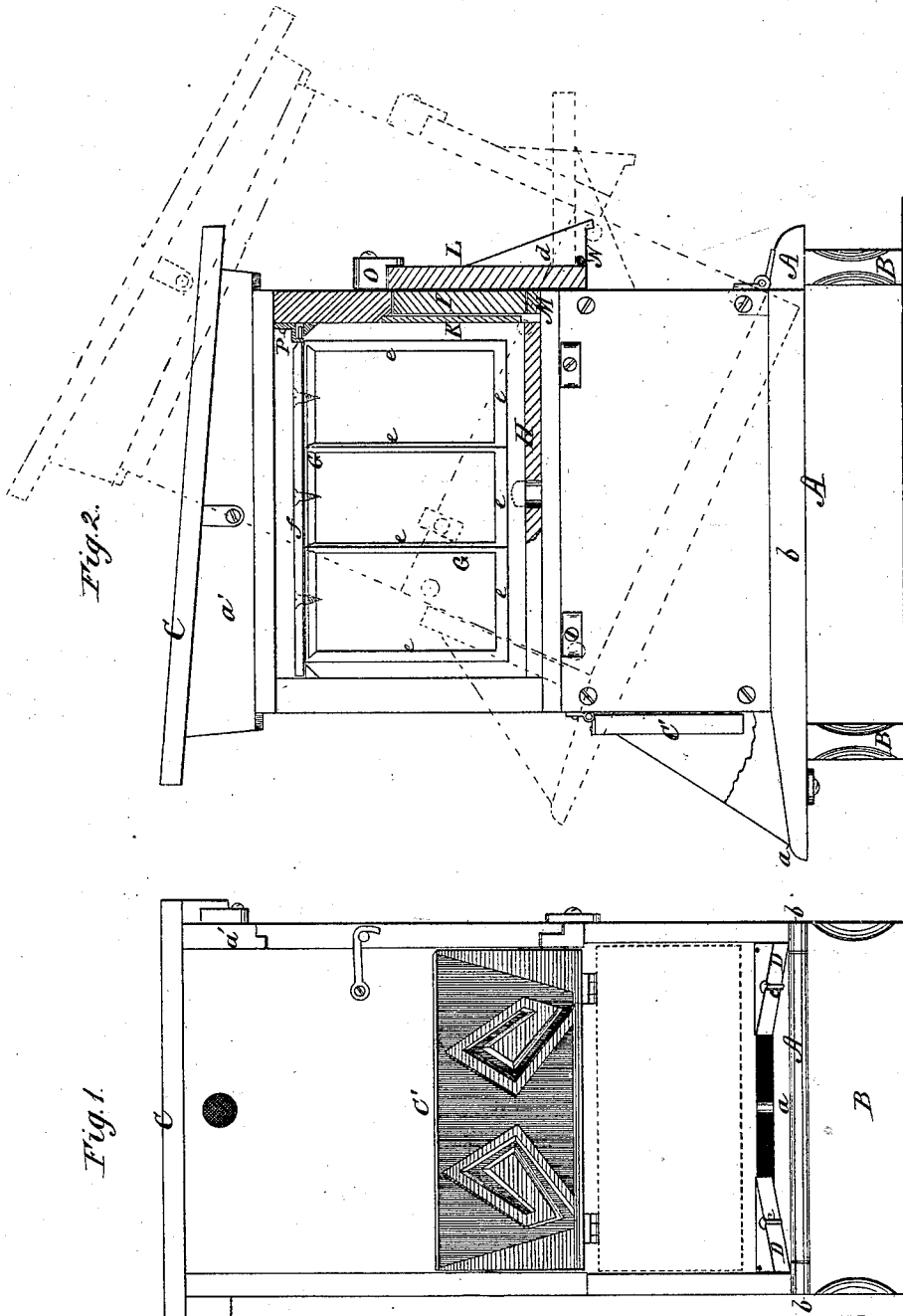


D. S. THOMAS.
Bee-Hive.

No. 205,444.

Patented June 25, 1878.



WITNESSES:

W. W. Hollingsworth
John C. Kemm

INVENTOR:

D. S. Thomas

BY

Wm. L. Le

ATTORNEYS.

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Fig. 4.

