

# D. LATCHAW. Improvement in Bee Hives.

No. 123,632.

Patented Feb. 13, 1872.

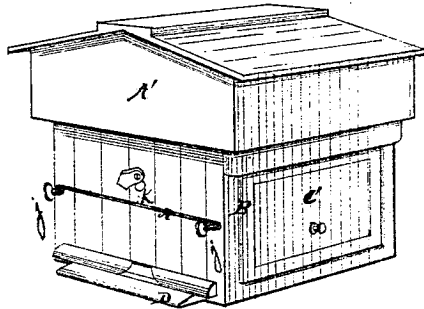


Fig. 1.

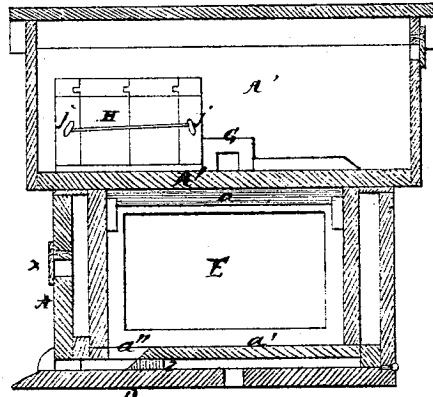


Fig. 2.

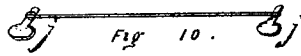


Fig. 10.

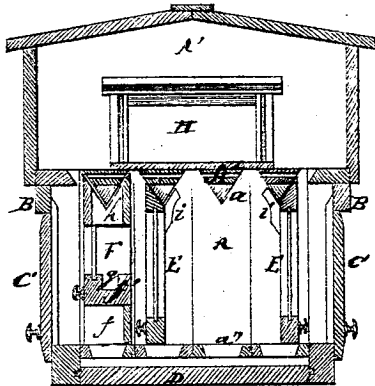


Fig. 3.

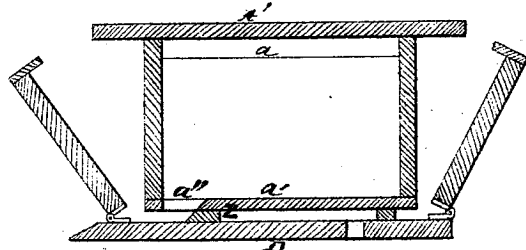


Fig. 4.

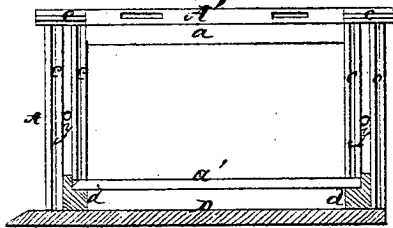


Fig. 5.

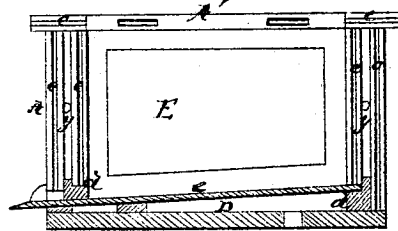


Fig. 6.

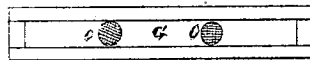


Fig. 9.

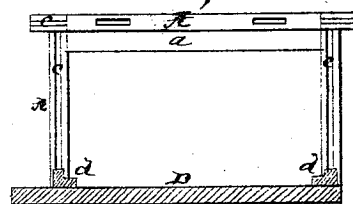


Fig. 7.

Witness.

*M. Liker*  
*H. Barkley*

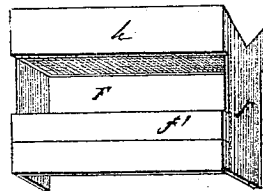


Fig. 8.

Inventor.

*David Latchaw*

# UNITED STATES PATENT OFFICE.

DAVID LATCHAW, OF BARKEYVILLE, PENNSYLVANIA.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 123,632, dated February 13, 1872.

### SPECIFICATION.

I, DAVID LATCHAW, of Barkeyville, in the county of Venango and State of Pennsylvania, have invented a new and Improved Bee-Hive, of which the following is a specification:

My hive comprises features which I do not claim to be novel; such, for instance, as an arrangement of comb-frames designed to form a suitable inclosure for bees without the use of the usual cover or case; also, removable comb-frames, with top bars, beveled on the under side, and with central cross-bars; also, sectional "supers," or surplus honey-boxes; also, inclined bottom-board; but my invention consists in a peculiar construction of the feed-box, as hereinafter specified.

In the drawing, Figure 1 is a perspective view, Fig. 2 is a longitudinal section, and Fig. 3 is a transverse section of my hive. Fig. 4 is a longitudinal section, showing one method of hinging the end-boards of the hive having end-boards. Fig. 5 is a longitudinal section, showing the grooved double frame standing on a flat-bottom board. Fig. 6 is a longitudinal section, showing the same frame standing on a slanting double-bottom board. Fig. 7 is a view of a comb-frame made with single upright ends. Fig. 8 is a view of the feeder. Fig. 9 is a view of the movable ventilator. Fig. 10 is a detached view of the clamp or binder.

