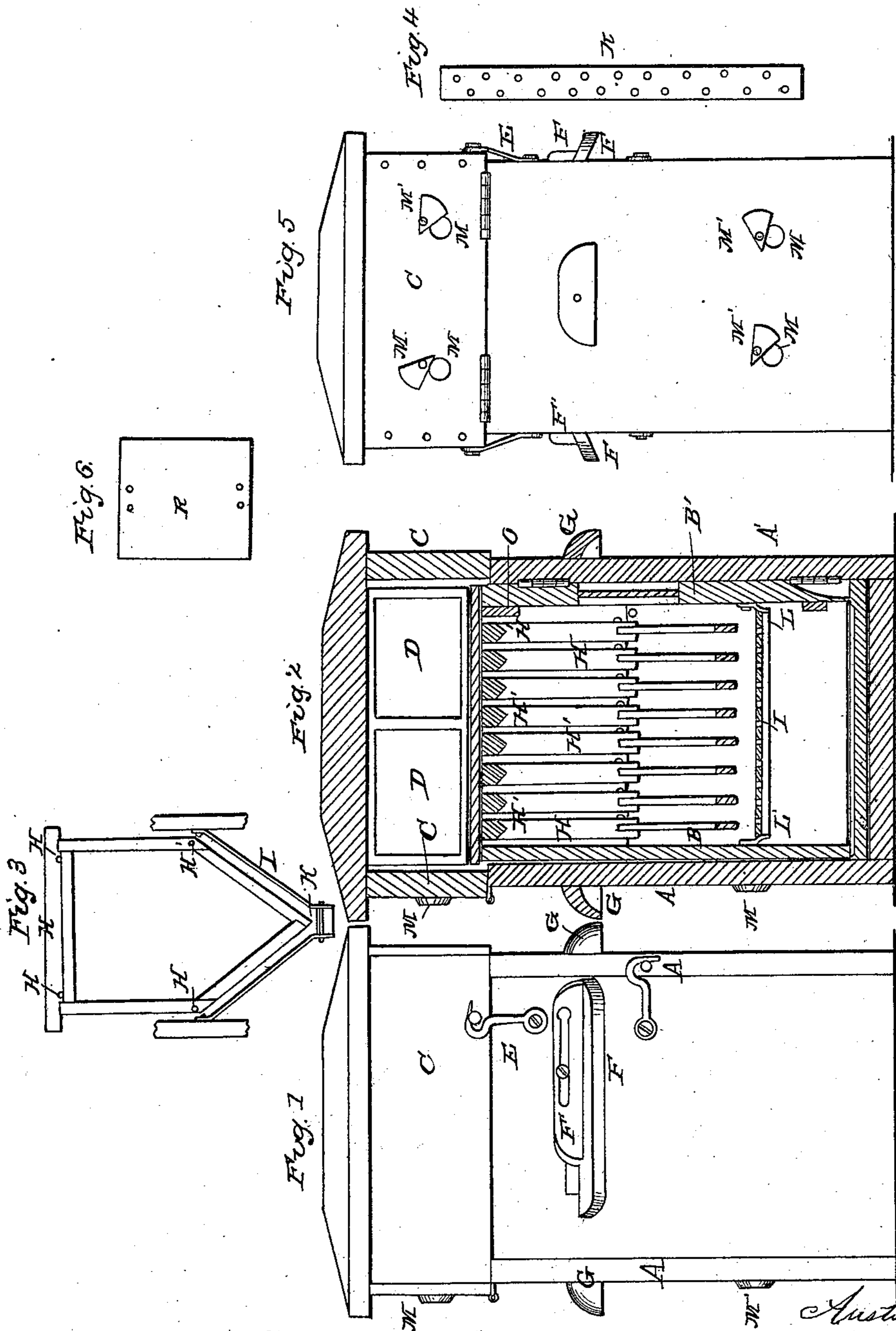


A. FULLER.

Bee Hive.

No. 54,325.

Patented May 1, 1866.



