(Model.) 2 Sheets—Sheet 1.

R. H. J. HILDRETH.

BEE HIVE.

No. 270,666. Patented Jan. 16, 1883.

Fig. 5.

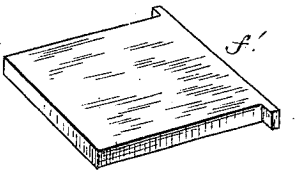


Fig. 2.

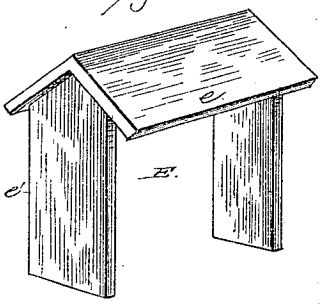


Fig. 6.

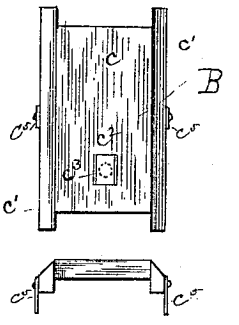
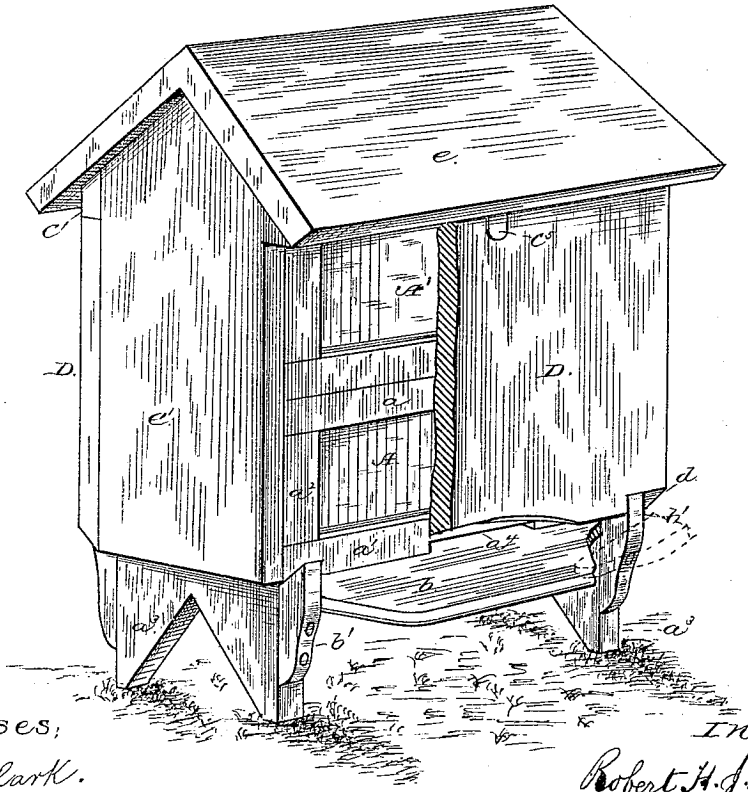


Fig. 1.



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(Model.) 2 Sheets—Sheet 2.

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BEE HIVE.

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Fig. 3.

