

UNITED STATES PATENT OFFICE.

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BEE-HIVE.

SPECIFICATION forming part of Letters Patent No. 368,078, dated August 9, 1887.

Application filed October 13, 1886. Serial No. 216,118. (No model.)

To all whom it may concern:

Be it known that I, FRANZ FRIDOLIN ECKHARDT, a subject of the Emperor of Germany, residing in North Wales, Montgomery county, Pennsylvania, have invented an Improved Bee-Hive, of which the following is a specification.

The object of my invention is to so construct a bee-hive that its capacity may be readily increased as the bees increase in number, that different swarms of bees may be readily separated from each other in the same hive, and that the operations of the bees may be readily inspected without disturbing them.

In the accompanying drawings, Figure 1 is a perspective view of a bee-hive constructed in accordance with my invention, two of the doors being shown as removed and one of the window-shutters partly drawn back. Fig. 2 is a vertical transverse section of the same, and Fig. 3 is a perspective view of a portion of one of the central partition-frames.

My improved bee-hive may be said to be built up of sections, and any desired number of sections may be used.

In the drawings I have shown the hive as composed of three vertical sections, each of which may be divided horizontally into three chambers.

The hive shown in the drawings consists of two end frames, A A', and two intermediate partition-frames, B B, with bars G set into recesses at the tops of the frames and connected by cross-bars H, by which the parts are held in position. Top boards, D, are introduced on the top flanges or guides of the frames, as shown, to inclose the top. To increase the size of the hive, other sections of partition-frames may be placed on the top of those shown and be secured by cross-bars in the same way. The same arrangement may be provided at the bottom, or a common bottom board, D', may be used, as shown in the drawings.

The front and back of the hive are closed by a series of removable doors, E, preferably one for each compartment, at back as well as front, as hereinafter described.

The end frames, A A', are provided on their insides with glass or other glazed windows for the several compartments, and on the outside

of the end frames are guides *a* for the reception of sliding shutters *s*, which, under ordinary circumstances, are closed to exclude the light and cold from the interior of the hive, but which may be withdrawn at any time to inspect the interior through the windows when desired.

The central partition or partitions, B, are provided with guides or grooves *b* for the reception of sliding partitions *b'*, by means of which the hive may be divided into separate compartments when desired, or on the withdrawal of one or more of these slides the compartments may be made to communicate with each other—as, for instance, when the bees have filled the frames of one compartment with their cells and honey, or when the swarm of bees have increased in number so as to make it necessary to increase the size of the hive. Similarly, the end frames, as well as the central partition-frames, are provided with horizontal guides *e* for the reception of horizontal partitions *e'* for the same purpose. The end frames and central partition-frames are also provided with flanges *f*, from which the usual rectangular frames, F, are suspended for the building up of the honey-combs. In winter the partitions *b'* and *e'* may be made of wire-gauze or other perforate material, so as to provide for an equal temperature throughout the hive.

Each compartment, as I have said, is provided with a separate front door, E, adapted to fit between the frames and abut against flanges *g* on the frames, and each door may be provided with spring-bolts *p* to engage with corresponding notches in the end frames and partition-frames, and the inner ends of the bolts are preferably provided with knobs or handles, which not only serve to operate the bolts, but serve as handles for withdrawing the doors themselves from their seats. The doors are provided at their lower edges with notches, as usual, for the entrance of the bees to the different compartments. For summer use these doors may be made of wire-gauze or other perforate material.

Although I have described the hive as provided with three vertical compartments, each of which can be separated into three horizontal compartments, the number may be in-

creased or diminished without departing from my invention.

The construction above described not only permits the inspection of the operation of the bees, their separation into different swarms, and their transfer from one compartment to another, but also permits any one or more compartments to be cut off from the others for the removal of the honey, and permits the hive to be increased in size.

I claim as my invention—

1. A bee-hive having end and partition frames provided with horizontal guides *e*, and horizontal sliding partitions adapted to said guides, the partition-frames having also grooves *b* and upright sliding partitions adapted to the grooves, all substantially as set forth.

2. A bee-hive having frames provided with

horizontal guides *e*, horizontal sliding partitions adapted thereto, and below the said guides horizontal flanges *f* for the honey-comb frames, substantially as and for the purpose set forth.

3. A bee-hive having grooved partition-frames A A' B, bars G, adapted to grooves in the said frames, cross-bars uniting the said bars, and sliding partitions, also adapted to grooves in the frames, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANZ FRIDOLIN ECKHARDT.

Witnesses:

JOHN SPARHAWK, Jr.,

JOSEPH H. KLEIN.