

J. M. BYRD & W. H. PERKINS.

Bee-Hive.

No. 215,569.

Patented May 20, 1879.

Fig. 1.

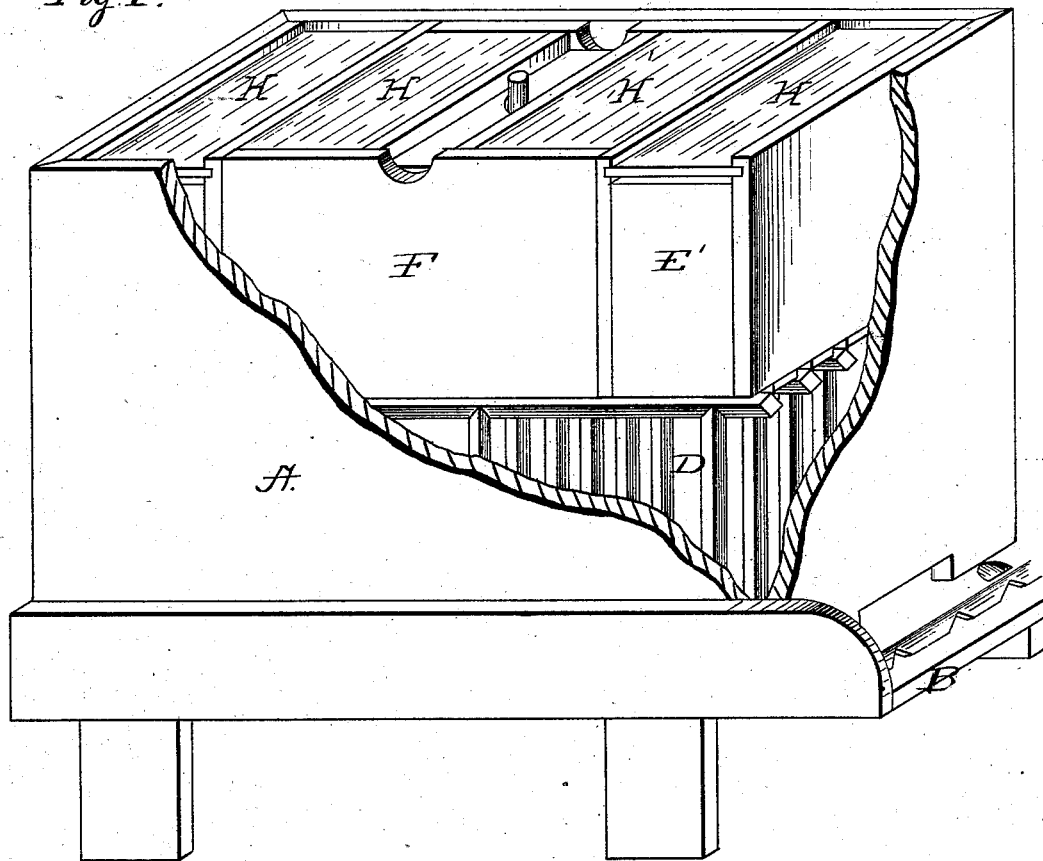
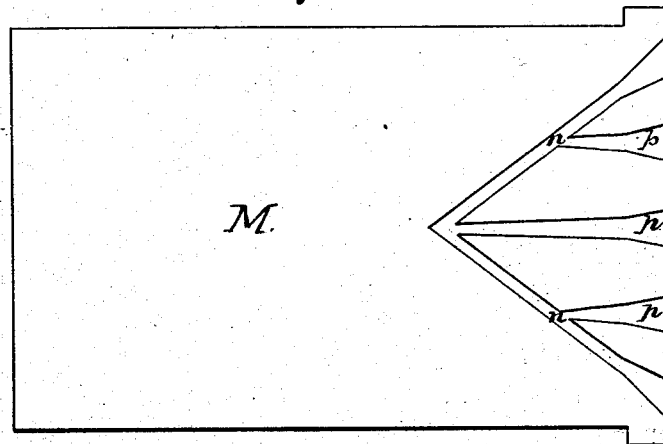


Fig. 5.



