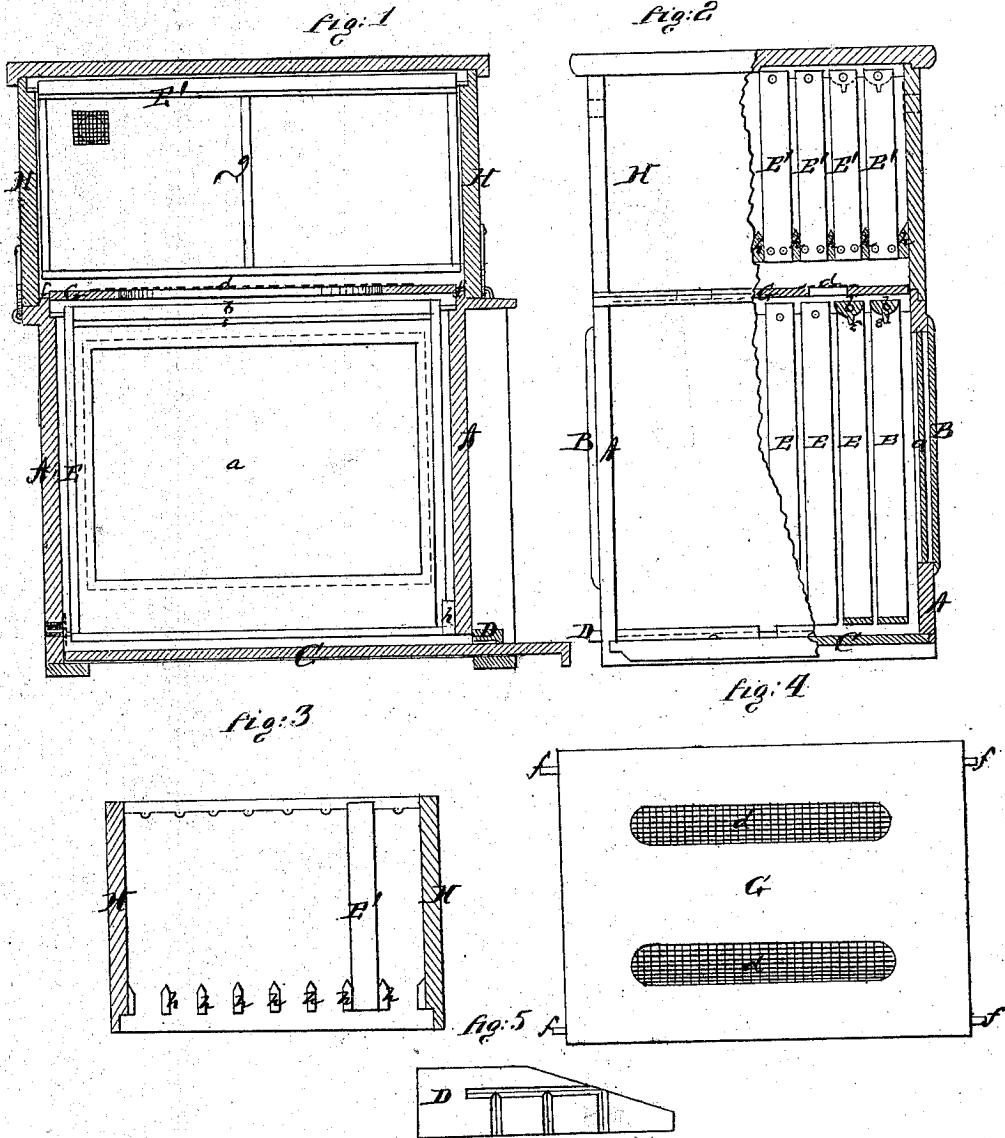


Harred & Elliott,

Bee Hive.

No. 112243.

Patented Feb. 28. 1871.



