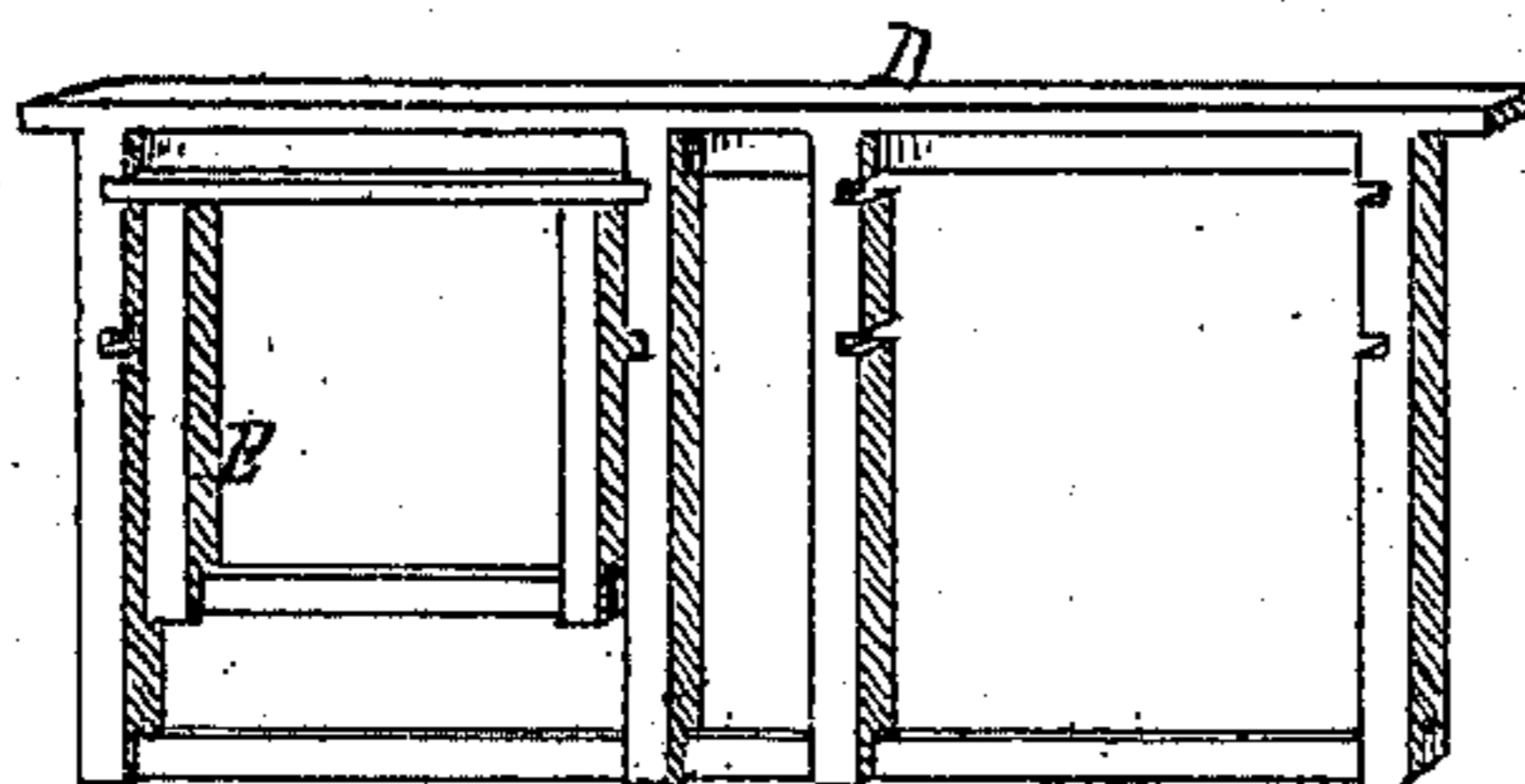
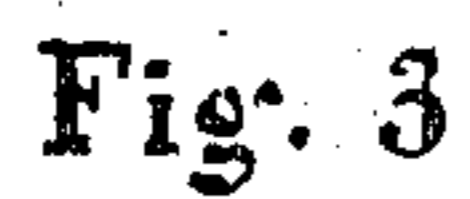


## Improvement in Bee-Hives.

Patented July 2, 1872.

Fig. 2



Witnesses:  
H. S. Sprague  
C. F. Everts

A. H. Hart  
Per Atty-  
Thos. S. Sprague

# UNITED STATES PATENT OFFICE.

ALEXANDER H. HART, OF APPLETON, WISCONSIN, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO LEWIS C. PATTERSON, OF SAME PLACE.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 128,619, dated July 2, 1872.

*To whom it may concern:*

Be it known that I, ALEXANDER H. HART, of Appleton, in the county of Outagamie and State of Wisconsin, have invented a new and useful Improvement in Bee-Hives; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a longitudinal vertical section of my hive. Fig. 2 is a cross-section of the same. Fig. 3 is a perspective view of the same with the intermediate section ready to slip down over the lower or brood chamber for wintering. Fig. 4 is a perspective view of one of the long combination comb-frames.

