

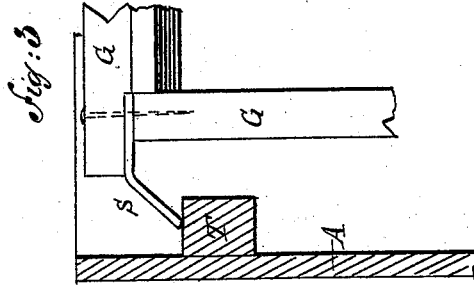
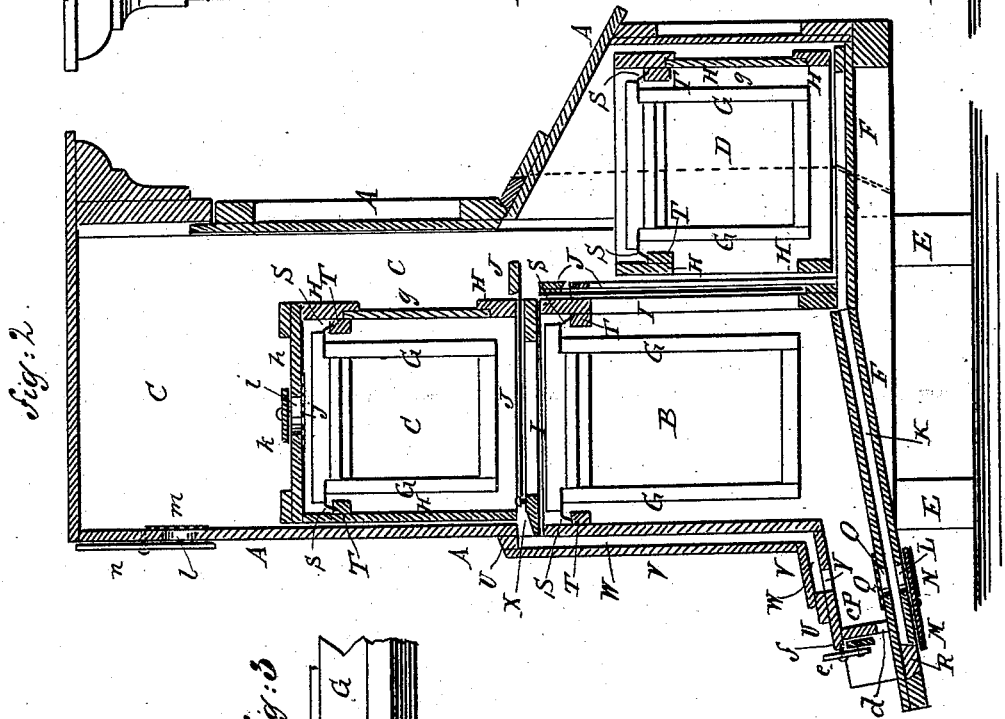
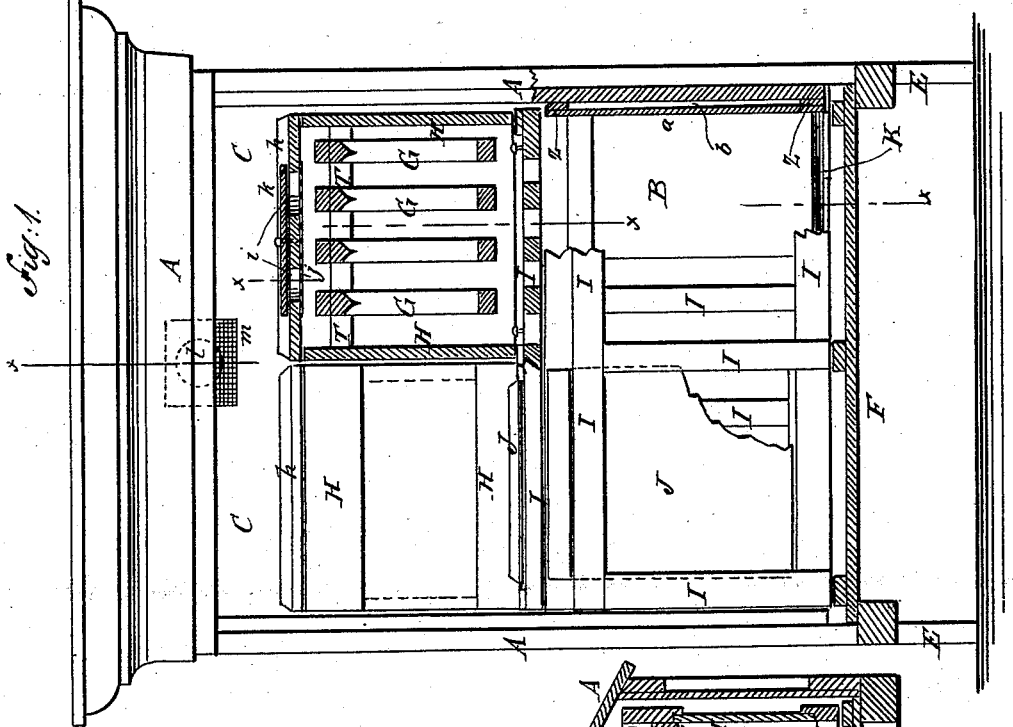
(Model.)