Witnesses.  
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 J. O. Hutchinson

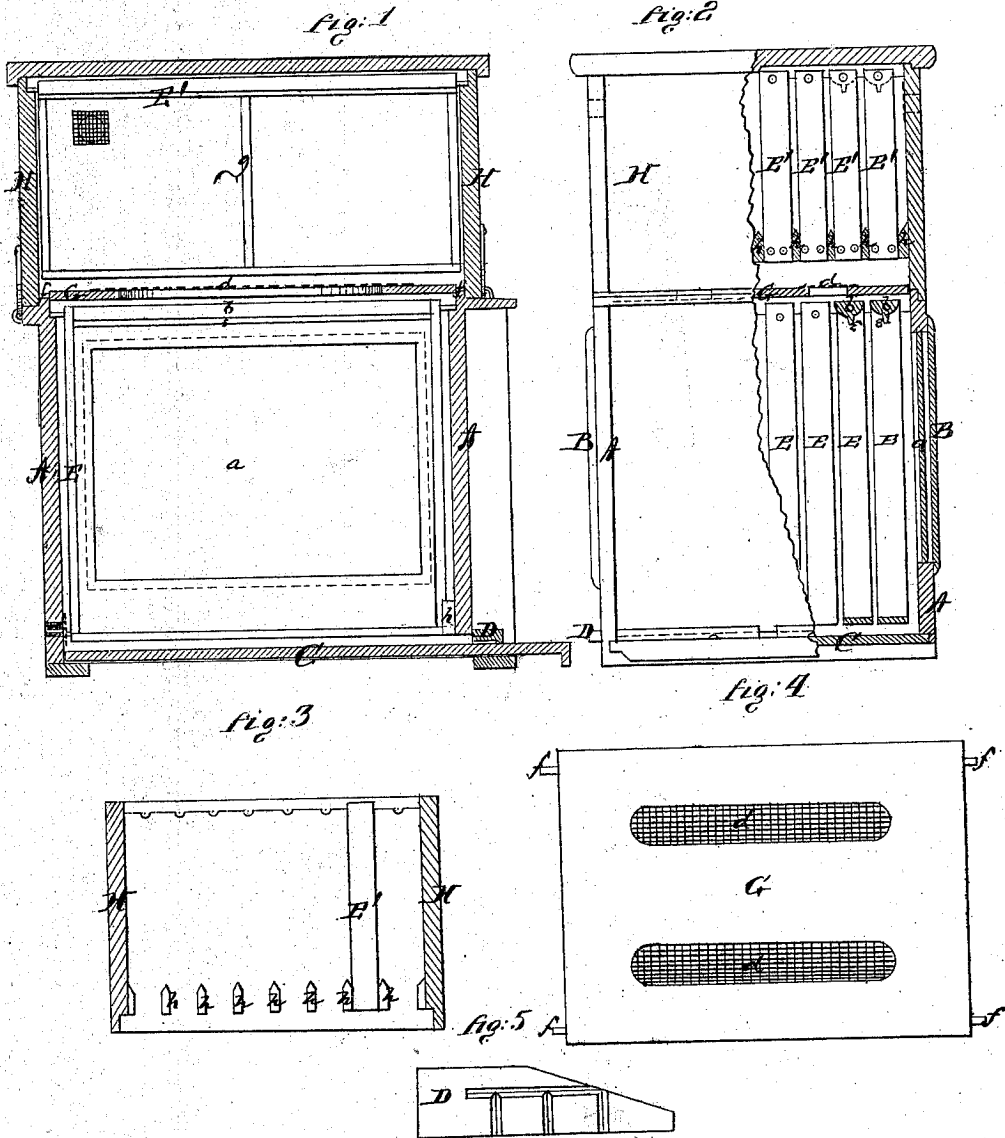
Inventor.  
 Hiram S. Harred  
 Frank S. Elliott  
 per  
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# United States Patent Office.

HIRAM S. HARNED AND FRANK S. ELLIOTT, OF BOONESBOROUGH, IOWA.

Letters Patent No. 112,243, dated February 28, 1871.

## IMPROVEMENT IN BEE-HIVES.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that we, HIRAM S. HARNED and FRANK S. ELLIOTT, of Boonesborough, in the county of Boone and in the State of Iowa, have invented certain new and useful Improvements in Bee-Hive; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a "bee-hive," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section of our hive.

