

(No Model.)

O. S. FOSTER.

HONEY BOX CASE AND CLAMP.

No. 337,143.

Patented Mar. 2, 1886.

Fig: 1.

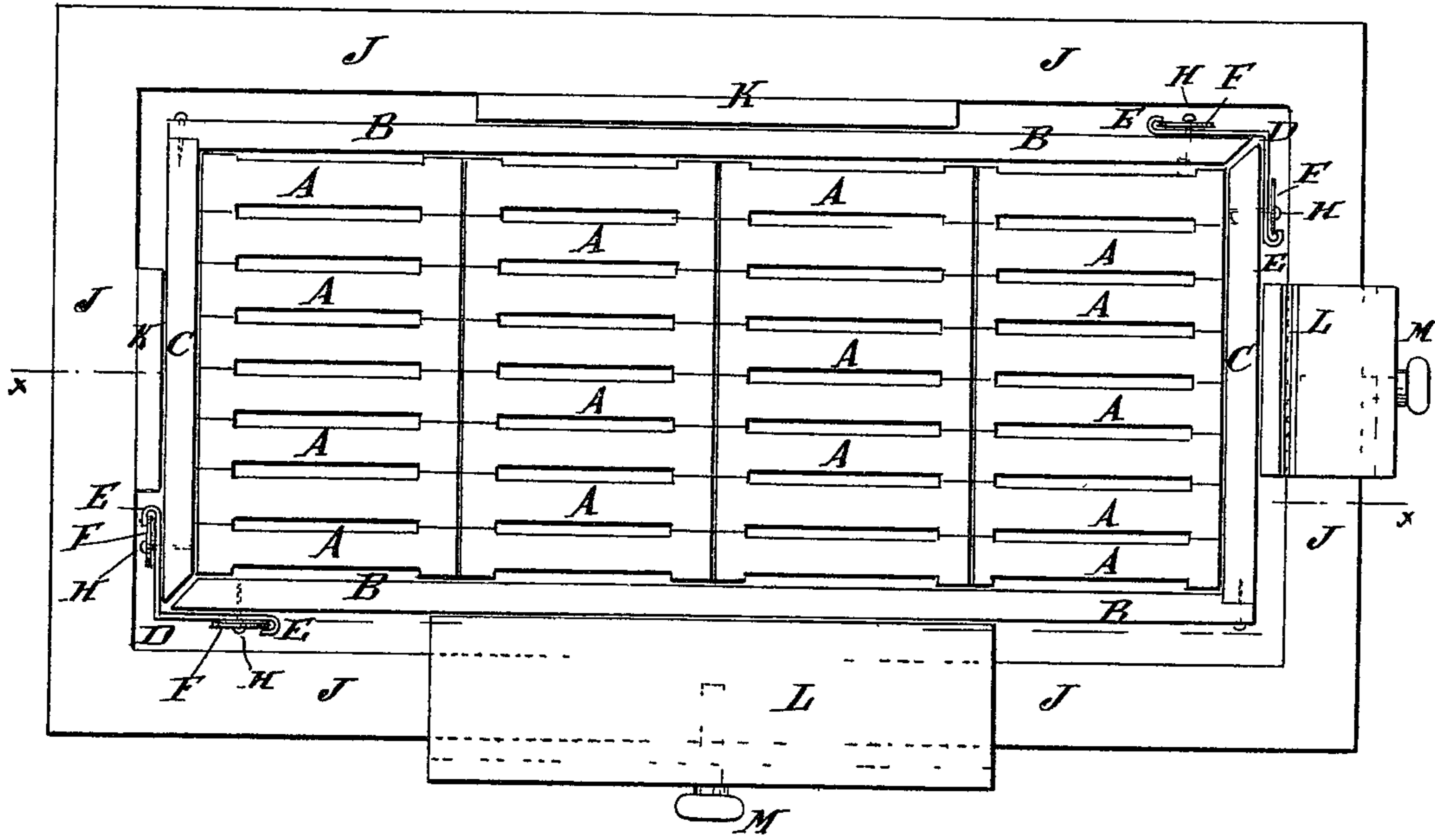


Fig: 2.

