

J. B. STAUNTON.  
Improvement in Bee-Hives.

No. 127,281.

Patented May 28, 1872.

Fig. 1.

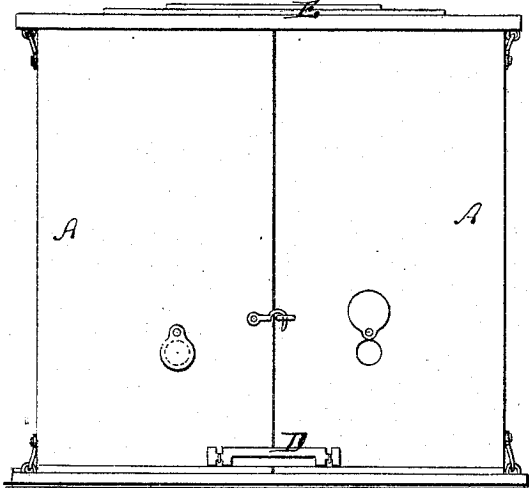


Fig. 3.

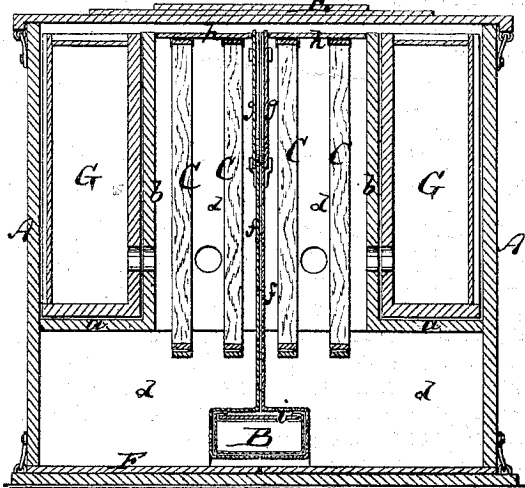


Fig. 4.

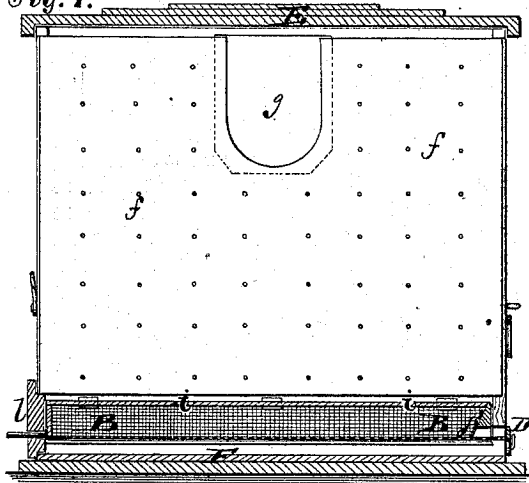


Fig. 5.

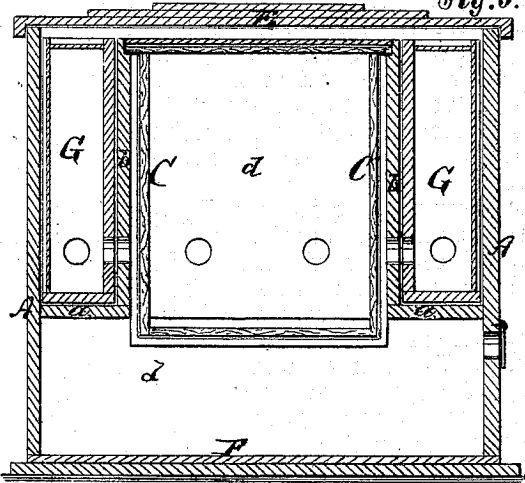


Fig. 2.

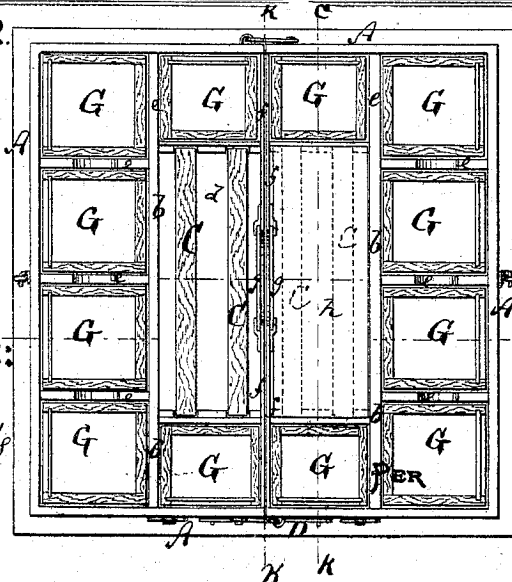


Fig. 6.

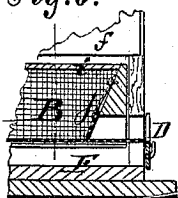


Fig. 7.



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 127,281, dated May 28, 1872.

Specification describing a new and Improved Bee-Hive, invented by JONATHAN B. STAUNTON, of Ellicottville, in the county of Cattaraugus and State of New York.

My invention relates to an improvement in the class of hives constructed with a view to controlling the formation of new colonies of bees as to time and numbers, obviating the necessity of swarming by forming new colonies without removing the comb-frames or disturbing the bees, without exposure to their stings, and without in effect changing their habitation; and the invention consists in the construction and arrangement of certain parts hereinafter described and claimed, whereby a uniform diffusion of temperature, sound, and odor is secured throughout the entire brood-chamber, and thorough ventilation, as herein described.

