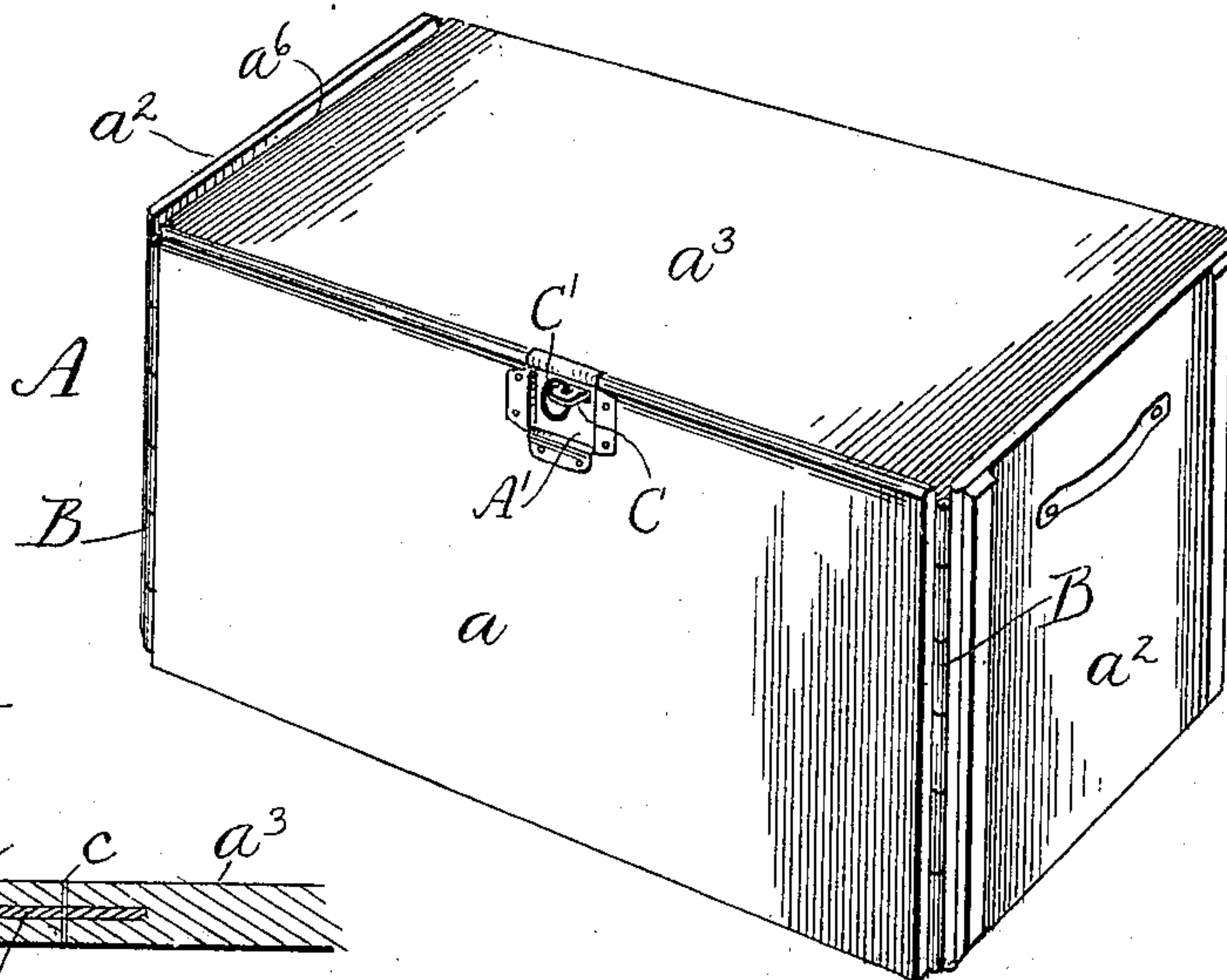


FIG. 5

