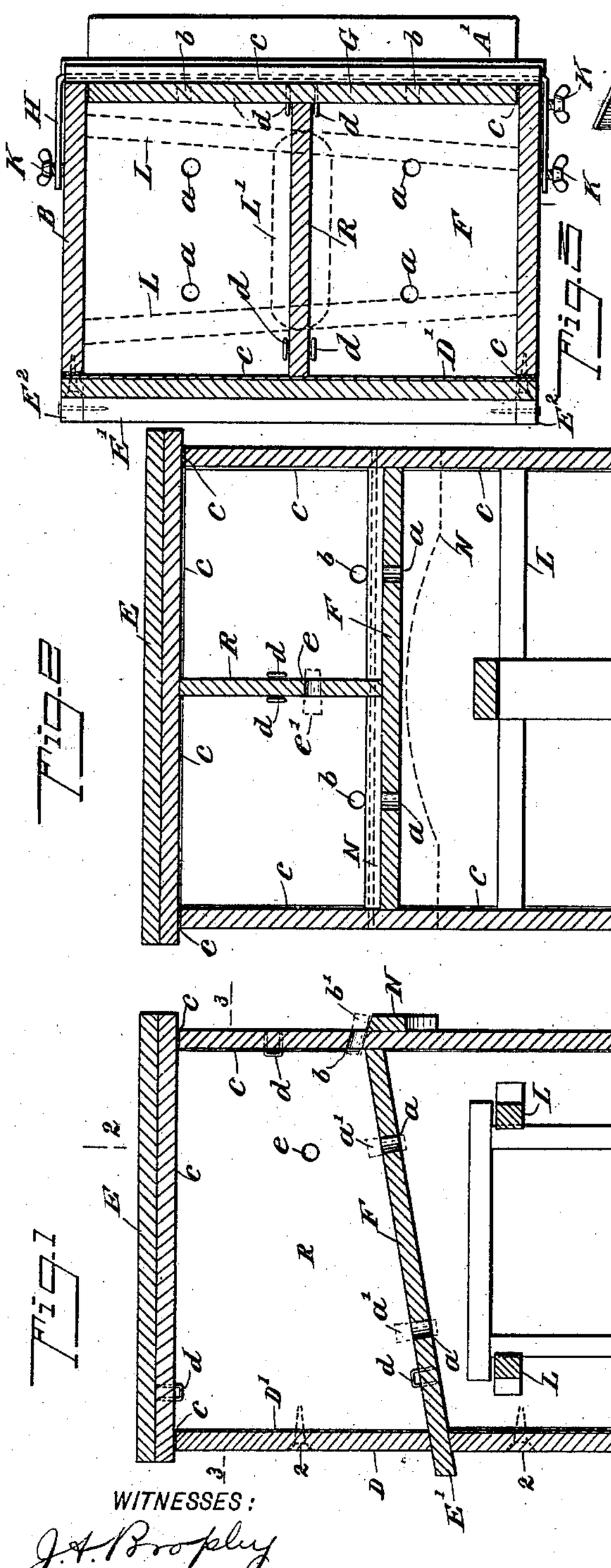
No. 673,179. Patented Apr. 30, 1901.

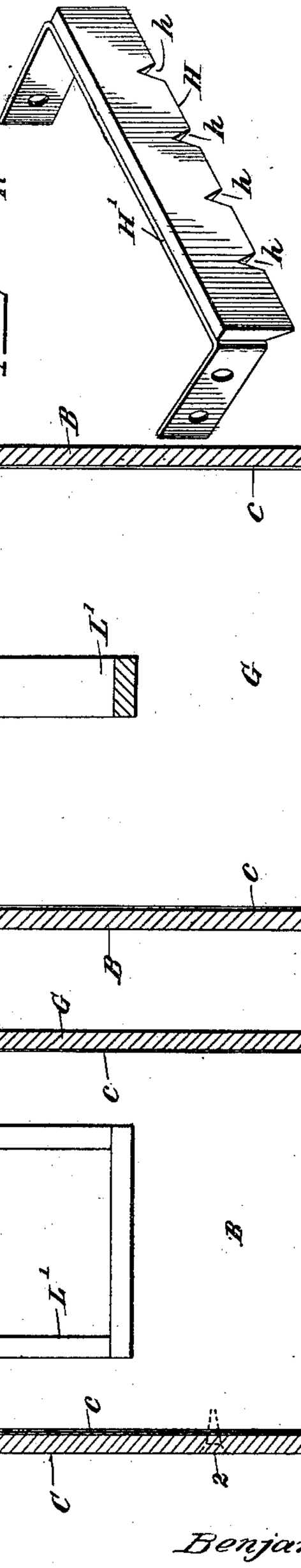
B. C. SMITH.

