

A. R. MOULTON.
Improvement in Bee-Hives.

No. 131,296.

Patented Sep. 10, 1872.

Fig. 1.

Fig. 2.

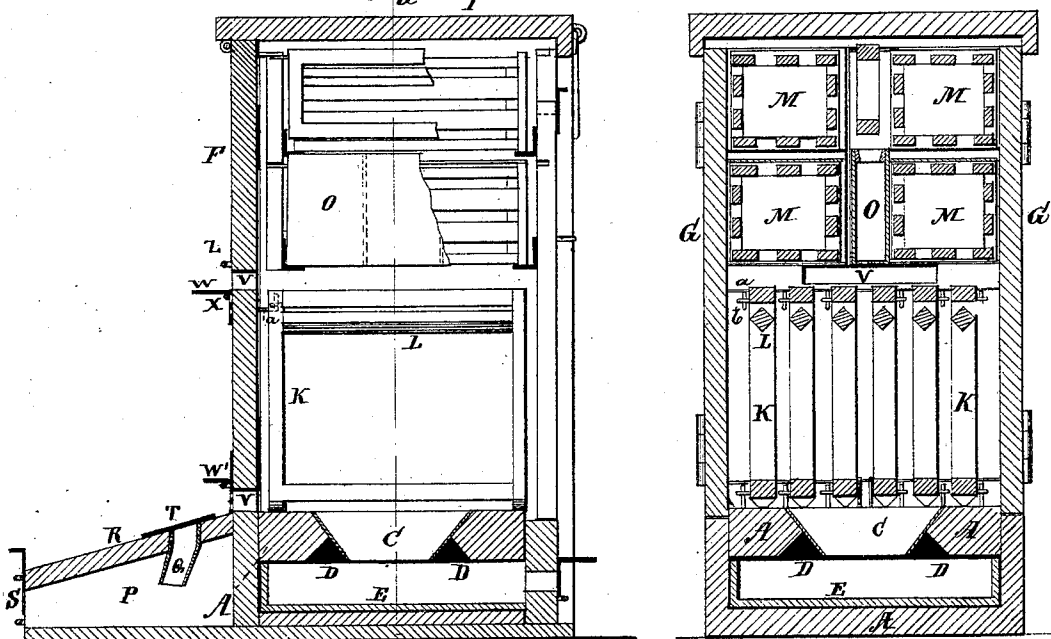
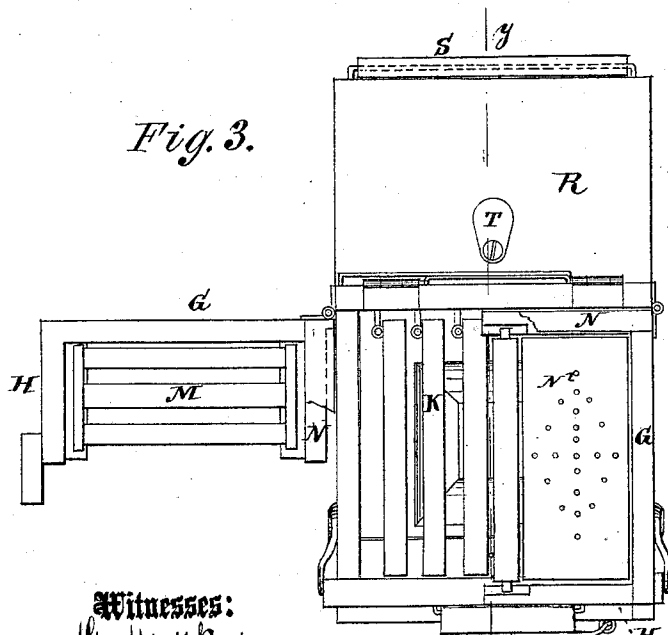


Fig. 3.



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IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 131,296, dated September 10, 1872.

Specification describing a new and useful Improvement in Bee-Hives, invented by AMOS R. MOULTON, of Fall Branch, in the county of Washington and State of Tennessee.

This invention relates to an improvement in bee-hives, which shall be of such a construction as to enable every portion of the same to be opened or unfolded with the greatest facility for the purpose of inspection, removal of honey, refuse matter, &c., as will be hereinafter more fully described.

The main feature of my invention consists in the employment of a bee-feeding device, which shall serve, also, as a division-plate for dividing the upper portion of the hive, in which the surplus honey-boxes are situated, into two compartments. The second feature of my invention consists in the provision of a reversible bent plate and means for attaching it to the hive, so that it can be used as a door for closing the bee-entrance, and as a platform for the same.

In the drawing, Figure 1 is a longitudinal section of the hive through line *yy*, Fig. 3. Fig. 2 is a transverse section through line *xx*, Fig. 1. Fig. 3 is a plan or top view.

