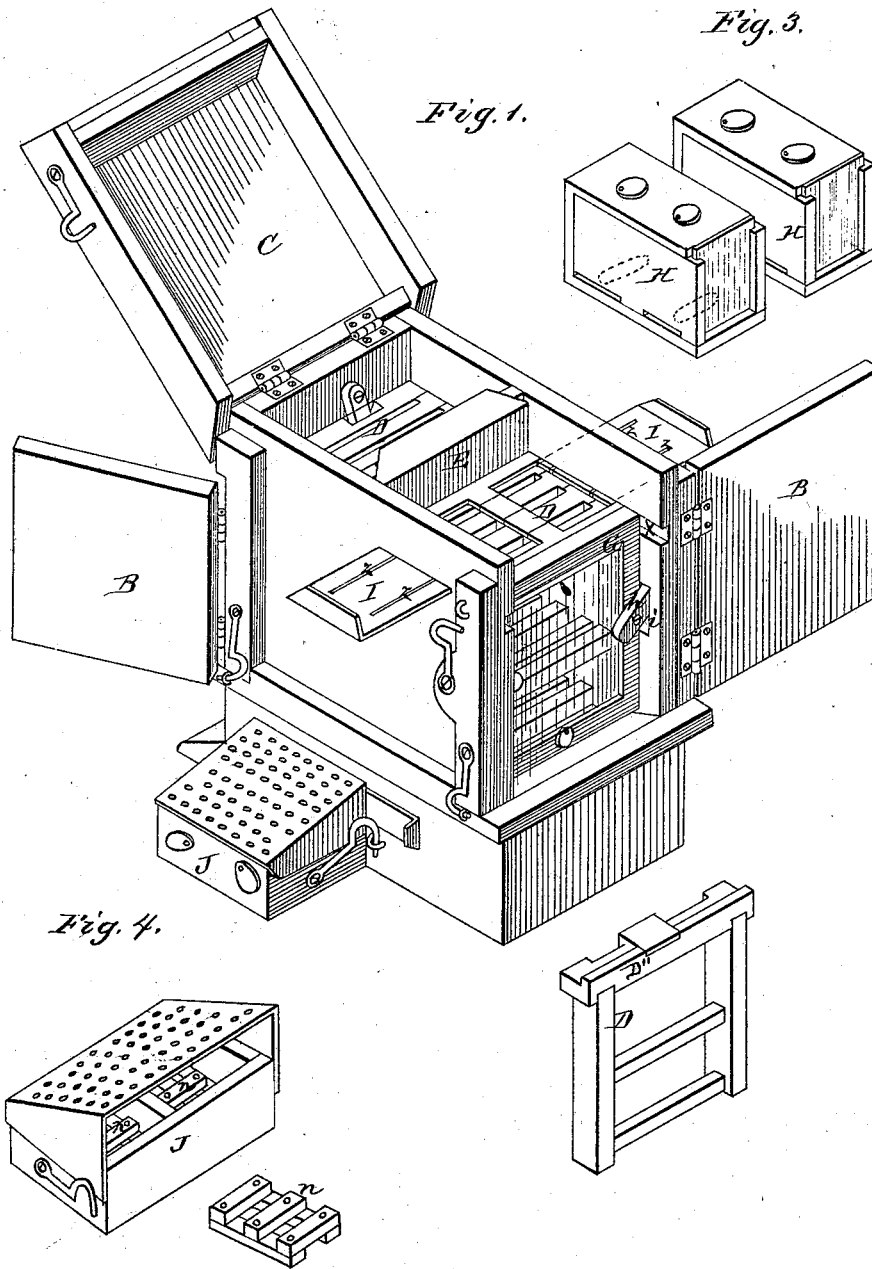


W. VANURDER.  
Bee-Hives.

2 Sheets--Sheet 1.

No. 166,163.

Patented July 27, 1875.



