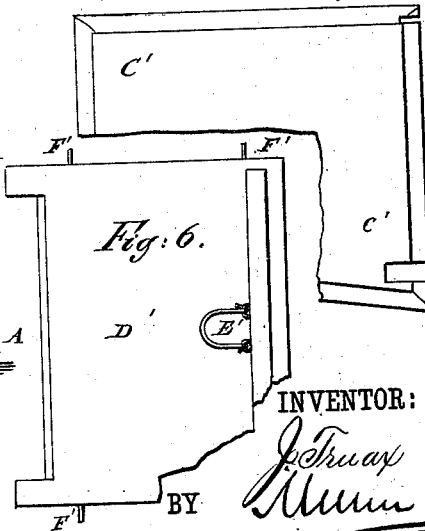
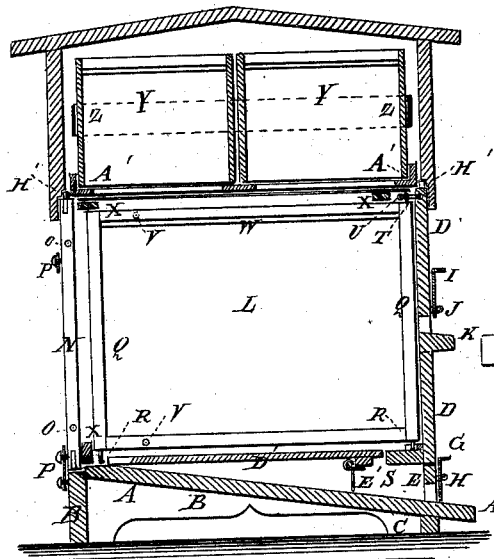
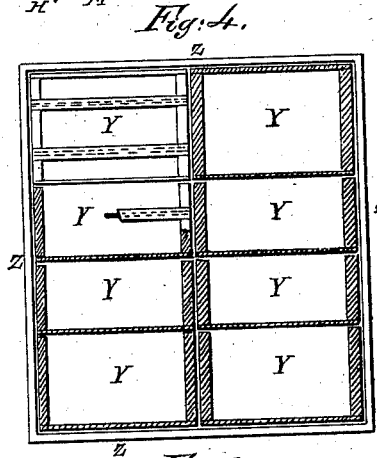
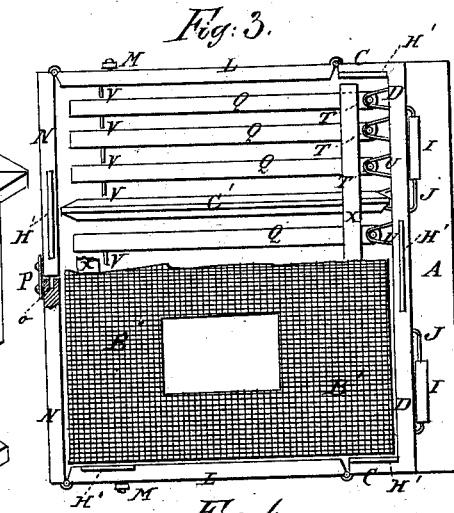
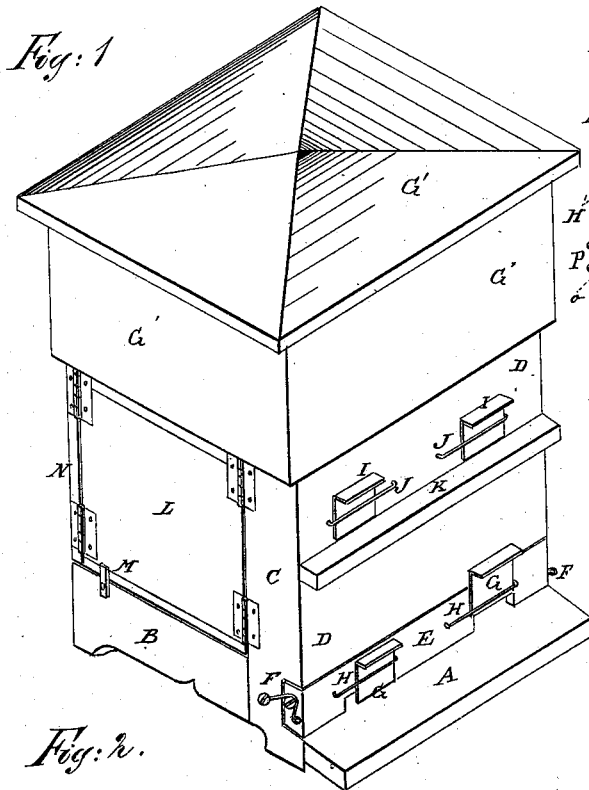