Figure 2 is a front elevation, part in section, of the same.

Figure 3 is a section of the surplus or honey-chamber.

Figure 4 is a plan view of the division-board.

Figure 5 is a bottom view of one of the blocks for regulating the entrance to the hive.

Figure 6 is a horizontal section of the nucleus-cap or queen-nursery.

Figure 7 is a vertical section, and

Figure 8, a side elevation of the same.

Figure 9 is a side view of one of the chambers in the queen-nursery.

A represents the brood-chamber of our hive, provided on the sides with observation doors B B, the openings which said doors close being provided with glass plates *a*, as shown in fig. 2.

The bottom, C, of the hive is movable for the purpose of cleaning the hive, removing filth, &c., and also for hiving natural swarms of bees.

An opening extends from side to side of the hive above the bottom C, which opening forms the bee-entrance to the hive, and said entrance is regulated by means of the blocks D D, which slide through holes made in the sides of the brood-chamber.

These blocks are grooved on their under side, as shown in fig. 5, so as to form air-passages, admitting air into the hive at the bottom.

Within the brood-chamber is placed a series of comb-frames, E E, the upper bars, *b*, of which are rounded or oval, as shown in fig. 2, and provided with a thin tongue, *e*, forming the comb guides.

These guides *b b*, with their tongues *e e*, are so arranged that the bees cannot fasten or build their

comb upon anything but the thin tongues, the bars themselves being oval.

This prevents the bees from joining the combs, the one to the other, and any frame can be removed without disturbing the rest.

On top of the brood-chamber A is placed the division board G, to keep the bees in the brood-chamber until they have filled it.

In this division board are openings covered with wire-cloth *d*, which give an upward ventilation.

This board rests upon wire points *f f*, as shown in fig. 4, thereby preventing the bees from fastening it to the brood-chamber with honey or wax.

The division board is intended to be removed when the bees are wanted to work in the surplus-chamber, and allow all the heat from the brood-chamber to arise and aid the bees above in making comb.

Above the brood-chamber and division-board is placed the surplus-chamber H, provided with frames or racks E' E, constructed in the same manner as the comb-frames E E, with the addition of a central vertical bar, *g*, as shown in fig. 1.

This surplus-chamber is arranged for removing the surplus honey without disturbing the bees.

In the winter season the surplus racks E' are to be removed, and the space filled with dry and light substance to absorb the moisture and keep the bees dry and healthy.

The frames E and E' are all provided at their upper ends with pins or wire points for suspending them from ledges formed in their respective chambers; and at their lower ends they are held a suitable distance apart and steady between guide-blocks *h h*, on one side, as shown in figs. 1, 2, and 4.

The ledges from which these frames are suspended are notched, as shown in fig. 3, for the reception of the pins or wire points.

I is a nucleus-cap or nursery for breeding-queens. This is an attachment to the hive, and when in use takes the place of the surplus-chamber H.

The bottom of the cap I is provided with wire-cloth, for the purpose of admitting heat from the brood-chamber below.

Through the center passes a partition, *k*, and four chambers J are suspended in the same, said chambers having wire-cloth bottoms, as shown in fig. 7.

In each chamber is a comb-rack, K, to be filled with brood-comb. There is also in each chamber a feed-box or trough, *m*, to which admittance is gained by means of the openings *m'*, shown in fig. 8.

*n n* are the entrances to the nursery-chambers.

Having thus fully described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. The movable bottom C, and grooved entrance blocks D, in combination with the brood-chamber A, all substantially as described.

2. The division-board G, provided with the screens *d d* and pins *fff*, and placed between the brood-chamber A and chamber H, all as and for the purposes set forth.

3. The combination with the brood-chamber A, constructed as herein described, of the nucleus-cap I, chambers J J, frames K K, troughs or feed-boxes

*m m*, and entrances *m' n*, all substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 10th day of October, 1870.

H. S. HARNED.  
F. S. ELLIOTT.

Witnesses:

O. CARROLL,  
I. R. HOYER.