

G. A. DRUMMOND.  
BEEHIVE.

No. 470,111.

Patented Mar. 1, 1892.

Fig. 1.

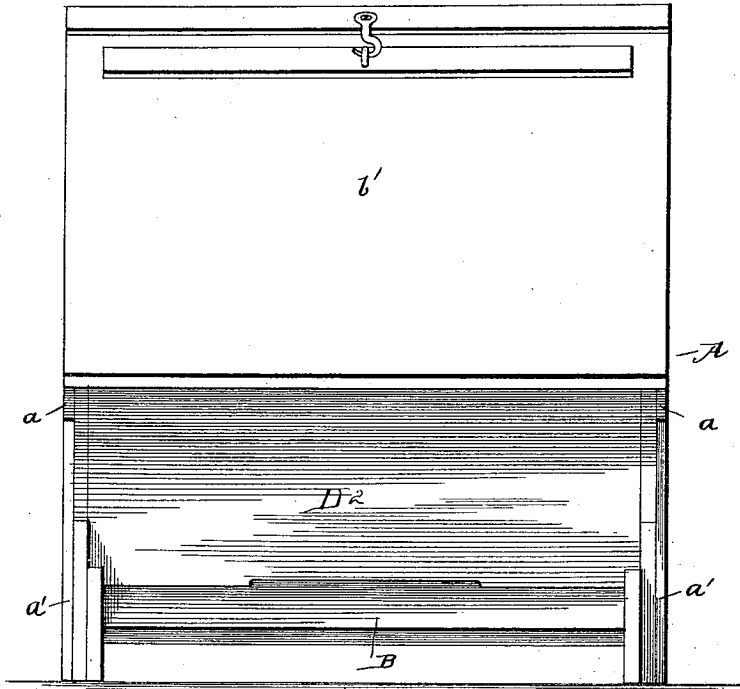


Fig. 2.

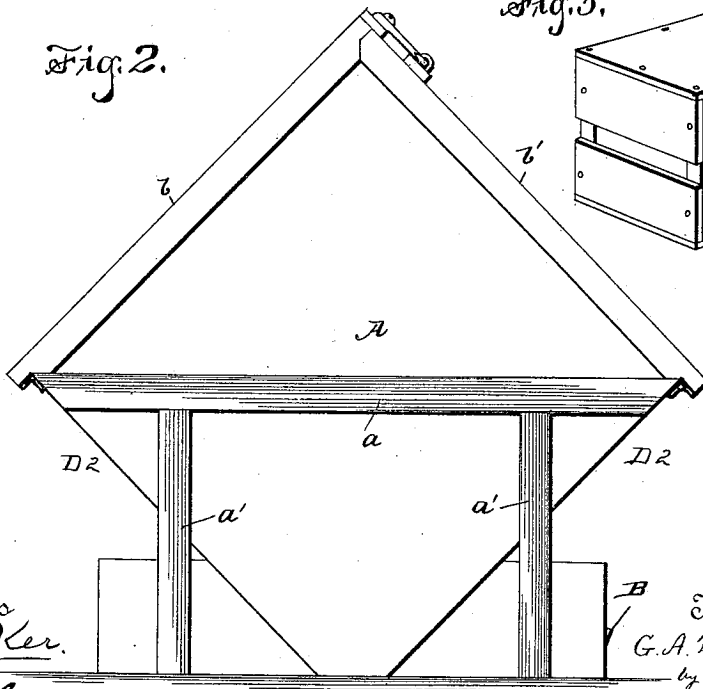
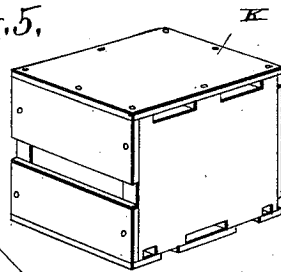


Fig. 5.



Witnesses  
*Samuel Ker.*  
*Philip Massi.*

Inventor  
*G. A. Drummond*  
by  
*E. W. Anderson*  
his Attorney



(No Model.)