WITNESSES  
James E. Casey  
Richard Lambert

INVENTOR  
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by  
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his attys

# UNITED STATES PATENT OFFICE.

AUSTIN FULLER, OF PLYMOUTH, INDIANA.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 54,325, dated May 1, 1866.

*To all whom it may concern:*

Be it known that I, AUSTIN FULLER, of Plymouth, in the county of Marshall and State of Indiana, have invented certain new and useful Improvements in Bee-Hives; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, made part of this specification, in which—

Figure 1 is a side elevation of a hive. Fig. 2 is a vertical longitudinal section. Fig. 3 is a detached view of one of the frames and showing, also, the slides. Fig. 4 is a detached view of a perforated plate, to be hereinafter described; and Fig. 5 is an elevation, showing the back of a hive.

In the different figures the same letters refer to identical parts.

The hive has an external case, A, made tight on three sides and below, except as to the openings F F and M M. On the fourth side (the front) is attached the close-fitting door A'. Within this external case is another corresponding internal case, B, leaving a narrow space between them for dead air, thus preserving the interior of the hive from extremes of temperature. This internal case is open above and below, the sides being joined at the open end by the ties O and O'.

The door B' is hinged to the inside of the external frame, and shuts against the open side of the internal case. In this door is inserted a glass window, N, through which the internal workings can be observed without disturbing the bees. Under this door slides the drawer P, for cleaning the bottom of the pit.

F F are openings in the side of the hive, through which the bees pass in entering and leaving the hive. Under these openings is a narrow inclined shelf, and on this slides the doors F' F', controlled by a slot and bolt, as shown. By means of these slides the hive can be closed so that no bee can escape, and the hive and bees can be transported with safety. I place these openings midway of the space in which the bee works, thus saving the laborious climbing of the loaded bee.

G G are handles upon the front and back of the hive, by which it may be lifted.

H H are the frames, suspended from their upper ends, which are extended beyond the

sides and set upon a shoulder in the upper end of the internal case. These frames are joined, as shown in Fig. 3. The sloping or perpendicular sides leave no place for the miller to deposit her eggs. These frames may be removed at pleasure.

Under the frames are attached the steep sloping sides I, which are made of tin or other smooth material, and have their lower extremities bent so as to stand perpendicularly. Over this funnel-formed mouth of the sloping sides I place, in the winter season only, the perforated slide K, (Fig. 4,) which I call the "winter bee-preserver." The object of this slide is to catch such bees as in the winter may become benumbed with cold and fall upon the sloping sides I. If they fall into the pit they cannot return, and almost inevitably die. Lodging, however, upon this slide, they are still within the influence of the warm air of the hive, and may, with a change in the external temperature, revive and crawl back.

To prevent insects crawling up the front or rear of the hive, and thus gaining access to the honey, plates L and L' are attached, L' to the back of the interior case, and L to the inside of the inner door, so as to fill the spaces between the lower edges of the slides I.

M M are holes through both cases, above and below, for the purpose of furnishing ventilation. These holes are closed by shutters M' turning upon pivots.

On the top of the frames A and B is the cap C, which may be removed at pleasure. This constitutes the top of the hive, and may be hinged to the external case, as represented. Within this are placed the boxes D D, of which there are ordinarily four. These boxes are placed on the honey-board R. (Represented in a detached figure marked b.) This board sits upon and covers the top of the internal case. The bees pass through the holes shown in the board to gain access to the boxes D. These holes I locate as nearly as may be to the openings F F to save labor to the loaded bee.

The projecting pins H', which secure the joints of the frames H, also preserve the required spaces between the frames.

Having fully described the nature of my improvements, what I claim as my invention, and seek to secure by Letters Patent, is—

1. The arrangement of a bee-hive having a double case, A B, with dead-air spaces between them, and having on the front only double doors A' B', both of which are hinged to the external case, and having, also, the sloping sides I terminating with a funnel-formed mouth, closed, when desired, by the perforated slide K, and having, also, doors F, located as described, substantially as and for the purposes set forth.

2. In combination with the sloping sides I, the plates L and L', substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUSTIN FULLER.

Witnesses:

JOHN S. HOLLINGSHEAD,  
MATTISON COON.