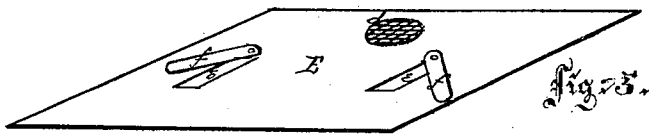
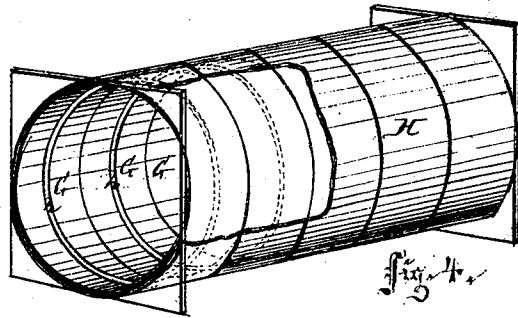
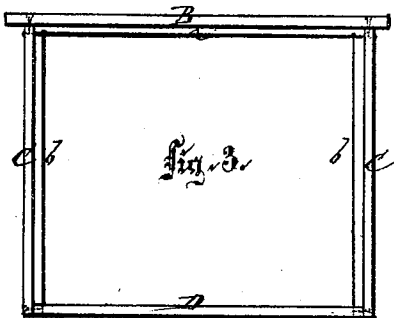
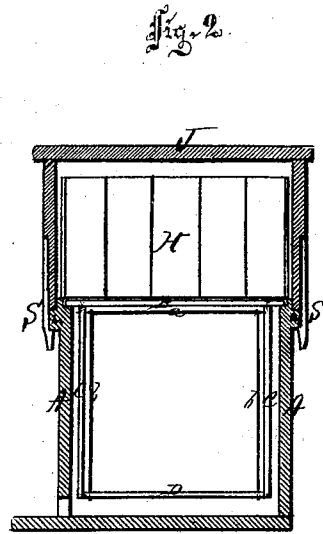
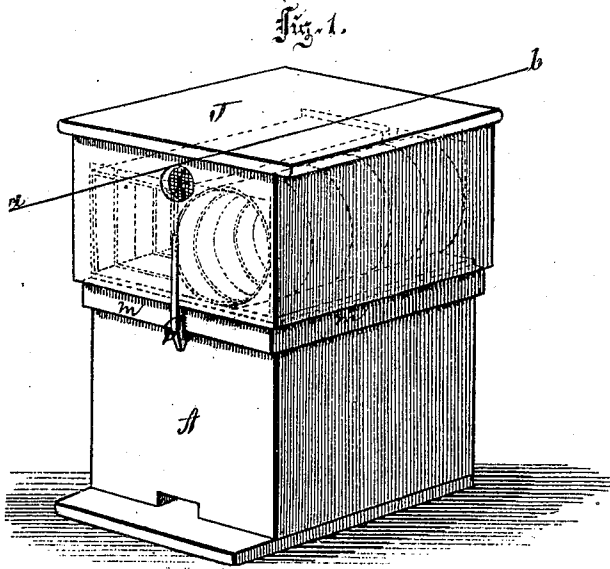


J. W. Gladding.

Bee Hive.

No. 109,888.

Patented Dec. 6. 1870.



Witnesses:
C. L. Ewert,
J. D. Hutchinson

Superior:
J. W. Gladding
Manufactured
at

United States Patent Office.

JAMES W. GLADDING, OF NORMAL, ILLINOIS.

Letters Patent No. 109,888, dated December 6, 1870.

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, JAMES W. GLADDING, of Normal, in the county of McLean and in the State of Illinois, have invented certain new and useful Improvements in Bee-Hives; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "bee-hive," as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of the hive;

Figure 2 is a longitudinal vertical section of the same through line *a b*, fig. 1.

Figure 3 is a side view of a comb-frame;

Figure 4 is a perspective view of a cylindrical honey-box; and

Figure 5 is a perspective view of the honey-board.

A represents the brood-chamber of my hive, made of any size or dimensions desired. In this brood-chamber are placed a suitable number of movable frames.

The top piece B of each frame is long enough to reach across and lengthwise the brood-chamber into a rabbet formed at the upper side of each end.

The side pieces C C are nailed to the top piece B, so as to leave about half an inch space between the inside end of the brood-chamber and each end of the frame.

The bottom-piece D is nailed to the side pieces C C, so as to leave about half an inch space between the inside bottom of the hive and the under side of the frame.

The top, sides, and bottom pieces are all made of pieces about one inch wide and five-sixteenths of an inch thick.

Each frame is provided with a comb-guide, *a*, running across and through the center of the under side of the top of the frame, connecting with a similar guide, *b*, on the inside of each end piece, and running from the top guide to the bottom piece of each frame.

Said comb-guides *a b* are made of wire or other suitable material, and are entirely disconnected from the top and ends of the frame, except at the ends or places of fastening.

E is the honey-board, which is made of metal, and provided with a hole, *d*, for ventilation, said hole being covered with wire-cloth; it also has one or more holes or passages, *e*, for the bees from the brood chamber below to the honey-box or boxes above, these passage-holes being each covered by a movable horizontal door or covering, *f*, fastened at one end to the honey-board.

The honey-boxes are composed of circular sections G G, or rings, from one and a half to two inches wide, of any dimensions desired, placed side by side, and covered with an outside covering, H, over all the sections, thereby forming a tubular honey-box.

Each section G has running around, and in the center of its inner surface, a combined support and comb-guide, *b*, made of round wire or other suitable material.

The sections or rings G and outside covering H may be made of wood, metal, paper, or any other suitable material.

If the outer covering is made of paper, or other material that may be easily cut, marks, corresponding with the joinings of the sections or rings, as shown in fig. 4, are made on the outer surface of the covering, so that the sections may be readily separated by cutting with a knife through the outside covering, thereby making it convenient to take honey from the sections without waste; or, if preferred, the covering can be separated lengthwise, thereby giving an opportunity to dispose of the sections to advantage.

The form of the comb being circular adapts it to the shape of the dish or plate.

The end of the sectional honey-box is covered with glass, or otherwise, if so desired.

Honey-boxes may be formed square or rectangular of the same material, and in all other respects as the circular tubular box.

The upper part J of the hive is formed as a box without bottom, with ventilation-hole *k* covered with wire-cloth in the back and upper part of the hive, said box fitting closely to and on a rim or projection, *m*, formed around the outside and top of the brood-chamber A.

The two parts A and J of the hive are secured to their place by spring catches S, or fastenings of wood or metal, made of such form as to be self-adjusting when the two parts of the hive are properly placed together.

Having thus fully described my invention,

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

1. A honey-box, formed of sections G G, each with

a wire guide, *h*, and placed side by side within the covering *II*, which completely incloses said sections so as to form a whole, substantially as herein set forth.

2. The arrangement of the hive *A*, frames *B C D*, with the disconnected wire guides *a b*, honey-box *G H*, with guides *h*, cap *J*, and catches *S*, all substantially as shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand this 10th day of August 1870.

JAMES W. GLADDING.

Witnesses:

THOS. SLADE,
A. P. TENNEY.