

L. A. ASPINWALL.
BEEHIVE.

No. 493,466.

Patented Mar. 14, 1893.

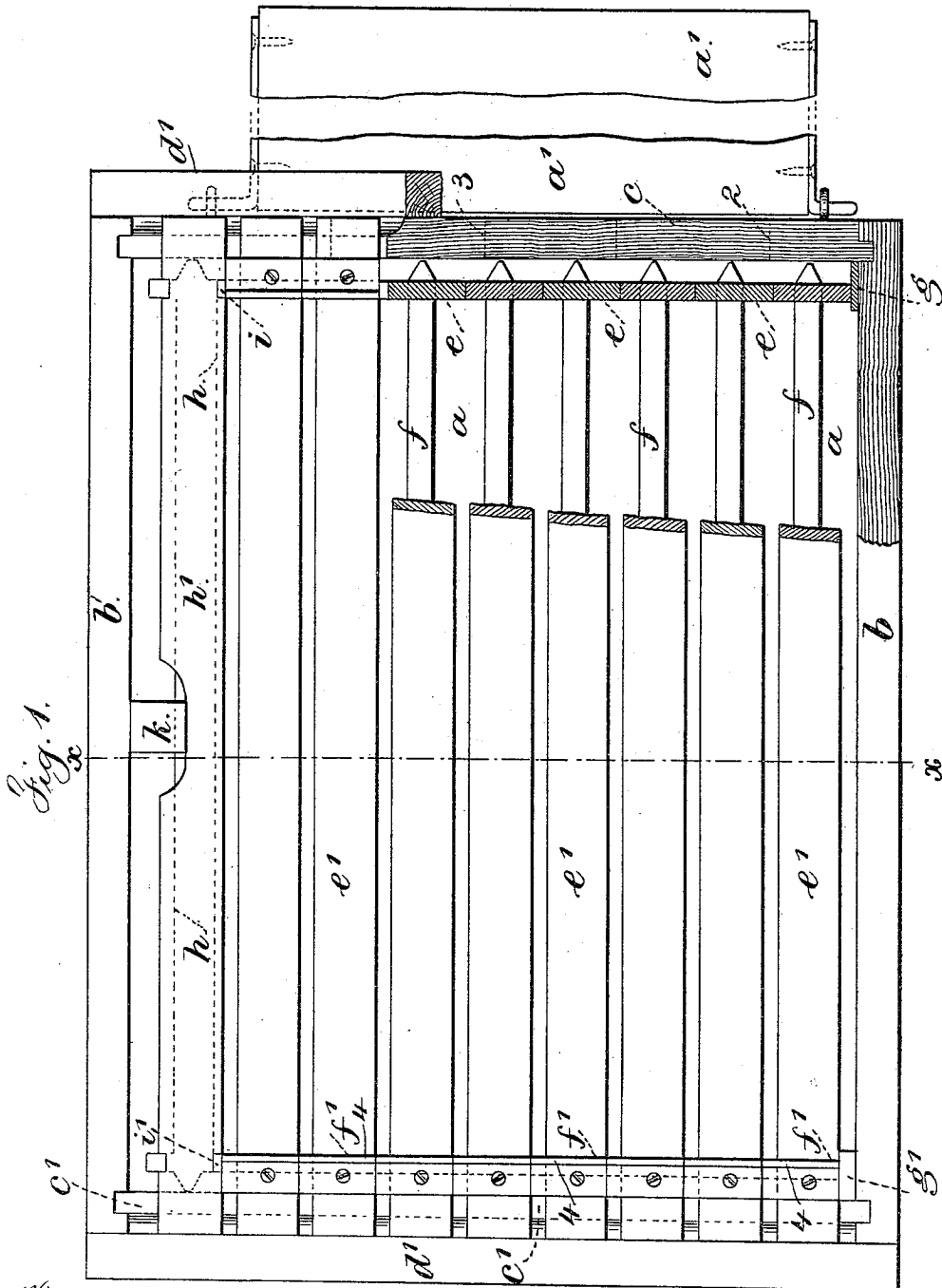


Fig. 1.