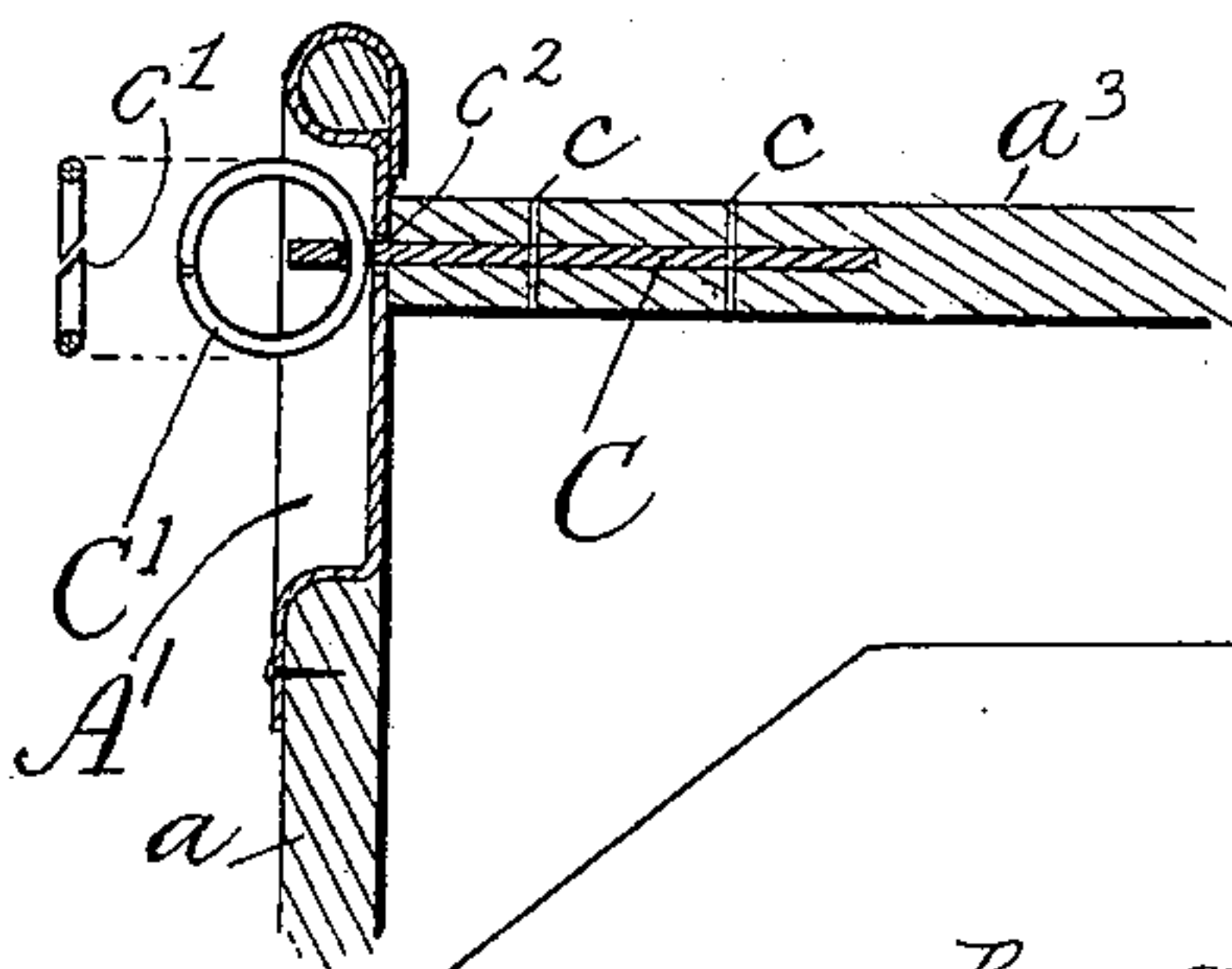


FIG. 2

