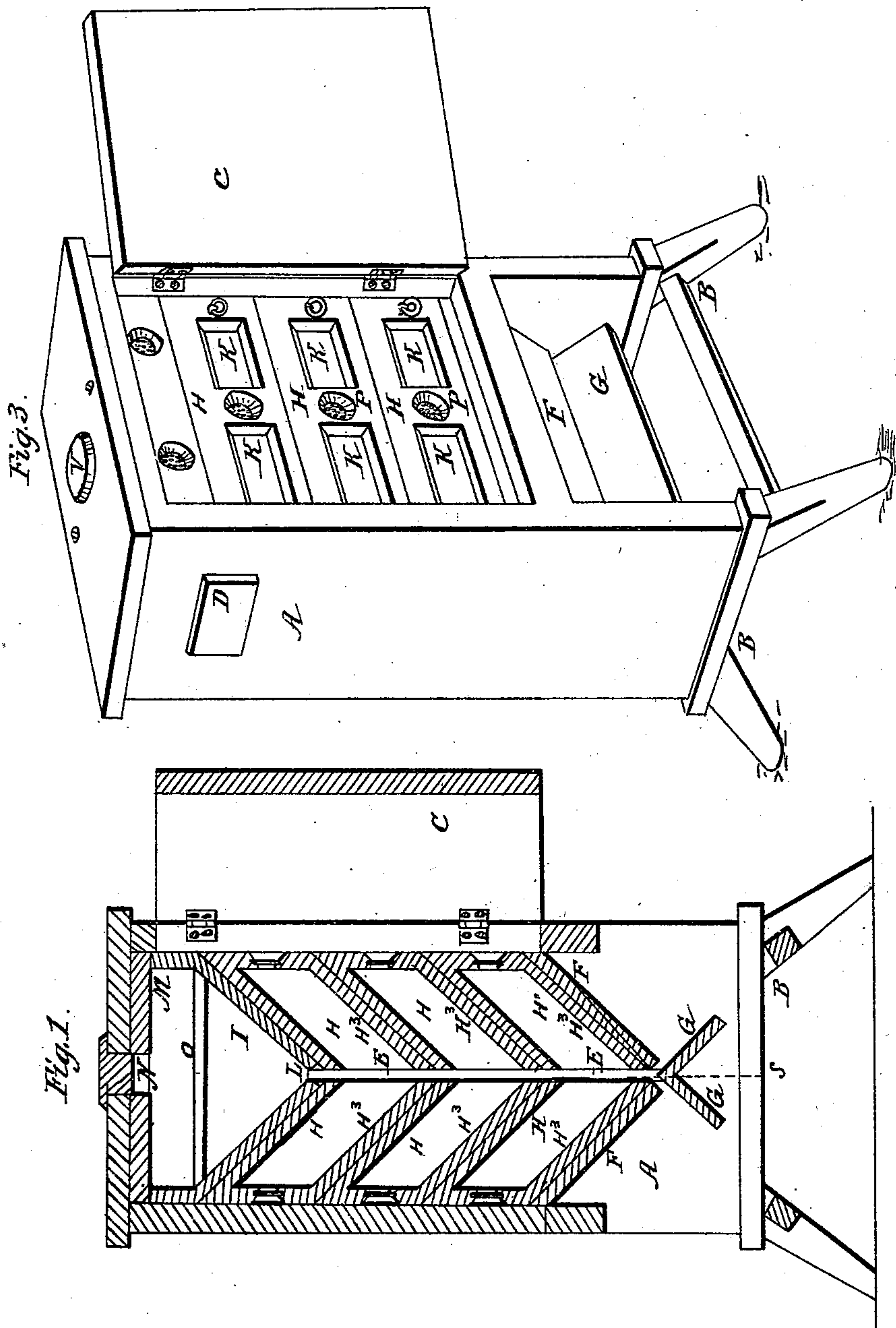


FRANCIS & CARLISLE.

Bee Hive.

No. 2,862.

Patented Nov. 28, 1842.



UNITED STATES PATENT OFFICE.

AARON FRANCIS AND JONA. CARLILE, OF CHANDLERSVILLE, OHIO.

BEEHIVE.

