

# J. J. Lower. Bee-Hive.

N<sup>o</sup> 72651

Patented Dec. 24, 1867

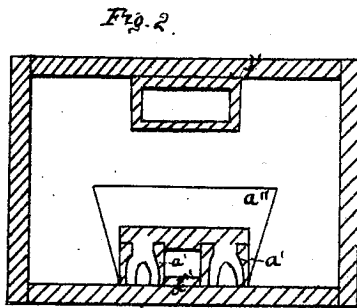
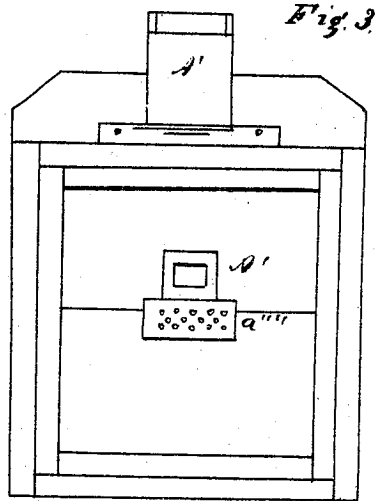
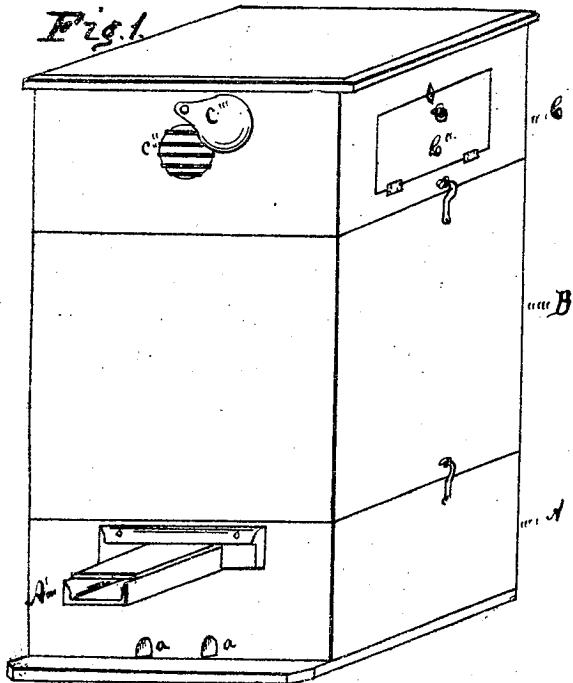


Fig. 4.

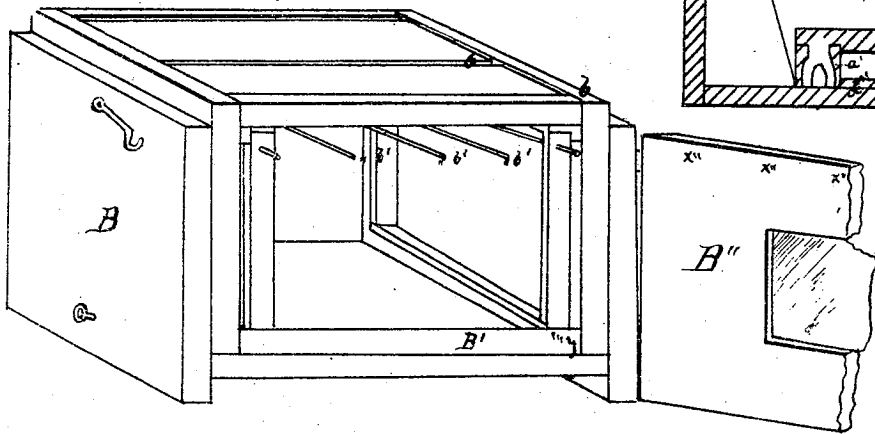
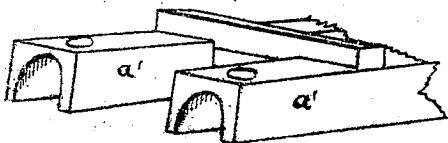


Fig. 5.



Witnesses.

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Bee-Hive.

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Fig. 6.