In the accompanying drawing, Figure 1 represents a side elevation of the hive. Fig. 2 is a horizontal section of the same. Fig. 3 is a vertical section of the same on the line *c c*, Fig. 2. Figs. 4 and 5 are vertical sections of the same on the lines *k k* and *c k*, Fig. 2, respectively. Fig. 6 is a detail vertical longitudinal, and Fig. 7 a detail transverse, section of one end of the trap-drawer.

Similar letters of reference indicate corresponding parts.

In constructing a hive, the main walls *A A* may be put together in a square form, and made of inch lumber. After being nailed together at two-thirds the distance from the top to the bottom on the inside, a ledge or gallery-floor, *a*, is built of lumber, as wide as the proposed honey-boxes, which are to stand on end upon it. From the inner edge of this ledge or gallery floor it is faced up with thin boards *b b* on the four sides to within a half inch of the top of the hive, inclosing the brood-chamber *d* or winter-quarters. The space between the outer wall *A* and the facing *b* is subdivided by partitions *e e*, for the reception of honey-boxes *G G*. The hive is then sawn in two from top to bottom, cutting the fly-hole and rear door vertically in the middle, thus dividing the hive into half sections, as indicated in Figs. 1 and 2. Over the plane of section or open side of each half is then fastened a thin wall, *f*, of perforated wood, metal, wire-cloth, or other like material, the perforations or

meshes being too small to allow the passage of a bee, (and the more numerous the perforations the better.) This wall *f* extends down to the top of the rear door of the hive, is then bent horizontally inward the width of the door, down the side of the door to within a quarter of an inch of the floor, and then turned horizontally toward the center, thus forming ledges on which the trap-drawer *B* may rest, and space for its introduction from the rear, all as shown in Fig. 3. Through these thin walls *f*, near their top, and in corresponding positions, are cut larger apertures, closed by tin slides *g*. When the half sections of the hive are brought together the two perforated walls *f f* become one partition, admitting free communication for the bees through the doors, and a uniform diffusion of temperature, sound, and odor through the perforations and doors *g*, provided the latter are opened. The space *d*, inclosed by the honey-boxes, and extending laterally under the ledge on which they rest, is supplied with comb-frames *C C*, running parallel with the partitions, and covered on top with glass *h*. The trap-drawer *B* is made of perforated material, an oblong box wholly or partially covered with glass, *i*, long enough to extend through the hive from rear to front, and large enough to fill the space which is formed by the aforementioned bending of the partitions *f*. The bottom of the drawer *B* is made to project beyond its front end, as in Fig. 6, far enough to cut the fly-hole horizontally in the middle and come out flush with the outside of the hive, thus leaving a bee-space in the fly-hole both above and below the projecting bottom of the trap-drawer. The lower space of the fly-hole leads into the hive and the upper space into the trap. The fly-hole stop *D* is made of tin or other suitable material, its length greater than the length of the fly-hole, its width the same as the fly-hole. One-half the width is cut out in the middle, equal to the length of the fly-hole, as in Fig. 1. When the stop *D* is applied with the open side down, as in Fig. 1, the entrance to the hive is free, and the trap closed. The other side up, it closes the entrance to the hive and opens the passage to the trap. The front of the trap, shown in Fig. 6, is made of wood, an inch thick, beveled on the inside, sloping from top to bottom, and over the entrance is sus-

pended a corresponding piece of wire-gauze, *j*, which covers the entrance to the trap, is pushed away by the entering bee, and closes behind the same, preventing egress. The rear opening of the hive is closed with a wooden door, *l*, when protection from cold is desired, or with perforated tin or wire-cloth for ventilation. The hive is closed at the top with a simple flanged cover, *E*, which serves, when on, to bind the sections together. The floor or bottom *F* is made in halves to match the sections, and move with them when they are separated.

The method of using these hives for the multiplication of stocks is very simple. When a swarm in one of these hives has filled the brood-room *d* with comb, and the bees begin to hang in idle masses on the outside, the beekeeper, early in the morning, stops the fly-hole, removes the cover, introduces the tin cut-offs *g*, which close the communication between the sections, withdraws the sections from each other far enough to admit corresponding empty sections to each, thus making two hives and two colonies of equal strength; withdraws the cut-off *g*, opens the fly-holes, puts on the covers, and leaves the bees in the new arrangement, relatively, just where they were in the old, with the same quarters, comb, and brood, and the same exit from the hive, as before. This is done with all the bees shut in, and with no more violence to nature than in planting two hills of potatoes from seed grown in one. The bees proceed to work at once as though nothing had happened. The swarm which lacks a queen produces one in a few days from immature brood in the hive.

The empty section of each gives room for expansion, and no swarm ever starts in business without a stock of comb, honey, and brood on hand.

Properly managed in an average season, three and even four divisions may be made, making eight or sixteen swarms from one, the producing capacity of so many queens and the stimulated industry of the workers bringing the colonies up to the average size by fall. Removing old comb by taking away the section containing it and supplying an empty section, allowing the bees to return to the hive, keeps the stock healthy and vigorous, reduces the ravages of the wax moth to a minimum, and saves the necessity of ever destroying bees. Using the trap-drawer for taking robbers, &c., is done by reversing the fly-hole stop, which closes the entrance to the hive and opens the entrance to the trap, from which there is no escape for the enemy.

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

1. The perforated plates *ff*, provided with doors *g g*, and arranged with the two equal parts of the divided hive, as and for the purpose specified.

2. The trap *B*, constructed substantially as described, when arranged in connection with the bottom of partitions *ff* and the two equal parts or sections of the hive, as specified.

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