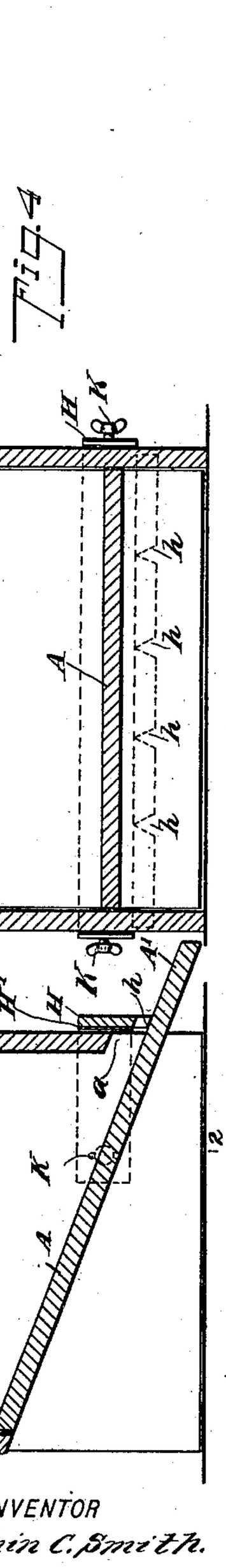
BEEHIVE.

(Application filed Oct. 5, 1900.)

(No Model.)







WITNESSES:

J. A. Brophy

Wm. P. Patton

INVENTOR

Benjamin C. Smith.

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

BENJAMIN C. SMITH, OF COLDWATER, GEORGIA.

BEEHIVE.

SPECIFICATION forming part of Letters Patent No. 673,179, dated April 30, 1901.

Application filed October 5, 1900. Serial No. 32,121. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN C. SMITH, a citizen of the United States, and a resident of Coldwater, in the county of Elbert and State of Georgia, have invented new and useful Improvements in Beehives, of which the following is a full, clear, and exact description.

This invention has for its object to provide a beehive of novel simple construction which will embody a honey-storing chamber or compartment above a brooding-compartment and practically air-tight at the joints and also afford convenient means for protecting the bees from cold and dampness during the winter, the device also furnishing means to prevent the bees from attaching honeycomb to the rear wall of the honey-holding compartment and to permit the removal of said wall at any time without fracturing the comb. The honey is removed without jarring the hive or disturbing the brood-chamber.

The invention consists in the novel construction and combination of parts, as is hereinafter described and claimed.

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

Figure 1 is a sectional side view of the improved beehive. Fig. 2 is a transverse sectional view substantially on the line 2 2 in Fig. 1. Fig. 3 is a sectional plan view of the device, substantially on the line 3 3 in Fig. 1; and Fig. 4 is a detached perspective view of a slidable hood employed.

This invention contemplates the adaptation of a practical, novel, and economical device to the native instincts of bees, as well as the convenience and best results for the least possible expenditure of means and attention of bee-keepers.

The following is a detailed description of the improvement.

The body of the hive is rectangular, and, as shown, the bottom A is nailed between the side walls B and has a forward and downward inclination and extending forward to afford a sufficient alighting-board A′. The front wall G is nailed in between the side walls B, so as to make an even front face, and is beveled at the lower end correspondingly with the inclination of the bottom A, which beveled end stands one inch above said bottom, thus forming the common passage *a* for bees. The top E is constructed of two boards, one on the other, with grain of wood crossing at right angles to prevent warping, and of such dimensions as to give it a suitable flange all around the body. The top is securely nailed to tops of front wall G and two side walls B only.

The upper transverse partition F is of the same width as the bottom A and is fitted in the same as the bottom A, but inclining backward and downward at an angle of about ten degrees, the front end being fitted to the inside of the front wall G about one-fifth of the length of said front wall from its top end. The rear end E′ of said partition passes between the approaching beveled ends of said rear-wall pieces and projects sufficiently to serve as a hilt and has blocks E^2 of corresponding thickness nailed on its side edges to fill the spaces on either side between the pieces C and D of the rear walls. This partition F is supplied with a plurality of passages, as indicated at *a*. I prefer three-quarter-inch auger-holes, which are plugged with stoppers of wood or corncobs *a′* before the bees are hived and opened at such time as the bees are well established with brood and season for collecting honey is on. The piece D of the two-piece rear wall is beveled on the lower end to correspond with the inclination of the partition F and is square to match other walls at top, but has no attachment to the top. It is covered on the internal surface with polished metal, as tin, as indicated at D′ in Fig. 1. Both pieces C and D of the two-piece rear wall cover the edges of the side walls B and are removably attached by screws 2.

The front wall G has two escapes *b* (one-and-one-half-inch auger-holes with upward inclination from without to prevent dampness seeping inward and entering honey-compartments at or a little space above its floor F) to be stopped with hard-wood plugs *b′*, first dipped in melted wax. These plugs are to be taken out a short time before taking out honey and replaced immediately afterward. All plugs or stoppers for closing escapes and passages through holes *a* and *b* should extend about three-fourths of an inch into respective

apartments to assure free opening for the passage of bees at once when removed.

The batten N is of proper size, form, and strength to form a hilt. It incidentally forms a transit-board for escaping bees. Rubber tape *c* is placed between the joints of the body of the hive for the purposes of excluding all elements and vermin. In accurate workmanship the rubber is often omitted; but if beework only closes the crevices incident to faulty workmanship vermin will probably enter, the eggs being deposited in such crevices.

