

United States Patent Office.

JOHN WOOD, OF ALERT, OHIO.

Letters Patent No. 85,884, dated January 12, 1869.

IMPROVEMENT IN BEE-HIVES.

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

To whom it may concern:

Be it known that I, JOHN WOOD, of Alert, Butler county, Ohio, have invented a certain new and useful Improvement in Bee-Hives; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

The first part of my improvements relates more particularly to the working-chamber of the hive; and

My invention consists in constructing it in such a manner as to insure the most thorough and complete ventilation, which is effected by devices that permit a free passage of air, and yet exclude the light; and as it is well known that bees will stop up any opening through which light penetrates, the advantages resulting from this improvement cannot be over-estimated.

The second part of my invention consists in connecting the door to the breeding-chamber, so that it cannot become warped, either by the heat of the sun, or the warmth generated by the bees.

In the accompanying drawings—

Figure 1 is a vertical section through a hive embodying my improvements.

Figure 2 is horizontal section through the working-chamber, at the line X-X.

Figure 3 is a horizontal section through the breeding-chamber, at the line Y-Y.

Figure 4 is an elevation of a portion of one end of the hive, showing one of the ventilators in its closed position.

Figure 5 is a perspective view of a portion of the breeding-chamber, with the working-chamber lifted up, so as to permit of the doors to the breeding-chamber being opened.

The breeding-chamber, which is situated at the bottom of the hive, consists of a rectangular box, whose floor A, and two of its sides, B B', are rigidly attached to the legs C C', D D'.

The side, B, of the chamber is provided with a customary opening, E, through which the bees enter, and this opening is guarded by a drone-arrester, F, whose apertures, f, are sufficiently large to admit the working bees, and yet small enough to exclude the drones.

The doors G G', which form the other two sides of the breeding-chamber, are adapted to enter rebates b in the front side B, and these doors are maintained in their closed condition by the housing H of the working-chamber, which fits over the top of said doors and the sides B B', as seen in figs. 1 and 5.

The edges g g' of the doors, and d d' of the legs D D', are chamfered off, so as to permit of the doors being readily opened, whenever the housing H is elevated.

The doors G G' are provided with windows I I' and shutters i i'.

The breeding-chamber is furnished with the customary frames J.

The working-chamber consists of a floor, K, two walls, L L', and a cap or cover, M, to whose lower side is attached a piece of linen, m, which forms the ceiling of said chamber, and as the bees will not attach their comb to linen, they are compelled to begin their work on the frames.

Projecting downwardly from the floor K are dowels N, which, entering suitable sockets in the sides B B' of the breeding-chamber, prevent any accidental displacement of the working-chamber.

The floor K is provided with apertures k, which permit of the bees passing readily from one chamber to another.

Suspended from the walls L L' of the working-chamber are the customary honey-frames O.

Extending completely around the working-chamber, and at some distance from the walls thereof, is a screen, P, of fine wire cloth, which prevents the bees escaping from said chamber, and also permits the air to circulate freely around it.

The screen P is maintained in its proper position by the cleats p p', which are secured to the floor K.

The hive is ventilated in the following manner:

The ends of the housing H are provided, near the top of the hive, with a number of apertures, h, whose inner ends are covered with wire cloth R, so as to prevent bees and vermin entering from the outside of the hive.

The apertures h are arranged on a circle, which is concentric with the pivot s of the register S, and the inner side of said register is provided with radial channels T, which correspond in number and position with the apertures h; and it will be seen that when the register is set, as shown in fig. 1, the warm air can escape from the hive, and at the same time no light is admitted.

If at any time it should be desired to stop the ventilation of the hive, it can be effected by simply rotating the register to the position shown in fig. 4, in which position the apertures and the channels are no longer in communication with each other, and of course there can be no escape of air through said apertures.

A modification of my working-chamber may have the screen P secured to the ends of the walls L L', and not extend completely around them, as shown, but I prefer the arrangement as exhibited, on account of the facility with which the frames can be removed, as it is only necessary to elevate the screen, and as the working-chamber is then open at both ends, the frames can be taken out in a few minutes.

I do not claim attaching a screen to one side of a honey-box, as shown in the patent of T. F. Bingham, November 17, 1863.

My method of securing the doors of the breeding-chamber is a great advantage to a bee-hive, as it not only prevents their warping, but it also excludes light and vermin, and when the housing is elevated, as shown in fig. 5, the doors can be detached in a moment, thus

leaving the breeding-chamber open on two sides, so as to facilitate the removal of the frames.

I claim herein as new, and of my invention—

1. The ventilated working-chamber, consisting of the perforated floor K *k*, walls L L', and screen P; the whole being enclosed within a suitable housing H, as and for the purpose specified.

2. The ventilating-devices, consisting of the apertures *h*, screen R, and register S s T, arranged to operate substantially as herein described and set forth.

3. Securing the doors G G' of the breeding-chamber to the hive, by means of the rebated sides B *b* b', legs C C', D D', *d* *d'*, and housing H, for the purpose herein explained.

In testimony of which invention, I hereunto set my hand.

JOHN WOOD.

Witnesses:

O. KNIGHT,
JAMES H. LAYMAN.