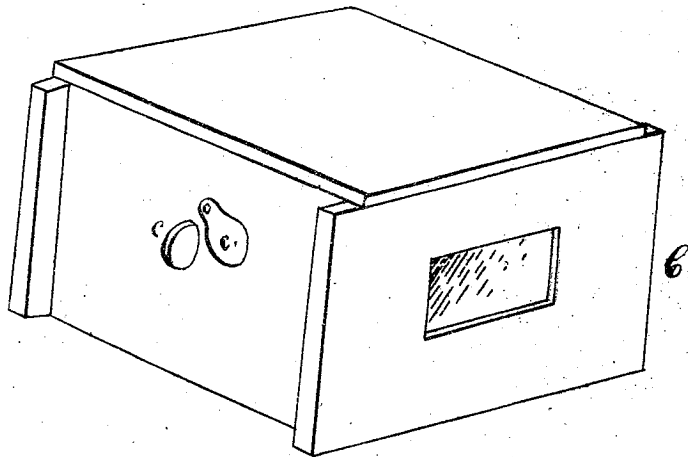
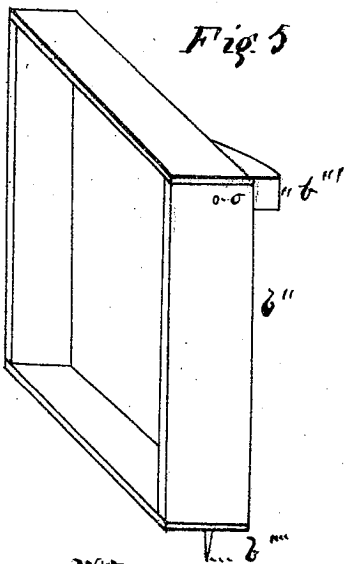


Fig. 5

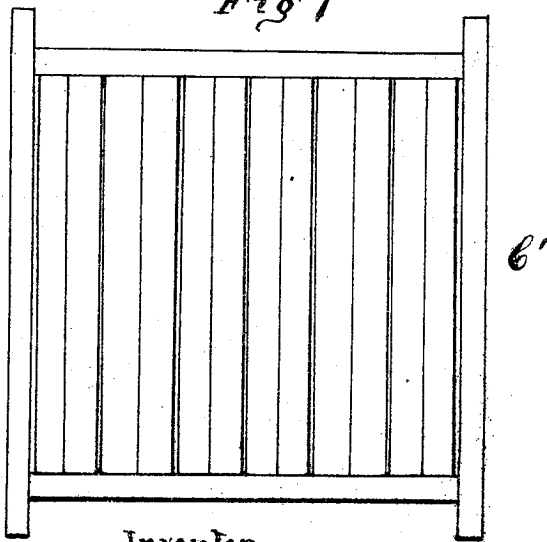


Witnesses

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Fig. 7



Inventor.

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# United States Patent Office.

JOHN J. LOWER, OF TENNESSEE, ILLINOIS.

Letters Patent No. 72,651, dated December 24, 1867.

## IMPROVEMENT IN BEE-HIVES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN J. LOWER, of Tennessee, in the county of McDonough, and State of Illinois, have invented a new and improved Bee-Hive; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

- Figure 1 represents a perspective view,
- Figure 2 a sectional view of the moth-chamber,
- Figure 3 a top view of the moth-chamber,
- Figure 4 a perspective view of the sash-chamber,
- Figure 5 one of the sashes removed,
- Figure 6 the honey-box,
- Figure 7 a plan view of the inside of the honey-box, and
- Figure 8 a perspective view of the breeding-spiles.

This invention relates to certain improvements in bee-hives, which consist principally of a moth-box of peculiar construction, and a new arrangement of movable sash, as will be hereinafter fully described.

To enable others to make and use my invention, I will now proceed to describe its construction and operation.

Fig. 1 represents a perspective view of my bee-hive, which consists of three divisions, A, B, and C, the lower of which, A, is the moth-box and bee-entrance, the middle of which is the sash-box, and the upper of which is the cap containing the honey-box. As the moth invariably seeks for an entrance near the bottom of the hive, I locate the holes *a a* upon the bottom board, beneath the bee-entrance, for the purpose of freely admitting him. Connected with these apertures, upon the inside, are the breeding-spiles *a' a'*, which consist simply of suitable pieces of wood grooved upon the under side. Slanting holes are cut through the latter, at the forward end, to enable the moth to pass up into the moth-chamber. The breeding-spiles *a' a'* are firmly attached to the piece *a''*, serving as a door, which fits snugly into the opening in the back, corresponding with it in shape. A piece of wood, *a'''*, attached to the bottom of the chamber, of width sufficient to fit in between the spiles, serves as a guide when the latter are being put in place after removal for any purpose. At the top of the chamber, and near the centre, is placed the perforated plate *a''''*, for the purpose of allowing the scent of the honey to pass through in order to attract the moth.

