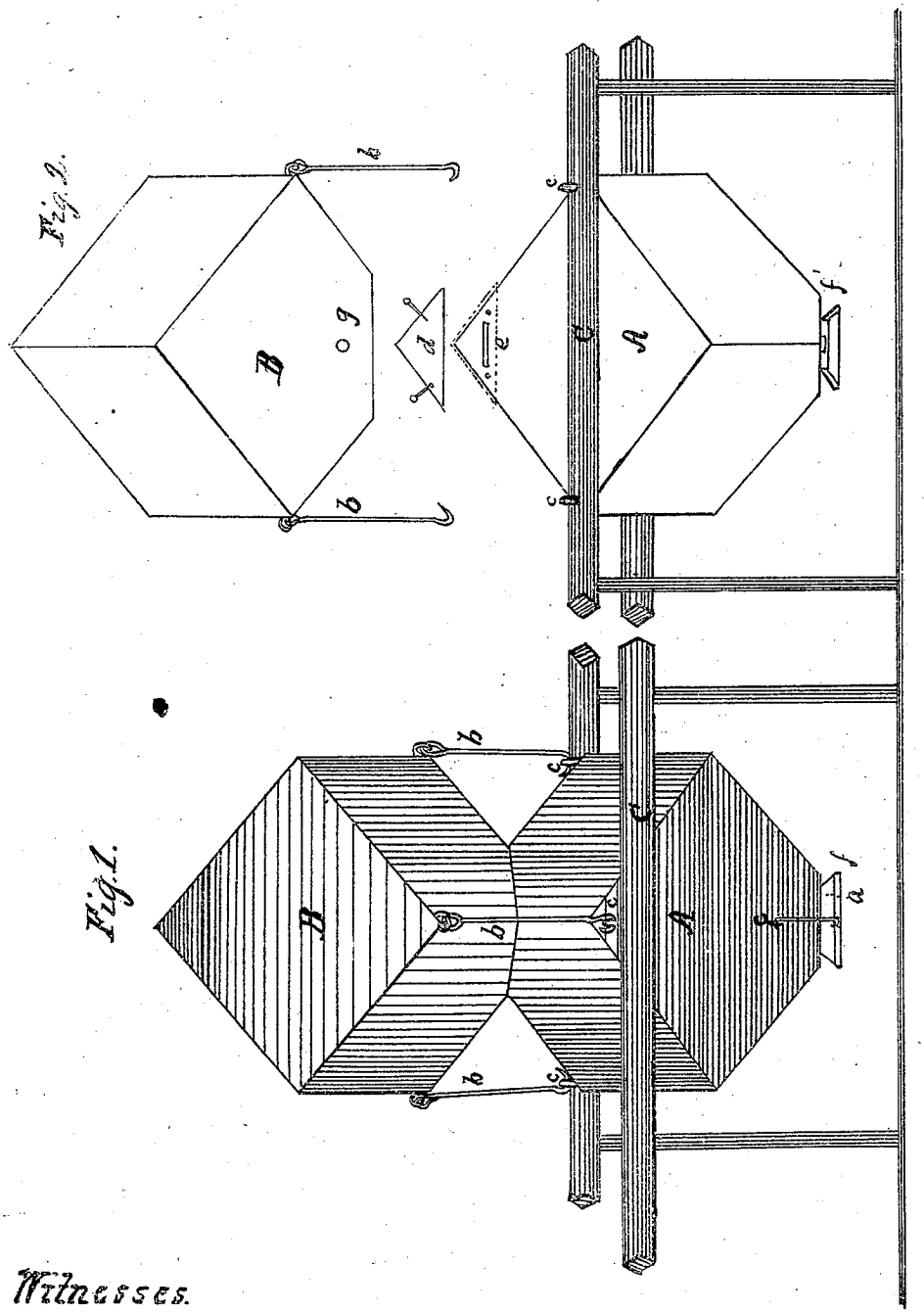
A. C. Varela.

Bee-Hive.

No 72572 Patented Dec. 24, 1867.



Witnesses.

Thos. Hutchinson

Wm. R. Singleton

Inventor.

A. C. Varela

United States Patent Office.

A. C. VARELA, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 72,572, *dated December* 24, 1867.

IMPROVEMENT IN BEE-HIVES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. C. VARELA, of Washington, in the county of Washington, and District of Columbia, have invented certain Improvements on Bee-Hives; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to obtain a knowledge of its construction and operation.

