

(No Model.)

J. H. BURRAGE.

BEE HIVE.

No. 279,856.

Patented June 19, 1883.

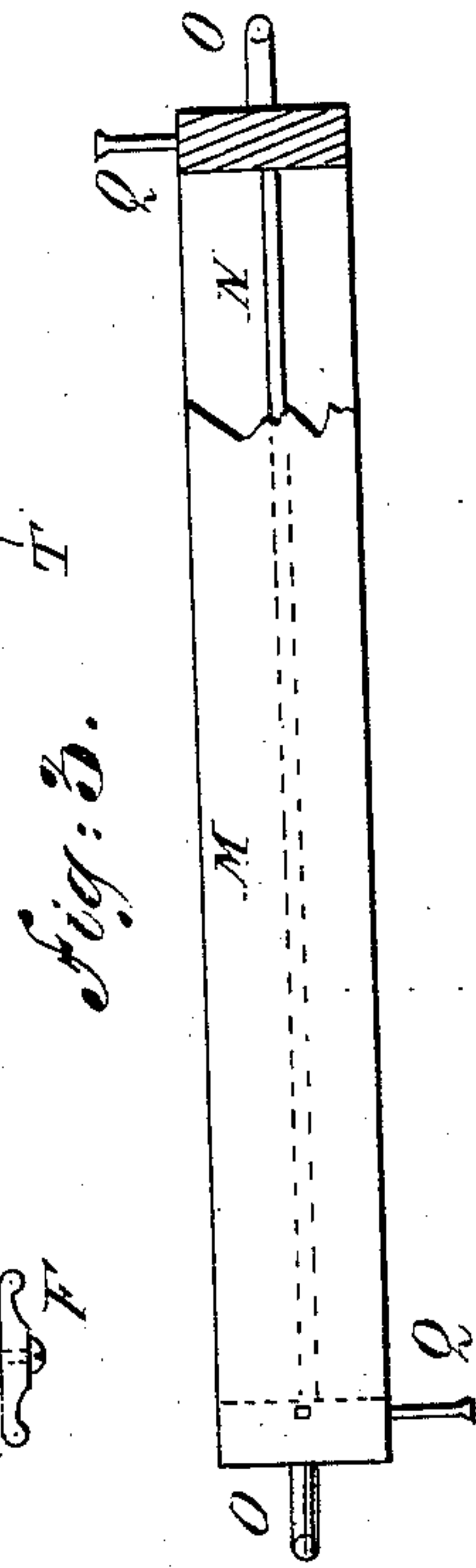
