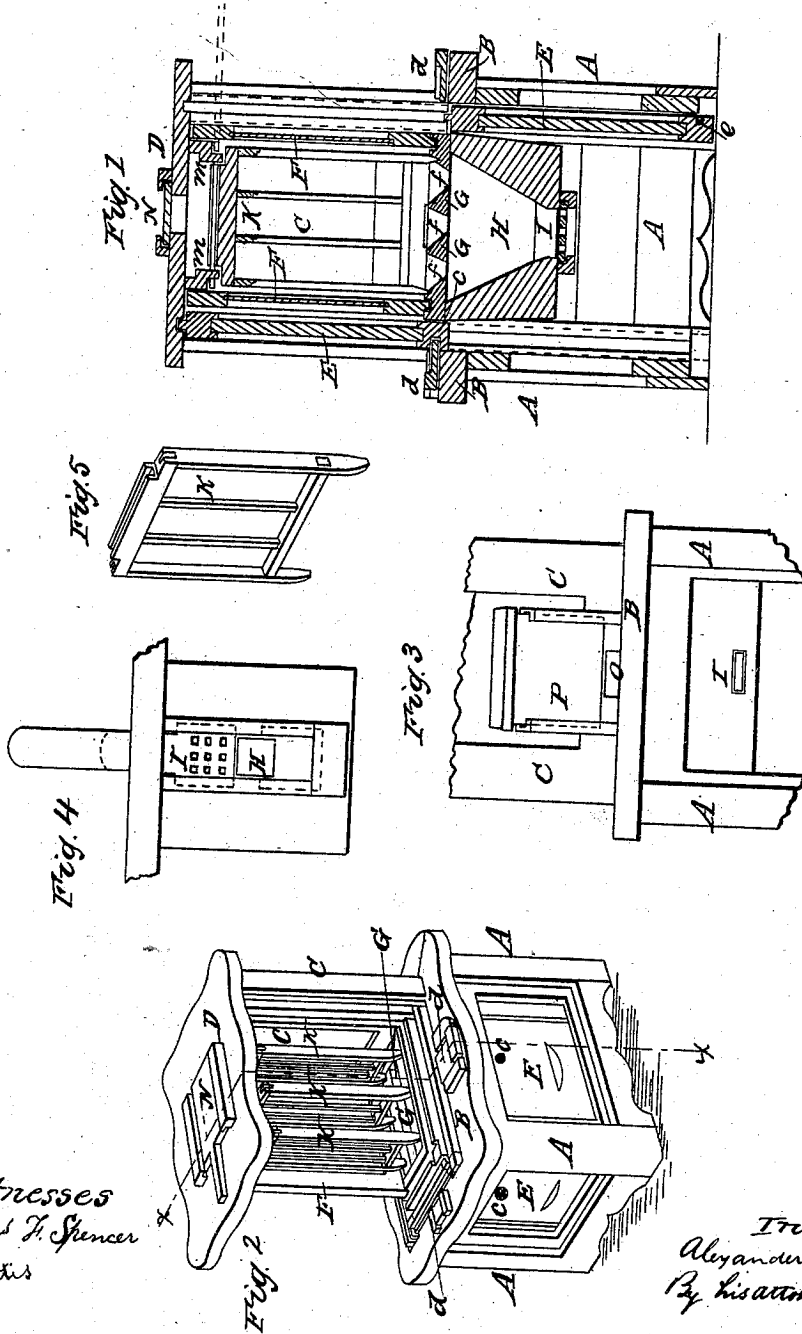


A. CLOW.
Bee Hive.

No. 32,101.

Patented April 16, 1861.



witnesses
Chas. F. Spencer
James

Inventor
Alexander Clow
By his attorney J. Fraser.

UNITED STATES PATENT OFFICE.

ALEXANDER CLOW, OF WATERFORD, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND H. S. CAMPBELL, OF SAME PLACE.

BEEHIVE.

Specification of Letters Patent No. 32,101, dated April 16, 1861.

To all whom it may concern:

Be it known that I, ALEXANDER CLOW, of Waterford, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in the Construction of Beehives; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a vertical section on the line *x x* of Fig. 2. Fig. 2, is a perspective view of my improved hive, the panels E being lowered and sash F removed, to show its interior construction. Fig. 3, is an elevation of a portion of the front of the hive, the parts above and below being broken away. Fig. 4, is an inverted plan view of the bottom of the hive, showing the opening of the receiver H, and ventilating slide I. Fig. 5, is a perspective view of one of the comb-racks, detached.

