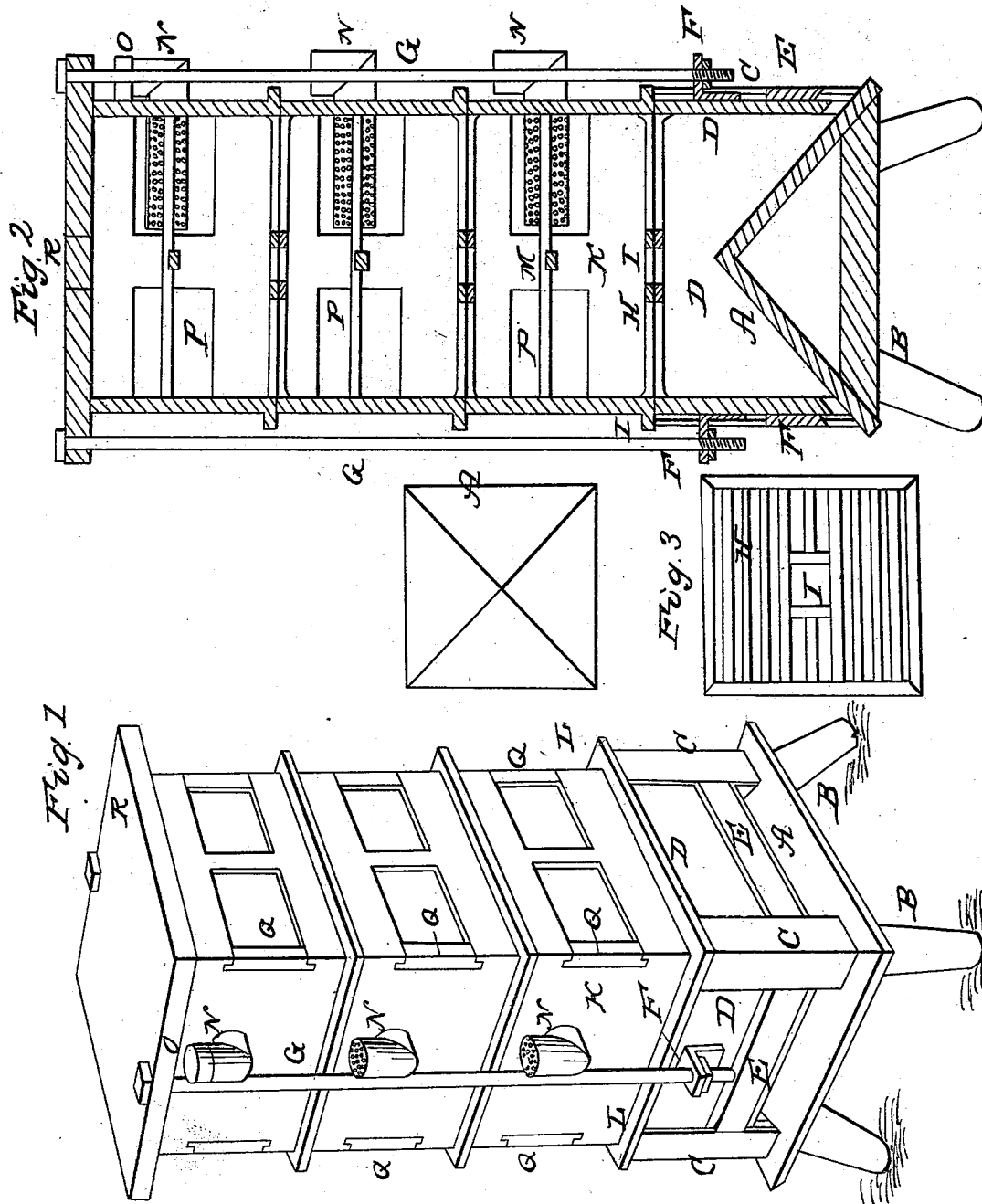


# MOORHEAD & HOWELL.

Bee Hive.

No. 2,953.

Patented Feb. 16, 1843.



# UNITED STATES PATENT OFFICE.

WM. L. MOORHEAD AND THOS. D. HOWELL, OF ZANESVILLE, OHIO.