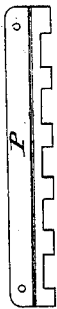


Fig. 5.

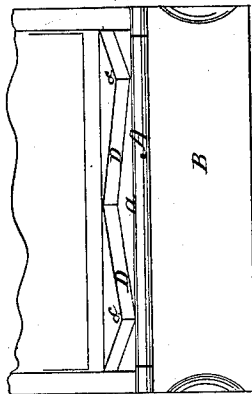


Fig. 6.

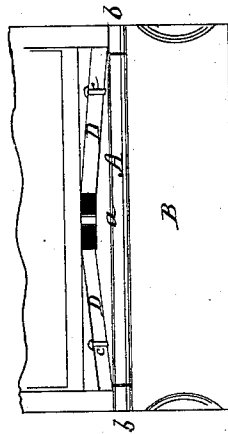
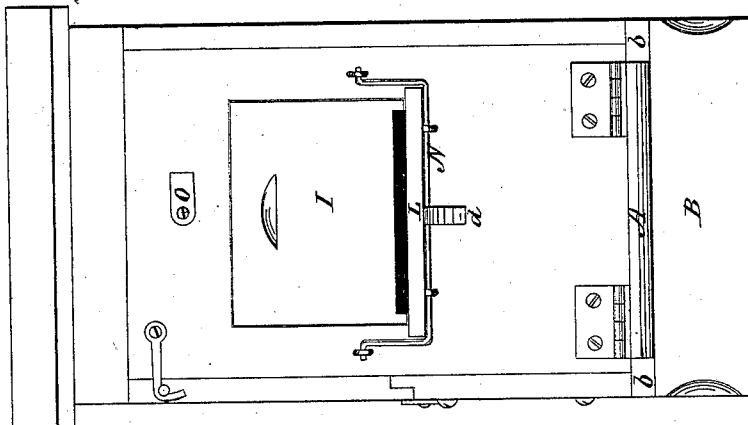


Fig. 3.



WITNESSES:

W. W. Hollingsworth
John C. Kemmer

INVENTOR:

D. S. Thomas

BY

Henry C. Le

ATTORNEYS.

UNITED STATES PATENT OFFICE.

DAVID S. THOMAS, OF POWELL, OHIO.

IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 205,444, dated June 25, 1878; application filed May 17, 1878.

To all whom it may concern:

Be it known that I, DAVID S. THOMAS, of Powell, in the county of Delaware and State of Ohio, have invented a new and Improved Bee-Hive; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to an improvement in means or devices for narrowing or closing the entrance of the hive; also, to an improved moth-miller trap; also, to a hinged door provided for closing a rear entrance, which is used when it is desirable to have two colonies in the hive. Said door is hinged in a peculiar manner, so as to be self-supporting when in a horizontal position, and thus constitute an alighting-board for said rear entrance.

In the accompanying drawing, forming part of this specification, Figure 1 is a front elevation of the hive, the moth-trap board being turned up to show the grooves in its under surface. Fig. 2 is a partly-sectional side elevation of the hive. Fig. 3 is a rear elevation of the hive. Fig. 4 is a detail view of the notched bar for fastening the comb-frames in place. Figs. 5 and 6 are detail views.

The body of the hive is rectangular in form and hinged to the rear end of bench A, which is attached to cleats or cross-bars B by means of screws or nails, and is extended at the front to form an alighting-board, *a*. By this construction the bench B serves as the bottom of the hive, and the body may be tilted backward, as shown in Fig. 2, to allow the dirt or droppings of the bees to be removed from the bench. Furthermore, the cleats or bars B prevent the bench A warping or splitting, besides constituting a base or support for the hive as a whole.

Bars *b* are attached to the lower edge of the sides of the hive, to prevent warping and support triangular wind-boards at the front.

The top C of the hive has a slide, *a'*, Figs. 1 and 2, secured by a button. The slide may be removed to allow ventilation. It is made wedge-shaped or triangular, so that it may be adjusted to compensate for shrinkage or allow for swelling.

A board, *C'*, is hinged to the front of the hive A, directly over the entrance, and is provided with grooves on the under side, as

shown in Fig. 1, to form a trap for the moth-miller.