2 Sheets—Sheet 1.

M. VAN ENSLEY.
BEE HIVE.

No. 306,122.

Patented Oct. 7, 1884.



WITNESSES:

Chas. K. K. K.
C. Sedgwick

INVENTOR:

M. Van Ensley

BY

Munn & Co.

ATTORNEYS.

(Model.)

2 Sheets—Sheet 2.

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Fig. 4.

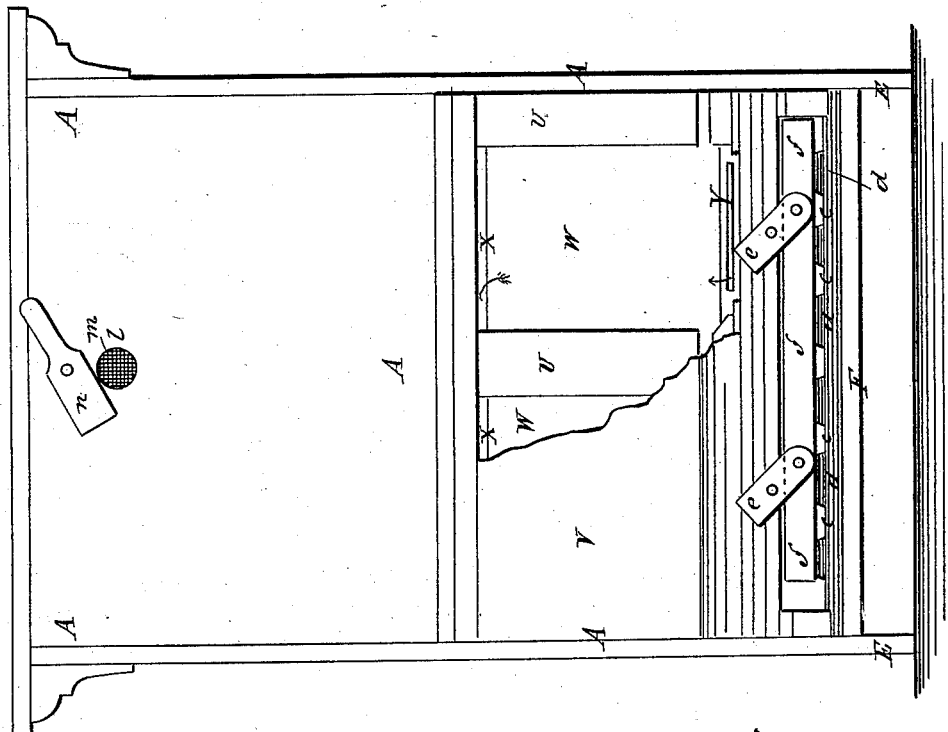


Fig. 5.

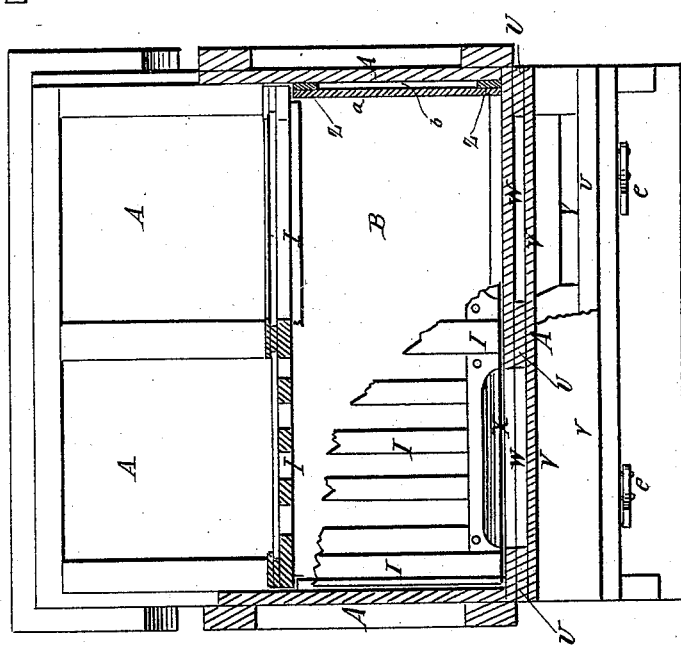
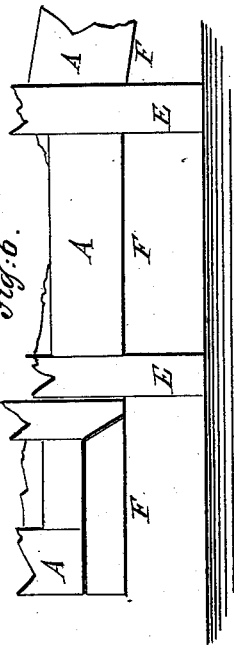


Fig. 6.