WITNESSES

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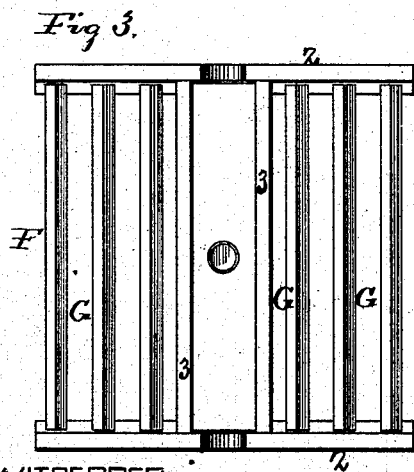
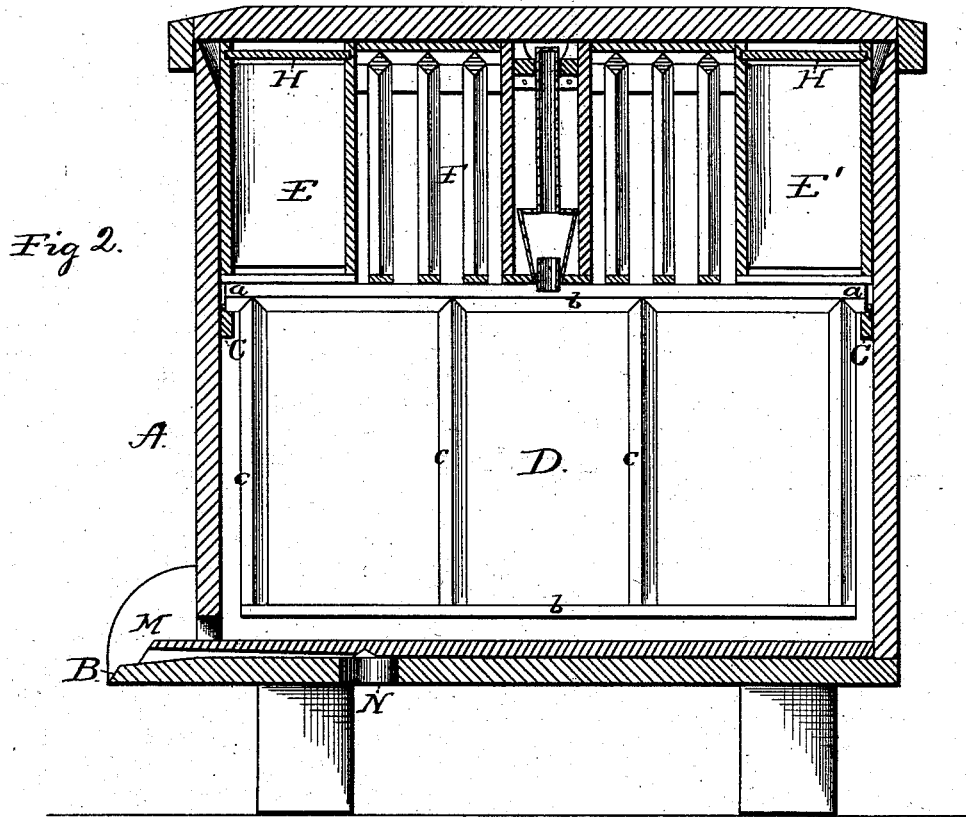
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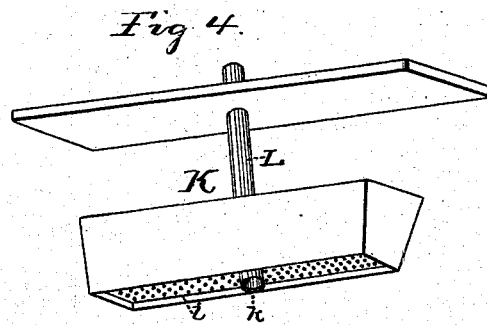
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# UNITED STATES PATENT OFFICE.

JOHN M. BYRD AND WILLIAM H. PERKINS, OF MAYSFIELD, KENTUCKY.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. **215,569**, dated May 20, 1879; application filed January 17, 1879.

*To all whom it may concern:*

Be it known that we, JOHN M. BYRD and WILLIAM H. PERKINS, of Maysfield, in the county of Graves and State of Kentucky, have invented a new and valuable Improvement in Bee-Hives; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of the hive, with the top removed and a part of the case broken away to show the interior. Fig. 2 is a horizontal central sectional view of the hive. Fig. 3 is a plan view of the comb-frame carrying the bee-feeding device. Fig. 4 is a perspective of the bee-feeding device. Fig. 5 is a bottom view of the removable board, showing a series of passages forming the moth-trap.

This invention has relation to bee-hives and means for feeding the bees in bad weather or in protracted winter seasons.

Our improvements consist, first, in the peculiarly-constructed comb-frame honey-box, provided with the novel bee-feeding device; secondly, in the construction of the bee-feeding device; thirdly, in a moth-trap formed by means of the landing or sloping board which forms the bottom of the hive, and a removable board provided on its under side with a series of communicating passages arranged between the landing-board and the bee-entrance to the hive, as will be hereinafter more fully set forth and specifically claimed.