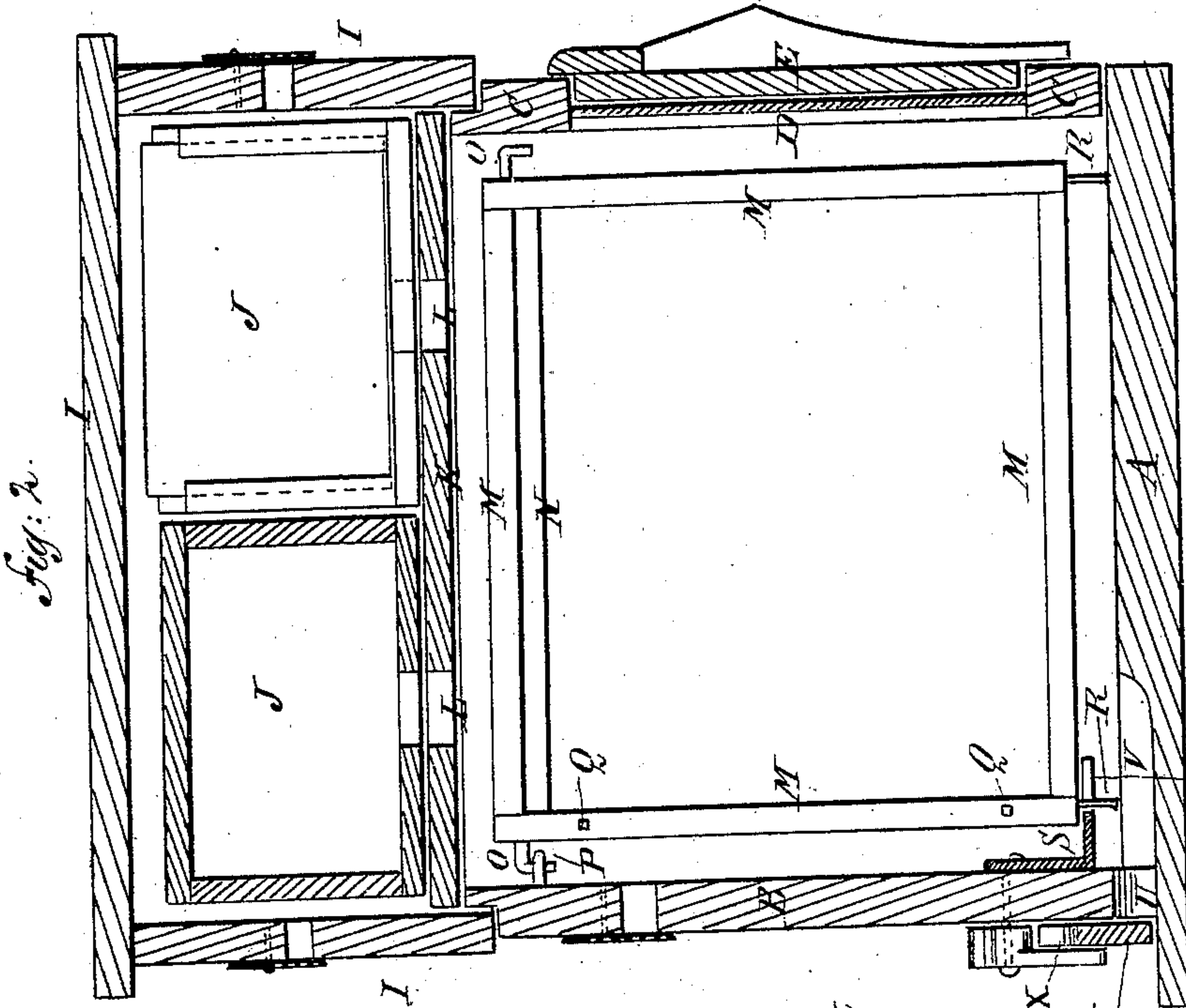
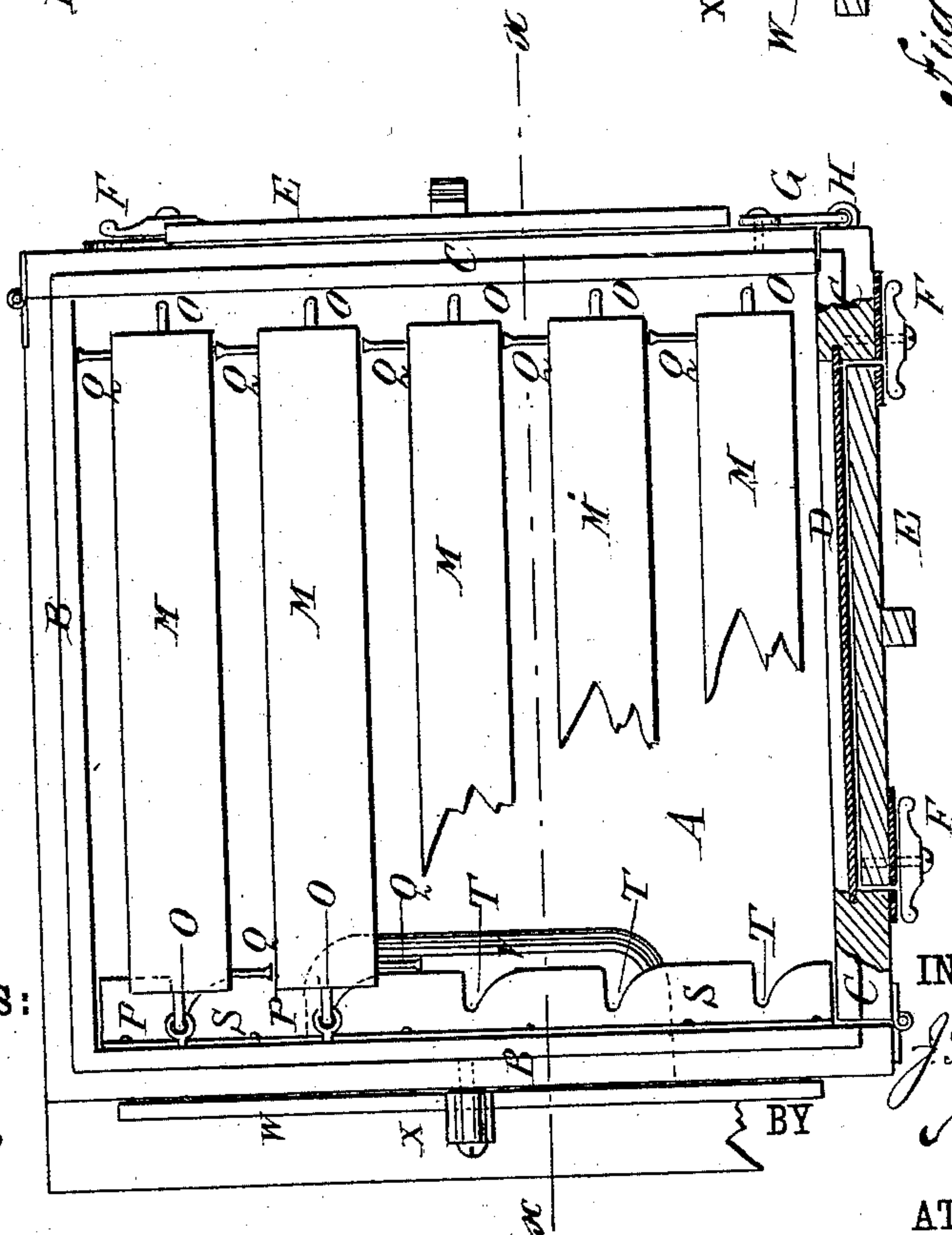


