

H. O. HUGHES.

Bee Hive.

Patented Dec. 8, 1868.

No. 84,826.

Fig. 2

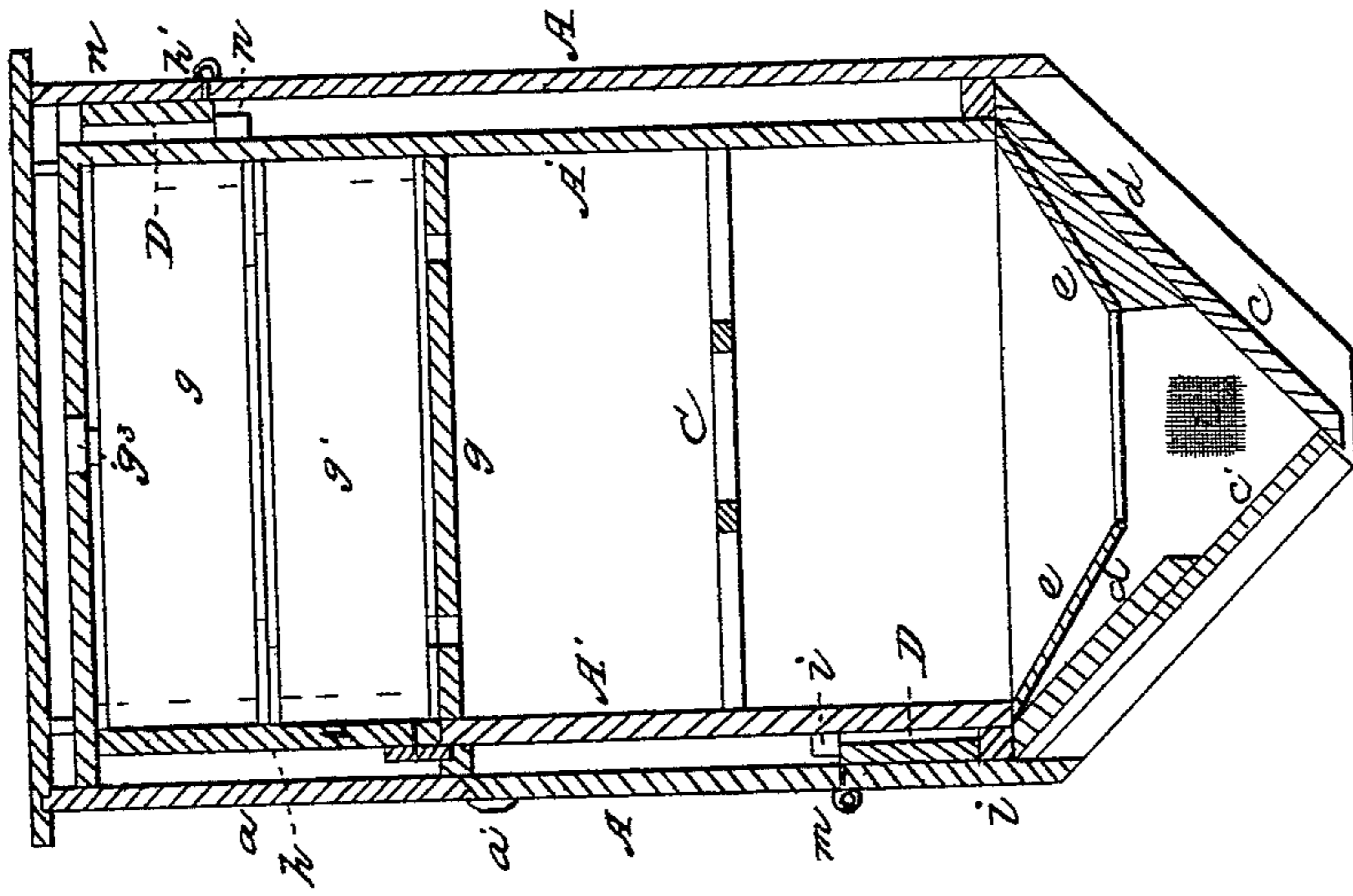


Fig. 3