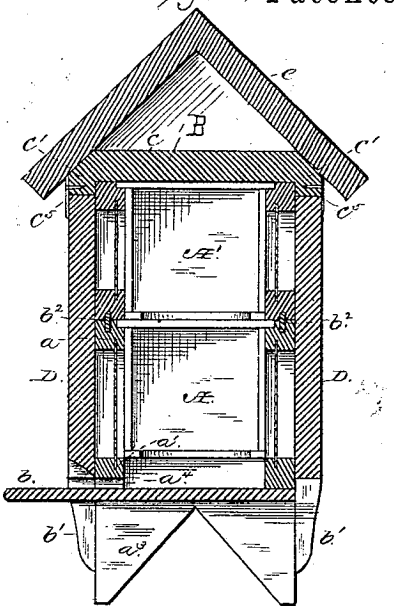
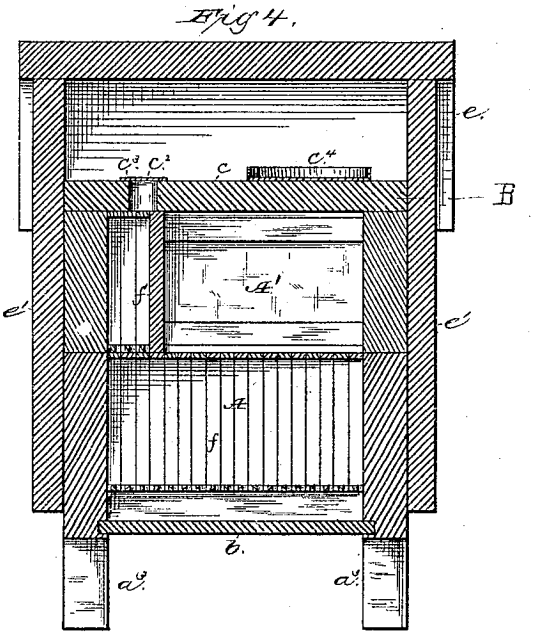


Fig 4.



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UNITED STATES PATENT OFFICE.

ROBERT H. J. HILDRETH, OF GREENVILLE, ALABAMA.

BEE-HIVE.

SPECIFICATION forming part of Letters Patent No. 270,666, dated January 16, 1883.

Application filed September 19, 1882. (Model.)

To all whom it may concern:

Be it known that I, ROBERT H. J. HILDRETH, a citizen of the United States, residing at Greenville, in the county of Butler and State of Alabama, have invented certain new and useful Improvements in Bee-Hives; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to improvements in bee-hives; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my bee-hive with one of the side boards broken away. Fig. 2 is a detail view, on a reduced scale, of the cap-piece. Fig. 3 is a vertical cross-section, and Fig. 4 is a vertical longitudinal section, of my bee-hive. Fig. 5 is a detail view of the solid frame; and Fig. 6 shows a plan and an end view, on a reduced scale, of the top piece, all of which will be fully described.

A is the lower honey box or cell. Its sides are glass panes supported in upper and lower side boards, a a', as shown, so that the honey-frames may be seen, and its end pieces, a^2, are solid boards. The hive is provided with legs a^3, as shown. On the inner side of the legs a^3, and immediately under the lower side boards, a', I cut a groove, in which is supported the sliding lighting-board, hereinafter described. The tops of the side bars, a, are cut away on their inner sides to provide a groove, in which rests the extended ends of the top bars of the honey-frames. I cut away a portion of the under side of the base-board a' to provide the opening a^4, through which the bees enter the hive.

b is the sliding lighting-board. It is supported in the grooves formed in the inner sides of the legs a^3, and rests snugly against the under side of box or cell A, as shown.

b' are supports arranged on the sides of the legs a^3. The inner faces of these supports are slightly above the base of box A, and they are cut at an angle, as shown in Fig. 1, with their outer faces higher than their inner faces, so they will secure the removable sides pieces, hereinafter described. One or both of these supports on the opposite sides of the box may be pivoted, as shown by dotted lines in Fig. 1, so it may be turned out to permit the removable side pieces to be removed by sliding them out, as will be described.

b^2 are pins projecting from the tops of bars a, as shown.

A′ is the upper honey box or cell, which is placed on and corresponds in its general construction with the lower box, A. Its lower side bars are provided with holes, into which the pins b^2 project and secure the boxes together.

B is the top piece, composed of the board c and the side rails, c'. The board c corresponds in length and width with the boxes A A′, and is placed on the box A′, as shown in Fig. 4, and its side rails extend below the board c and on either side of the top rails of the box A′, and they extend beyond the ends of the boards c and the boxes A A′ a distance equal the thickness of the depending gable end of the cap-piece hereinafter described.

c^2 is a hole through the board c, which may be closed by the sliding cap c^3, and c^4 represents a cup for holding the bee-feed, which is supported on the board c, as shown. The upper edge of the rails c' is beveled, corresponding to the incline of the gable-roof of cap-piece hereinafter described.

c^5 are catches or plates pivoted on the sides of the rails c', and extending below the said rails, as shown.

