H. H. WHITNEY.

Bee Hive.

No. 32,217. Patented April 30, 1861.

Fig. 1.

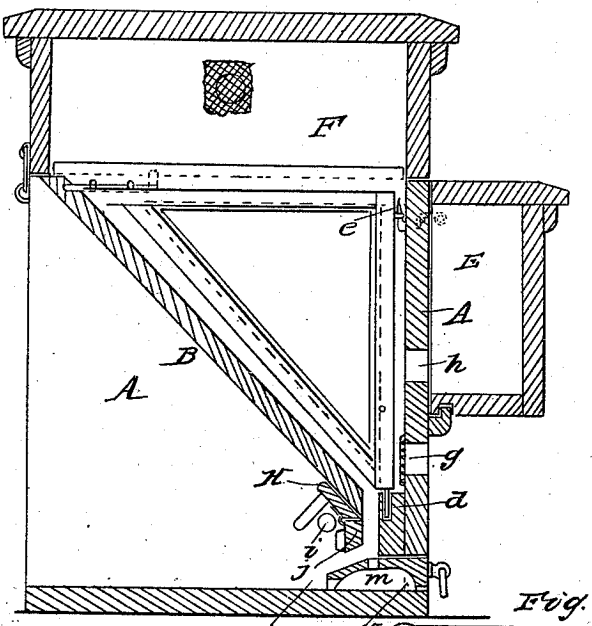


Fig. 3

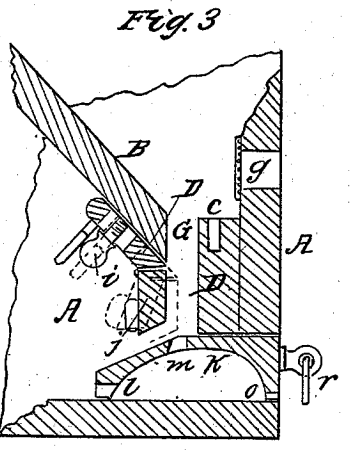


Fig. 2

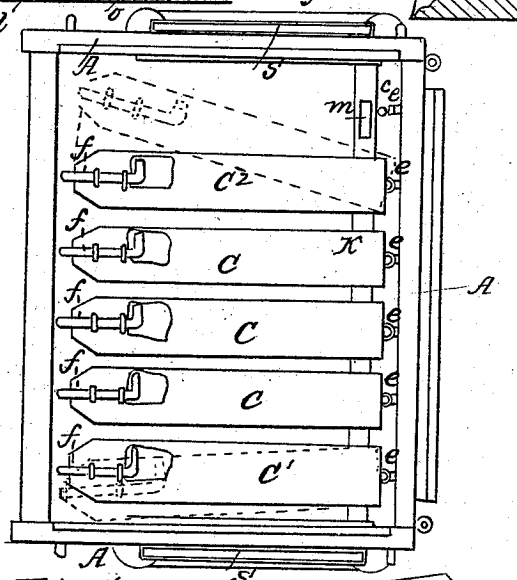
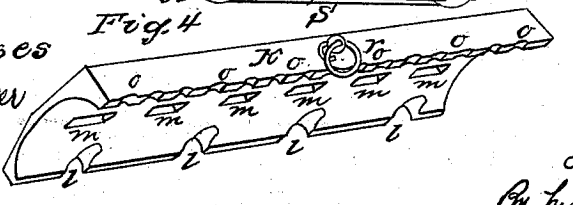


Fig. 4



Witnesses
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UNITED STATES PATENT OFFICE.

HUGH H. WHITNEY, OF WATERFORD, PENNSYLVANIA.

BEEHIVE.

Specification of Letters Patent No. 32,217, dated April 30, 1861.

To all whom it may concern:

Be it known that I, HUGH H. WHITNEY, of Waterford, in the county of Erie and State of Pennsylvania, have invented a new and Improved Mode of Constructing Beehives; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a transverse vertical section of one of my improved hives. Fig. 2, is a plan view, of the comb-frames, the top being removed. Fig. 3, is an enlarged vertical section of the entrance portion of the hive, showing the drone-separator, and drone and moth trap, K. Fig. 4, is a perspective view of the under side of the drone trap, removed.

Like letters designate corresponding parts in all of the figures.