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UNITED STATES PATENT OFFICE.

MARTIN VAN ENSLEY, OF McMinnville, OREGON.

BEE-HIVE.

SPECIFICATION forming part of Letters Patent No. 306,122, dated October 7, 1884.

Application filed November 21, 1883. (Model.)

To all whom it may concern:

Be it known that I, MARTIN VAN ENSLEY, of McMinnville, in the county of Yam Hill and State of Oregon, have invented a new and useful Improvement in Bee-Hives, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1, Sheet 1, is a front elevation of my improved hive, the front casing being removed and parts being broken away. Fig. 2, Sheet 1, is a sectional side elevation of the same, taken through the broken line *x x x x*, Fig. 1. Fig. 3, Sheet 1, is a side elevation of one of the comb-frames, enlarged, and showing a supporting-cleat and part of the casing in section. Fig. 4, Sheet 2, is a rear view of the same, part being broken away. Fig. 5, Sheet 2, is a sectional plan view of the same, parts being removed and parts broken away. Fig. 6, Sheet 2, is a side elevation of a portion of the lower part of the same.

The object of this invention is to promote convenience in bee-culture.

The invention consists in certain improvements in the construction of the bee-hive for which Letters Patent of the United States were granted me on the 12th day of September, 1882, and numbered 264,376, as will be hereinafter fully described and claimed.

A represents the case of the hive. B is the brood-chamber. C is the upper surplus-honey chamber, which is arranged above the brood-chamber B, and D is the front surplus-honey chamber, which is arranged in front of the brood-chamber B. The hive is supported upon short legs E, of such a length as to raise the bottom F of the hive to a suitable height above its support. The comb-frames G of the brood-chamber B are separated from the comb-crates H of the surplus-honey chambers C D by honey-boards I, which are formed of slats placed directly opposite the bars of the brood-chamber honey-frames, and made of the same width as, or a little wider than, the bars of the said comb-frame, so that the spaces between the said slats will allow the working-bees to

pass through them, but not the drones or the queen. The slats of the honey-boards I are attached to cleats or a frame to keep them in place, and for the upper comb-crates to stand upon and the lower comb-crates to rest against. Spaces are left between the slats of the honey-boards I, the bottoms or sides of the frame-crates H, and the cleats of the said honey-boards I, to receive slides J, to close the spaces between the slats of the honey-boards, which spaces form the inlet-passages for the bees into the surplus-honey chambers C D.

The bottom F of the brood-chamber B is made of two boards attached to interposed cleats, and kept at such a distance apart by the said cleats as to form outlet-passages K for the bees from the lower surplus-honey chamber, D, when the inlet-passages are closed by the slides J.

In the lower part of the lower board of the bottom F are formed holes L.

To the lower surface of the bottom F are pivoted at their centers buttons M, in such positions that either end of the said buttons can be turned over the holes L. One end of each button M is solid, and is used when the said holes L are to be closed, and the other end is perforated and covered with wire-gauze N, so that it can be used to allow air to enter to ventilate the hive.

In the lower part of the upper board of the bottom F are formed openings O, leading into the entrance-chamber P and covered with wire-gauze Q, to allow air to enter the said entrance-chamber P to ventilate the brood-chamber B. The lower ends of the passages K are closed by a tapering dovetailed key, R, inserted in a tapering dovetailed groove in the lower part of the double bottom F, so that the said passages K can be readily cleaned by removing the said key without disturbing the bees. The passages K form an air-chamber to protect the bees from cold in the winter.

To the projecting ends of the top bars of the comb-frames G are attached downwardly-projecting strips or hooks S, of sheet metal or other suitable material, the ends of which rest upon cleats T, attached to the sides of the brood-chamber B and of the frame-crates H, or upon rabbeted edges of the said sides, to pre-

vent the bees from waxing or gumming the comb-frames G to their supports, and to allow a free passage to the bees around the ends of the top bars of the said comb-frames G. The lower side of the top bars of the comb-frames G is concaved along its edges, to bring the said side to a thin sharp edge, to serve as a guide to the bees in starting the combs, and to avoid the use of comb-foundations and artificial comb-starters.