The millers attempting to find entrance to the hive will in most cases pass up and seek a temporary hiding-place, or even deposit their eggs in the grooves of the board, thus enabling their destruction to be easily and quickly accomplished.

The bee-entrance may be closed partly or entirely, as desired, by means of blocks D D, which have the form of right-angled triangles, with sides of unequal length. When said blocks D are placed with their shortest sides against the front of the hive, as illustrated in Fig. 1, the entrance is partly closed or merely narrowed, as required, when the bees are gathering honey in the height of the season; but when their longest sides are next the front, which constitutes the hypotenuse of the triangle, as in Fig. 5, the entrance is entirely closed, as required for shipping the hive.

Fig. 6 shows the sides, which are of intermediate length, placed next the front of the hive. The blocks are retained in any of the three positions by headed pins *e*, which enter holes in the alighting-board *a*. In one case, Fig. 1, the pins are in contact with the longest side of the blocks, and their flanged or enlarged heads overlap the edge thereof, while in the other case, Figs. 5 and 6, the pins pass through holes in the right-angular corner of the blocks.

The hive is two-storied, or has two sets of comb-frames, arranged one above the other, and a separate bee-entrance is provided on the rear side of the hive, which may be used when required. When the bee colony is strong the frames in the lower portion of the hive will be used for brood-comb, and left undisturbed, except in some special emergency, and the bees will then fill the upper set of comb-frames G with surplus honey; but when the colony is weak, or when there is temporarily a lack of a sufficient number of hives for the several bee colonies, as may occasionally happen during the swarming season, then a cloth or a board, H, is interposed between the two sets of frames, thus practically converting the hive into two. In such case the weak colony, or the colony already in the hive, will be confined to the lower chamber, and the new swarm will be

domiciled in the upper chamber, containing the frames G.

When a board, H, is used, it is provided with a hole at the center, which will allow ventilation in winter.

A section, I, of the rear side of the hive, opposite the upper frames G, is made detachable, to allow inspection of the upper frames G through the glass plate K, which is placed behind it. The lower edge of said section I is cut away, so that the bees may pass in and out when the section is in place, as shown in Figs. 2 and 3. In such case the hinged door L is extended horizontally, and serves as an alighting-board; but when the cloth or board H is removed from between the two sets of frames, and but one colony occupies the hive, this separate rear entrance is closed, which is done by placing the strip M, Fig. 2, beneath section I and turning up the door L into vertical position, so as to lie against the side of the hive, as shown in Fig. 2.

The door is enabled to assume either position by means of the crank-shaped hinge N attached to its lower edge.

In the horizontal position the door is supported partly by a brace or cleat, d, and it is locked in the vertical position by the pivoted cam-button O, which acts against the upper edge of the door and causes the hinge to press the door tightly against the side of the hive, so as to perfectly exclude moisture. The door L, therefore, subserves two purposes, namely, as an alighting-board when the hive contains two colonies, and as an effectual means for closing the opening in the rear of the hive.

The surplus honey-frames G may be made in separate sections, e, as shown in Fig. 2,

said sections being rectangular in form, placed edge to edge, and attached to a top or supporting bar, f, by means of screws or nails, so that each section may be readily detached, when desired.

The frames are held the desired distance apart by means of bent wires or notched bars P, Figs. 2 and 4, the teeth of which enter the spaces between the frames. The bars are pivoted at one end, and temporarily secured at the other by a pin. By drawing pin and raising the free end of the bar P the comb-frames may be removed or changed in position.

What I claim is—

1. The combination, with the alighting-board and the body of the hive, having a bee-entrance located as usual, the blocks D D, having the form of a right-angled triangle and perforated at one corner, and the headed pins, which enter holes in the alighting-board, all as shown and described.

2. The moth-miller trap, consisting of a hinged board having grooves in its under side, as specified.

3. The door L, the hinge, and the cam-button or fastening, in combination with the body of the hive, having a bee-entrance, as specified.

4. The detachable section I, cut away or notched at its lower edge, and the detachable strip for closing the bee-entrance beneath the section, as shown and described.

The above specification of my invention signed by me this 1st day of May, 1878.

DAVID S. THOMAS.

Witnesses:

AMOS W. HART,
SOLON C. KEMON.