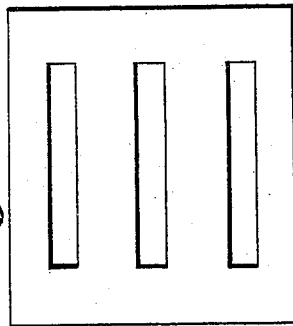
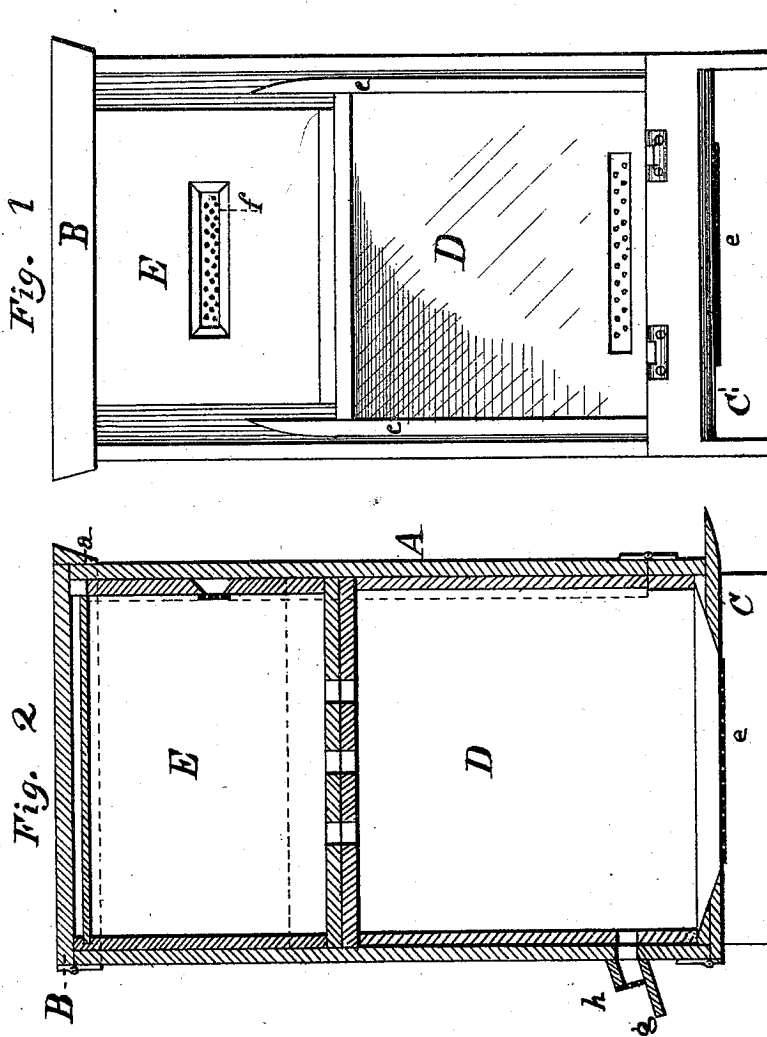


C. ELLIS.  
BEE HIVE.

No. 176,942.

Patented May 2, 1876.



WITNESSES:

*John Stinson*  
*Chas. A. Pettit*

INVENTOR:

*Christopher Ellis*

BY

*Heen & Co*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

CHRISTOPHER ELLIS, OF LEVEL LAND, SOUTH CAROLINA.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 176,942, dated May 2, 1876; application filed March 20, 1876.

*To all whom it may concern:*

Be it known that I, CHRISTOPHER ELLIS, of Level Land, in the county of Abbeville and State of South Carolina, have invented a new and useful Improvement in Bee-Hives; and I hereby declare the following to be a full, clear, and exact description of the same.

The object of my invention is mainly the production of a hive adapted for the application of active efficient means for preventing the ravages of the moth without, at the same time, destroying or injuring the bees. To this end I provide a hive with a brood chamber or box which is separate, and preferably detachable, and apply a perforated metal plate to an opening formed in the bottom board.

I am enabled to destroy the moth-egg or young worm by pouring hot water between the contiguous sides of the hive and the brood-chamber, the perforated plate allowing the water to escape from the hive without drowning the bees or otherwise injuring them.

In the drawings accompanying and forming part of this specification, Figure 1 is a rear elevation of the hive with the door removed. Fig. 2 is a sectional elevation of the hive; Fig. 3, a plan of the bottom of the surplus-honey box.

The body of the hive is of the ordinary form, and provided with a hinged side, A, which is secured by the flange *a* on the hinged top B when the latter is closed. The bottom or hiving board C is also hinged, and provided with a central opening covered by a perforated plate, *e*, of sheet metal. The edges of said opening are sloped or beveled on the upper side, as shown in Fig. 2, for a purpose hereinafter specified.

The brood chamber or box D is rectangular in form, and occupies the main portion of the hive-chamber. The top edges of its sides *c c* are beveled inwardly, as shown in Fig. 1, to enable hot or scalding water to be poured between the contiguous sides of the box D and the body of the hive.

As a necessary preliminary to the scalding operation, the smoke of burning cotton, tobacco, or other suitable substance, is allowed to ascend through the perforated bot-

tom plate *e*, in order to drive the bees into the upper portion of the brood-box D, and the surplus-honey box E is also removed from the hive to give free ascent to the interior of the same.

By means of any suitable vessel provided with a spout or nozzle, hot water may then be poured into the crevice between the sides of box D and the hive proper. The water will pass down between them, and, flowing over the beveled portion of the bottom board C to the opening therein, will escape through the perforated plate *e*. Thus the moth-eggs or young worms attached or adhering to any part of the hive over which the water flows will be instantly destroyed.

I have demonstrated by frequent experiments in practical bee-culture that, by occasional application of hot water in this manner, the hives are effectually kept free of moths, thus dispensing with the necessity of moth-traps, as well as rendering it unnecessary to maintain a "strong colony," which the experienced apiarist always relies on as the best safeguard against the moth.

When the surplus-honey box E has become filled, and it is desired to remove the same, a small quantity of tobacco or other smoke is blown through the opening or slot *f* in its front side, thus driving the bees down into the brood-box D. A plate of glass, sheet metal, or wood is then introduced between the boxes D and E, to cover the openings through which the bees pass from one into the other. The said opening *f* in box E is formed by a perforated tin plate, to prevent escape of bees therefrom when the front door of the hive is opened.

The bee-entrance of the hive is at *g*. When it is desired to transport a hive containing bees, the only precaution requisite is the application of a perforated metal plate, *h*, to cover the said entrance, which will prevent escape of the bees at the same time it allows due ventilation.

When it is desired to clean the upper surface of the bottom board, the pins or screws *i*, which support its front end, are withdrawn, and the board allowed to drop by turning on its hinge.

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

The combination of the brood-chamber, having its top edges beveled or chamfered, the bottom board, having the opening and the perforated plate beneath, and the chamfered surface surrounding said opening, substantially as shown and described.

The above specification of my invention signed by me this 4th day of March, A. D. 1876.

CHRISTOPHER ELLIS.

Witnesses:

JAMES B. MCWHORTER,  
DAVID W. HAWTHORN.