Fig. 1.



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JOHN H. BURRAGE, OF CONCORD, NORTH CAROLINA.

BEE-HIVE.

SPECIFICATION forming part of Letters Patent No. 279,856, dated June 19, 1883.

Application filed February 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN HENDERSON BURRAGE, of Concord, in the county of Cabarrus and State of North Carolina, have invented a new and useful Improvement in Bee-Hives, 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 the brood-chamber of my improved bee-hive, partly in section and parts being broken away. Fig. 2 is a vertical sectional view of the hive, taken through the line *x x*, Fig. 1. Fig. 3 is a plan view of one of the comb-frames, part being broken away.

The object of this invention is to improve the construction of the bee-hives for which Letters Patent No. 145,634 were granted to L. J. Diehl, December 16, 1873, in such a manner as to make it more convenient in use.

My invention relates to improvements in bee-hives; and it consists in the peculiar construction and arrangement of the parts, as hereinafter more fully set forth, and pointed out in the claim.

A is the bottom, B B are the two stationary sides of the brood-chamber, and C C are the two movable sides, which are hinged at their outer edges to the outer edges of the stationary sides B B, and are connected at their adjacent edges, when closed, by hooks G and staples H or other suitable fastenings. The middle parts of the hinged sides C C are cut away, and the openings thus formed are closed by glass plates D, which are covered by wooden shutters E, secured in place by buttons F or other suitable fastenings, so that the interior of the hive can be inspected by removing the shutter E without its being necessary to open the hive. The upper edges of the sides B B C C are rabbeted to receive the lower edges of the sides of the box I, that covers and protects the surplus-honey boxes J, which rest upon the honey-board K. The honey-board K has slots L formed in it to give the bees access to the surplus-honey boxes J, and its edges rest upon the inner parts of the upper edges of the sides B B C C of the brood-chamber.