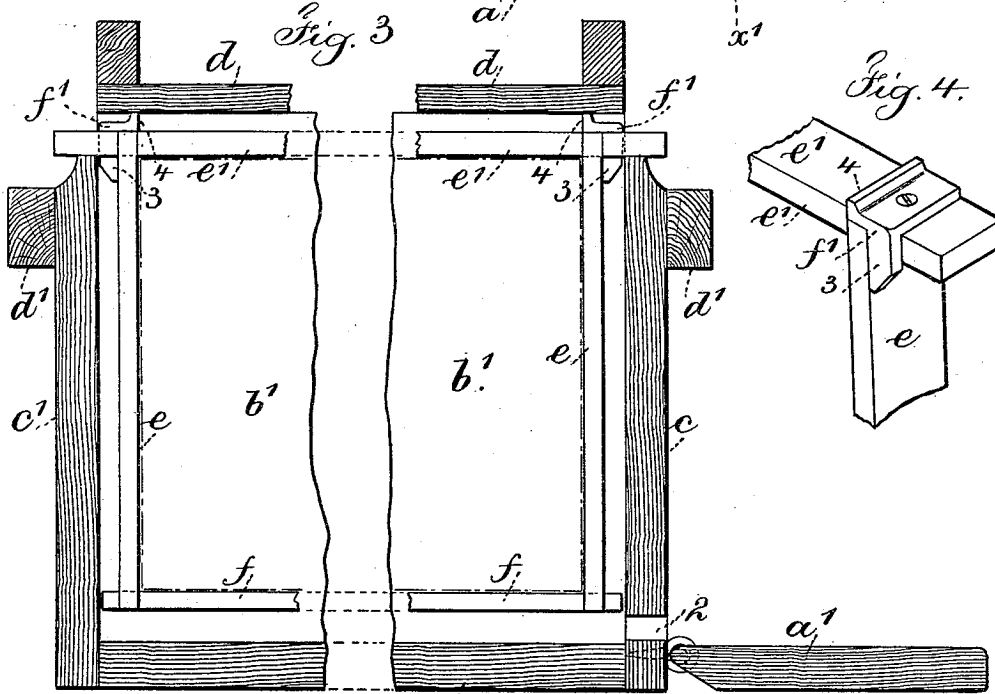
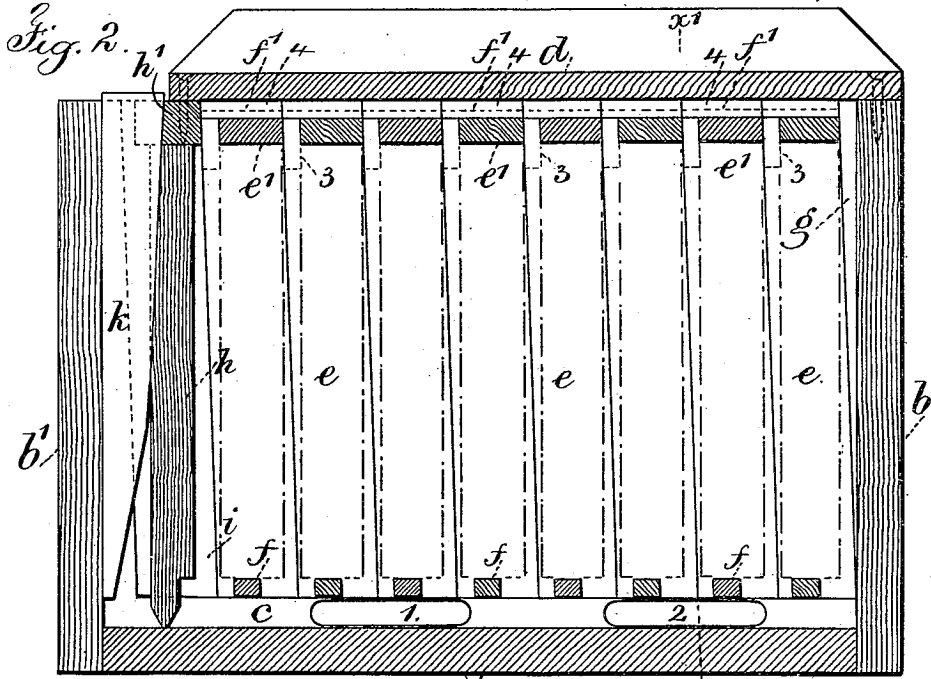
Witnesses
Chas. H. Smith
J. Staib