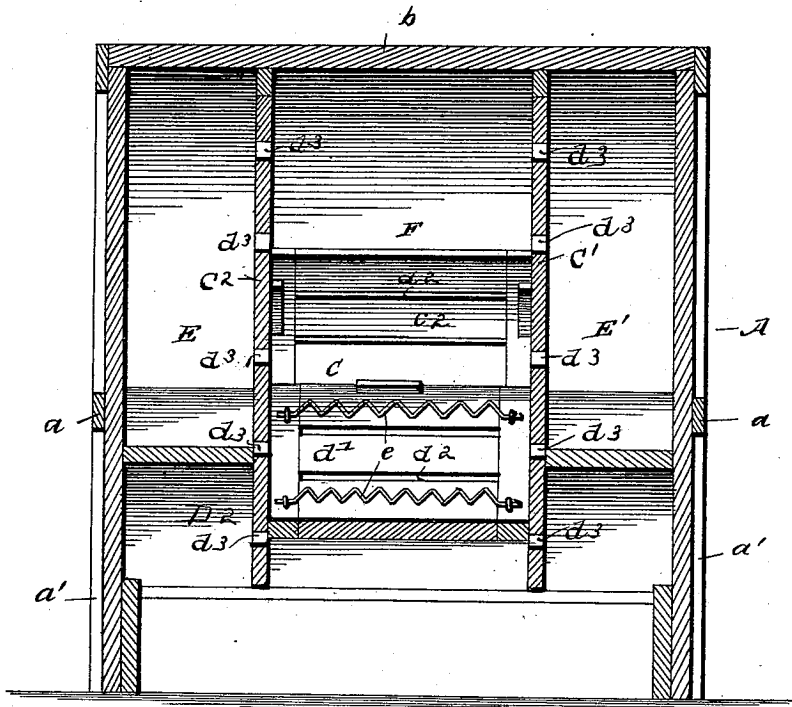
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*Fig. 7.*



Witnesses

*Samuel Ker,*  
*Philip Massi.*

Inventor  
*G. A. Drummond,*  
by *T. C. W. Anderson*  
*his Attorney*

# UNITED STATES PATENT OFFICE.

GREENVILLE A. DRUMMOND, OF LANCASTER, MISSOURI.

## BEE-HIVE.

SPECIFICATION forming part of Letters Patent No. 470,111, dated March 1, 1892.

Application filed June 20, 1891. Serial No. 396,970. (No model.)

To all whom it may concern:

Be it known that I, GREENVILLE A. DRUMMOND, a citizen of the United States, and a resident of Lancaster, in the county of Schuyler and State of Missouri, have invented certain new and useful Improvements in Bee-Hives; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation. Fig. 2 is an end view. Fig. 3 is a vertical section, and Figs. 4, 5, and 6 are detail views. Fig. 7 is a vertical longitudinal section on the line  $x x$ , Fig. 3, with the boxes and frames removed.

This invention has relation to certain new and useful improvements in bee-hives; and it consists in the novel construction and arrangement of parts thereof, as hereinafter specified.

In the accompanying drawings, illustrating the invention, the letter A designates the hive, the body of which is shown as formed of an oblong rectangular box resting upon one of its angles, which is truncated to form a base. The box is also supported and braced by the frame  $a$  and the legs  $a'$ . In this position the two upper sides  $b b'$  form a gable roof for the hive.

B is the alighting-board, arranged along the lower portion of the hive in front of the entrance. The two upper side portions  $b b'$  may be provided with hinges, in order that they may be readily turned back to permit access to the hive.

The interior of the hive is subdivided by the vertical transverse partitions  $C C'$ , one located near each end, forming the end chambers E E', and a central chamber between said partitions, in the lower portion of which is located the brood-chamber C. The partitions  $C C'$  form the ends of this chamber, and the side portions are formed by the frames  $c' c^2$  and by the lower partitions  $d d'$ , against which the lower edges of the frames  $c' c^2$  respectively rest. The partitions  $d d'$  are extended out to the sides or gable portions, and,

with the lower portions  $D^2$  of the hive, form chambers D and D', one at each side and partially under the brood-chamber. Above and around the upper portions of the brood-chamber are the chambers F and F'.