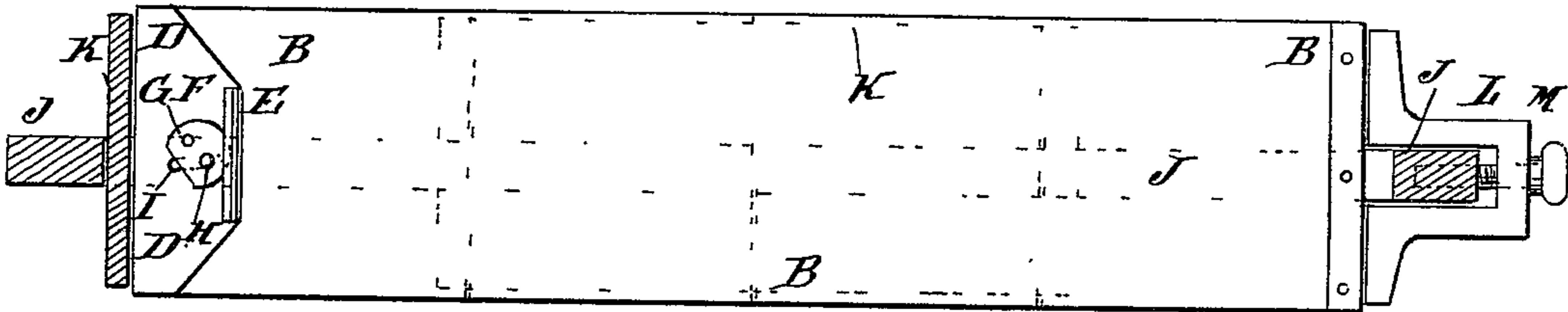


Fig: 5.

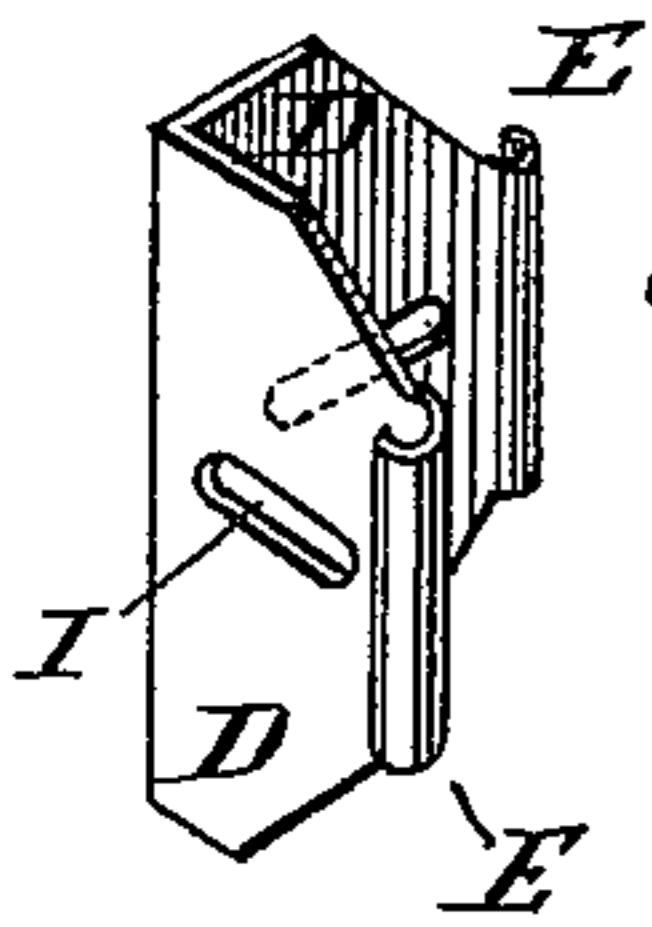


Fig: 6.



Fig: 3.