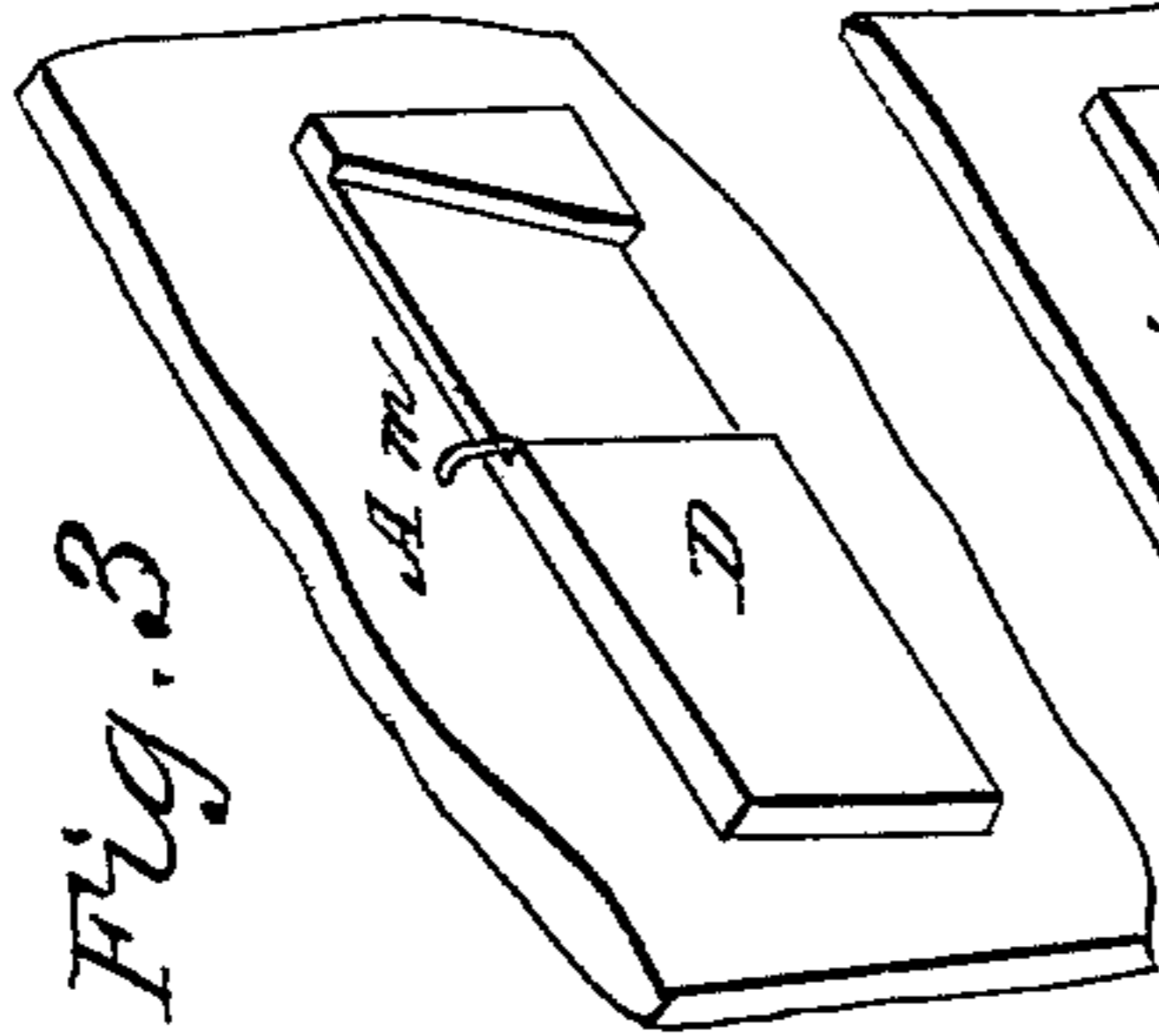


Fig. 4

