

H. M. JOHNSON & C. M. BARKER.

Honey-Boxes for Bee-Hives.

No. 134,674.

Patented Jan. 7, 1873.

Fig. 1.

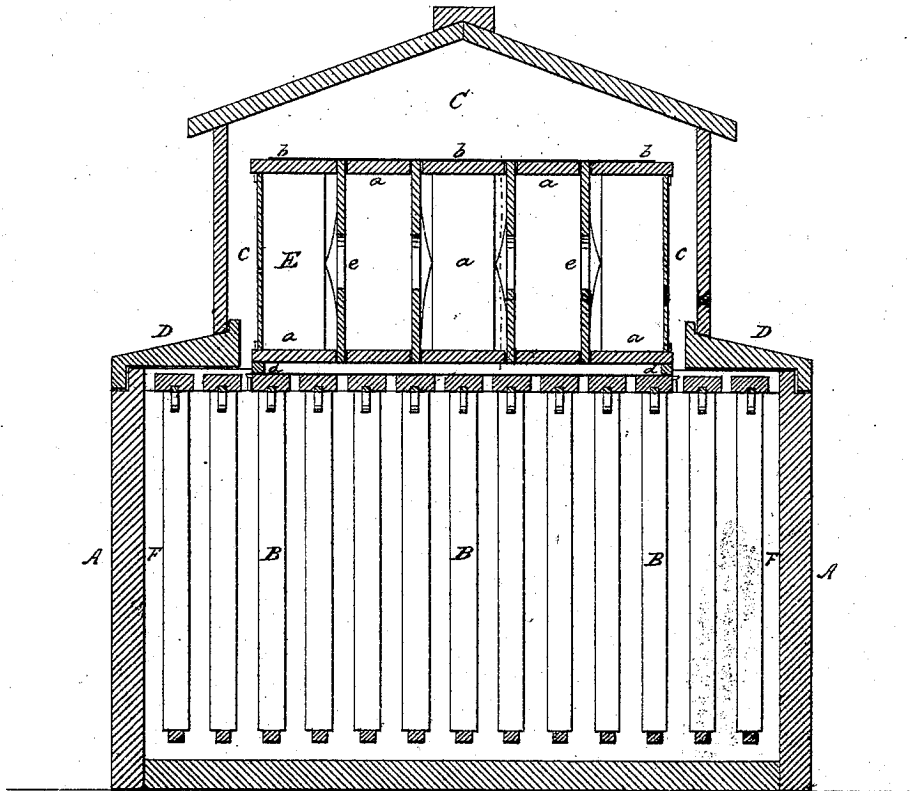
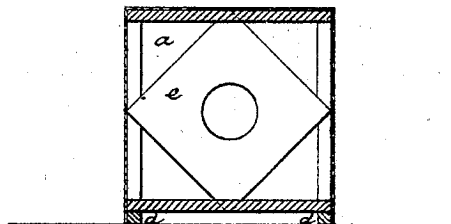


Fig. 2.



Witnesses.
H. A. Sinekob
J. W. Howard

Inventors:
H. M. Johnson and
C. M. Barker,
by F. W. Rothwell,
Attorney.

UNITED STATES PATENT OFFICE.

HARLEY M. JOHNSON, OF MARSHALL, AND CASSIUS M. BARKER, OF ALBION,
MICHIGAN.

IMPROVEMENT IN HONEY-BOXES FOR BEE-HIVES.

Specification forming part of Letters Patent No. 134,674, dated January 7, 1873.

To all whom it may concern:

Be it known that we, HARLEY M. JOHNSON, of Marshall, and CASSIUS M. BARKER, of Albion, both in the county of Calhoun and State of Michigan, have invented certain Improvements in Bee-Hives, of which the following is a specification:

This invention relates to certain improvements in that class of bee-hives wherein a number of small boxes are detachably secured together in such manner that they form one continuous chamber or box; the object of this construction being the accomodation of the bees and the trade, as it is well known that bees work best in a large box, and also that honey sells best in small boxes. The invention consists in making the boxes of two narrow and two broad strips of wood, two of the same kind being placed opposite each other in constructing the box, so that when two or more boxes are placed together, the narrow sides of one box being arranged next to the broad sides of another, a space is left between the boxes on all sides equal in width to one-half the difference between the breadth of the narrow and broad sides. The invention also consists in securing a number of boxes thus constructed together by means of strips of wood nailed or otherwise fastened to the edges of one side thereof, and then covering the other three sides of said boxes with paper and the ends with glass, so as to render the box thus formed warm and tight, the several small boxes being separated from each other by perforated division-boards inserted in the spaces between them.