WITNESSES  
*Henry N. Miller*  
*C. L. Evert*

By

INVENTOR  
*Wm Vanurder,*  
*Alexander Mason*  
Attorney

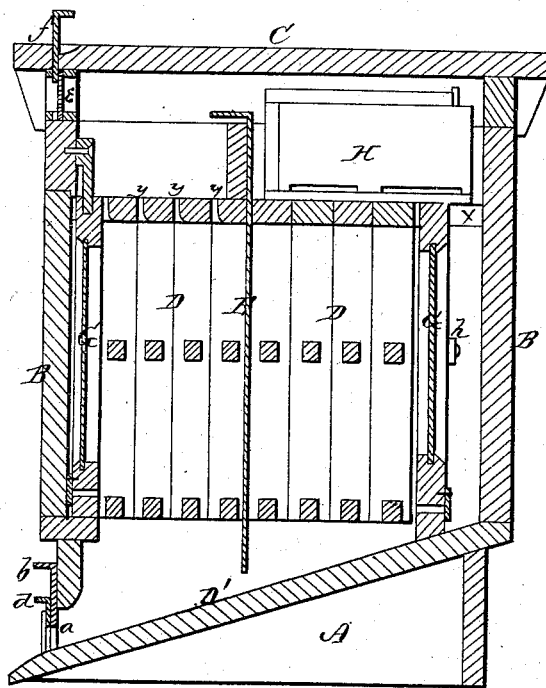
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Fig. 2.



WITNESSES

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B11

INVENTOR

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Alexander Mason

Attorney

# UNITED STATES PATENT OFFICE.

WILLIAM VANURDER, OF WOODBURY, INDIANA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN FREDERICKSON.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 166,163, dated July 27, 1875; application filed June 8, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM VANURDER, of Woodbury, in the county of Allen and in the State of Indiana, have invented certain new and useful Improvements in Bee-Hives; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

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

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

Figure 1 is a perspective view of my bee-hive thrown open and the top honey-boxes removed. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a perspective view of the honey-boxes. Fig. 4 is a perspective view of the feed-box.

A represents the hive proper, having front and rear doors B B, and hinged lid or cap C. D' represents the bottom of the hive, which is inclined downward from the rear to the front, and projects a suitable distance in front to form the alighting-board. Immediately above the same is the bee-entrance *a*, extending the entire width of the hive. Over this entrance is a perforated slide, *b*, with aperture in the center to form a smaller or contracted entrance when the slide *b* is closed. The aperture in said slide may be closed by another slide, *d*, and when thus closed ample ventilation is had through the perforation of the main slide *b*. In the front part of the lid C is an aperture, *e*, covered with perforated sheet metal or wire-cloth to form the upper ventilator, and this may be closed when desired by means of a slide, *f*. D D represent the comb-frames, made in the usual rectangular form, with the top bar D'' extending a trifle beyond the side bars to enter grooves *x x* made in the sides of the hive to receive the same, and thereby support the comb-frames. These comb-frames work either from the front or rear of the hive, as desired, and fit close to the sides of the hive, forming a double wall, which is a great protection to the bees in winter, and a particular

prevention against vermin secreting themselves between the comb-frames and hive in order to prey upon the labor of the bees. E is a dividing-board, made of zinc or other suitable material, to divide the hive to suit any sized swarm of bees, and which is also used for separating the bees from any frame or frames that it is desired to take out. The comb-frames and dividing-board are held in the hive between two sashes, G G, with glass fastened therein, the rear one of said sash being held by means of pivoted buttons *h h*, entering inclined grooves *i i* in the sides of the hive, to wedge the parts closely together. The tops of the comb-frames are formed with bee-passages *y*, forming communication with the honey-boxes H H on top. This communication may be shut off when required by means of horizontal slides I I, which have narrow slots *z* made in them, to allow ventilation when the bees are shut off from the honey-boxes. To one side of the hive is detachably attached a feed-box, J, to which communication is had through a suitable aperture, provided with a slide, *m*, for closing the same when desired. The feed-box is provided with a perforated top, as shown, and interior floats *n n*.

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

1. The combination of the hive, having grooves *x x*, the comb-frames, having extended top bars D'' fitting in said grooves, and the slotted slides I, sliding in spaces in the top bars of the frames, substantially as and for the purposes herein set forth.

2. In combination with the hive A, having grooves *x x*, the comb-frames D D, fitting into the grooves *x*, the sash G G, with buttons *h h* entering inclined grooves *i i* in the sides of the hive, for wedging the parts closely within the hive, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of April, 1875.

WILLIAM VANURDER.

Witnesses:

C. W. EDSALL,  
J. H. FLEMING.