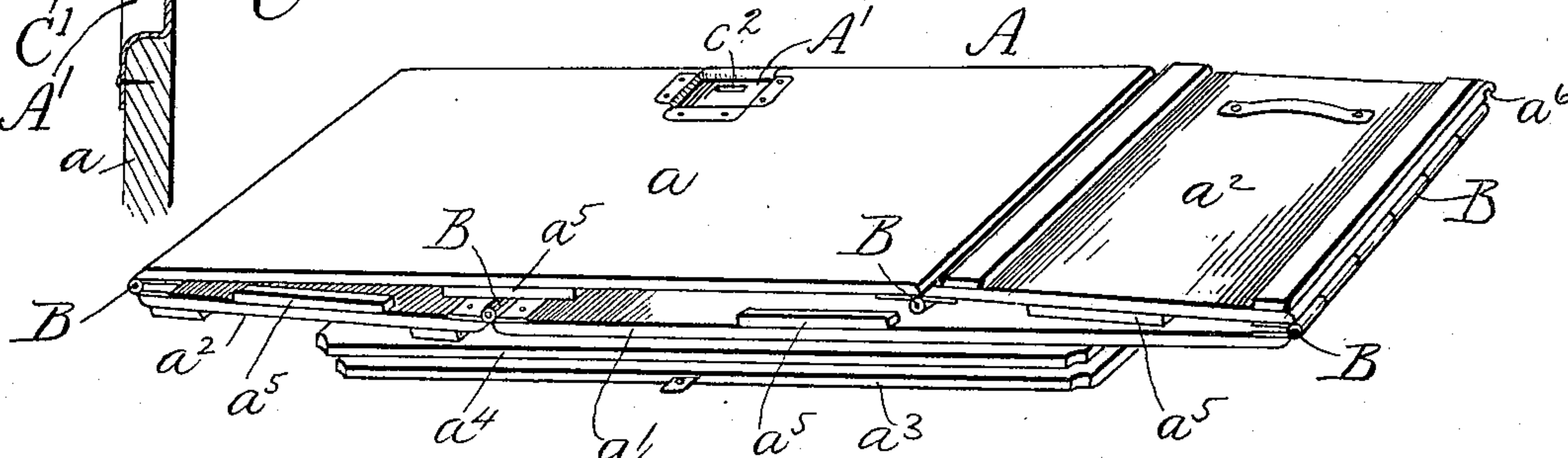


FIG. 3

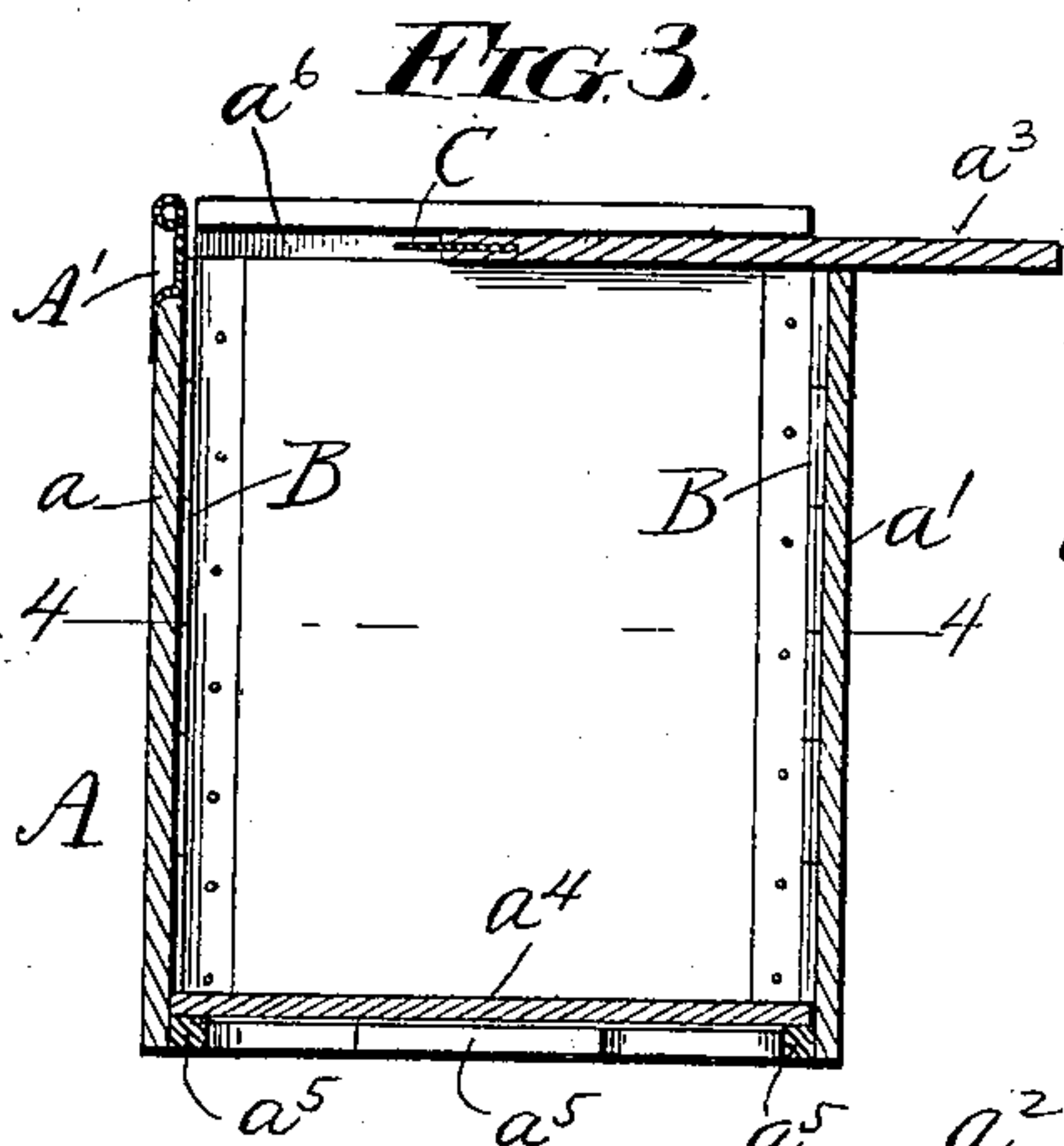
