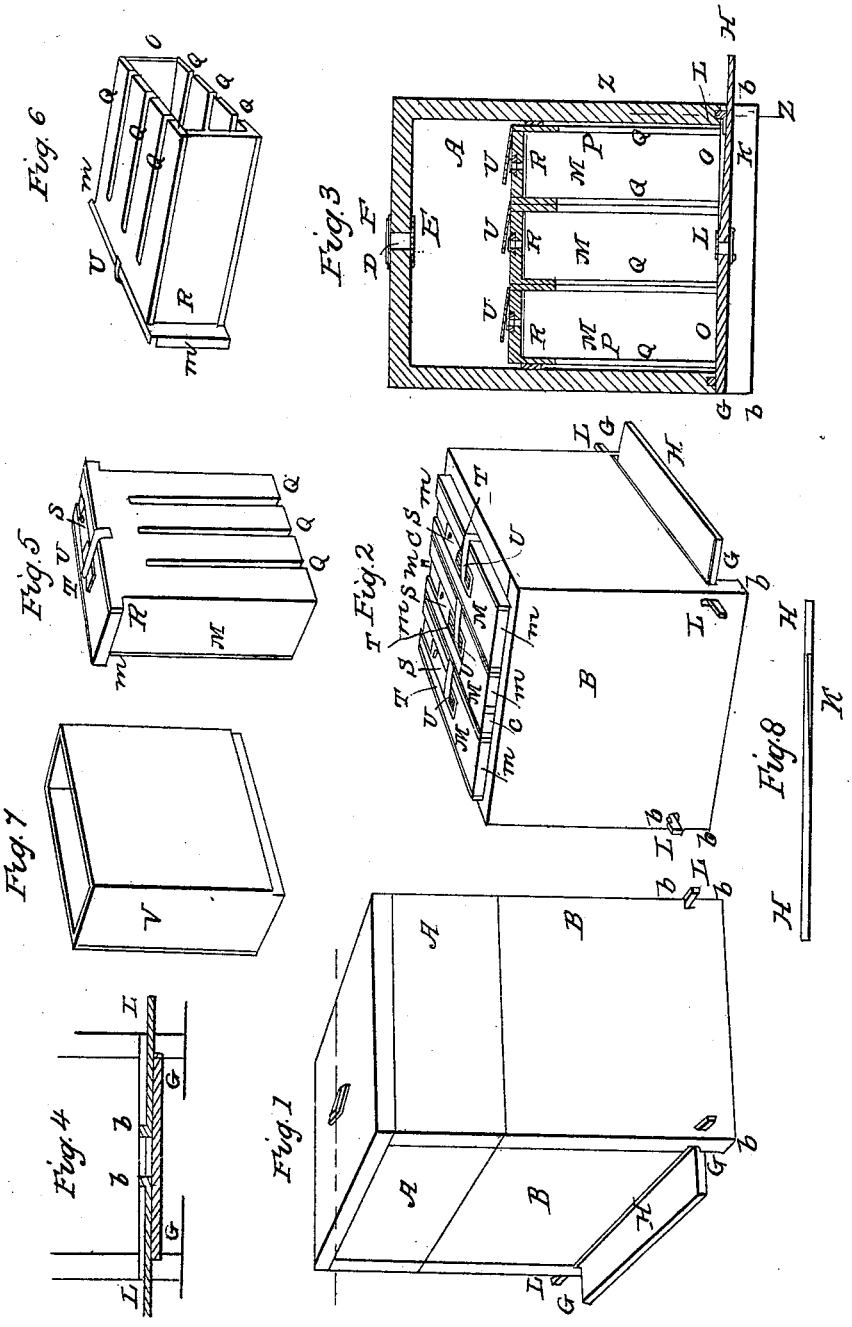
G. WHEELER.

Bee Hive.

No. 6,576. Patented July 3, 1849.



UNITED STATES PATENT OFFICE.

GEORGE WHEELER, OF LITTLE VALLEY, NEW YORK.

BEEHIVE.

Specification of Letters Patent No. 6,576, dated July 3, 1849.

To all whom it may concern:

Be it known that I, GEORGE WHEELER, of the town of Little Valley, in the county of Cattaraugus and State of New York, have invented a new and useful Improvement in the Construction of Beehives, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is a perspective view of the case surrounding the bee boxes, representing it as being divided into two sections, having a board projecting from the front of the lower section and slides, for closing and opening the entrances and a button covering the ventilator in the upper section,—the projecting portion of the board serving for the bees to light upon. Fig. 2, is a perspective view of the lower section of the hive, lighting board and slides, the upper section being removed showing the tops of three boxes. Fig. 3, is a vertical section on the line *x x* of Fig. 1, showing the internal arrangement of the boxes. Fig. 4, is a transverse section on the dotted line *z z* of Fig. 3. Fig. 5 is a perspective view of one of the bee boxes in an upright position, showing the vertical parallel slits in one of its sides and a slide ventilator on top. Fig. 6 is a perspective view of the same box in a horizontal position showing the lower end open and a slit in one of its ends near the top—as well as the slits in the sides. Fig. 7, is a perspective view of the portable case for receiving the bee box while removing the same from the hive to extract the honey or to colonize the bees—or for any other purpose. Fig. 8 is an edge view of the bottom board—showing the triangular depression in one of its edges there being a similar one in the opposite edge of the board for causing it to drop below a horizontal plane to form an entrance and also to discharge the accumulated filth or litterings.