The object of my invention is so to construct a bee-hive, having a detachable upper part, with sides sloping in three directions in the upper half, and in a contrary direction in the lower half of each compartment, and yet all at a large angle to the horizontal line, that all impurities and other foreign substances will be precipitated to the lowest point of each compartment; also to concentrate in the vertices of each box the greatest amount of heat. In the accompanying drawings—

Figure 1 is an elevation of the bee-hive, and

Figure 2 is also an elevation on the opposite side, showing the upper chamber lifted above the lower.

Similar letters indicate the same parts in each figure.

A is the lower chamber or main hive; B, the upper chamber or honey-box; C, the frame, on which the whole hive is to be supported, and which may be continued to support any number of hives. *a* is the door or entrance to the lower box; *b*, hooks, by which the upper box is fastened to the lower; *c*, the hooks by which the lower is supported on the frame. *d* is the weather-proof cap, to cover the opening in the upper corner of the lower box when the upper box is removed; *e*, the opening; *f*, front of door-leaf or lighting-board; *f'*, hinge side of the same; *g*, small hole, covered with a perforated metallic plate, or wire gauze, for ventilator.

To construct this hive, it is only necessary to make or procure two cubical boxes, of any suitable wood, dressed inside and out, measuring about twelve and one-half inches on the inside, the plank to be about seven-eighths of an inch in thickness after being dressed. Measure, from any one corner, along each side half the distance to the other three nearest corners, and draw straight lines from these three points. Then, with a fine-toothed saw, cut off the corner, and the opening will be in the shape of an equilateral triangle. Then, with a chisel, bevel the sawed edges inwardly to fit neatly on the corner of the other box. On one side of the other box, near the top, cut a long slit, of sufficient size to admit the body of a queen bee to pass from the inside of the lower box into the upper. On the three corners of the upper box nearest to the opening put in three ordinary staples of a hook. (The screw-staple is the best.) In the three corners of the lower box nearest to the top insert any stiff hooks, or other contrivance, to fit into corresponding holes in the frame C. The upper hooks *b* should be made of just such length as to reach under and fasten to the lower hooks *c*. The corner of the lower box, where the opening *a* is to be made, must be neatly cut off, so as to make an opening into the box just sufficient for the proper entrance of the bees, and a lower shelf or lighting-board must be hinged on, and so fastened by a hook having two staples that it may be lowered to a certain distance by one, or entirely closed by the other, and, if necessary, it may be allowed to fall perpendicularly, and thus free it from all the droppings which may chance to fall upon and adhere to it, as all the sides of the lower box shed their refuse, and it converges to this one point. Each and all the sides of the two boxes must be well adjusted to each other. To accomplish this, a rabbet-joint is preferable. One of the lower sides of each box may serve as a door to the same. For this purpose it should be fastened with screws only. The extreme lower corner of the upper box which is cut off may be used as the cap *d*, thus saving much labor and expense.

It is not necessary to have always the upper box attached to the lower or main hive. In autumn, when the bees cease making honey for the season, it should be removed, and kept away until the coming spring, taking care to cover the aperture *e* with the cap *d*. In this manner the main hive is also rendered very light and manageable for the purpose of hiving new swarms.

The object in this method of constructing bee-hives is to unite simplicity with efficiency. It is well known to all bee-raisers that the plainest boxes are the best for the bees to work in; hence, in the wild sections of the world, where bees uninterruptedly work in a state of nature, they work the best. But the products of their labor are hard to be obtained by man; hence the thousand contrivances to facilitate the taking of honey.

By the peculiar construction of this hive, which has no level places where the bee-miller might deposit her eggs, it is very probable that the bees will not be troubled by their natural and most fatal enemy, the moth.

Between the elaborate and expensive bee-palace and the western hunter's bee-gum, this hive presents a happy medium, in which are found all the desirable comforts, combined with safety, and yet the spare honey deposited in it can be taken away most successfully, for, when the upper chamber becomes full, it can be readily removed. The cap *d* can be placed over the opening *e*, and the main hive, with its winter's store, will remain untouched during the winter for the use of the bees.

I do not claim hives nor honey-boxes with sloping roofs and bottoms merely, but

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

1. The arrangement of two similar cubic boxes, A and B, one inserted partly into the other in a direction parallel to the diagonals of a cube, and suspended in such manner that only one of their corners points upward, substantially in the manner shown and set forth.

2. The arrangement of a weather-proof cap, *d*, of metal, or any other suitable material, to cover the aperture *e* that admits the bees into the upper or honey-box, as shown and described.

A. C. VARELA.

Witnesses:

J. M. SULLIVAN,

WM. R. SINGLETON.