D are the removable side boards. They are made of a length equal the length of the rails c', so that they will project beyond the ends of the boxes A A′, and of a height sufficient to cover the said boxes when placed in position, as will be described. On the lower corners of these removable side boards I cut notches d, which fit down over and behind the supports b' b', as shown. The sides of these notches are cut square and rest against the sides of the supports, and their back walls are beveled correspondingly to the tops of supports b', so that when the boards are placed in position, with the notches d fitted down over the supports b' and their upper sides held fast by the catches c^5, pivoted on the sides of rails c', they can only be removed by turning up the catch c^5 and turning the boards outwardly, or by turning down the pivoted support and sliding

the side boards out endwise. It will be understood that in some cases these boards may be secured rigidly to the boxes A A′; but I prefer them removable, as described.

E is the removable cap. It is composed of the gable-roof *e* and the gable ends *e′*, depending therefrom, as shown. These end pieces are made of a width equal the boxes A A′, and when slid down between the ends of the rails *c′* and the boards D they completely cover the ends of the boxes, as shown. The gable-roof rests down on the beveled tops of the rails *c′* of top piece, B, as shown.

f are the honey-frames, and *f′* solid frames, which are used as will be described. The tops of these frames are extended slightly, so as to rest in the grooves formed in the top bars of the boxes A A′ and support the frames in position. The solid frame is only to be used when the colony of bees is not large enough to occupy the entire hive. There should not be any more room or frames than can be occupied by the bees, as in such case the moth or worm can more readily destroy the bees. When the colony is small I remove the superfluous honey-frames and fill the space left with the solid frames.

The lower honey box or cell is the brood-cell, and usually I make it a little higher than the upper cell, so as to give it more room.

It is well known that the worm—the honey-bee's greatest enemy—germinates and hatches in the rubbish dropped by the bees, such as the trimmings which fall to the bottom of the hive. In my hive this rubbish falls onto the sliding lighting-board, which can be readily removed and cleaned without disturbing the bees, and with little trouble. By sliding the side boards, D, to one side the cause of the difficulty, if any exists, can be seen through the glass side of the boxes A A′, and also its locality; and, without removing the frames and smoking, &c., which always disturbs and hinders the bees in their work, the attendant can look inside the hive to discover the cause, and by sliding out the lighting-board *b* is able to get at and remove the cause of the trouble with brush and mop. My removable side board, D, can be readily moved to one side, or entirely off the hive, when so desired.

The cap E protects the colony from heat and storm, and is easily removed to renew the feed, or when desired for any other purpose.

It will also be seen that by my construction the depending gable ends of the cap-piece fit snugly between the side boards, and prevent the ingress of the moth or other destructive insects.

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

1. In a bee-hive, the combination, with the honey-boxes and the top piece, B, having the ends of its side bars extended beyond the end boards of the honey-boxes, of the removable cap or roof, provided with the depending gables, made of the same width as the honey-boxes, and sliding down between the extended ends of the side bars, substantially as set forth.

2. In a bee hive, the combination, substantially as hereinbefore set forth, of the boxes A A′, the top piece, B, the catches c^5, the supports *b′*, and the removable side boards, D, provided with notches *d*, all arranged substantially as specified.

3. In a bee-hive, the combination, substantially as hereinbefore set forth, of the boxes or cells A A′, the sliding lighting-board *b*, supported in grooves in the inner sides of the legs a^3, the top piece, B, supported on box A′, and having its side rails, *c′*, extended down below the upper edge of and beyond the opposite ends of the box A′, the boards D, covering the sides of boxes A A′ and secured in position by supports *b′* and catches c^5, and the removable cap-piece E, all constructed and arranged as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT H. J. HILDRETH.

Witnesses:
H. B. PILLEY,
H. H. GRANT.