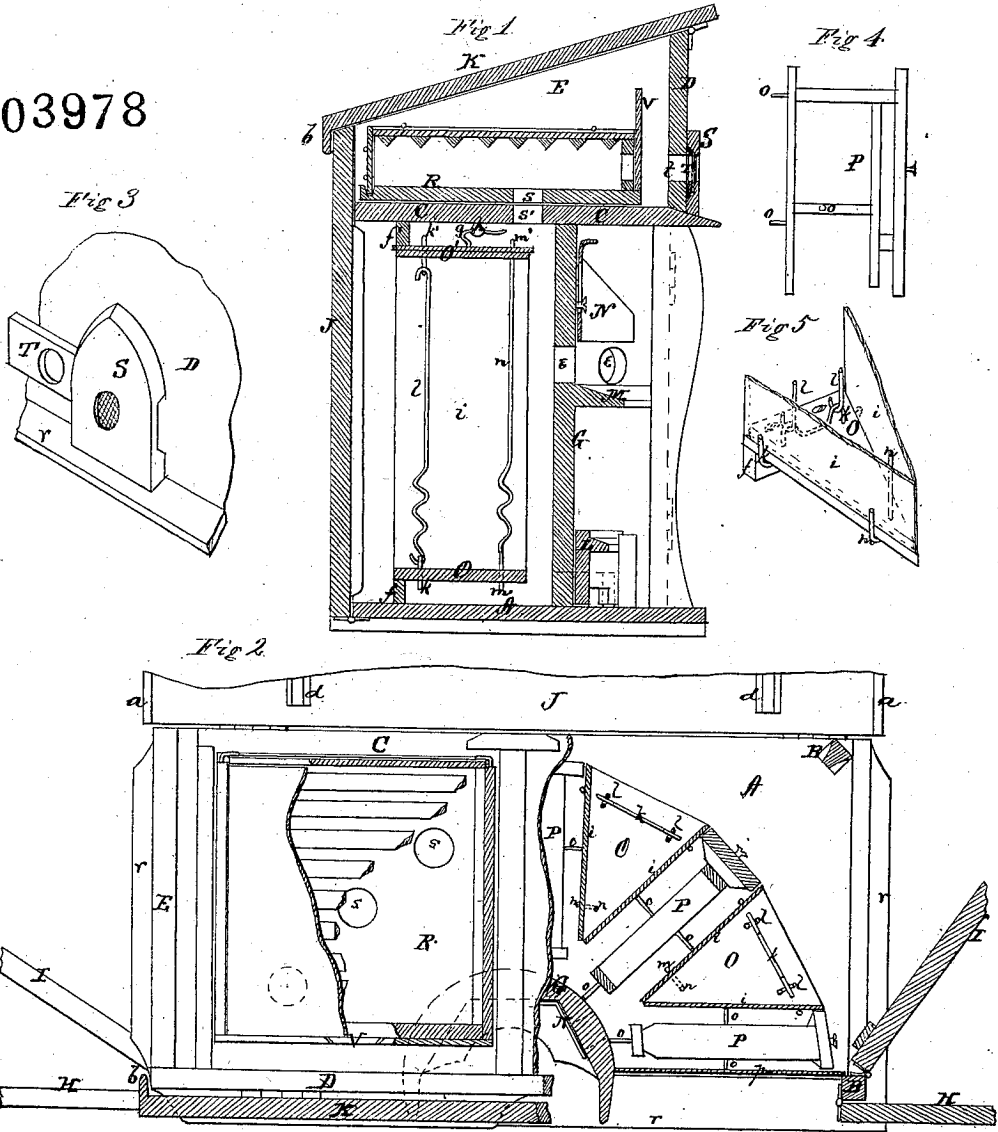


Henry F. Carpenter's

Bee Hive.

PATENTED JUN 7 1870

103978



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Letters Patent No. 103,978, dated June 7, 1870.

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, HENRY F. CARPENTER, of Greencastle, in the county of Franklin and in the State of Pennsylvania, have invented certain new and useful Improvements in Bee-Hives; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "bee-hive," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a transverse vertical section, and Figure 2 a horizontal section of my bee-hive.

Figure 3 is a perspective of an entrance into the portion of the box containing the honey-boxes;

Figure 4 is a side view of one of the comb-frames, in reduced dimensions; and

Figure 5 is a perspective view of the bottom partition between the comb-frames.

A represents the bottom of the box, supported on legs or feet, at any height desired.

At the corners of the bottom A are posts B B, which support, on their upper ends, a partition, C, on top of which is a front, D, and sides E E, inclined downward toward the rear, as seen in fig. 1.

In the center of the front, between the bottom A and partition C, is a three-sided recess, G, between which and the front corner-posts B B are doors H H, hinged to the posts, and secured by bolts, or other suitable means.

The ends of the box are also closed by doors I I, hinged to the front corner-posts, and confined, by flanges a a, on the ends of the rear door J, which is hinged at the lower edge of the bottom A.

To the upper edge of the front D is hinged the lid or cover K, provided, on its ends and rear side, with flanges b, which fit over the edges of the inclined side pieces E E, and, also, over the upper edge of the rear door J, keeping the same in place. The rear door J is provided, on the inside, with ribs d d, for strengthening it.

