

(Model.)

T. M. COBB. BEE HIVE.

No. 375,261.

Patented Dec. 20, 1887.

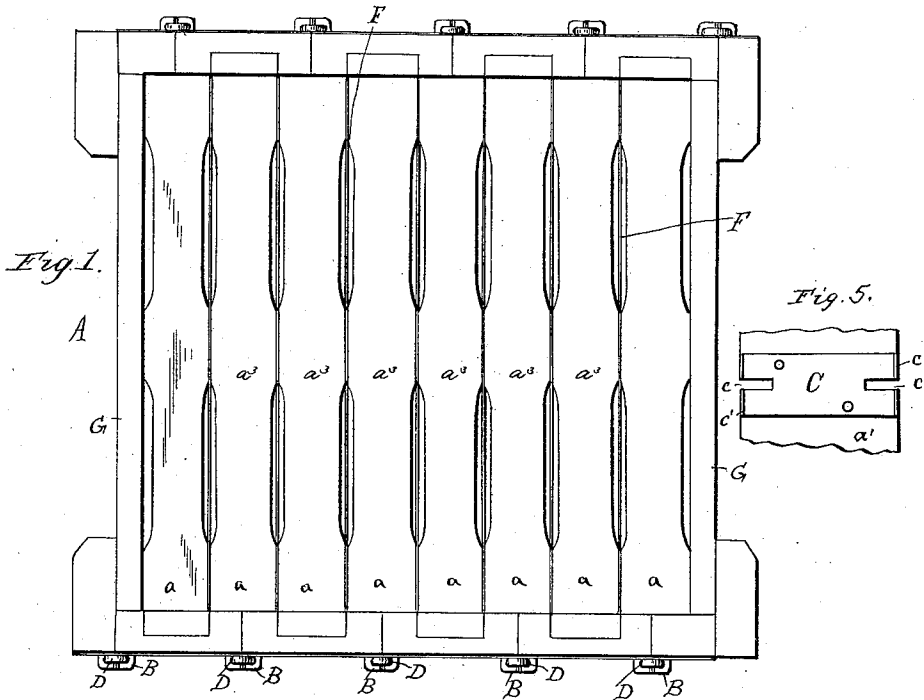
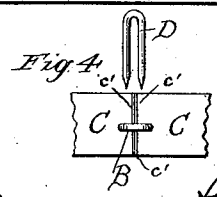
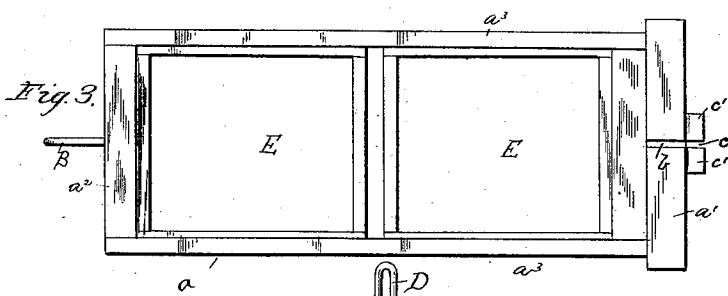
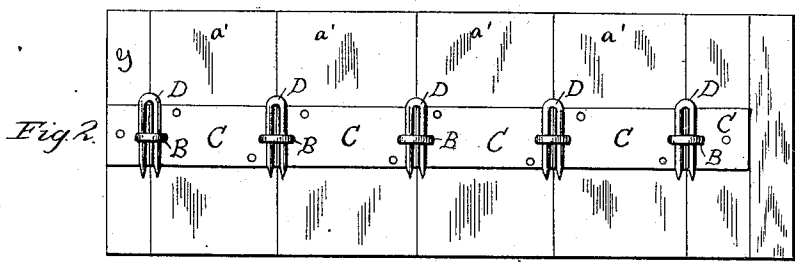
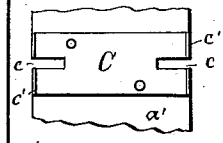


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS M. COBB, OF GRAND RAPIDS, MICHIGAN.

BEE-HIVE.

SPECIFICATION forming part of Letters Patent No. 375,261, dated December 20, 1887.

Application filed January 18, 1887. Serial No. 224,686. (Model.)

