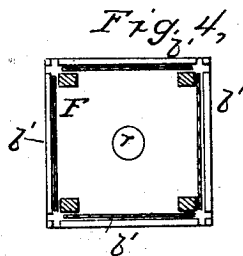
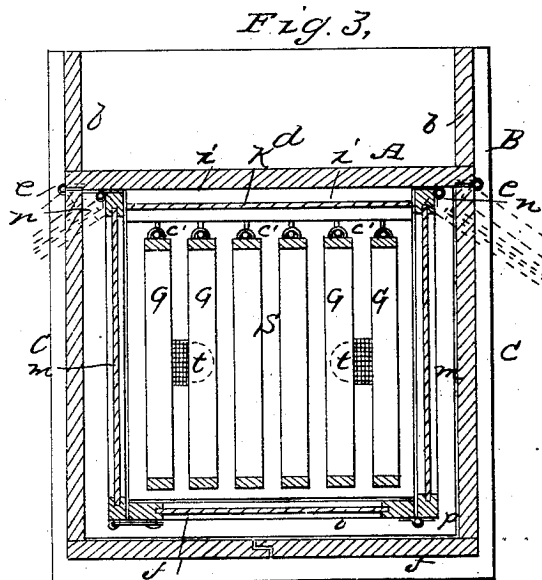
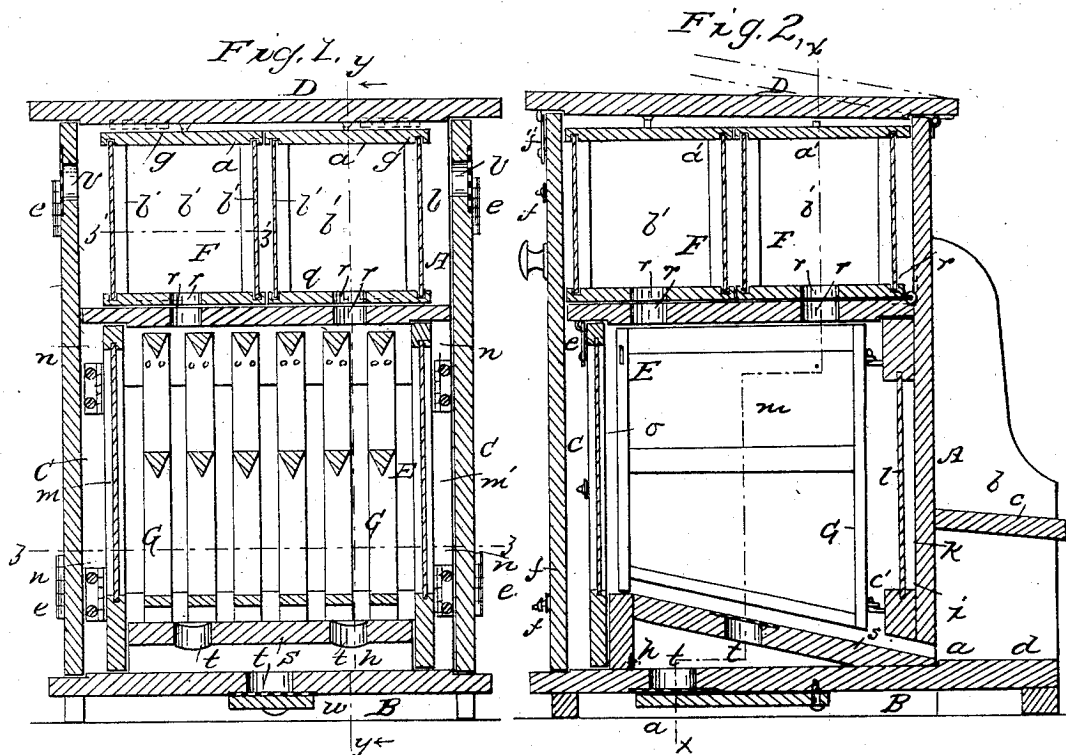


J. S. MARSHALL.

Bee Hive.

No. 35,031.

Patented April 22, 1862.



WITNESSES:
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UNITED STATES PATENT OFFICE.

J. S. MARSHALL, OF WEST GREENVILLE, PENNSYLVANIA.

IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 35,031, dated April 22, 1863.