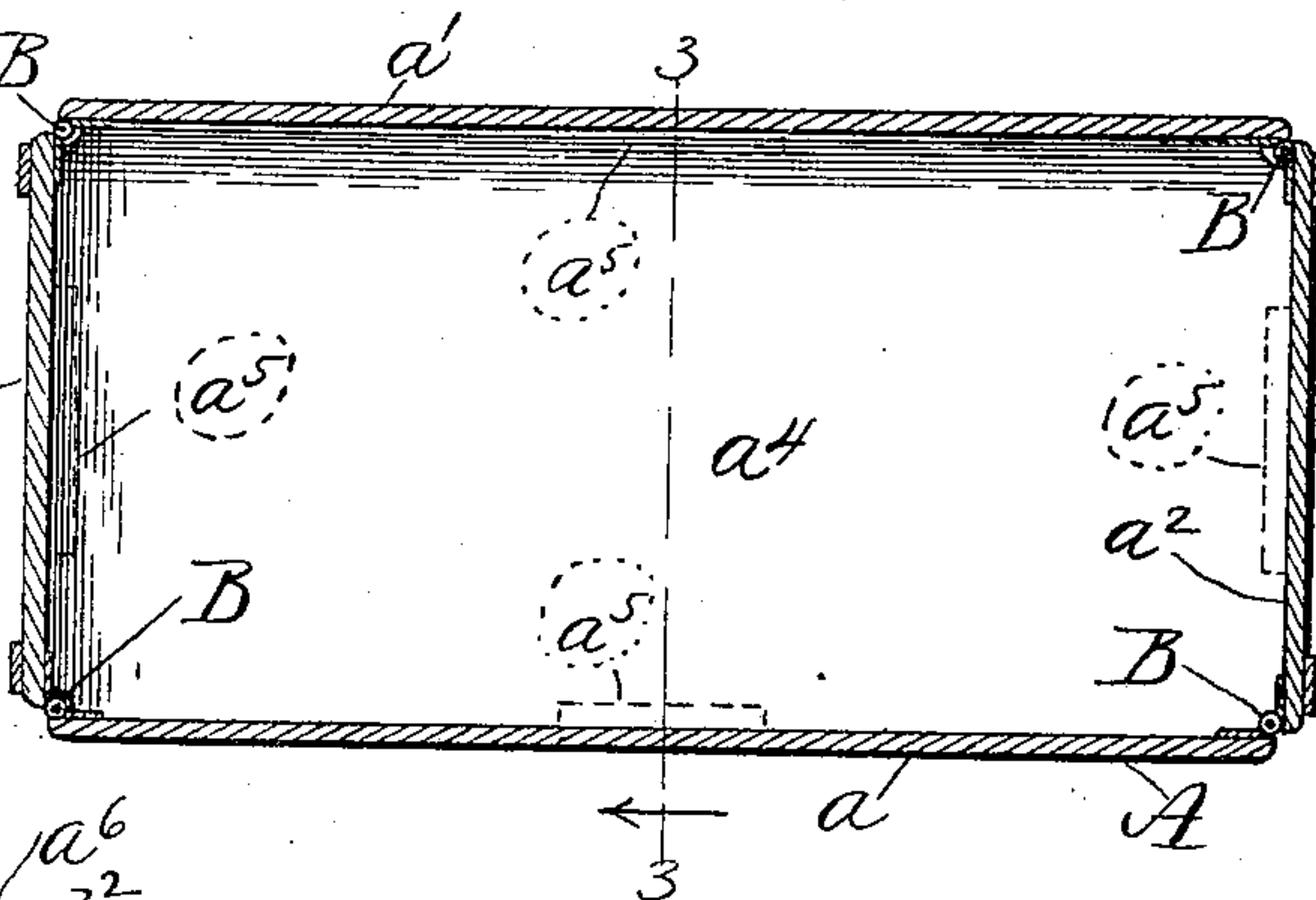