The same letters designate corresponding parts in all of the views.

In its general form my hive consists of a rectangular frame, A A, with open panels on each of its sides. From a table, B, a permanent wall C, rises on one side, and supports the top or canopy D, over the space for the reception of the bees. The three other sides consist of movable panels E, E, which slide in vertical grooves in the frame A and wall C. Their upper edges enter grooves provided in the top, D, for their reception, and they are held from falling from their proper position by the key slide, *d*, on the table, which when pressed forward enters the recess *e*. A tongue on the edge of the side panels enters a corresponding groove in the edges of the front C, and there is a similar tongue and groove connection between the back and side panels, so that they form a joint which does not admit wind or moisture from without. These panels, from sliding in the manner described, are not liable to destroy the bees, and afford ready access to the interior of the hive, for observation and other purposes. In Fig. 1, one of the panels is represented as lowered and another as raised.

Within the inclosure formed by the panels with the permanent side, three glass frames or sash F F, slide in horizontal grooves in the table or bottom of the hive. They move

horizontally, and when the panels E, have been dropped, may be separately drawn out, leaving the swarm and comb exposed.

The bottom of the bee apartment is slotted so as to consist of several bars G G. These are of a triangular form or approximating thereto so as to present very steep inclined upper surfaces, and the edges and surrounding portions of the bottom *f f*, are similarly constructed, so that any refuse matter or dead bees, falling from above will not lodge, but be carried off in the funnel shaped receiver H, below. This receiver is provided with a slide I, (Figs. 1 and 4,) at its lower extremity, one portion of which is perforated, for the purpose of admitting a moderate supply of air for the proper ventilation of the hive. It may however be placed so as to entirely close the opening by sliding it farther in, or it may be drawn back sufficiently to leave it entirely open. By this means the filth and refuse are very easily removed, and the ventilation may be regulated as desired. If further ventilation is deemed necessary air may be admitted through wire gauze openings *c c* in the panels when it will gradually penetrate through the joints of the glass frames, and other parts, and become diffused throughout the hive without admitting a direct current on the bees.

The racks, or frames, K, several of which occupy the interior of the hive are so constructed as to be readily removable. Their upper bar is formed for the greater portion of its length of a trough or U-shape, *i*, for the reception of a rod *l*, Fig. 1, (in which the upper portion of the frame is shown in section). This rod passes through mortises provided at suitable distances apart in two cleats *m m*, which are attached to the top D, transversely of the racks. The feet of the racks are planted in notches or mortises at *f f*, and when the rod *l* passes through the mortises and groove *i* at the same time, the racks are firmly held in place, but by withdrawing this, as is shown in dotted lines, are readily removable.

A slide N, closes an opening in the top which is designed for the purpose of allowing the bees to ascend into boxes or vessels placed thereon, which are to be provided with glass windows, or otherwise made to admit the light so as to attract the bees through the passage. When they have as-

sembled the slide may be closed, retaining them there while the racks are withdrawn for removing a portion of the honey.

5 An opening O, is provided in the wall C, which affords egress and ingress for the bees. This is regulated by a slide P, by which it may be partially closed leaving the orifice only large enough to admit the working bees while it excludes the drones.

10 The wall C, forms the front of the hive, and being permanently connected with the substructure and with the canopy D, it forms a very convenient arrangement by which the other sides may be removed, and the glass

15 partitions and racks also, if desired, thus affording very great facilities for examining all parts, cleansing, and removing honey, without deranging the general structure of the hive, or uncovering it. It also admits

20 of an exterior form and proportions which are agreeable to the sight.

What I claim as my invention and desire to secure by Letters Patent is,

1. Constructing bee-hives with a permanent wall or side, C, rising from the lower structure A, and sustaining the top D, in combination with the drop sides or panels, E, E, E, and interior slides F, F, F, whereby the whole interior of the hive and its contents may be exposed or removed without removing the top, substantially in the manner and for the purpose shown and described.

2. The described manner of constructing the comb-racks K, and connecting them with the hive, to admit of their ready removal and change, substantially as shown.

ALEXANDER CLOW.

Witnesses:

RICHD. CROSS,
P. P. JUDSON.