Where the same letters of reference occur in the several figures they refer to the same parts.

This hive has an external rectangular case A, B (Figs. 1 and 2,) which is divided horizontally into two sections. The upper section A being about one third the depth of the lower section B, and is held vertically over it by dowel pins C, C, (Fig. 2). The upper section has a ventilator D (Fig. 3) through its top, covered by a piece of wire cloth E inside, and a button F outside, to graduate the ventilation. The sides of the lower section at *b*, *b*, are extended below the lower edge of the front and back forming legs which rest upon the bench or stand. A horizontal groove G is made in each side of the case below the level of the lower edge of its front and back. The lighting, or bottom board H is inserted into these grooves. This board is of greater length than the case and extends beyond its front to form the lighting board. It has a ventilator I through it near the middle provided with a reticulated covering and button to ventilate the boxes. Triangular or wedge shaped recesses or grooves K are formed in the underside of this board next the edges to permit the portion of the board outside of the case to descend as it is drawn out and thus form an entrance for the bees and to ascend when it is moved in and close the entrance. By drawing the board entirely from the case in front and inserting it on the opposite side the entrance for the bees may be formed on that side.

Rectangular openings are made in the sides of the hive for the insertion of rectangular bars of wood L by which the entrances are entirely closed or regulated as to width at the pleasure of the apiarian.

There are two bars of wood for each entrance—one is insulated from one side and the other from the opposite side. Where their ends meet the entrance will be closed and by drawing them asunder the entrance will be increased in size according to the distance they are drawn out. Each bar has a rectangular projection or knob *l* on one end of it that runs in a groove made in the lower edge of the front and back of the case guiding the rod which retains the bottom board in its place. When the lighting board is required to be moved in to close the entrances the bars must be first withdrawn and the smaller portion inserted in the openings having the knobs *l* outside of the case.

Two or more rectangular bee boxes M are suspended in a vertical position inside the case B by the horizontal projecting ends *m* of the tops of the said boxes resting upon the upper edges of the two vertical sides of the case B. Each of these boxes is of such size as to leave, when suspended in the manner represented in Figs. 2 and 3 a space P of about a fourth of an inch around the

boxes. This space is designed as an auxiliary protection to the bees from the extremes of heat and cold by being filled with columns of air which are good nonconductors of heat and cold and also as a protection against the depredation of the moth by giving the bees ready access to said space and a fair opportunity to drive away the moths and to guard the hive; besides furnishing less hiding places for the moths. These boxes are entirely open at the bottom and partially so at the sides. The side openings being vertical parallel slits Q. The open bottom O allows a free entrance for the bees and complete descent of all extraneous matter collected in the hive to the bottom board whence it can be worked out at the entrance by the bees, or by the apiarian. The openings Q in the sides of the boxes which are in the form of vertical parallel slits, correspond with each other so that the bees shall have ready access from one box to another when they are made to coincide. By moving one box to the right and the adjacent one to the left these communications between the boxes may be completely cut off—the solid portions of one box being brought opposite the open portions of the adjoining box. The horizontal slits or openings R directly under the projecting ends of the top are for the purpose of allowing the apiarian to introduce a knife to sever the comb from the top when the honey is required to be removed. The rectangular opening in the top is used, when required, by drawing back the slide S that closes it, for the purpose of allowing the bees to pass into other boxes that may be placed above them. The opening in the slide S covered by a reticulated cloth T is to serve as a ventilator when the slide is closed.

The straps U represented as being fastened to the sides of the boxes are for the purpose of lifting them readily from the lower section of the case (when the upper section is removed) and for raising the box into the portable case when placed over it.

The bee boxes being thus constructed and arranged in the case enables the apiarian to manage the bees and take the honey as he may please; also to give the bees one or more boxes to work in according to the size of the colony; likewise to admit them at the rear, or front; to withdraw a filled box from either side and insert an empty one in its place or vice versa, and to change the position of the boxes in any manner that may be required, with great facility. To remove one of these boxes when filled with honey, a suitable portable case V open at both ends and one or more thin slides are employed by the apiarian. The upper section of the external case A is removed. The portable case V is then brought directly over the box to be raised into it. The apiarian then inserts his hand into the case and lays hold of the strap attached to the box by which he lifts it into the case, the sides of which preventing the escape of the bees. He then inserts two thin slides beneath the lower end of the bee box, thus raised to prevent the escape of the bees, one of which is removed with the bee box and the other remains over the opening in the case from which the bee box was raised and thus secures the bees therein.

I do not claim to be the original inventor of a bee hive in which the bee boxes are surrounded by an external case; but

What I do claim is—

The mode of forming and closing the entrance for the bees on opposite sides of the hive by means of a recessed or grooved lighting, or bottom board H, moving in grooves or otherwise so as to operate in the manner and for the purpose described, the rectangular slides L having projections at one end and inserted through openings in opposite sides of the case and moving in grooves in the lower edges of the front and back of the same for retaining the bottom board in its place when dropped to form an entrance and for horizontally moving back and forth to regulate the space of ingress and egress for the bees.

In testimony whereof I have hereunto signed my name before two subscribing witnesses this eighth day of February, 1849.

GEORGE WHEELER.

Witnesses:

ISRAEL DAY,

J. CLEMENT.