Inventor
L. A. Aspinwall
per Lemuel W. Terrell
att'y

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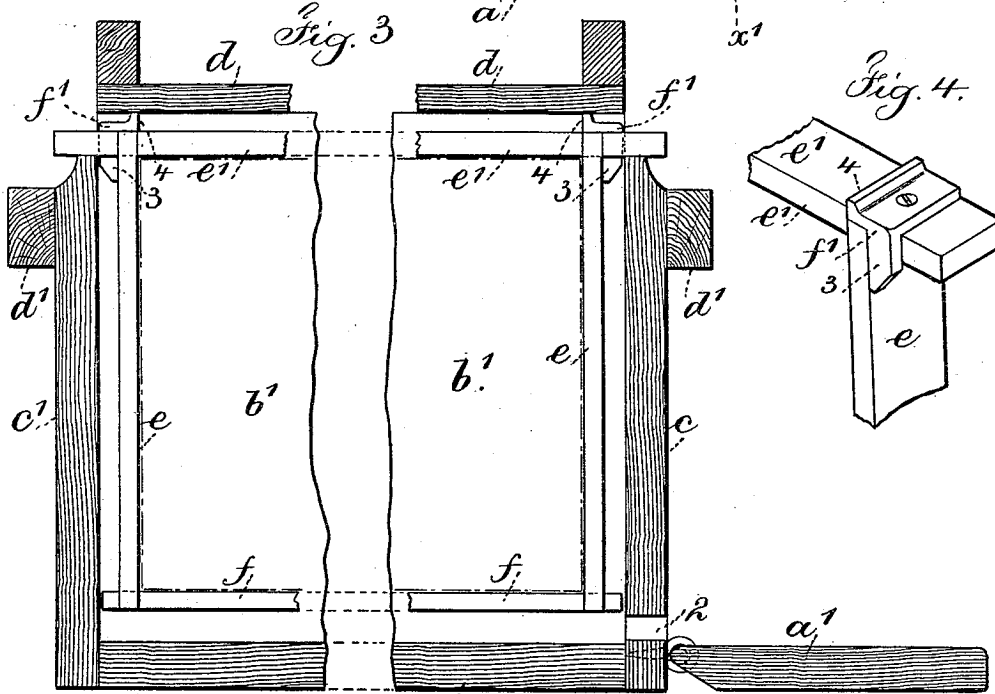
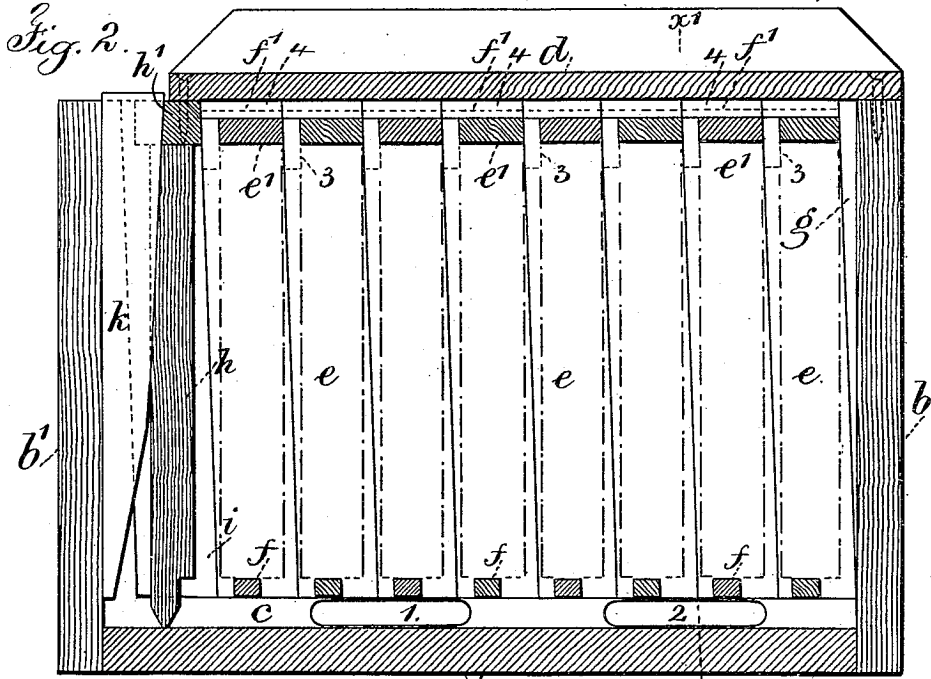
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the ends $c c'$ of the hive and resting thereon suspend the movable frames and the combs carried thereby. The upper parts of the hive ends $c c'$ are beveled or concaved beneath the ends of the top bars e' , see Fig. 3. This enables the operator to place his fingers beneath the ends of the top bars in moving the frames, and in so doing the fingers are not near the places occupied by the bees.

Metal pieces f' shown in perspective Fig. 4 assist in connecting the upper ends of the inclined end pieces e , and the respective ends of the top bars e' . These metal pieces f have wedge shaped corners 3 and ribs 4. The corners 3 extend below the top bars e' and outwardly from the outer surface of the end pieces e and coming within the ends $c c'$ of the hive prevent looseness of the movable frames and cause said frames to be aligned with each other. The ribs 4 extend up to the under side of the cover and assist in supporting the cover and closing in the top of the hive. The cover d is secured on the side b and top edge of the follower board h and is preferably provided with cleats to prevent it warping. The lower bars f of the comb frame extend at their respective ends beyond the inclined end pieces e and almost touch the ends $c c'$ of the hive and act with the corners 3 in insuring the proper position of the movable frames in the hive.