A represents the base of the hive, in which is cut an opening, to the sides of which metallic strips are applied in such a manner as to form a hopper-shaped opening, C, having inclined sides, and leaving, also, a space, D, between the strips and sides of the opening, to prevent the upward passage of the moths. E is a sliding drawer, which is fitted into a chamber formed in the base A, and which, in connection with the hopper-shaped opening, serves as a trap for moths, as the same will, upon their entrance into the hive, fall through the opening into the drawer in which, by reason of the superior advantages offered by the collection in said drawer of the refuse matter dropping down from the interior of the hive, the breeding process of the moths will take place. F is the stationary front wall of the hive, to which are hinged the side boards G, which carry, respectively, one-half of the rear walls H, which, when closed, will overlap each other, when they are secured by means of hooks and staples, or equivalent fastening devices. I is a cover, hinged to the front wall F, and having vertical flanges which fit over the tops of the side and rear walls to form a

tight joint, said cover being also provided with suitable fastening devices. K represents the brood or comb frames, which are hinged, at their front ends, to the hive by means of hooks *a*, attached to the same, and staples or eyes *b* on the sides of the frames. The various comb-frames open from the center of the hive outward, as the leaves of a book, one-half moving in one direction, and the opposite half in a reverse direction, and the frames are also capable of being easily removed from their hinges by simply raising the same, thus in no manner disturbing the bees, and thereby making the production of artificial swarms an easy matter. L are the comb-guides, which are formed of square strips of wood applied to the comb-frames in such a manner that two of their corners shall be perpendicular to the top bar of the comb-frame; or, in other words, be placed diagonally in the frame, so as to leave an air-space between top of the comb-frame and guide-piece, thereby causing the bees to commence the formation of the comb at the corner of the guide-piece, and, of necessity, thus producing a straight comb. M are the surplus honey-boxes or crates, which are arranged in tiers, or above each other in chambers formed by the upper portions of the side and rear walls of the hive, and the inner wall N attached to the former. The honey-boxes M are supported upon horizontal flanges attached to the receiving-chambers, and are combined with perforated removable metallic plates N², which may be interposed between the two tiers of boxes, or below or above the same, as desired. When the plates are situated above the upper boxes the bees have access to all of them; and when placed between the two tiers the communication with the upper boxes is closed; and if arranged below the lower boxes the entire upper space of the hive isolated.

From this description it will be perceived that swarms of bees of various sizes may be accommodated by the simple transposition of the dividing-plates, and in winter, when it is desirable to close the communication of the lower with the upper part of the hive, it can be easily effected by inserting the plates below the lower boxes, when the honey contained in them is protected from the bees without the necessity of removing it from the hive.

O is a device for feeding the bees, consist-

ing of a wooden frame covered with metal, and divided into several compartments for the reception of different feeding materials, such as honey, sweetened water, and rye-meal. The bottom of the feeder is formed by a perforated plate, through which the bees are enabled to extract their food, and the upper part of the same is provided with filling-orifices closed by tight plugs. The feeder is so situated in relation to the hive, that, when closed, it will occupy the central portion of the same, and will, by its peculiar arrangement between the surplus honey-chambers, form a division-plate dividing the same into two lateral compartments. A trap for catching drones or robber bees is formed by a chamber in the base of the hive, situated in front of the proper entrances to the hive, and by a tube, Q, passing obliquely through the inclined platform R of the hive, and communicating with the trap or chamber P, which is further provided with an opening in its front end closed by a perforated sliding plate, S.

To capture the drones it is only necessary to close the entrances of the hive when the same are absent therefrom, and then open the sliding cap T, applied to the upper end of the tube Q, which opens an external communication with the trap P. The drones upon their return to the hive and upon finding the entrances closed, will seek an entrance through the tube Q, when they are precipitated in the chamber below, from whence their escape is impossible. To allow of the egress from said chamber of the worker-bees which should have passed into the same, the sliding plate S is raised to expose an opening sufficiently large for their

exit, which the drones, by reason of their size, are unable to effect.

V V are openings serving as entrances, formed in the front wall of the hive, and arranged above each other. Said openings are combined with bent plates W W', partially perforated, and capable of being reversed to either bring their perforated or unperforated portions opposite the entrance-openings, as may be desired. The upper plate, W, is also capable of being used as a platform for the bees, and to employ it for this object a slotted guide-strip, X, is arranged below the entrance, into which one portion of the plate is inserted at the end removed from the entrance, when, by moving it opposite the latter, a platform is formed, the vertical displacement of which is prevented by the slotted stop-plate Z, situated above the entrance.

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

1. The bee-feeding device O provided with closed side walls, and arranged in the center of the honey-chamber, for dividing the same into two lateral compartments, as herein shown and described.

2. The bent plate W, in combination with the guide-strip X and stop Z, to adapt it for being used as means for closing the bee-entrance, and as a platform for the same, substantially as specified.

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