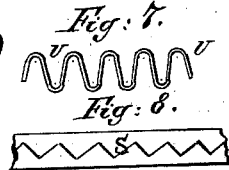
J. TRUAX.
Bee-Hive.

No. 216,475.

Patented June 10, 1879.



WITNESSES:
Chas. Nida.
C. Sedgwick



INVENTOR:

J. Truax
BY *Mum Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH TRUAX, OF MOUNT GILEAD, OHIO.

IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. **216,475**, dated June 10, 1879; application filed November 7, 1878.

To all whom it may concern:

Be it known that I, JOSEPH TRUAX, of Mount Gilead, in the county of Morrow and State of Ohio, have invented a new and useful Improvement in Bee-Hives, of which the following is a specification.

Figure 1 is a perspective view of my improved bee-hive. Fig. 2 is a vertical side section of the same. Fig. 3 is a top view of the lower part of the hive, showing a part of the separating-cloth. Fig. 4 is a top view, partly in horizontal section, of the surplus-honey boxes. Fig. 5 is a detail view of the division-board. Fig. 6 is a detail view of the lower side of the false bottom. Fig. 7 is a detail view of a part of the looped pivoting-wire. Fig. 8 is a detail view of a part of the notched stop and support-strip.

Similar letters of reference indicate corresponding parts.

The invention consists in improving the interior arrangement and construction of bee-hives, especially with reference to surplus honey, as hereinafter described.

A is the bottom of the hive, which is placed in an inclined position, with its forward edge the lowest, and to the side and rear edges of which are attached boards B, with their upper edges horizontal. The forward edges of the side boards, B, abut against the rear side edges of the lower parts of the upright boards C, the lower parts of which are attached to the forward parts of the side edges of the bottom A.

To the forward edges of the upright boards C are attached the ends of the front D, the lower edge of which is at a little distance from the bottom A. The space between the lower edge of the front D and the bottom A is filled by a narrow board, E. The narrow board E is secured in place by hooks F, pivoted to the boards C, and which hook upon pins or screws attached to the ends of the said narrow board E. In the lower edge of the narrow board E are formed long notches to serve as passage-ways for the bees, and which may be closed, or partly closed, by plates G, placed in long keepers H, attached to the board E.

The forward part of the bottom A projects in front of the front boards, D E, to serve as a platform for the bees to alight upon and take flight from. In the front D, a little above its

central line, are formed short slots, to serve as passage-ways for the bees when at work in the surplus-honey boxes, and which are closed, or partly closed, by plates I, placed in long keepers J, attached to the said front board, D. To the front D, at the lower sides of the upper passage-ways, is attached a strip, K, to serve as a platform for the bees to alight upon and take flight from.

To the rear edges of the upright boards C are hinged the forward edges of the ends L, which are kept in place when closed by buttons M, pivoted to the base side strips, B. To the rear edges of the end boards, L, are hinged the outer edges of the parts or halves of the back N, which are kept in place when closed by dowel-pins O and by hook P.