To the outer surface of the rear wall of the brood-chamber B and the top wall of the entrance-chamber P are attached cleats U, to which are attached boards V, forming passages W. The upper end of the passage W terminates at an opening, X, into the upper surplus-honey chamber, C, above the honey-board I and below the edge of the upper frame-crates, H, which honey-board and edge are recessed to form an entrance to the said passage W. The lower end of the passage W terminates at an opening, Y, in the top wall of the entrance-chamber P. With this construction, when the entrance-passages between the slats of the honey-board I into the upper surplus-honey chamber, C, are closed by the slides J, the bees can pass out through the passages W, but cannot find their way in through the said passages W. This construction also forms an air-chamber at the rear side of the brood-chamber B, to protect the bees from the cold in winter.

To the side walls of the hive, at the sides of the brood-chamber B, are attached cleats Z, to which are attached false side boards, a, to form dead-air chambers b at the sides of the said brood-chamber B. By this construction the brood-chamber B will be surrounded by air-chambers to retain the heat and prevent the bees from freezing in winter, and to secure a more even temperature in summer. The bottom board of the entrance-chamber P is extended beyond the top board of the said chamber, to form a platform for the bees to alight upon and take flight from.

To the under side of the edge of the top board of the entrance-chamber P is attached the upper edge of a board, c, which extends down to the bottom board of the said entrance-chamber P, and has a number of recesses, d, formed in its lower edge for the passage of the bees.

To the edge of the top board of the entrance-chamber P, or to the board c, are pivoted two or more short bars, e, the lower ends of which are pivoted to a sliding board, f, which serves as a door for closing the entrance-recesses d. The upper ends of the bars e project to serve as handles for operating the slide f. By this construction the slide f can be adjusted to fully open the entrance-passages d, or to open them to such an extent that only the working-bees can pass through, the entrance of the drones being obstructed and the queen being prevented from leaving the hive, making the hive non-swarming. This construction also

allows the entrance-passages d to be fully closed for winter, ventilation being obtained through the openings in the bottom, as hereinbefore described.

The comb frame crates H are formed with side boards having strips attached to the upper and lower edges of their front ends, which strips have their adjacent edges rabbeted to receive glass plates g, to allow the interior of the said crates to be inspected. The crates H, for the upper surplus-honey chamber, C, may be made with close rear sides, as shown in the upper part of Fig. 2, and the crates H, for the lower surplus-honey chamber, D, can be made with open rear sides, as shown in the lower right-hand part of Fig. 2.

To the inner surface of the upper parts of the crates H are attached cleats T, to receive the points of the supporting-hooks S, attached to the ends of the top bars of the comb-frames G, as hereinbefore described. The crates H are provided with covers h, to prevent the bees from passing out of the crates H into the air-spaces of the chambers C D.

In the covers h are formed one or more apertures, i, closed with wire-gauze j, attached to the lower sides of the said covers h.

To the upper sides of the covers h are pivoted buttons k in such positions that they can be turned over the apertures i, to prevent the warm air from escaping from the hive in winter, and turned off the said apertures to ventilate the hive in summer.

In the upper part of the rear side of the hive is formed a ventilating-opening, l, covered at the inner side of the hive with wire-gauze m, and closed at the outer side, when desired, by a button, n, so that the escape of warm air from the hive can be allowed or prevented, as desired.

I am aware that comb-bars have been provided with metal hooks to support said bars; also, that the walls of hives have been provided with air-chambers; also, that the doors have been hung on pivoted links or braces; also, that the tops of surplus crates have been provided with gauze-covered openings and covers for closing said openings, and, also, that the crates have been provided with rabbeted cleats for supporting glass sides; and I do not desire to claim, broadly, any such constructions as of my invention.

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

1. In a bee-hive, the bottom F, made double, and provided with passage K and ventilating-openings L O, substantially as herein shown and described, whereby the bees can escape when the inlet-passages are closed and the hive will be ventilated, as set forth.

2. In a bee-hive, the combination, with the wall of the hive, of the cleats U on the top of the entrance-chamber and on the wall in rear of the lower part of the upper surplus chamber, respectively, boards V, upper surplus chamber, C, having opening X at its bottom,

and the entrance-chamber having opening Y in its top, whereby the door of the entrance-chamber serves to prevent exit from the passage W and the entrance-chamber, substantially as set forth.

3. In a bee-hive, the bottom F, made double and provided with passage K, ventilating-

openings L O, and a slide, R, below said openings, whereby the passage may be cleaned out when said slide is removed.

MARTIN VAN ENSLEY.

Witnesses:

O. H. ADAMS,

J. GRANT TURNER.