M are the comb-frames, which have ribs N formed upon the lower sides of their top bars for the convenient attachment of the combs.

To the upper ends of both the upright bars of each comb-frame M are attached hooks O, as shown in Figs. 1, 2, and 3, and to the upper part of the front side, B, of the brood-chamber are attached staples P to receive the hooks O, as shown in Figs. 1 and 2. By the attachment of hooks O to both uprights of the comb-frames the said comb-frames can be reversed when required to get all the brood in a compact form to form nucleus colonies for queen-rearing and other purposes. The comb-frames M are kept parallel with each other and at the proper distance apart, and are held from lateral movement by pins Q, attached to the side edges of the vertical bars of the said comb-frames.

To the front side of each comb-frame, in the direction in which it opens, and on its front, the pins Q Q are secured, which serve to space the comb-frames, so arranged that when the comb-frames are swung around laterally when the hinged sides of the hive are opened each of the pins Q on the front vertical sides of the comb-frames will describe the arc of a circle and strike the stationary side B of the hive, thus preventing the crushing of the bees between the comb-frames and between the comb-frames and the side B.

To the ends of the bottom bars of the comb-frames M are attached pins R, to rest upon the bottom A of the hive and hold the said comb-frames in horizontal positions.

To the lower part of the side B of the hive, to which the staples P are attached, is attached an angle-plate, S, in the edge of the inwardly-projecting part of which are formed recesses T, the sides of which toward the adjacent stationary side B are at right angles, or nearly so, with the length of the said plate S. The sides of the recesses T toward the adjacent hinged side of the hive are inclined or curved, as shown in Fig. 1. The recesses T of the plate S are made of such a depth and in such positions that the pins R of the comb-frames will rest in the bottoms of the said recesses when the said comb-frames are in horizontal positions.

With this construction of the recesses T the

comb-frames M will be supported in vertical positions while being swung to one side in removing and inserting them.

The comb-frames M are made deep, so that their bottom bars will be about three-eighths of an inch from the bottom A, to allow the bees to crawl from the said bottom A directly upon the comb-frames M, without its being necessary to crawl to and up a side of the hive to reach the said comb-frames.

The lower edge of the front side, B, and the upper side of the forward part of the bottom A have recesses U V formed in them, as shown in Figs. 1 and 2, to form a passage for the bees in entering and leaving the hive. By this construction the central front pins, R, of the intermediate comb-frames lie over the recess V, forming the bee-entrance, and have no rests. The other front and rear pins R of said comb-frames rest on the bottom board, A.

The object of forming the recesses with right-angular and curved sides in the angle-plate S, in which the front pins R of the comb-frame are journaled, is that when the hinged sides C are opened laterally and the comb-frames swung around on the pins R, acting as journals, the frames will be prevented from being thrown out of their bearings, and their ready removal is permitted from the side.

The passage U is closed, when desired, by a strip, W, placed against the lower part of the

front of the hive, which rests upon the projecting part of the bottom A, and is kept in place by a button, X, as shown in Figs. 1 and 2.

I am aware that a notched angle metallic strip fixed to the inner side of the front piece of a hive, on which a metallic loop on the under side of the comb-frame may swing, is old. I therefore lay no claim to such invention. In my construction, by forming the recess in the angle-iron with one side at right angles to the plate and the other curved, the lower pin of the comb-frame is better retained in position.

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

The combination, with a bee-hive having the stationary sides B B, hinged sides C C, and bottom board, A, provided with the inclined recess V, having the bee-entrance U, of the angle-plate S, provided with the recesses T, having one of its sides at right angles with the length of the plate, and the other side curved, and the reversible comb-frames M, pivoted to the hive by hooks and staples O P at their upper ends, and provided with pins R at their lower ends, substantially as described, and for the purpose set forth.

JOHN H. BURRAGE.

Witnesses:

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OLIVER ALEXANDER ROBBINS.