In the annexed drawings, forming a part of this specification, the letter A represents the outer frame or casing of the hive, provided with a landing-board, B, its front end projecting beyond the front of the hive. The inner front and rear walls are provided with transverse cleats C, having a series of V-shaped notches, equidistant apart, to receive the projecting ends *a* of the suspended comb-frames D. These comb-frames D are of an oblong shape, so as to extend the entire length of the hive, and are composed of two horizontal bars, *b*, the upper one having short projecting ends, diamond shape in cross-section. The bars are braced at intervals, as may be suitable, by

means of cross-bars *c*. The frames, constructed substantially as described, are arranged in the V-shaped notches formed in the cleats *c* in their respective order, thereby constituting the breeding-chamber. Immediately over these comb-bars are arranged a number of honey-boxes, E E' F. The end honey-boxes, E E', are of the well-known shape and size. The intermediate honey-box, F, is formed of two horizontal end pieces, 2, and two transverse partitions, 3, extending from the top to the bottom, or nearly so. Within this chamber, formed by the end pieces and the partitions, is arranged or placed the device for holding the saccharine matter to feed the bees, hereinafter more fully described. On each side of the chamber containing the feeder is arranged a plurality of small comb-frames, G, suspended in notches in the cleats attached to the side walls of the end pieces. The upper surface of these comb frames or boxes is provided with glass covers H, thus making two honey-collecting chambers in the frame for containing the bee-feeding device.

It is known that during the winter seasons, when, on account of the bad weather, the lateness of the swarm, or other cause, the bees have not honey enough to support them, they require to have food furnished them; and even if this is not the case, a supply of extra food given them for a short time in the spring promotes their activity, and greatly conduces to their summer prosperity. The food ordinarily supplied to bees is a coarse kind of honey, or sugar and water, or saccharine juice. We have made provisions for feeding the bees in our hive by means of a device, K, for containing the sugar and water or saccharine juice.

By reference to the drawings, Fig. 4, it will be seen that it consists of a metallic case, oblong in length and triangular in cross-section. The bottom *i* is perforated, for the purpose of affording passage of the material to the surface, and an aperture, *k*, is made at the center for supplying the interior of the chamber with the feeding substance. Immediately above this opening extends a hollow handle, L, closed at its top. The central opening in the perforated bottom is provided with a collar or flange, which extends upwardly into the inte-

rior of the chamber (see Fig. 2) any desired height to retain the material at a common level or prevent the escape of the substance through the opening *k*. The material is introduced into this device by inverting it or having the handle downward, and pouring the substance through the opening *k* until the chamber is filled, or nearly so, with the substance. Then the device is taken to the honey-box having provisions to receive it, and placed therein, the perforated bottom registering with the opening in the bottom of the honey sash-frame F.

Immediately above the landing of the bee-entrance to the hive is a moth-trap, formed by means of a sliding board, M, the under side of which is provided with two diverging grooves or passages, *m*, meeting at their inner ends at a point over the opening N in the landing-board D of the hive. A number of intermediate passages, *p*, extend backward and communicate with the diverging passages *n*. This sliding board projects beyond the entrance to the bee-hive, and the openings thereof are too small to admit of the passage of the bees, but large enough for the moths to pass. The moth, in endeavoring to enter the hive, comes in contact with these decoy-passages first, and, being attracted by the light passing through the opening in the bottom board of the hive, enters, lays her eggs, and departs through the opening. The moth-eggs are occasionally removed by withdrawing the sliding board.

It will be noticed that the comb-frames in the breeding or main chamber run at right angles to those in the upper chamber and the position of the honey-boxes, as shown in Figs. 1 and 2 of the drawings; but we prefer that the honey sash-box F shall run parallel with the suspended comb-frames in the breeding-chamber; also, in some cases of the outer casing, one or more sides may be hinged or made removable from the interior works, so that access may be had to all parts of the hive; also,

by this arrangement of the feeding device more bees can be fed than by any other feeder of the same nature.

Heretofore a removable comb-frame box, supporting a series of comb-frames, and having a division-board for keeping the swarm entire, has been suggested; but this invention is entirely different from ours. The movable comb-frame box F in our hive is provided, also, with a feeding device, the comb-frame being supported on each side of the feeding device. (See Figs. 2 and 3.) By this construction of a box we are able to remove the feeding device for replenishment without disturbing any of the other parts of the hive; or the frame or box, with its comb-frames and feeding device, can be removed bodily from the hive, as circumstances require.

What we claim as our invention is—

1. In a bee-hive, the comb-frame honey-box F, formed of two horizontal end pieces, 2, and two transverse partitions, 3, and provided with the feeding device K and comb-frames G, arranged substantially as shown and described.

2. The bee-feeding device, substantially as described, consisting of a closed chamber, with perforated bottom and central opening and pipe, substantially as described.

3. In a bee-hive, a removable sliding board arranged below and projecting beyond the bee-entrance, provided with a series of passages or chambers, in combination with the landing or bottom board of the hive, provided with an opening which registers with the passages in the sliding board, substantially as and for the purpose set forth.

In testimony whereof we have hereunto subscribed our names.

JOHN M. BYRD.  
W. H. PERKINS.

Witnesses:

JAMES AUSTIN,  
J. E. AUSTIN.