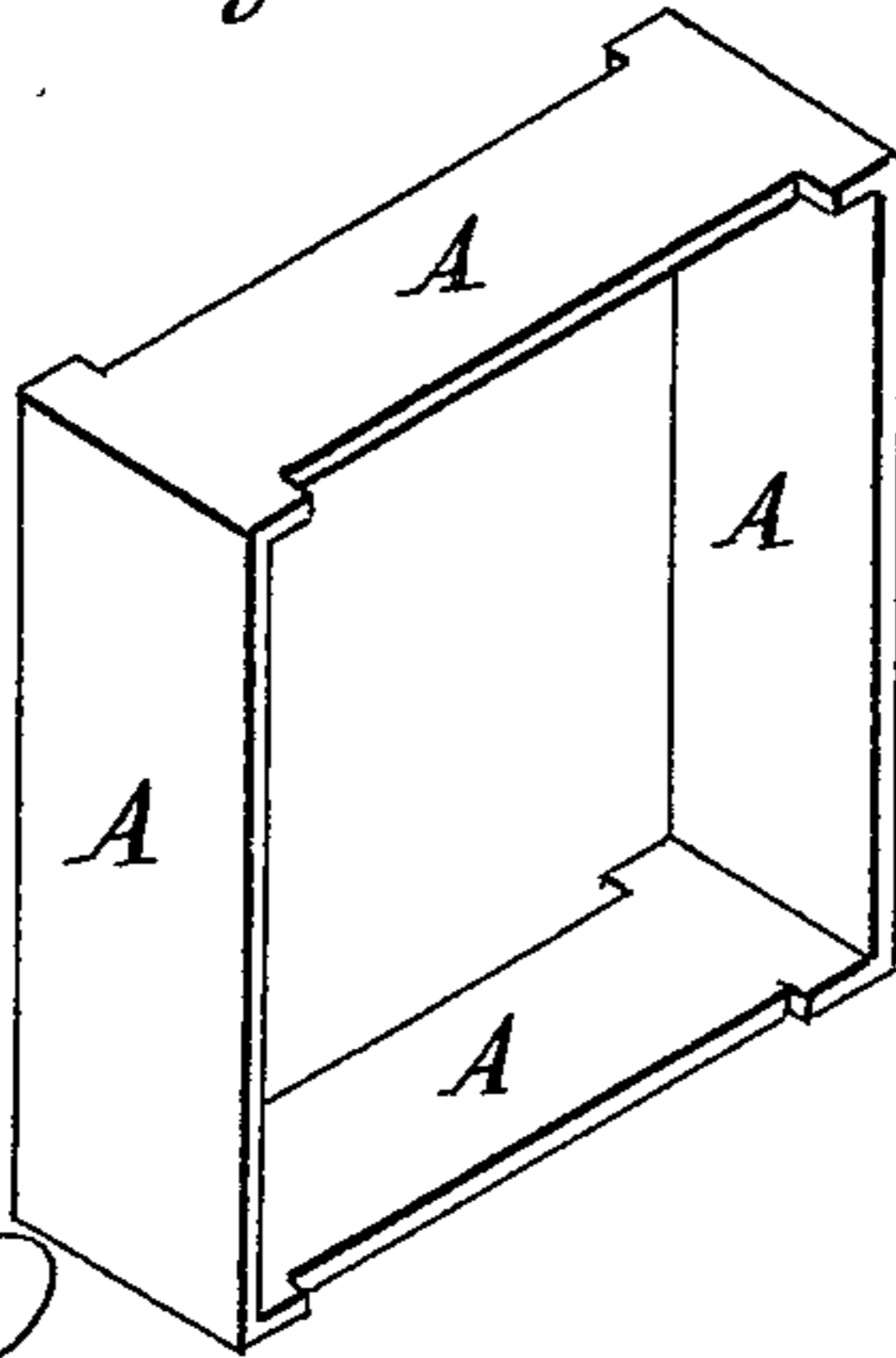
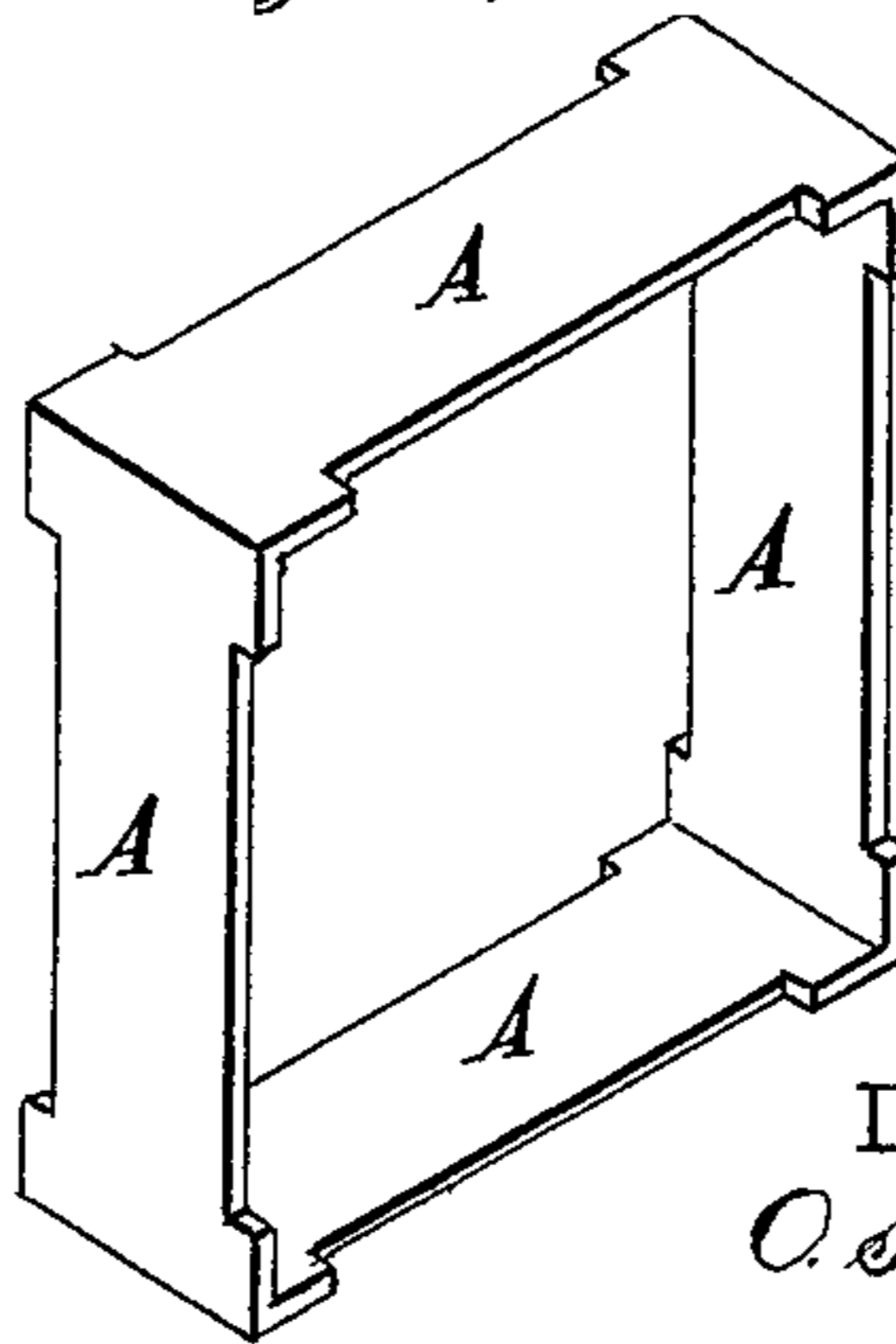