The brood-chamber B below the partition F is supplied with two bars L L, running from side to side, placed so that about three-fourths of the internal space of the chamber will be between these bars, which are placed conveniently near the under side of the partition F and spaced about one inch wider at one end than at the other. They may be fastened as the constructor may choose. If the length is exact, so that all ends extend close to the side walls B, they may be nailed from outside into their ends. The brood-comb frame L′ is rectangular, the top bar projecting sufficiently to hang on the bars L L.

A division-board R is placed in the honey-compartment, dividing it into lateral halves and is best fixed there by guideways of double-pointed tacks *d*. Pairs of said guideways are located on top of the partition F, on the internal face of the front wall G and the interior surface of the top E, adjusted to thickness of the division-board and driven down until only enough stands up to secure the division-board, which ordinarily is not removed, although easily removable. This division-board has in it a one-and-one-quarter-inch auger hole *e*, which is normally closed with a peg or cob *e′* (shown by dotted lines in Fig. 2) and serves as an escape when only one section is occupied, as is best in large hives unless the natural honey flow is very copious.

When honey is to be taken, the escapes *b* in the front wall are opened (it is obvious that the two lateral sections may be occupied in common together or singly) and time given for the bees to discover the openings. Then screws are taken out of the top piece D of the rear wall, that is covered internally with a polished metallic substance D′, such as sheet-tin, which wall portion is gradually removed as smoke is blown in gently. If only one top section is occupied by bees, the upper rear-wall piece D is slipped sidewise, opening the unoccupied chamber and the stopper is removed from hole *e* in the division-board. Then rear-wall piece D is slipped back far enough to close the empty section, at the same time making an opening through which smoke can be blown, driving bees into empty section through *e* and out at escapes *b*, when honeycomb which is fastened firmly to the under side of the top and partially to all internal surfaces except the tin-lined rear-wall piece D may be removed, there being no need of leaving any standing foundation or starter comb. If only one section is to be used again, the stopple *e′* is replaced and all bees smoked out of the empty section through the escapes *b*, which are then closed, and the tin-faced rear wall D is replaced, and then the remaining escape in the front wall G is closed and the operation is quickly completed without the trouble of "robber bees" or jarring the hive or disturbing any bees except those which chance to be in the honey-section. The very slight changes in this operation when both sections are occupied will readily suggest themselves to the operator.

The slidable hood H is held at its ends on the walls B, adjusted to close or open it, by three thumb-screws K, as shown in Fig. 3. The hood H is elevated during the working season, when ample ventilation and free passage are necessary, and closed down in winter. The hood is surfaced with tin H′ to prevent bees gluing it to the bottom A. The entrance-notches *h* in it are only sufficient for the passage of one drone at a time (three-eighths of an inch) and are numerous enough for winter ventilation and passage of bees.

It will be seen that the upper compartment for storing the surplus honey is arranged for admitting the bees when they have become established with brood and provisions in the brood-chamber. The compartment for surplus honey will then be filled with honey free from brood or pollen. The construction is such that the honey may be removed with no disturbance to brood or bees in brood-chamber, while those in the honey-compartment are driven out through the several escapes *b b*.

To clearly define the advantages of my invention it may be pertinent to give a brief explanation of the necessaries for success in a beehive and care of the same. The first requirement of bees is an impervious incasement above and laterally, and to secure this they apply propolis to the needed extent. They also apply this substance in readjusting all broken parts where movable sections and frames are used as often as their attachments and incasements are broken up, as well as to close all undesirable spaces, which requires a vast amount of beework in gathering and applying the substance. This work of propolizing is reduced to the minimum in my hive, as it is made practically impervious to air, water, ants, roaches, and bee-moth, except at the common bee-entrance, and re-propolizing is not needed, since all the fixtures to which comb is attached are permanent.

The hive may be put up in various sizes to accommodate large or small colonies. The external measurement of a very convenient hive may be twenty-four inches high, fourteen inches laterally, and ten inches antero-posteriorly.

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

1. A beehive, comprising a box-like structure, a transverse partition therein dividing the hive into two chambers, the upper one being a honey-storing chamber, said partition extending exterior of the hive at the rear side thereof, the front wall of the honey-chamber having controlled escape-passages therein near the transverse partition, and an alighting projection on the exterior of the front wall of the hive below the escape-passages.

2. A beehive, comprising a rectangular box having an inclined bottom and a sectional removable back wall, the box being divided into an upper and lower compartment by an apertured partition inclining from the front to the rear and extending beyond the rear wall, the upper compartment being subdivided by a vertical partition having an opening therein, substantially as described.

3. A beehive, comprising a rectangular box having an inclined bottom and a sectional removable back wall, the box being divided into an upper and lower compartment by an apertured partition inclining from the front to the rear and extending out beyond the rear wall, the upper compartment having its rear wall lined with metal and subdivided into two compartments by a removable vertical partition having an opening therein each of the said compartments having an escape-opening, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BENJAMIN C. SMITH.

Witnesses:
N. A. CARPENTER,
T. S. GAINES.