Q are the comb-frames, to the lower side of the lower corners of which are attached pins R, the rear pin R resting upon the rear part of the bottom A, and the forward pin R resting upon a cleat or strip, S, attached to the lower part of the inner side of the front D. The forward pin R is brought into and kept in place by entering V-shaped notches formed upon the upper side of the cleat S, or in the edge of a strip attached to the said upper side.

To the upper side of the forward corners of the comb-frames Q are attached pins T, which enter the outer loops of the looped or zigzag wire U, secured between the upper edge of the front D and a cleat attached to the said upper edge. The comb-frames Q are kept in place laterally by pins V, attached to their sides, and which rest against the sides of the adjacent frames and against the end boards, L, as shown in Figs. 2 and 3.

W are comb-guides, which are narrow strips of stiff paper inserted in grooves in the lower sides of the top bars of the comb-frames Q, so that the combs will be built straight and in the plane of the said frames. The comb-frames Q may be further secured in place by the cross-strips X, placed at their upper corners and at their rear lower corners.

Y are the surplus-honey boxes, which are made with one or two paper sides, with wooden ends and cross-bars, and with paper comb-guides attached to their upper edges. The surplus-honey boxes are kept in place by a rectangular band, Z, within which they are

placed, as shown in Figs. 2 and 4, and by the base-band A', made of angular strips, upon the lower part or flange of which the lower ends of the said honey-boxes Y rest, and which rest upon the inner parts of the upper edges of the boards D L N, as shown in Fig. 2, where they are kept in place by short cleats, or by pins attached to the upper edges of the side and end boards of the hive.

The surplus-honey boxes Y are designed to be covered with a cloth and a loose top board. The surplus-honey boxes Y are separated from the main comb-frames Q by a cloth, B', which has flaps formed in it by cutting along three sides of a rectangle, so that the said flaps can be turned back when desired to allow the bees to ascend into one or another part of the honey-boxes Y, as may be desired.

The main or brood chamber may be made of any desired size by removing one of the comb-frames Q and inserting a division-board, C', which is made with an inclined lower edge to fit upon the inclined bottom A.

D' is a false bottom placed upon the inclined bottom A, and which is provided with a hinged leg or support, E', which may be adjusted to support the false bottom D' in a horizontal position, as shown in Fig. 2. The false bottom D' is made narrower than the chamber in which it is placed, and has a long notch cut in its rear edge, to form passage-ways for the bees and for ventilation. The false bottom D' is kept from lateral movement by pins F', attached to its side edges, and which rest against the end boards, L.

The surplus-honey boxes are inclosed by a cap, G', the lower edges of which are rabbeted upon their inner sides, to receive and rest upon

the upper edges of the side and end boards, D N L L. The surplus-honey boxes are centered and secured in place by pins H', attached to the upper edges of the side and end boards, D N L L, and which enter recesses in the rabbeted lower edges of the cap G'.

The doors of the hive are strengthened to prevent them from being warped by heat from the bees or from the sun by cleats or strips attached to or let into their end edges across the grain of the wood.

My honey-boxes with loose comb-guides cause the combs to be straight, so that they can be easily removed without cutting, breaking, or bruising the box; or they can be marketed in the boxes, that form a protection for the combs and leave one side open for inspection.

What I claim as new and of my invention is—

1. The comb-frames Q, provided with side pins, V, top pins, T, and bottom pins, R, the latter supported in a notched front strip, S, as well as on bottom A, the top pins in outer loops of a zigzag wire, and the side pins against the frames and end boards, as shown and described.

2. The surplus-honey boxes Y, secured together by a removable median band, Z, and bottom angle-band, A', as set forth.

3. The rear notched false bottom, D', having hinged leg E' and side pins, F', combined in a bee-hive with an inclined bottom, A, as and for the purpose specified.

JOSEPH TRUAX.

Witnesses:

WM. P. BOWMAN,
ANDREW J. ROBERTS.