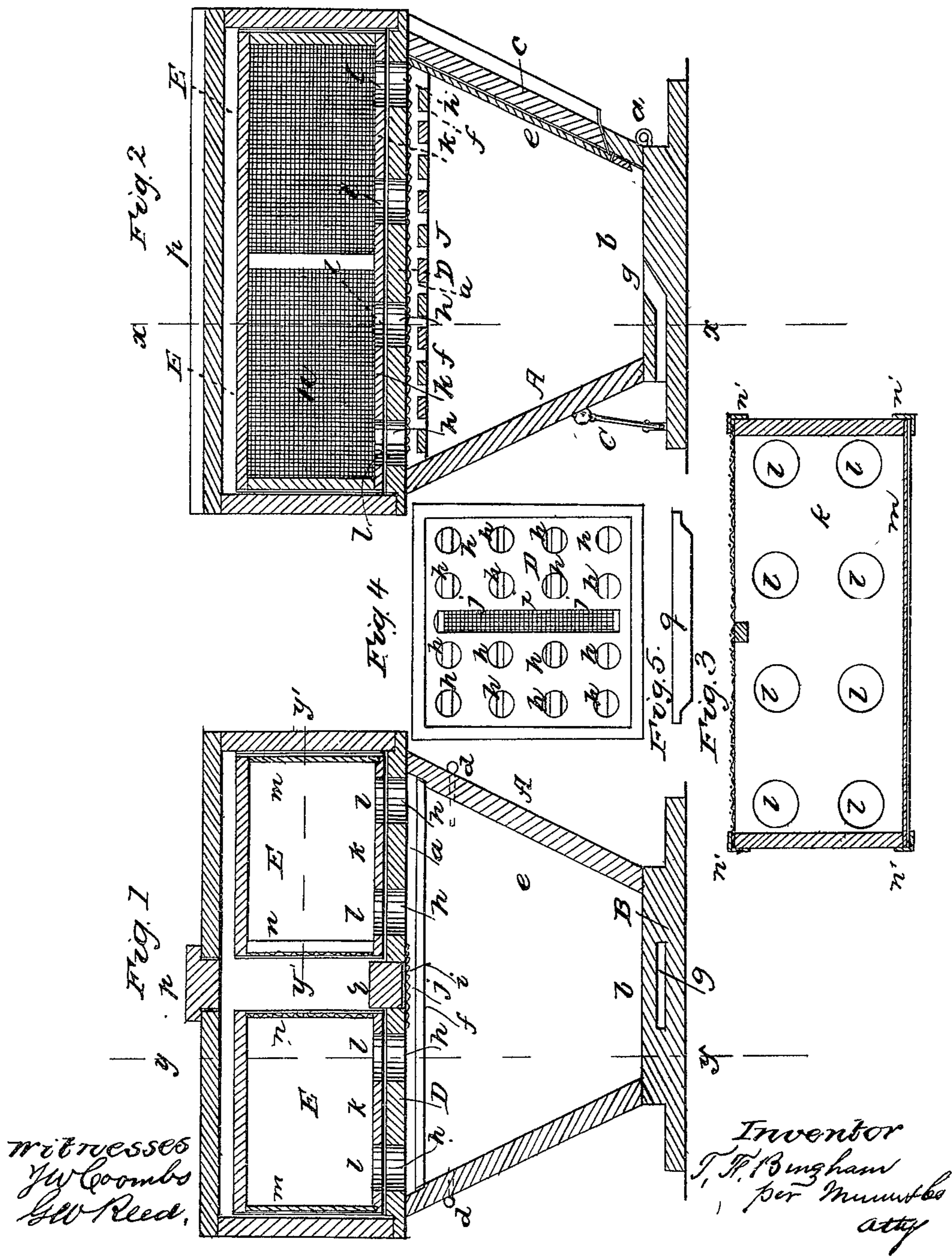


T. F. BINGHAM.

Bee Hive.

No. 40,600.

Patented Nov. 17, 1863.



Witnesses
J. W. Coombs
G. W. Reed.

Inventor
T. F. Bingham
per Munnell & Co
att'y

UNITED STATES PATENT OFFICE.

T. F. BINGHAM, OF GOWANDA, NEW YORK.

IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 40,600, dated November 17, 1863.

To all whom it may concern:

Be it known that I, T. F. BINGHAM, of Gowanda, in the county of Cattaraugus and State of New York, have invented a new and Improved Bee-Hive; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a vertical section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a detached horizontal section of one of the spare honey boxes, taken in the line *y' y'*, Fig. 1; Fig. 4, a detached plan or top view of a partition-plate pertaining to the invention; Fig. 5, a side view of a cover or stopper belonging to the partition-plate.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the body or main portion of the hive, the sides of which are inclined, so that said body will be of inverted pyramidal form.