The follower board h extends across within the hive between the ends $c c'$. Its edges at the bottom and ends are beveled so as to be V-shaped to lessen the risk of crushing the bees, and the top bar h' extends over and is supported by the ends $c c'$, and wedge shaped strips $i i'$ are applied to the surfaces of the follower board contiguous to the end pieces e of the comb frames, so that while the follower board h stands vertical the wedge shaped pieces $i i'$ rest against the edges of the adjacent movable frame and correspond in inclination thereto. The back of the follower board h is preferably notched, and I employ a wedge k between the side b' and follower board h to press tightly together the said board and movable frames.

I have shown by dotted lines in Fig. 2 the combs within the movable frames. It will be noticed that the thickness of the combs corresponds to the width of the top bars e' and the spaces between the combs correspond to the spaces between the top bars e' .

When frames are to be removed from or inserted into the hive, the top d is taken off and the wedge k is withdrawn and the follower board pushed back and the frames loosened, and in lifting out the frames the one next the follower board is usually first removed, and in replacing the frames, those most distant from the follower board are first inserted and brought to place.

It is to be understood that the combs are built vertical and they are commenced on the under sides of the top bars e' and correspond in thickness to the width of such bars, hence

the combs are in the positions indicated by dotted lines Fig. 2, and one edge of each inclined end piece e , at its lower end coincides or nearly so to the surfaces of the combs and the opposite edge of such inclined end piece projects beyond the surface of the comb, and the top ends of such end pieces occupy the reverse positions relatively to the comb.

In all cases the inclined positions of the end pieces $e e$ of the frames serve to keep the combs away from each other as the frames are inserted or withdrawn. Suppose the most distant frame from the follower h is in place and the next frame is presented for insertion, the top parts of the end pieces e of the frame that is in place are the most distant from the comb, and the bottom parts of the end pieces e of the frame that is to be inserted are most distant from the comb, hence the combs cannot be rubbed against each other and there is no risk of injury to the combs or to the bees, and the combs come nearer together as the frame is inserted to place. This lessens the risk of injury, even when the frames are handled by inexperienced persons.

Wedges of different widths may be used in place of the wedge k , so as to provide for pressing a less number of frames together.

I claim as my invention—

1. The combination in a bee hive with the bottom a and sides $b b'$, of the end pieces $c c'$ made lower than the sides, the movable frames having top bars e' that extend over, rest upon, and are supported by the said end pieces, substantially as and for the purposes set forth.

2. The combination in a bee hive with the bottom a and sides $b b'$, of the end pieces $c c'$ made lower than the sides and with beveled or concaved edges, the movable frames having top bars e' that extend over, rest upon and are supported by the said end pieces, the beveled or concaved edges providing room for the fingers in lifting the frames, substantially as set forth.

3. The combination in a bee hive with the cover d , of the follower board h , the movable frames, and the metal pieces f' upon the respective upper corners of the frames, said metal pieces f' having ribs 4 upon their upper faces and upon which the cover in part rests, substantially as and for the purposes set forth.

4. The combination in a bee hive with the cover d , of the movable frames carrying the combs, the metal pieces f' connected to the respective upper corners of the said frames and having wedge shaped corners 3 and ribs 4, substantially as and for the purposes set forth.

5. The combination with the cover and box in a bee-hive, of the wedge pieces $g g'$ within the box and near the corners of the same, movable frames for the combs setting against such wedge pieces and thereby caused to assume an inclined position, and a follower board and means for pressing the same against the movable frames to confine them in place, substantially as set forth.

6. The combination in a bee hive of the

wedge pieces $g g'$ secured to the side b of the hive, movable frames having inclined end pieces e , the follower board h and its ends $i i'$ inclined to the face of said board and bearing
5 against the inclined end pieces e , substantially as set forth.

7. In a bee hive, the movable frames composed of the parallel top bars e' and lower bars f , the end pieces e having parallel edges
10 and standing at an inclination, and wedge

shaped pieces within the hive, with faces at a corresponding inclination, substantially in the manner and for the purposes set forth.

Signed by me this 17th day of September,
A. D. 1892.

L. AUGS. ASPINWALL.

Witnesses:

C. G. ROWLEY,
WALTER ALEXANDER.