In the accompanying drawing, Figure 1 is a vertical transverse section of a hive provided with my improvements. Fig. 2 is a vertical cross-section of one of the boxes, showing the division-boards and strips for securing the boxes together.

A represents the lower part or brood-chamber of the hive, preferably made of greater width than length, having suspended therein any number of comb-frames B B, and having any suitable guarded entrance for the bees. C is the cap, of less width than the brood-chamber; and D D are side covers, operating in connection with the cap to protect the lower part of the hive, the latter also being capa-

ble of ready removal for allowing access to the brood-chamber without removing the entire cap. E E are honey-boxes, made of two narrow strips, *a a*, of suitable material, and two broad strips, *b b*, secured together in any suitable manner, the two of the same kind being arranged opposite each other, so that the portions of the broad strips projecting beyond the narrow ones form ledges on which glass or other ends *cc* to the boxes are secured. When two or more boxes are placed together, the broad strips of one and the narrow strips of the next being adjacent to each other, a space or opening is formed on all sides between the boxes of the width of the projecting portion of the broad strips, and thereby entrances into the boxes are provided for the bees.

As before stated, bees work best in a large box, but small boxes of honey sell best in the market, and that the bees and the trade may be accommodated a number of small boxes, constructed as described, with the glass ends removed, are secured together by means of strips of wood *d d*, attached to the under side, on the outer edges, of the boxes. The box thus formed is then covered on its three other sides with paper and the ends with glass so as to form a tight and warm single box. When these large boxes have been filled with honey the strips *d d* are removed and the small boxes separated by cutting through the paper covering, the object of the paper covering being fulfilled while the boxes were united as one box. The glass ends are then placed in the small boxes and they are ready for market.

Division-boards *ee* are arranged in the spaces between the boxes in the manner shown—that is, by springing diagonal corners of said boards in them, or in any other manner—for the purpose of causing the bees to build the comb within each small box; and said division-boards can be readily removed by so turning said boards as to draw their corners from the spaces between the boxes, or by springing them out, for the purpose of inserting guide-combs, if deemed necessary. The openings in and around these perforated division-boards allow the bees to go from one portion of the box to another. Any number of these boxes allowable are placed upon the comb-frames, their length being in a direction opposite to

the lengths of said frames, so that the bees can pass up from the lower hive or brood-chamber through the spaces between the small boxes into the large boxes, that portion of the boxes not covered by paper being, of course, the bottom upon which they rest, and through which the bees pass. Boxes may be placed at the sides of these and on top, if necessary, and access had thereto from the others by removing portions of the paper.

We claim an advantage in thus making these entrances from the hive to the boxes come between the combs of honey, or between the small boxes, as the bees will then fill the whole space inside the small box, and also attach the comb to all four sides of said box, thus leaving it in better shape for shipping.

At the sides of the stationary but detachable comb-frames B spaces F F are left, in which it has been discovered the bees like to store honey, and in these spaces comb-frames may be loosely suspended, if desired, so that the honey so stored may be removed, extracted, and the frames replaced. The covers D D are arranged over these spaces, and as they can be readily removed without taking off the cap, but simply raising it, the bees, honey-boxes, and other comb-frames will not be disturbed in the

least when the loose frames are taken out. By this means also the interior of the hive can be readily inspected. The cap C rests upon these covers and aids in keeping them in place.

We claim as our invention—

1. A honey-box made of alternate broad and narrow strips of wood or other material and glass or other ends in such manner that when two or more boxes are arranged together, the narrow strips of one box being adjacent to the broad strips of the next, a space will be formed between said boxes on all sides, constituting entrances thereto.

2. A honey-box constructed of two or more small boxes, as described, secured together by strips of suitable material attached thereto, the box thus formed having three sides covered with paper and the ends with glass and provided with perforated division-boards, all substantially in the manner, and for the purpose specified.

Signed and witnessed this 11th day of September, 1872.

HARLEY M. JOHNSON.
CASSIUS M. BARKER.

Witnesses:

OTTO LEE JOHNSON,
B. J. GLASGOW.