Fig: 4.



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# UNITED STATES PATENT OFFICE.

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## HONEY-BOX CASE AND CLAMP.

SPECIFICATION forming part of Letters Patent No. 337,143, dated March 2, 1886

Application filed June 17, 1885. Serial No. 168 959. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER S. FOSTER, residing in Mount Vernon, in the county of Linn and State of Iowa, have invented a new and useful Improvement in Honey-Box Cases and Clamps, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of one of my improved honey box cases and clamps shown as applied to a set of honey boxes. Fig. 2 is a side elevation of the same, the clamp being shown in section through the line  $xx$ , Fig. 1. Fig. 3 is a perspective view of a honey box having the edges of its top and bottom bars recessed. Fig. 4 is a perspective view of a honey box having the edges of its top, bottom, and side bars recessed. Fig. 5 is a perspective view of one of the angular corner plates. Fig. 6 is a front elevation of one of the cam-plates.

The object of this invention is to provide cases and clamps for holding honey-boxes in position while upon a hive and while being placed upon and removed from the hive.

The invention consists in the construction and combination of the various parts of the case and clamp, as will be hereinafter fully described, and then pointed out in the claims.

A represents ordinary honey boxes, which may be made with the edges of the top and bottom bars recessed to form spaces for the passage of bees, as shown in Fig. 3, or with the edges of the top, bottom, and side bars recessed, as shown in Fig. 4.