A in the various figures represents the comb-frames, or rather that part of the comb-frames which makes the outer end walls of my hive, A' representing the upper or cross-bar of the frames on which the upright bars are secured. The upper bars A' are provided with a triangular strip, *a*, the upper bar being chamfered off in accordance with the sides of the strip *a*, except a small portion at the ends where the frames meet. The upright bars are full width, and when several frames are placed together they join and form a continuous wall; and some of the frames I make with a bottom strip, *a'*, which also, when united, makes a floor. Thus the comb-frames constitute the main walls of my hive, dispensing with an outside shell or box. To insure the frames fitting closely I make a tongue, *c*, on one edge or side of the frames, both uprights and top rails, where they meet, by which the frames are matched to-

gether, and when together cannot slip either up or down or sidewise.

This construction also prevents the admission of heat, cold or moisture, thus rendering the interior of the hive more equable in temperature. It likewise facilitates handling of the frames or hive as a whole, since jarring, displacement, &c., of the comb are largely obviated, and the bees less frightened or irritated.

For closing up the sides of the hives I make a plain frame, B, having tongues and grooves to match the frames, in which frames B I have a door, C, which may be removed for examining the inside and for placing in the feed-boxes or movable partitions. D represents a bottom board on which I set the frames, which is a plain board having two chests, *d d*, fastened across near the ends, having a rabbet on their upper sides in which the bottom of the frames set. The bottom of the frames being raised leaves an airspace between them and the board D. Some of the bottom boards I make with a slanting board, *e*, resting on the rear cleat, the front end having a cleat on top of the board *e*. The airspace is then between these two bottom boards, the said board *e* forming the floor of the chamber, in which case I leave off the bottom strip of the frames A. The frames that have the bottom strip on then are provided with a mortise, *a''*, at the front lower corner for the entrance of the bees. E E are partitions made in the form of sash, and are glazed for the purpose of admitting light and enabling one to see the operations of the bees. The top bars of the sash are beveled off, so as to rest against the triangular sides of the top bars of the frames A, and are provided with a small bracket, *i*, on their upper corners to keep them in place. These partitions may be set in any of the frames A, and are convenient for dividing the hive into two rooms, if desired, or one may be set in each side near the doors C. F, Figs. 3 and 8, represents a feeding device, which consists of a frame having two upright posts or bars, *f f*. Near the middle of them is a cross-bar, *f'*, having a groove or trough, *g*, in it. The top of the frame is made in the form of a trough, *h*, which has a cloth bottom. The trough *h* is intended to contain honey, which saturates the cloth and from which the bees may feed. This feeder may be placed in any of the frames. The

trough *g* is designed to receive the drippings of the honey, should such occur, by reason of undue heat or coarseness of fabric forming the bottom of the box. *G*, Figs. 2 and 9, represents a movable ventilator, consisting of a long narrow box, which lies across the top of the frames *A*, and has openings *o o* in the top covered with wire-gauze. These ventilators I use when I have small honey-boxes in the hives, but which may be removed if larger boxes are required. *H*, Figs. 2 and 3, represent sectional honey-boxes, which are constructed in a similar manner to the comb-frames, being made in the form of frames having tongues and grooves by which they may be matched together, the side frames having glass in them. Each of the frames is designed to hold one comb. *J*, Figs. 2 and 10, represents a clamp or binder for securing any number of frames together; and consists of a piece of annealed wire or cord of sufficient strength, the ends being secured to thumb-pins *j j*, which are fitted tightly in holes made in the outside frames. To bind the frames together the thumb-pins may be turned, and winding up the cord or wire hold the frames firmly together. The cap *A'* is made in the ordinary manner, having a rabbet in the lower inside edge fitting over the edge of the frames, and is provided with ventilators in the upper

corners. An opening and a little trap-door, *x*, is provided by which bees may be allowed egress should any find their way into the air-space. In the hives that are made up of the frames without the hinged ends the openings are made in the outside, having the doors as seen at *y*, Figs. 5 and 6. A strip of wood, *z*, lying on the bottom board *D*, upon which the frames *A* rest, prevents the bees passing into the air-space under the chamber, and it is beveled off on the front edge in line with the opening *a''* to enable the bees to crawl up into the chamber. In the hive, when the slanting bottom is used, this strip is not needed.

I do not claim hollow walls in a bee-hive, nor a feed-box adapted to slide in and out, nor the binding together of several comb-frames by means of wire-cord, &c.; but

What I do claim is—

In combination with the comb-frames, provided with bevel-top bars, the feed-boxing having notched end bars and honey-receptacles, and trough *g*, the same being adapted to fit into said frames, as and for the purpose specified.

DAVID LATCHAW.

Witnesses:

M. LIKEN,  
H. BARKEY.