Specification of Letters Patent No. 2,862, dated November 28, 1842.

To all whom it may concern:

Be it known that we, AARON FRANCIS and JONATHAN CARLILE, of Chandlersville, Muskingum county, State of Ohio, have invented a new and useful Improvement in Beehives, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a transverse section of the palace. Fig. 2 is a longitudinal section; Fig. 3 perspective view of the palace; Fig. 4 perspective view of one of the draws; Fig. 5 perspective view of the upper box.

Similar letters refer to corresponding parts.

This bee palace, exteriorly, resembles others in use.

The improvements are in the interior construction and arrangement.

The box A, outside, and the legs or stand B, may be made in the usual manner, with side doors—C and end slides D to be opened when required for the purpose of exposing the glass windows of the interior boxes through which the operation of the bees may be viewed.

In the center of the palace are fixed vertical posts E. The bottom of the palace is composed of two inclined boards F F arranged so as to form an obtuse angle thus V leaving a space between the lower edges thereof for the ascent of the bees. Two inclined boards G G forming ledges or rests for the bees to light upon are arranged below the boards F F and inclining in contrary directions this A forming a triangle the apex being in the space before mentioned at which the bees enter. Within the aforesaid palace are arranged two vertical ranges of rhomboidal drawers or boxes H in which the bees deposit the honey sliding in grooves formed on the insides of the ends of the palace at an angle of about 45 degrees with a horizontal plane—the lower side of each box resting against the aforesaid posts E by which arrangement a space S for the passage of the bees is left between the boxes and in the center of the palace communicating with the interior of the boxes H and the upper box I of the palace, the side H² of each box H next the said post E and space or passage, S being left open to allow of the entrance of the bees to the box or drawer E. The top and bottom ends and back of each box are closed except a space in the back for ventilation which is

closed by a perforated plate P and spaces or windows closed by glass K for examining the interior operation of the bees. The bottom H³ of each box extends beyond the ends forming tongues for sliding in the grooves on the inside of the palace. The grooves are formed by fastening parallel strips W or pieces of wood against the inner sides of the ends of the palace at the required angle of 45 degrees. The grooves may be formed in the ends of the palace by other means.

The space in the upper part of the palace which is of a semi-hexagon figure is fitted with a box I corresponding in shape thereto having a bottom like that of the bottom of the palace with a space L in the center corresponding with that in the center of the palace through which the bees ascend to said box I closed at top with a loose lid M (omitted in Fig. 5) perforated in the center at N and furnished with cross sticks O and perforated in the sides at Q for ventilation and in the ends for windows closed with glass R. The opening N in the removable lid M corresponds with the opening U in the top of the palace, the openings T in the ends of the palace corresponding with the windows and are closed with the slides or doors D. The opening U is closed by a slide or stopper V.

Advantages.—The vertical passage S being narrow it will be easily guarded by the bees so as effectually to prevent the admission of moth or other infectious insects. It also serves as the central ventilation communicating with each side of the palace through the perforated plates P. The boxes or drawers sliding downward at an angle of 45 degrees and being provided with perforated tin plates for the purpose of ventilation from the outside—the perforations being so small as wholly to prevent the ingress or egress of the bees as well as the moth, said drawers or boxes allowing the farmer to extract what honey he may desire without disturbing the bees or breaking the comb in the contiguous boxes. Likewise in furnishing the greatest facility of detecting the germ of any intruding insect by simply taking out the draw or drawers below that which is occupied by the bees for cleaning it. In a word the bees are freed from destructive worms—their ventilation is ample, the proceeds of their industry is procured without loss and their stock of material not

exhausted by a heavy drain but can be taken in such quantity as can be well spared.

What we claim as our invention and desire to secure by Letters Patent is—

- 5 Making a bee hive with a vertical passage in the middle communicating with the interior of the double ranges of rhomboidal sliding boxes or bee drawers, for the passage of the bee thereto for a free ventilation
10 and for preventing the entrance of moths,

&c., in combination with the upper box and the double inclined plane ledge or rest as described.

As witness our hands this 1st day of November A. D. 1842.

AARON FRANCIS.

JONATHAN CARLILE.

In presence of—

SAMUEL FRANCIS,

MOSES SAVAGE.