B is the base or bottom of the hive, which is of square form, and is attached to the lower end of one side of the body A by means of hinges *a*. This base or bottom B is provided with a raised square portion, *b*, the area of which is equal to the area of the bottom of the body A, and abuts against it when the bottom is secured in close contact with A, as shown in Figs. 1 and 2. The bottom B is kept in contact with A by means of any proper fastening, C. The back *c* of the body A is secured to the latter by pins *d*, which pass into the upper part of *c* at each side to form joints or hinges. This back *c* is the door of the body A, and it is opened by shoving its lower part inward. The back *c* may be detached at any time when necessary or desired by withdrawing the pins *d* and inserting a glass back, *e*, in its place. The top of the body A is formed of a series of parallel slats, *f*, placed at a suitable distance apart, and in the raised part *b* of the bottom B of the hive there is made an opening or passage, *g*, which at its inner part projects upward and communicates with the interior of the hive at the center of *b*, as shown clearly in Fig. 2. This passage *g* is the bee-entrance to the hive.

D represents a partition-plate of square form, which is secured by screws or otherwise to the top of the body A above the slats *f*. This plate D has a series of circular holes, *h*, made through it, and also has an oblong opening, *i*, made through it at its center, said opening extending the whole width of the top of the body A, and covered at its bottom by a piece of wire cloth, *j*. On this partition-plate D there are placed two spare-honey boxes, E E, which are of rectangular form, and have their bottoms *k* perforated with holes *l*, which register with the holes *h* in D. The boxes E are placed one at each side of the opening *i*, and their outer sides, *m*, are of glass, and their inner sides of wire cloth, *n*. The glass and the wire cloth are both secured to the boxes E by means of metal angle plates *n'*, which are secured to the corners of the boxes and lap over the ends of the glass and wire cloth, as shown clearly in Fig. 3. The spare honey boxes E are covered by a rectangular box, F, which rests on the partition plate D, as shown in Figs. 1 and 2, and has an oblong slot, *o*, made in its top, said slot being provided with a bar or cover, *p*. By this arrangement it will be seen that all parts of the hive may be thoroughly ventilated, the air passing up through the passage *b* and centrally through the body A of the hive through the oblong opening *i*, and through the wire cloth sides *n*, and also through the holes *h l* in the partition-plate D and the bottoms of the spare honey-boxes E E, and through the oblong slot *o* in the top of the box F. Whenever the ventilation requires to be checked, it may be done by covering the slot *o* with the bar *p*, and the oblong opening *i* may also be covered by a similar bar, *g*. Thus by this simple arrangement the apiarist will have perfect control over the temperature of the hive, and in case the passage *b* should become closed up with ice in winter, or with dead bees, the bees cannot be suffocated, as the foul air can escape through the slot *o*.

The ventilation can be made to keep the hive cool in the warmest weather, so that the bees can work expeditiously and the comb prevented from melting. No time, therefore, will be lost during the working season, as is the case with ordinary hives, as may be seen by the congregating of the bees on the outer sides of the hives, and their liability to swarm early. By my improvement it is within the

power of the apiarist to make the bees swarm early or late.

The advantage of the passage or bee entrance *b*, arranged as shown, enables the bees to effectually exclude the moth, which, in order to get into the hive, is compelled to pass through said passage, which in consequence of its length and its inner orifice being directly under the center of the body *A*, where the main portion of the bees are located, and where the warmth enables the guard to be on constant duty. The moth, therefore, is closely watched and forcibly ejected when endeavoring to effect an entrance. The bees are enabled to pass from one comb to another in the space *a'* above the slats *f* between them and the partition plate *D*. The slot *o* and opening *i*, it will be seen, are at right angles to the slats *f*, and consequently with the combs, and the current of air will, therefore, be diffused through the whole hive or through every part of it. By having the spare honey boxes

E provided with metal angle plates *n'* at their corners to retain in proper position the glass *m* and wire cloth *n* a very strong light and economical mode of construction is obtained, and one which admits of the glass and wire-cloth being placed nearer the sides of the boxes than when grooved posts are used.

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

The partition plate *D*, provided with holes *h*, as shown, and an oblong opening, *i*, covered with wire-cloth *j*, in connection with the slot *o* in the box *F*, and the arrangement of the two spare honey boxes, *E E*, for the purpose of controlling the ventilation of the hive, as set forth.

T. F. BINGHAM.

Witnesses:

CHARLES W. CHAFFEE,
A. R. MUILFELT.