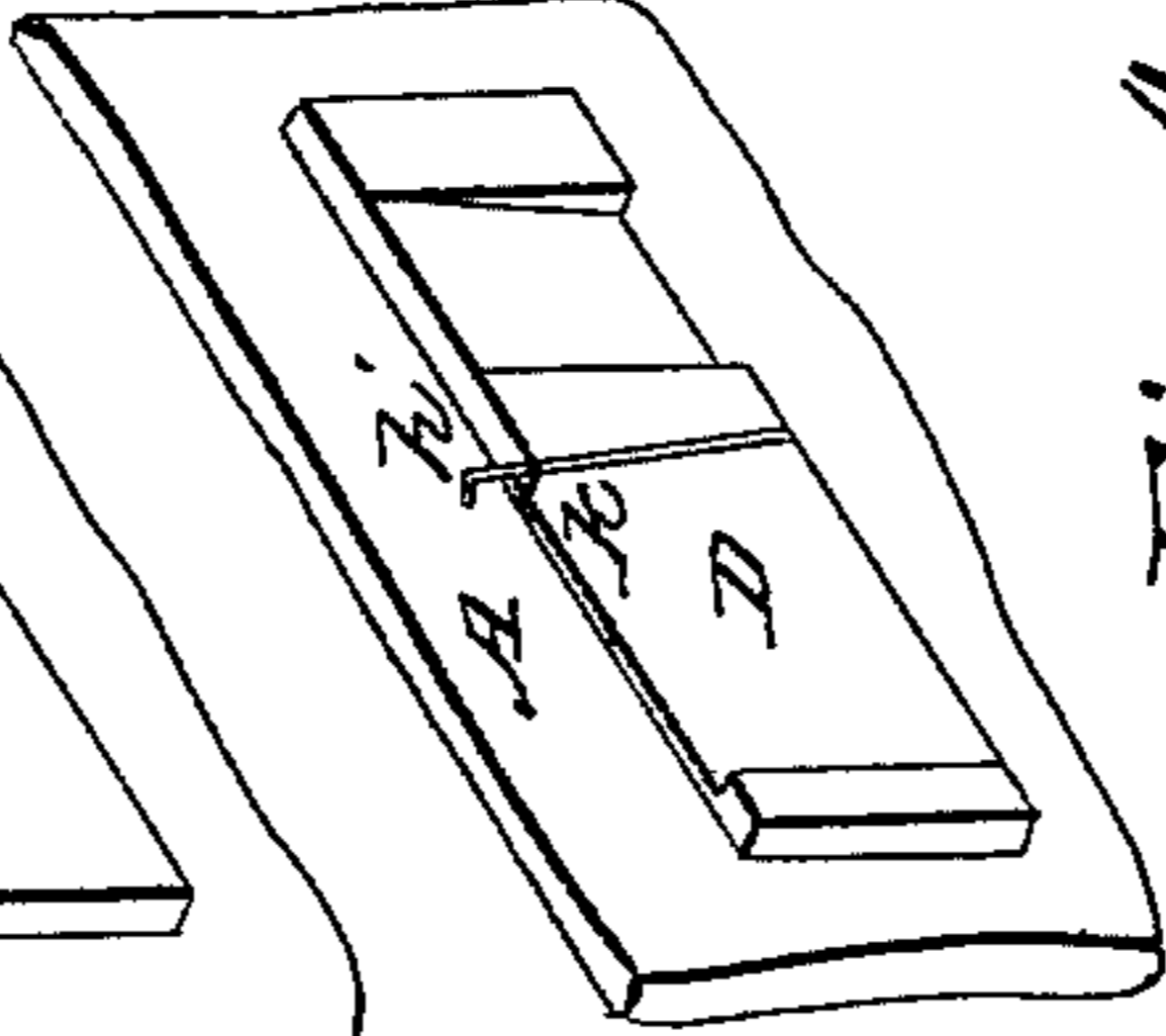
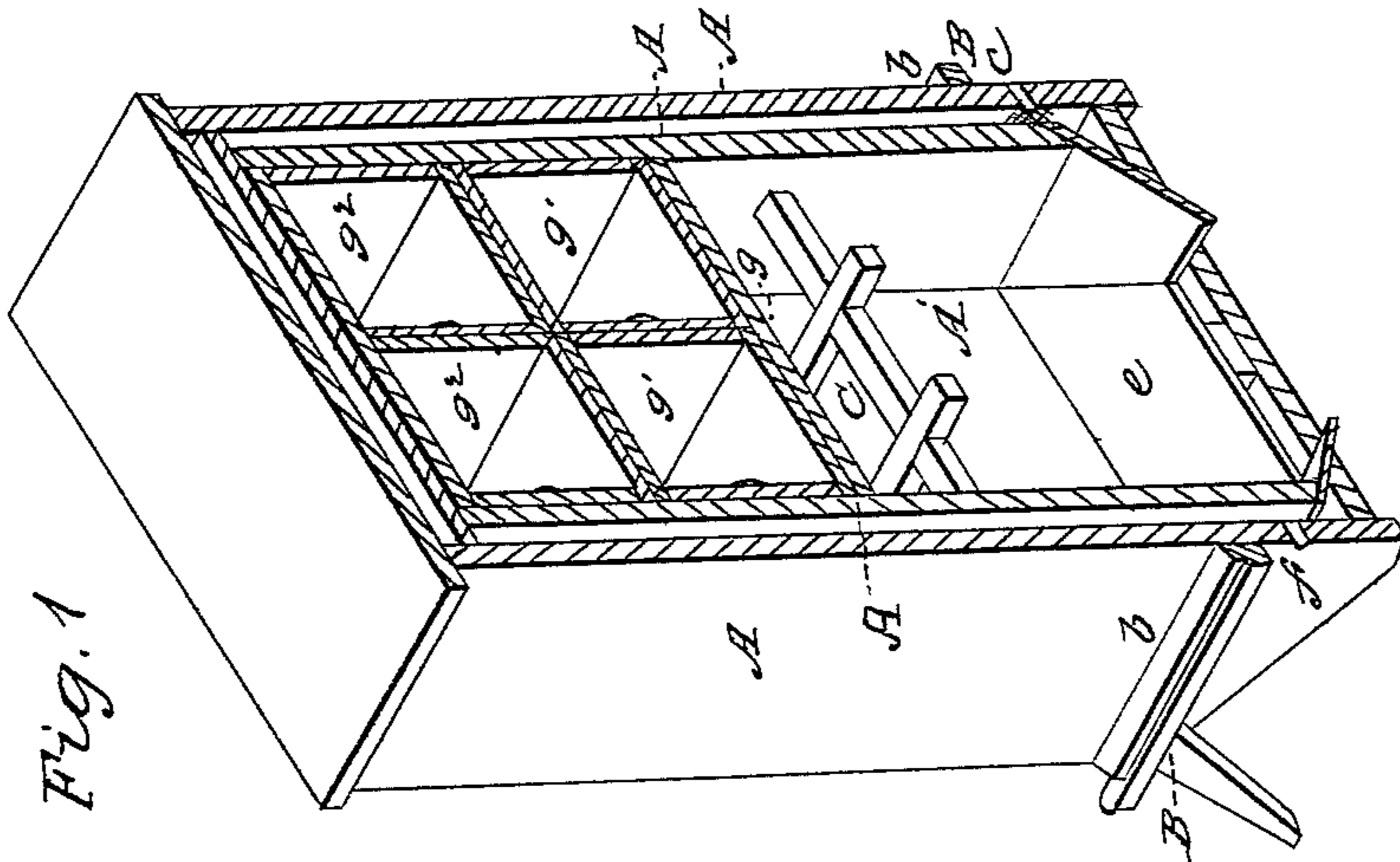