To all whom it may concern:

Be it known that I, J. S. MARSHALL, of West Greenville, in the county of Mercer and State of Pennsylvania, have invented a new and Improved Bee-Hive; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a vertical section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a horizontal section of the same, taken in the line *z z*, Fig. 1; Fig. 4, a detached horizontal section of one of the spare-honey boxes, taken in the line *z' z'*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in constructing a bee-hive, in the manner hereinafter described, so that it may be unfolded and the whole of its contents exposed and rendered accessible to the apiarian for the purpose of transferring, dividing, and feeding the bees, destroying drones or old queens when unfertile, cleansing the hive, and giving the bees young queens or combs with queen-cells in them; also, for the purpose of removing old combs or changing the position of the same in the hive, all of which operations are performed by the successful apiarian.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the front board or side of the hive. This board is of rectangular form, and its lower end is secured at right angles to the bottom B of the hive, an opening, *a*, being made in its lower edge to admit of the bees passing into the hive. To the outer side of the board A there are attached two side pieces, *b b*, and a horizontal piece or cover, *c*, between, which serves to shelter an alighting-board, *d*, the latter being formed by the extension of the bottom B beyond the opening *a* in the lower end of the front board, A, of the hive.

C C represent two opposite side boards of the hive. These boards are of rectangular

form, and are hinged at their front edges, as shown at *e*, to the sides of the front board, A.

The back board of the hive is formed of two equal parts, *f f*, which are permanently secured to the back edges of the side boards, C C, one part *f* to each side board. (See Fig. 3.)

D is the top of the hive, which is simply a rectangular board secured at its front part by hinges *g g* to the top of the front board, A. (See Figs. 1 and 2.)

On the upper surface of the bottom B of the hive there is a raised portion or ledge, *h*, the edges of which form shoulders or stops for the lower parts of the sides C C *f f* to bear against when closed.

The sides A C C *f f*, bottom B, and top D form the external case of the hive, and within this case there is a smaller case, E, of rectangular form, the sides of which are formed of sashes. The front sash, *i*, is secured permanently to the inner side of the front board, A, of the external case. The sash *i* is formed of a rectangular wooden frame, *j*, with a glass plate, *k*, inserted in it, a dead-air space, *l*, being allowed by the thickness of the frame *j* between the glass *k* and the board A. (See Fig. 2.) The two side sashes, *m m'*, of the inner case, E, are constructed precisely similar to the sash *i*, and they are secured at their front sides or edges to the inner side of the board A by hinges *n n*. The back edge of the sash *m'* has a sash, *o*, attached by hinges *p*. These sashes when closed form a tight inner case, and it is provided with a top board or cover, *q*, the front edge of which is attached to the inner side of the board A by hinges *r*. On the bottom B there is secured an inner or false bottom, *s*, which is inclined downward from its back to its front end, as shown in Fig. 2. The bottom *s* and bottom B are both perforated with holes *t*, which are covered with wire-cloth *u*, and the sides of the external case are also perforated with holes *v*, covered with wire-cloth. These holes are ventilators, and the draft produced by them through the hive may be regulated by a cover or slide, *w*, arranged to work over the holes *t* in bottom B, there being only one hole in said bottom.

F represents rectangular spare-honey boxes,

which may be formed of wooden frame *a'* with glass sides *b'*. These boxes are placed on the top board, *q*, which, as well as the bottoms of the boxes *F*, are perforated with holes *r* to allow the bees to pass into them from the inner case, *E*.

The interior of the case *E* is provided with comb-frames *G*, the front edges of which are attached by hinges or joints *c'* to the frame *j* of the sash *i*.

From the above description it will be seen that when the contents of the hive require to be inspected or manipulated in any way the top *D* of the external case is raised, the sides *C C* and back *f f* spread open. This exposes the inner case, *E*, and spare-honey boxes *F*. If access is required to the comb-frames *G*, the boxes *F* are removed, the top board, *q*, raised, the side and back sashes, *m m' o*, spread open, and the comb-frames *G* are thereby fully exposed, and may be spread apart in consequence of being attached to the front sash, *i*, by hinges or joints *c'*. When the internal case, *E*, is closed, its sides are secured in proper place by a hook, *d'*, and its

top board, *q*, is kept down by a hook, *e'*. The two parts *f f* of the back of the hive are kept in contact by hooks *f'*, and the top *D* is kept down by hooks *f''*.

I am aware that comb-frames *G* have been secured or hung within hives by hinges or joints, as herein described; and I am also aware that the external cases of hives have been provided with sides to spread open like doors; and I therefore do not claim, broadly, such parts irrespective of the construction and arrangement of the whole, combined as herein set forth.

I claim, therefore, as new and desire to secure by Letters Patent—

The combination of the external and internal cases of the hive, when both are constructed and arranged, as herein shown and described, so as to be capable of being spread open, as and for the purpose set forth.

J. S. MARSHALL.

Witnesses:

WM. BUCK,
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