The effect produced by this arrangement is as follows: The moth, endeavoring to effect an entrance, is allured by the scent of the honey descending through the perforated plate *a''''*, and passes in naturally by the entrances *a*, where, finding a suitable place, it proceeds to deposit its eggs, and breed. When the bee-keeper desires to clean his hive, he pulls out the door *a''*, which brings with it, of course, the breeding-spiles *a'*, thus giving opportunity to clean the hive most effectually. As this operation is performed at the back side of the hive, it can be done without disturbing the bees in the slightest degree.

*A'* represents the bee-entrance, projecting from the hive, and extending into the moth-chamber, where, forming a right angle, it passes up into the sash-box. This entrance is perfectly tight, with the exception of the ends, and no communication whatever exists between the moth-chamber and the hive proper. *B* represents the sash-box, where the bees live, winter, and breed. This box is without bottom, to allow the bees to pass freely from the entrance to any portion of it. The top is provided with the long openings *b b b* for the purpose of communication with the honey-box. *b' b'* represent rods, firmly inserted into the front side of the chamber, near the top, and extending across from front to rear. *b''*, fig. 5, represents a sash, removed from the box, the top of which is bevelled downward from each side to the centre, as is usual, for the attachment of the comb, through which extends the hole *o*, adapted to the size of the rods *b'*. *b'''* represents a projection upon one side of the sash, at its forward end, for the purpose of keeping the sashes separated from each other. *b''''* represents a pin, projecting downward from the bottom of the front end of sash, which rests, when in place, in a corresponding socket, *y*, in the cross-piece *B'*. Holes *x* are also made in the door *B''*, corresponding with the ends of the rods *b'*, in such manner that when the door is closed, the ends of the rods may be held firmly by it.

The operation of this arrangement is as follows: The sashes *b''* being placed upon the rods *b'*, and the

pin  $b'''$  being pressed into its socket, it will be perceived that, when the door is closed, the sashes are rigidly confined in their places, the rods and projections, with the holes in the door, securing their upper sides from movement, and the pin their lower sides from the same. The sash next the box, upon the side opposite to that upon which the projections  $b'''$  are placed, is provided with a projection upon each side, the additional one being for the purpose of keeping it from contact with the box.

I am aware that other arrangements somewhat similar to this have been patented; and I am familiar with the patent of Gushee & Dawes, October 11, 1859. But experience has shown that these possess defects that render them unsuitable for the purposes desired. In all the movable sash-hives known to me, the sashes are not so arranged but that they are more or less liable to move about, or rub one against the other when the hive is moved. In this way the bees are injured, and, in case the sashes incline toward each other, the combs will be connected, and great difficulty will be experienced in taking them out.

All these objections are overcome in my arrangement. The sashes are fixed immovably when in place, and the hive can be turned or moved in any direction without fear of injuring the bees. The sashes also are so separated that no contact can take place between the combs, and they can be removed at pleasure. The door, in this case, also opens from the back, to avoid interference with the bees.

$C'$  represents the honey-box, provided upon each side with glass corresponding with glass in the cap  $C$ , in order that the progress of the work may be readily observed. Upon the rear side is placed the hole  $c$ , with button,  $c'$ , the former corresponding with one of the ventilators of the cap  $C$  for the purpose of driving the bees down when it is desired to take the honey from the box. The cap  $C$  is provided with ventilators  $c''$  in front and rear, with buttons  $c'''$  for covering them when desired.  $C''$  represents a door, one on each side, covering glass corresponding with glass in the honey-box. A similar door in the back of the sash-box allows inspection in that quarter.

The whole combination and arrangement of this hive is simple and desirable. The moth-chamber is believed to be an effectual safeguard against this great enemy of the bee. The movable sashes are simply arranged, and are free from the objections ordinarily attached to them. The honey is easily accessible in the cap. The hive is well ventilated, and the temperature can be regulated by means of the buttons  $c''$ . The divisions of the hive are also convenient, allowing it to be taken to pieces and thoroughly cleansed when desired.

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

1. The moth-chamber  $A$ , with its entrances  $a$ , breeding-spiles  $a'$ , door  $a''$ , and perforated plate  $a'''$ , substantially as described.
2. The movable sashes  $b''$ , with projections  $b'''$ , and pins  $b''''$ , when combined with rods  $b'$ , sockets  $y$ , and holes  $z$ , substantially as described.

J. J. LOWER.

Witnesses:

H. W. GANSEN,  
Jos. EATON.