To all whom it may concern:

Be it known that I, THOMAS M. COBB, of Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Improvement in Bee-Hives; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to bee-hives, and has for its object to provide a sectional honey-case for bee-hives, composed of a series of interchangeable, detachable, invertible, and reversible frames adapted to be changed from one part of the honey-case to another, and that may be expeditiously reversed in whole or in part, or any one section entirely removed, if desired, whereby I remedy the great inconvenience arising from the instinct of bees to glue up every joint and crevice of their hives with bee-glue, which, with frames that fit into an outer case, is very great, and provide for the perfect filling of the cases with honey.

To these ends and to such others as the invention may pertain the same consists in the peculiar combinations and the novel construction, arrangement, and adaptation of parts, all as more fully hereinafter described and claimed.

In the accompanying drawings, which form a part of this specification, Figure 1 is a plan of a honey-case constructed in accordance with my invention. Fig. 2 is a side view of the same. Fig. 3 is a similar view of one of the sections or frames removed or detached. Fig. 4 is a detail more particularly hereinafter referred to, and Fig. 5 is a detail.

Referring to the details of the drawings, the letter A designates the case proper, and a the detachable interchangeable sections or frames, each of which is composed of two uprights, a' and a'' , and two longitudinal strips, a^3 , the longitudinal strips being secured to the uprights in any suitable way. It will be noticed that the upright a' is wider than the strips a^3 , while the upright a'' is the same width as said strips a^3 . Each upright a'' has projecting from its outer face a staple, B, while each upright a' has secured to its outer face a metal plate, C, which is provided at each end with a longitudinal slot, c , and with said ends

turned or bent at an angle to the length of said plate to form right-angled flanges c' , the slots passing through said flanged ends. Instead of being placed side by side, these frames are arranged as shown in the drawings—that is, the upright a'' of one frame is placed against the inner face of the upright a' of another frame, its staple passing through a slot, b , in said upright a' and through the slot c in the plate C. Then the next frame is reversed—that is, the upright a' thereof is placed at the end opposite the upright a' of the first frame, or against the upright a'' thereof, the staple of the first frame passing through the slot in the upright a' of the second frame and through the slot therein and the slot in the plate C thereon. A staple, D, is then passed vertically through the staple B, which is secured to upright a'' , the legs of the staple D passing upon opposite sides of the adjacent flanged ends of the two plates C, and thus securing the two frames together. Each frame is preferably provided with a removable smaller frame or frames, E, as shown in Fig. 3, which frames serve as honey-frames, in which the bees deposit the honey. F are separators, of veneer, pasteboard, or any other suitable material, and are removably inserted between the frames, as shown. The object of the separators is to compel the bees to make their combs straight; but these may be omitted, if desired. The end sections, G, are provided with similar flanged plates, C, or, more properly, half-plates, which are secured to the frames in the manner above described.

The longitudinal upper and lower strips a^3 of the frames are cut away at their edges, as shown at g , to provide entrances to and from the frames for the bees.

By the construction above described any one of the frames can be removed entirely, inverted, so as to bring the bottom to the top, or reversed end for end, or they can be interchanged at pleasure.

Bees are not inclined to fill out the lower parts of the frames in which they work, and hence the utility of being able to interchange or invert the frames when their work of filling them is not completed. By the construction shown and described the honey-case may be easily opened at any point of the same by removing a staple D from each end of the sec-

tions or frames it is desired to inspect, and when thus opened the filled smaller frames or the larger ones, if the small ones are not used, may be removed, inverted, reversed, or replaced by empty ones, or the unfilled ones may be changed to any desired part of the case.

Lateral movement of the frames must be in pairs; but any frame can be inverted, top for bottom, in its place, or the whole honey-case can be quickly inverted or reversed—that is, turned horizontally. Any two frames can be moved over any other two, four, or six, but one will not fit on the other side of its mate; but their places may be changed by changing their ends; also, if a staple, D, connecting any two frames at one end be removed, either one of the frames can be simply swung to one side or removed by swinging it outward when the flanged ends of the plates on the opposite ends will be withdrawn from their engagement with the staple at said end, and when desired it may be replaced in a similar manner.

What I claim as new is—

1. In a honey-case, the combination, with the frames *a*, provided with staples B, of the plates C, having slotted flanged ends, and the staple D, substantially as and for the purpose specified.

2. In a honey-case, a plurality of frames, *a*, provided with staples B and plates C, having slotted flanged ends, the end sections, G, provided with similar plates, and the removable staples D, engaging said staples and flanged ends of the plates, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS M. COBB.

Witnesses:

HARRY DICKERSON,
ALEX. B. FROST.