FIG. 4



Witnesses:
J. Halpern
Ralph Pinkerton

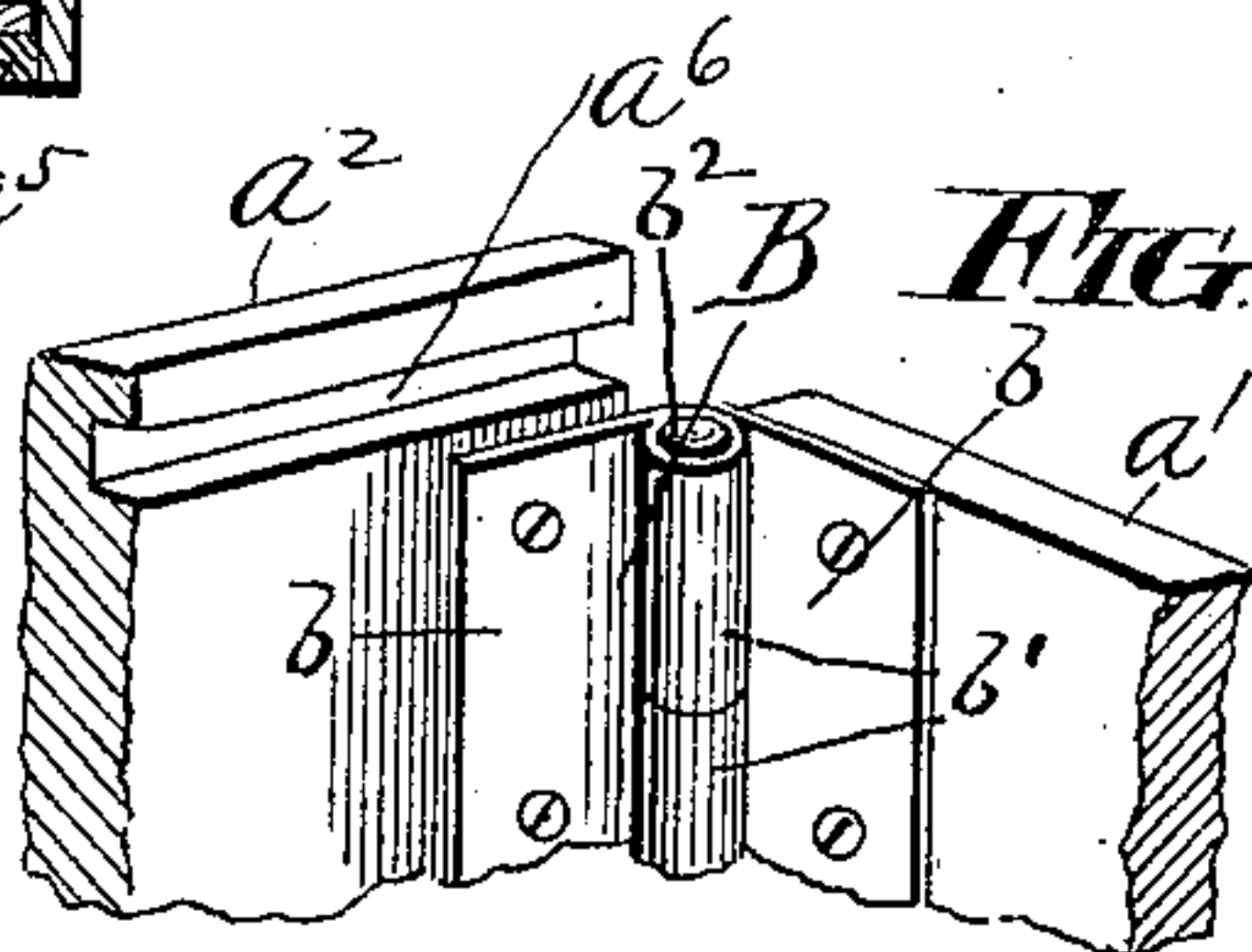


FIG. 6

Inventor:
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UNITED STATES PATENT OFFICE.