## BEEHIVE.

Specification of Letters Patent No. 2,953, dated February 16, 1843.

*To all whom it may concern:*

Be it known that we, WILLIAM L. MOORHEAD and THOMAS D. HOWELL, of Zanesville, in the county of Muskingum and State of Ohio, have invented a new and useful Improvement in Beehives, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view; Fig. 2, a vertical section through the center of the hive. Fig. 3 is a horizontal section showing one of the gratings.

This hive consists of a pyramidal shaped base A resting on four legs B fixed permanently thereto. This pyramidal base forms the bottom of the hive. On the upper side of said base and at the four corners thereof are raised four posts C of equal length, between which posts previously rabbeted are framed boards D, reaching from the tops thereof to within a short distance of the pyramidal base, leaving spaces on the four sides for the ingress and egress of the bees. The projecting edges of the pyramidal base form ledges for the bees to light on. These spaces may be closed when required by slides E which are tongued on their ends, and are made to move vertically in corresponding grooves in the aforesaid posts outside of the before described boards arranged between the posts. In the drawings these slides are represented as raised and the entrances for the bees consequently open. The posts and boards above described form a box which may be termed the lower box D having a pyramidal bottom composed of the aforesaid pyramidal base, and is fixed permanently to the said pyramidal base. On two sides of said lower box are fixed right angled brackets F perforated to admit screw rods G that hold the boxes firmly to the base as hereafter described. The upper end of the lower box is closed by a grating H composed of parallel wood slats except a space I in the center of about 3 inches square which is left entirely open. Upon this lower box which is about sixteen inches square is placed a rectangular box K of the same length and breadth and of about twelve inches in depth having a projecting ledge L around its four lower edges for preventing the entrance of water at the joints. This box is closed at the top and bottom by gratings of wood made like those above described with a square opening in

the center corresponding with that in the grating below for the passage of the bees upward and for the construction of the comb in said central spaces. There are also cross sticks M in the center made and arranged in the usual manner.

A ventilator N is inserted in this box which admits fresh air, expels the impure air in the hive, and at the same time prevents the entrance of injurious insects. This ventilator consists of a tube N about four inches long and one inch diameter perforated with very small apertures for the admission of the air and so small as to exclude insects. It is also provided with a cap O for the outer end which may be put on in the winter season to exclude the cold. This box is also provided with the usual windows P and slides Q and central cross sticks.

A series of boxes of any convenient number all made in the manner of that just described are piled one upon another till the hive is raised to the required height. Then a cap or top board R perforated in the center is placed upon the top of the upper box projecting over the edges of the same through which are inserted the rods G with heads and screws leading down to the aforesaid brackets F through which they are passed and secured by nuts. These rods hold the stack of boxes composing the hive firmly together. The perforation in the top is for the purpose of introducing the bees. The number of the boxes, their sizes and kind of material as well as the dimensions and materials of the other parts of the hive may be raised to suit circumstances.

The advantages proposed to be derived from the aforesaid construction of the beehive are the following: The base being made pyramidal and projected beyond the sides of the lower box form four ledges, on the four sides of the hive for the ingress and egress of the bees, and also for discharges for the filth of the hive. The slides which should be closed every night and especially in the winter prevent the intrusion of insects and the entrance of the cold. The grated top and bottom of the boxes coming together form a double bottom, and the sticks composing the grates are placed at such distances apart as to prevent the bees from building the comb in said spaces and which spaces also allow the bees to have free access from bottom to top and at the

same time sufficiently large to allow of the escape of insects and any other offensive matter that may accumulate in the part occupied by the bees. The comb will be  
5 built in the central spaces of the grating from top to bottom which is the portion of the comb that will be cut in changing the boxes, for removing the honey &c.

The advantages derived from the ventila-  
10 tors are so obvious that it is not necessary to enumerate them.

What we claim as our invention and which we desire to secure by Letters Patent is—

Constructing the bee hive with a pyrami- 15  
dal base in the manner and for the purpose set forth.

WM. L. MOORHEAD.  
THOMAS D. HOWELL.

Witnesses:

N. CHAPMAN,  
M. E. CHAPMAN.