The recess G, which is round, or, rather, semicircular, within the box, is provided with apertures, near the bottom A, large enough for swarming the bees, and are reduced in size, so as to be used for bee-entrances to the hive, by means of slide L, which may be turned upside down, so as to close the apertures entirely, when so desired.

Above the slide L, in the recess G, is a horizontal table or shelf, M, above which are holes or apertures

e e, leading into the inside of the hive, which holes may be closed, when desired, by means of a slide, N.

On the bottom A, in a semicircular form, having the recess G for a center, is placed a series of triangular blocks, O O, at a suitable distance apart, for the insertion of the comb-frames between them. The blocks O O do not rest immediately on the bottom or floor A, but are provided, at their bases, which is on the circumference of the circle, with a bar, f, which is secured to the floor, leaving a space under the block, between it and the floor. The points of the triangular blocks do not come close up to the inside of the recess G, but a suitable distance from it, so as to leave a space or passage entirely around the inside of the recess.

On the under side of the top or partition C are similar triangular blocks, O' O', with bars f' f' bearing against the top, and placed directly above each corresponding block O.

The blocks O' O' are held in place by a hook, g, and screw h, having a hole through its head, through which the hook is passed, as shown in fig. 1.

On the sides of the blocks O and O' are cut grooves or ledges for the reception of glass i i, which is held in place by the following means: Near the base of the block are cut two holes, through which is passed a wire, k, bent as follows, as shown in fig. 5. The wire is bent so as to form two loops near the center, and the ends passed down through the holes in the block, and under the same, bent so as to form hooks, which come up, one on each side of the block, holding the two panes of glass. In the top block O' is placed a similar wire, k, bent in exactly the same manner. The two wires k k are then connected by means of two spring-rods l l, which press, or, rather, draw the hooks close to the two panes of glass, holding them firmly to the blocks at their outer edges. The inner edges of the two panes join, and are held in precisely the same manner, by means of bent wire-hooks m m and one spring-rod n.

The comb-frames P P are constructed in such a manner that, when inserted in the spaces between the blocks O O and O' O', their outer-end bars will entirely close up the space between the top and bottom, and between the outer edges of the panes of glass, for adjoining sets of blocks. The frames P P may be constructed in any suitable manner, so as to leave space for the bees to pass over, under, and at the sides, but not escape, and they are also provided with pins o o to keep them at their proper places between the panes of glass, and, also, from the inner side of the recess G.

It will be seen that the room for the bees is entirely disconnected from the sides of the box, and, by opening the doors, the entire inside of the hive can be seen, so as to examine the condition of the bees.

It would be proper here to remark that inside of the

front doors H H are also panes of glass, *p p*, each of which may be made in two parts, so that the lower portions of each pane may be removed for hiving bees. The advantages of a hive thus constructed are too apparent to need any mention.

Above and below the front doors H H and side doors I I are projecting flanges or ledges *r r*, which prevent insects from coming into the box, and if, by any means, they should gain access to the box, they cannot get into the hive proper, as that is entirely disconnected from the sides of the box.

On top of the partition C are placed honey-boxes R R, to which the bees gain access by means of holes *s* in their bottoms, and corresponding holes *s* in the partition C. When the honey-boxes are placed in this position, there is a space all around its sides and top, as seen in fig. 1.

In the front D are apertures *t*, outside of each of which is a grooved block, S, having a corresponding opening, covered with wire gauze, as shown in fig. 3.

In the groove on the block S is inserted a slide, T, also provided with a corresponding hole or opening, allowing free access of air to the inside, above the partition C, for ventilation.

When it is desired to cut off the bees from the honey-boxes, said boxes are pushed forward against the inside of the front D, when the openings *s* and *s'* disengage, that is, become closed.

A slide, V, in the front side of each honey-box, is then drawn up, and the slide T removed from the grooved block S, and the bees in the honey-boxes will pass out, but cannot find their way in through the same.

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

1. The arrangement of a series of comb-frames in a bee-hive, in semicircular or approximate form, with panes of glass and open spaces between them, substantially as and for the purposes herein set forth.

2. The arrangement of a bee-hive in such a manner that the comb-frames will be entirely disconnected from the sides of the box in which they are inclosed, substantially as and for the purposes herein set forth.

3. The combination of the blocks O O', bars *f f'*, panes *i i*, of glass, wires *k k'* and *m m'*, and spring-rods *l l'* and *n*, all constructed and arranged as described, substantially as and for the purposes herein set forth.

4. The recess G, constructed as described, and provided with slide L, shelf M, and slide N, all substantially as and for the purposes herein set forth.

5. The arrangement of the bottom A, posts B B, partition C, front D, sides E E, doors H H, I I, and J, lid K, and flanges *a a*, *b b*, and *r r*, all substantially as and for the purposes herein set forth.

6. The grooved block S, with slide T, constructed and arranged, as described, on the front D, outside of the aperture *t*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 23d day of March, 1870.

HENRY F. CARPENTER.

Witnesses:

A. A. YEATMAN,
HARRY KING.