DAVID A. DEMOREST, OF CHICAGO, ILLINOIS.

FOLDING EGG-CASE.

SPECIFICATION forming part of Letters Patent No. 627,745, dated June 27, 1899.

Application filed October 3, 1898. Serial No. 692,467. (No model.)

To all whom it may concern:

Be it known that I, DAVID A. DEMOREST, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Egg-Cases, of which the following is a specification.

This invention relates to improvements in the wooden boxes or cases used for storing and shipping eggs, such boxes or cases being, in fact, the outer receptacles within which the pasteboard racks or fillers that contain the eggs are packed.

The object of the invention is to provide an improved folding construction in wooden cases or boxes of this character which shall be simple and cheap to manufacture, strong and durable in service, easy to set up and knock down, and capable of being readily handled by the ordinary unskilled labor usually employed in this branch of industry.

The invention contemplates an improved construction of the box as a whole and also an improved fastening device by which the cover of the case is locked in closed position.

The invention consists in the matters herein set forth, and particularly pointed out in the appended claim, and will be fully understood from the following description of the construction set forth in the accompanying drawings, in which—

Figure 1 is a perspective view of an egg-case embodying my invention. Fig. 2 is a similar view of the same case knocked down or folded flat for storage and transportation. Fig. 3 is a vertical transverse section taken on line 3 3 of Fig. 4. Fig. 4 is a top plan section taken on line 4 4 of Fig. 3. Fig. 5 is a sectional detail of the fastening device. Fig. 6 is a perspective detail of a corner of the box.

In said drawings, A designates the case as a whole, the same consisting of front and back walls a and a' , respectively, end walls a^2 , and top and bottom walls a^3 and a^4 , respectively. The front and back walls are each secured to the end walls by hinges B, which are so made and applied that said four main walls of the box—i. e., its front and back and end walls—can be folded flat upon each other after the manner shown in Fig. 2. Said hinges are made of sheet metal, with straps b ,

which extend from top to bottom of the walls and are secured thereto by screws, nails, or the like, so that they reinforce and strengthen the walls in addition to providing an inside hinged connection between them. Each of the straps b is provided with several integral hollow ears or knuckles b' , which interlock with the similar parts of the other strap of the hinge, and a single pivot-pin b^2 , extending from top to bottom of the case, is passed through their registering apertures to connect the straps together. The bottom a^4 is in this instance made in a separate piece of rectangular shape and of substantially the exact dimensions of the inside of the box or case when set up, so that when inserted transversely between the upright walls a , a' , and a^2 it holds them rigidly at right angles to each other. When placed within the box in this manner, it is designed to rest upon cleats a^5 on the inner faces of said upright walls, at the lower edges thereof, and will ordinarily be held down in contact therewith by the friction of its engagement with said upright walls and by the weight of the contents of the case when filled. Any suitable fastening devices may, however, be additionally supplied if deemed desirable for any special service. The top or cover a^3 is made to slide in grooves a^6 , provided in the inner faces of two opposite upright walls, which in this instance are the end walls a^2 , although it will be obvious that said cover could equally well be made to slide endwise between the front and rear walls if so desired. In the construction shown the rear wall a' is cut down at its upper edge on a level with the lower edges of the grooves a^6 , so that the cover can be slid into said grooves over said rear wall. When pushed home, the front edge of said cover then abuts against the inner face of the front wall a , the upper edge of this wall being shown as on a level with the top edges of the end walls.