The partitions  $C C'$ , as well as the frames  $c' c^2$ , forming the upper sides of the brood-chamber, are formed of slats spaced a short distance from each other, in order to leave slots or openings  $d^2$  and  $d^3$ , the former being in the frames  $c' c^2$  and the latter in the partitions  $C C'$  and  $d d'$ , so that the bees may pass freely from the brood-chamber into the respective chambers D D', E E', and F F' and from one chamber to another.

In the brood-chamber C is a series of angular brood-frames  $c$ , which are arranged in transverse vertical position side by side, and held in place, preferably, by the corrugated wires  $e e$  on the side frames  $d d'$ , as shown in Figs. 3 and 4.

K K designate the comb and honey boxes, which are designed to be arranged in tiers in the respective chambers D D', E E', and F F'. In Fig. 5 I have shown in detail one form of box which may be used, and in Fig. 3 I have shown similar boxes in place in the chamber D. These boxes vary somewhat in size and shape, however, as may be desired, and in accordance with the chambers in which they are placed. They are also usually slotted on three or more sides, as shown, in order that the bees may have free access thereto, the slotted sides being placed contiguous to and preferably registering with the slots in the various partitions or frames against which they lie, while their closed sides are contiguous to the outer walls of the hive. The sides of the respective boxes which adjoin each other are also usually slotted, so that the bees may readily pass from one box to the other. The position in which these boxes are placed and the manner in which the bees are permitted access from one to the other and from the brood-chamber thereto is clearly illustrated by the boxes shown in position in chamber D of Fig. 3. It is in these boxes K that the combs are formed and the honey stored. Said boxes are removable, being supported only by the frame of the hive and by each other.

Instead of using the boxes K in all the

chambers I may place therein crates H, designed to hold one or two pound sections H'. When these crates become filled, the crates may be removed, and are then all ready for shipment. One of these crates is shown in detail in Fig. 5, and in Fig. 3 I have shown two of them in position with the sections H' therein and separated by a thin strip *h* of suitable material from each other. The bottom portions H<sup>2</sup> of these crates are usually slotted, as shown at *h'*, in order that the bees may pass freely between them and from one to the other.

The hive is so constructed as to afford ample room for the working of the bees during the entire season, thus preventing their swarming and obviating the consequent care and attendance. As long as the bees have free access to all of the honey-chambers they will not swarm under any circumstances, loss of queen excepted; but if shut out from the additional chambers (which may be easily done by means of slides, not shown) they will swarm, and in this manner the number of swarms may be regulated, as desired.

The bees can pass freely to all parts of the hive owing to the slotted partitions, filling all the boxes and requiring no attention. The heat generated by the bees in the brood-chamber will pass into the surrounding chambers, thus enabling the bees to begin the work of constructing combs and storing honey, a certain amount of heat being required to enable them to work the wax.

The hive will be cool in summer, as the brood-chamber is surrounded by the chambers on all sides, which protect it from the rays of the sun. It is also warm in winter for the same reason, being surrounded by the honey-chambers. The arrangement of the various partitions is such that all comb cuttings, dead bees, &c., will fall down and out and be carried away by the wind, thus preventing the

clogging of the entrance and the smothering of the bees. All moisture will be carried off and prevented from reaching the bees.

The frames *c* in the brood-chamber are shown as held in place by the wires *e* and may be readily removed when desired.

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

1. A bee-hive having a brood-chamber located at its lower central portion, having chambers F F' above and partially at the side of said chamber and separated therefrom by frames having a series of slots therein, end chambers E E', formed by vertical transverse partitions, and the chambers D D', one at each lower side portion of the hive and partially under the brood-chamber, the partitions forming the walls of said chambers being formed each with a series of slots to permit free access of the bees from one portion of the hive to another, substantially as specified.

2. A bee-hive comprising a rectangular oblong box having one of its angles truncated to form a base and two of its sides arranged to form a gable roof therefor, the interior of said box near each end having a vertical transverse slotted partition forming the honey-chambers E E' and a central chamber, a brood-chamber in the lower portion of said central chamber, formed by end partitions and by frames *c' c'* and lower partitions *d d'*, the chambers D D' below said partitions *d d'*, all of said partitions and frames being formed with a series of slots, and boxes or crates arranged in tiers in said chambers, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

GREENVILLE A. DRUMMOND.

Witnesses:  
ED. F. PAYTON,  
W. L. CASPER.