The general form of my hive is that of a quadrangular box A, A, one side being removed, and a partition B, placed at an angle of about 45° divides its interior into a triangularly shaped apartment for the bees above, and an open space or area below. The entrance opening is at the lower angle of B, and consists of a crevice or slot extending the whole length of the box, the dimensions of which is regulated by a device that will be hereafter described.

The bee apartment is filled with a series of comb-racks C, of a form corresponding with the hive, being that of a right angle triangle. A full sized hive will contain twelve of these racks, which are secured in their respective places as follows: The lower acute angle is squared for a short distance and a wire pivot *d* inserted in it, which enters a hole *c* Fig. 3, in a slot D, nailed to the back side of the box. At the top, or right angle of the rack, a staple or eye is inserted in it, and a hook *e*, in the back of the hive. As the pivot *d* enters the hole *c* provided for it the staple slips over the hook *e* and the rack is hung in the manner of a hinge, leaving it free to turn sidewise in either direction. At the upper acute angle a wire bolt *f f* is provided which slides into holes in the board B, and holds the rack in place. Bees seldom build their combs perfectly true, or of uniform thickness, and consequently it is difficult to remove the sections without breaking it, more or less, and killing bees that chance to be between. But my mode of attaching the racks obviates these difficulties by allowing the rack to be removed, to turn on its center as soon as the bolt *f* is withdrawn. The first one taken out (C^1) has a lateral movement of about $\frac{3}{8}$ of an inch, and the remaining ones may be swung much farther, making it perfectly easy to remove each one without injury to it or the remaining ones, (C^2).

The form of the hive, that of a quadrangular box, divided so as to form a right angle triangle for the bee chamber, possesses several advantages. It affords a spacious area for the entrance, which protects the bees from wind and storms, and by placing their doorway at the lower angle thereof, it not only forms a convenient place of entrance, but is an outlet for the discharge of all refuse by the steep inclination of partition B. This form enables the whole chamber to be readily ventilated by one or more orifices *g*, through the side A, near the bottom. It also admits of placing projecting or hanging honey boxes E, on the back side, which affords very direct access through passages *h*, near to the main entrance, while the additional weight and space thus obtained balances the bulk of space in the first chamber. This arrangement of the honey boxes affords great facility for procuring surplus honey while making artificial swarms, as they may in use on the back of the hive, and not interfere with the handling of the racks C, C. A number of temporary honey boxes may also be placed in the upper compartments F, which is removable to give access to the sections C.

The entrance G, is provided with an adjustable piece H, attached to partition B, by thumb screws *i* passing through slots. To the lower edge of this, various small gravitating sections *j* are hung by hinges which allow them to swing outward, but they cannot be pushed inward. They are loaded slightly on the outer side, *k*, to insure their returning to the perpendicular when raised, but should be so light that they may be raised by the drones in passing out. The piece H, is adjusted so as to leave space enough under *j* for the working bees to pass. The drones will pass out and are prevented from returning by the device described.

K, is an inverted trough which slides under the entrance, its top forming the thresh-

old thereof. It is provided with a series of holes *l*, on its front side, large enough to permit the drones to pass in, which they will readily do when they find themselves excluded from the passage into the hive. Here they congregate and may be readily destroyed when it is desired. As some of the workers may also enter with them a series of slots *m* is made through the top contiguous to the entrance G, large enough for the workers to pass into the hive, but so small as to exclude the drones. A portion of the filth of the hive falls through these slots into K, which serves to attract the bee moth, which, finding herself in the presence of the drones and secure from the workers, deposits her eggs in the scorings *o*, provided for her. The hollow piece K draws out at the back side by the ring *r*, when the eggs and worms can be destroyed, as also the drones, when it is desired.

Triangular lights of glass are inserted at each side of the rack chambers covered with movable slides S, for the purpose of observation.

What I claim as my invention and desire to secure by Letters Patent is—

1. Constructing a hive by dividing the rectangular box A, by the oblique partition B, so as to form a sheltered area around the entrance; a triangular apartment for the swarm, with the passage G, at the lower angle thereof; and hanging supplementary chambers or boxes E, immediately back of the same, communicating therewith by means of the passage or passages *h*, the whole being provided with the means of ventilation by the holes *g*, at or near the entrance G, the whole arranged and combined substantially in the manner and for the purpose shown and described.

2. The device for graduating the entrance to the passage G, consisting of the adjustable slat H, and hanging traps or doors, *j*, constructed and operating substantially as and for the purposes set forth.

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Witnesses:

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