For securing the cover in its closed position I have provided a catch or fastening, which is shown more particularly in Figs. 1 and 5 and comprises a bolt C, which projects forward from the front edge of the cover through an aperture c^2 in the front wall of the box, and a fastening-ring C', which is split or divided at one point c' , so that it can be threaded through a hole punched or bored

in the end of the bolt C, the split in the ring being cut through or formed on a plane which stands at an angle with the axis of the ring, as shown in Fig. 5, so that the ring must be
 5 twisted over at a corresponding angle (desirably about forty-five degrees) before it can be passed over the bolt and threaded through the hole in the latter. As herein shown, the bolt C is made in the form of a thin flat piece
 10 of metal driven into the cover and secured therein by dowel-pins or nails c. As a further improvement, also, the front wall of the box at the point of its engagement with the bolt is cut out and provided with a countersunk
 15 metallic casing A', which may be made of either sheet or cast metal and within the depressed center of which the projecting end of the bolt and inserted split fastening-ring will be wholly contained, so that the fasten-
 20 ing device as a whole may be said to be "flush" with the front of the box and cannot form any undesirable projection or obstruction on the same. The fastening thus provided is not only extremely simple and durable and
 25 easy to manufacture and manipulate, but extremely efficient, since the natural tendency of the weight of the ring will be to hold it in a vertical position instead of at the forty-five-degree angle necessary to its removal, so that
 30 consequently no amount of shaking or jarring would ever be liable to detach the ring from the bolt. Moreover, by making the angular cut in the ring of a width slightly less than the thickness of the bolt, so that it must
 35 be sprung open slightly in applying it to the bolt or in removing it therefrom, an additional safeguard against the accidental detachment of the ring may be afforded without making it difficult to apply or remove by
 40 the use of the fingers alone and without preventing the ring from being made of such heavy and stiff material as to fully resist any strain to which it may ever be subjected.

It will be understood that the fastening
 45 device thus described may be advantageously employed on other styles of boxes and cases and in other connections, and it is accordingly hereinafter claimed separately, as well as in connection with the improved construc-
 50 tion of folding case hereinbefore described. In folding the latter flat for shipment the top and bottom may either be left outside, as shown in Fig. 2, or may be placed together between the collapsed upright walls of the
 55 case. Both the top and bottom will also be understood to be reversible and may be differently labeled or stenciled on opposite sides—as, for example, with different ship-
 60 ping directions. This reversibility of the cover is permitted by the central location of the bolt C, which will consequently register with the aperture in the casing A' which-
 ever of its faces is turned upward. This ca-

capacity is of great advantage in connection with regular shipments back and forth be- 65
 tween a merchant and his customers, in which case one side of the cover can be permanently stenciled with the merchant's name and the other devoted to that of the particular cus- 70
 tomer for whom the shipment is intended, so that in returning the box it will only be nec-
 essary to reverse the cover in order to make the necessary change in shipping directions. It will also be understood that while prima- 75
 rily designed as an improvement in the man-
 ufacture of egg-cases my invention may also be employed in the construction of boxes or crates for any other purpose, as well as for that mentioned.

I claim as my invention— 80

As a new article of manufacture, a folding case A comprising front and rear walls a and a' , respectively, end walls a^2 , sheet-metal hinges B applied inside the case at each cor- 85
 ner and made with continuous straps b ex-
 tending from top to bottom of the walls and secured to the latter so as to reinforce and strengthen them, each of said straps being
 formed with several hollow ears or knuckles b' which interlock with the similar parts of 90
 the other strap and form a continuous hole through which the pivot-pin b^2 of the hinge is passed, the bottom a^4 made in a separate
 removable piece of rectangular shape of the dimensions of the inside of the box or case 95
 when set up, cleats a^5 on the inner faces of the walls at the lower edges thereof for sup-
 porting said bottom, grooves a^6 in the inner faces of the end walls a^2 near the upper edges
 thereof, the rear wall a' being terminated at 100
 its upper edge at the level of the lower mar-
 gins of said grooves and the front wall a being continued up to the full height of the end
 wall, cover a^3 sliding in said grooves a^6 and abutting when closed against the inner face 105
 of the front wall a , bolt C projecting forward from the front edge of the cover, aperture c^2
 in the front wall of the box through which said bolt projects, and a fastening device for
 locking said bolt in engagement with said 110
 aperture, said bolt being placed midway be-
 tween the ends of the cover and also midway between its upper and lower surfaces so that
 it always registers with said aperture which- 115
 ever side up the cover is placed, thereby per-
 mitting the latter to be reversed, substan-
 tially as described.

In testimony that I claim the foregoing as my invention I affix my signature hereto, in the presence of two subscribing witnesses, 120
 this 1st day of October, A. D. 1898.

DAVID A. DEMOREST.

Witnesses:

H. W. CARTER,
 RALPH PINKERTON.