Fig. 1



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY O. HUGHES, OF JUDSON, MISSOURI.

IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 84,826, dated December 8, 1868.

To all whom it may concern:

Be it known that I, HENRY O. HUGHES, of Judson, in the county of Sullivan, and State of Missouri, 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 thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 represents a perspective section of my bee-hive; Fig. 2, a vertical central section of the same; and Figs. 3 and 4, perspective views of the ventilating cut offs attached to the inner sides of the hive broken away from the hive.

The nature of my invention consists in the employment, in the lower part of the hive, of inclined hinged and sliding doors, forming the bottom of the same, and in the employment of ventilating cut-offs, constructed so as to change the draft in the different parts of the hive, as will more fully hereinafter be seen.

The construction and operation of my invention, by which others may be enabled to use it, will be described as follows:

In the accompanying drawings, A represents the casing of my hive, which is supplied with the door *a* at its upper end, and held in place by the buttons *a' a'*. This casing is mounted upon a supporting-frame or trestle, B, and held thereon by strips *b* secured to said casing. The lower part of the sides of the casing A is constructed with inclined surfaces, as seen in Fig. 2. Secured to the inner sides of the lower part of the hive is a slanting board, *d*, to which is hinged a door, *c*, having the same inclination as the lower part of the casing A, and retained therein by pins or otherwise. Opposite the board *d* is secured a similar board, *d'*, between which and strips secured flush with the inclined surface of casing A, opposite door *c*, slides another door, *c'*, which, when closed, comes in contact at its lower end with door *c*, thus forming the bottom of the hive, which will admit of the offal being easily and wholly removed. A short distance above these doors and board is secured a cone-like shaped piece or bottom, *e*, with an opening in its lower extremity or center.

f is an opening, provided with gauze, one of

which is situated in the lower part of casing A, on each side of the chamber, between the doors *c c'* and bottom *e*, with which it communicates and ventilates. The hive, above the bottom *e*, is provided with an inner wall, A', in the center of which, or thereabouts, is secured the comb frame C, which is constructed by fastening bars one across the other, as seen in Fig. 1.

Secured a short distance above the comb-frame C is a suitably perforated partition or floor, *g*, upon which the lower correspondingly-perforated set of honey-boxes, *g¹*, is placed, which are supplied with removable perforated lids, and upon which the upper tier of honey-boxes, *g²*, is placed. These boxes, or their lids and bottoms, are also provided with openings.

The upper end or top of the inner wall is provided with a wire gauze ventilating-opening, *g³*; and a door, *h*, opposite the door *a* of casing A, is made in the side of said inner wall for removing the honey-boxes.

D is a ventilating cut off, situated in the lower part of the hive between the inner wall, A', and casing A, and sliding back and forth over a ventilating-opening, *i*, on strips *i'*. This cut-off is provided with a groove, as seen in Fig. 3, for the purpose of allowing the air to enter the hive through the ventilating opening *i* when that part of the cut-off is brought in contact with said opening, and the air cut off when the opposite end of said cut off is slid over the opening *i*, which is accomplished by means of a bent metal bar or handle, *m*, passing through the side of the hive and through a loop, *k*, in the cut off, so that on turning the bent lever *m* the cut off can be operated.

D' is another ventilating cut-off, placed in the upper part of the hive, and sliding back and forth over a ventilating-opening, *n*, in the casing A, and held in place by strips *n'* fastened to the inner wall, A'. This cut-off is furnished with a similarly shaped handle, *h'*, to the one on cut off D, but is provided with two grooves, cut or slanting in opposite directions, as seen in Fig. 4. The object of so constructing the cut-off D' is to permit air to enter both the chamber of the inner hive or walls and the chamber surrounding the same.

To produce the above result, operate the

cut-off as follows: When it is desired to ventilate the chamber of the interior hive, slide that part of the cut-off grooved so as to allow air from the ventilating-opening *n* to pass up into the upper part of the hive over the said opening, and the air will descend through the ventilating opening *g*³, already described, and through openings in the honey-boxes, and thence into the lower part of the hive. When it is desired to ventilate the chamber surrounding the inner hive, it is only necessary to reverse the operation of the cut-off.

What I claim, and desire to secure by Letters Patent, is—

1. The lower or bottom part of the hive, *A*, constructed as described, in combination with the hinged and sliding inclined doors *c c'* and cone-like-shaped piece or bottom *e* operated substantially as and for the purpose set forth.

2. The employment of the cut-offs *D D*, constructed or grooved so as to change the draft, or cut it off from one part of the hive to the other, arranged and operated substantially as described.

3. Frame *B*, outer and inner casings or walls, *A A'*, doors *c c'*, bottom *e*, comb frame *C*, partition or floor *g*, honey boxes *g*¹ *g*², doors *h* and *a*, and ventilating cut offs *D D'*, all constructed, arranged, and combined substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY O HUGHES.

Witnesses:

JOHN F. THOMAS,
CHARLES W. THOMAS.