This invention consists in constructing the brood-chamber of the hive with reversible sides for the purpose of making desired changes for summer and winter, as will be described hereafter.

In the drawing, A represents the bottom or floor of the lower or brood chamber of the hive. A<sup>1</sup> is the front end wall. A<sup>2</sup> is the back end wall, and A<sup>3</sup> are the side walls, which are paneled on one side with a layer of tarred roofing-felt between the panel and body to secure the greater warmth in winter; the end walls being doubled and lined in like manner. The end walls are secured to the floor, while the side walls are reversible, being held in place by engaging with the head of a wood-screw, a, at the front end projecting from the front wall, and by a wire clamp, b. In winter the panels are on the inner side of the lower chamber. The front end wall is set back within the ends of the side walls to form a portico. In the bottom of the front wall there are one or more apertures, c, for the passage of the bees in and out of the brood-chamber. In the back end there is an opening for ventilation, closed by a slide, d. This opening may also be used as an entrance to the brood-chamber, if desired. In the upper part of the front wall there is a horizontally-slotted passage-way, c', which may be opened or closed by a regulating-apron, B, of the form shown in Fig. 1, sliding in grooves in the side walls. C is an alighting-board, which, during the working season, is slipped under the front edge of the hive, and

during the winter it is hung across the portico; a projecting stud at each upper corner being provided to enter notches in the end walls, which allow the alighting-board to be raised one-fourth of an inch at the bottom and crowded back the same distance at the top to form a passage-way at the top and bottom to the interior of the portico. Near the bottom of the alighting-board there is a three-eighths inch hole fitted with a tin-tube, e, which can be used to trap robber bees and for the exclusion of drones which have left the hive, in which case it is in the position shown in Figs. 1 and 3; otherwise in summer it is under the front edge of the hive. In the body of the hive I make use of either long frames running lengthwise of the chamber, or shorter ones running crosswise, on which to support the combs; but, for procuring eggs for starting nucleus hives or for supplying boxes for queen-breeding, as hereinafter described, such a frame as is shown in Fig. 1, at D, provided with partition studs, in which are hung the small frames E, may be used for the purpose; in all cases, the frames are supported by the in-turned panels, on which their projecting ends rest. F F are two half honey-boxes, each of which has three small openings, f, and a larger one, g, at the front end, which straddles the top of the front wall, so that the bees may pass up into the boxes from the portico or from the body of the hive. G is a rectangular frame, large enough to slip down on the body of the hive when the panels are turned inward. When turned out it rests upon the edges of the panels. H is the cap-box of the hive, and is doweled to rest upon the frame G, or the latter may be removed and the box rest on the panels of the brood-chamber. In the former case the hive is virtually a three-story affair, as two tiers of comb-frames, or a tier of comb-frames and a pair of honey-boxes, may be placed in the upper part of the hive, such boxes being shown at I I, Figs. 1 and 2, and in which boxes are suspended the nucleus-frames E. The lower front edge of the box H is cut away to make a passage-way for the bees into said box, and also to receive the regulating-board B, which may serve as an alighting-board, or to close it entirely, as desired. The frame G, when not used to form an intermediate story, may be laid on top of

the hive or stored where it will be protected from the weather. The boxes I, when used for queen-raising, are provided with one or more transverse partitions, I', Fig. 1, which subdivide it into cells, in which are hung the nucleus-frames E. Access is had to these cells through an aperture, h, at the side of the box for the middle cell, and through a similar opening at the ends for the end cells. These cell-openings are provided with grated covers, and the box is covered with glass to enable the bee-keeper to note the developments within.

In this manner I am enabled to raise from twenty-five to fifty queens per month in the two boxes.

To encourage or entice the bees to enter and work the upper part of the hive, a couple of filled comb-frames may be hung across the portico, within the alighting-board C, when in the position shown in Fig. 1, and, by means of the honey-boards and regulating devices, they may be confined to any part of the hive or allowed access to all parts. In this way, by proper manipulation, the bees may be made to work

as industriously during the flourishing part of the honey season as when first put into the hive at the time of swarming, and they will continue to work at the same rate as long as they can gather advantageously, thereby largely increasing the yield to each swarm.

During the winter season the intermediate story frame and the cap-box are let down over the body, whose panels are turned inward for the purpose, and thus giving quadruple walls the hive is much warmer than any heretofore used, while ample provision is made for ventilation.

What I claim as my invention, and desire to secure by Letters Patent, is—

The brood-chamber A A<sup>1</sup> A<sup>2</sup> A<sup>3</sup>, the sides A<sup>3</sup> being reversible, as described, for the purpose of making the necessary changes for summer and winter, as set forth.

ALEXANDER H. HART.

Witnesses:

L. C. PATTERSON,  
A. H. CONKEY.