The case is formed of two side bars, B, and two end bars, C, and is made of such a size as to inclose thirty two (more or less) honey boxes, A, as may be desired. These side and end bars form two L shaped sections open at diagonally opposite corners.

The open angles of the case B C are covered by angle plates D, of sheet metal or other suitable material. The corners of the angle plates D can be beveled, and their side edges are bent over outward to form grooves or shoulders E, for the edges of the cam plates or disks F to engage with.

The cam-plates F are made in circular form

with a section at one side cut off, as shown in Fig. 6.

In the cam plates F at a little distance from their angles are formed holes G, through one of which is passed a screw or nail, H, to pivot the said cam plates in place. The screws or nails H, after passing through the plates F, pass through short horizontal slots I in the middle parts of the sides of the angle plates D, and are screwed into the bars B C of the case, or are driven through the said bars and clinched.

The slots I are made of such a length as to allow the case to have the necessary expansion. The other holes G in the cam-plates F are designed to receive a bent awl or other suitable tool for turning the said cam plates to lock and release the bars forming the case B C.

J is the clamp-frame, which is made rigid and a little larger than the case B C. To the middle parts of one side bar and one end bar of the frame J are attached blocks K to rest against a side and an end of the case B C. These blocks K cause a space to be formed between the clamp and case at one end and side, and a similar space is formed between the clamp and case at the other end and side by reason of the arms of the U shaped blocks L, projecting beyond the inner face of the clamp frame. By thus forming a space between the clamp frame and the honey box case the cam-fastenings of said case may be readily operated after the clamp has drawn the sections of the case closely together. Upon the middle parts of the other side bar and end bar of the frame J are placed U-shaped blocks L, the edges of the arms of which rest against the side and end of the case B C, and which are held against the said case by hand screws M, passing through the said blocks and into the said side bar and end bar of the frame J.

In using the invention the case B C is laid upon a table, bench, or other smooth surface, and is expanded by turning the cam plates F back from the shoulders E of the angle plates D. The honey-boxes A are then arranged within the case B C, the clamp J is placed around the said case, and the hand screws M are turned forward, contracting the case B C upon the said honey-boxes. When the case B C has been drawn sufficiently tight, the cam,

plates F are turned against the shoulders E to lock the said case in place. The honey-boxes, case, and clamp are then placed upon a hive, the hand-screws M are turned back, the clamp  
 5 J is removed from the case B C, and the said case and the inclosed honey boxes left upon the hive.

When the honey-boxes are to be removed from the hive, the clamp J is applied to the  
 10 case B C, and honey boxes, case, and clamp are taken off together. With this construction, when the honey boxes are adjusted and pressed together by the case, there will be no spaces left between them for the bees to fill  
 15 with propolis, and the outside of the honey boxes will be protected from contact with the bees, so that the said honey boxes will not be disfigured or discolored with wax. With this construction, also, several tiers of honey boxes  
 20 can be used without leaving spaces between them in either direction, and the tiers can be readily changed, or a tier when nearly filled can be easily reversed, so that the bees will fill all parts of the combs with honey.

25 Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A case for honey-boxes, consisting of the two L-shaped sections B C B C, disconnected  
 30 at two diagonally-opposite corners, angle-plates D, embracing the open corners of said

case, and each arm of said angle-plate provided with a slot and a shoulder, as described, pins passed through the slots into the casing, and wedging devices working between the  
 35 pins and shoulders, substantially as set forth.

2. A case for honey-boxes, made substantially as herein shown and described, and consisting of two sides, B, and two ends, C, forming L-shaped sections opened at diagonally-  
 40 opposite corners, and provided at the open corners with angle plates D, having shoulders or flanges E at their side edges, and provided with slots I, and cam plates F, pivoted to the  
 45 said sides and ends through the slots I, whereby the said case can be locked firmly in place when adjusted, as set forth.

3. As a new article of manufacture, a honey-box case and clamp, consisting, essentially, of a case formed of two L-shaped sections open  
 50 at diagonally opposite corners, fastening devices at said open corners, and an outer removable clamp frame, having spacing blocks K on one inner side and end, and U-shaped blocks projecting beyond the inner sides of  
 55 the opposite side and end, and adjusting-screws in said U shaped blocks, substantially as set forth.

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Witnesses:

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