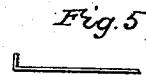
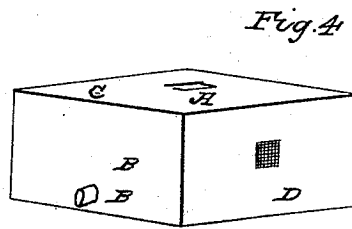
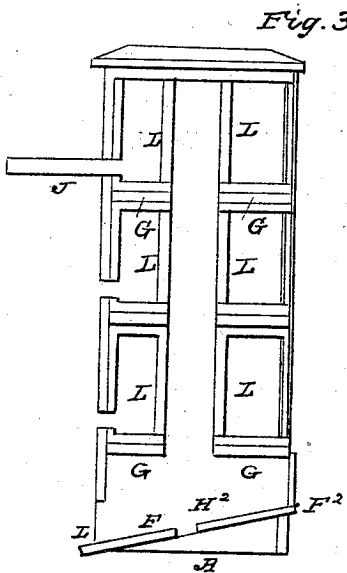
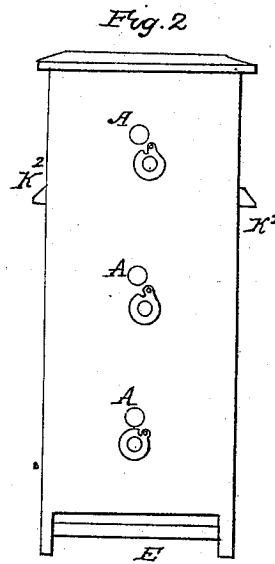
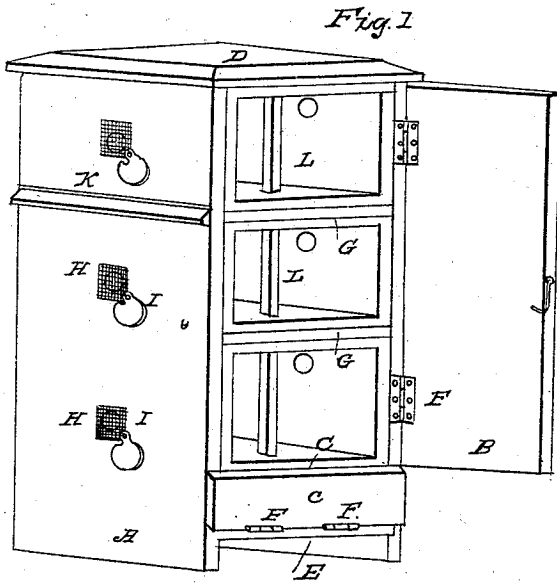


O. REYNOLDS.
Bee Hive.

No. 3,841.

Patented Dec. 4, 1844.



UNITED STATES PATENT OFFICE.

OLIVER REYNOLDS, OF WEBSTER, NEW YORK.

BEEHIVE.

Specification of Letters Patent No. 3,841, dated December 4, 1844.

To all whom it may concern:

Be it known that I, OLIVER REYNOLDS, of the town of Webster, in the county of Monroe and State of New York, have invented a new and useful Improvement in the Construction of Beehives; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of front and rear, door open, Fig. 2 is a view of rear showing movable bottom E, and end view of cleats K, also entrance hole A, Fig. 3 is a section through the center of front and rear, J, being tube hereafter explained, Fig. 4 is a perspective view of drawer, showing mortise A, rear B, with tube C top, and D side, showing ventilator, Fig. 5 gives a view of tin slide, its use hereafter explained.

Description of the construction and operation of the hive.—The hive should be built of good seasoned timber pine is preferable united together by nails or screws the two sides A Fig. 1 A Fig. 3 to be 3 feet $2\frac{1}{4}$ inches long, $14\frac{1}{2}$ inches wide one or more inches thick, the rear Fig. 2 to be 2 feet $4\frac{1}{4}$ inches long and $14\frac{3}{4}$ inches wide. The door B Fig. 1 to be 2 feet $11\frac{1}{4}$ inches long and $14\frac{3}{4}$ inches wide. The cross piece C, Fig. 1 to be $14\frac{3}{4}$ inches long and 3 inches wide. The top piece D, Fig. 1, to be $16\frac{3}{4}$ long and $16\frac{1}{2}$ inches wide. The bottom board E Figs. 1, 2 and 3 to be $12\frac{3}{4}$ inches wide and 18 inches long. The door and bottom to be hung with hinges as represented at FF, Figs. 1 and 3 said door and bottom when closed to be fastened with wire hooks. The sides to be grooved $\frac{3}{8}$ inches deep for the purpose of receiving shelves C Figs. 3 and 1, said shelves to be the same width of sides and $\frac{1}{2}$ inch thick. A mortice $\frac{3}{8}$ inches wide and 5 inches long is made in the center of said shelves length from front to rear being 5 inches and width $\frac{3}{8}$ inch as above, said mortises to correspond with similar ones in drawers A Fig. 4. The holes in the sides marked H, H, Fig. 1 are to be covered with wire gauze and to be furnished with covers I, I, Fig. 1 for the purpose of closing the same when necessary. The holes A, A, Fig. 2 represented in drawing of rear to be $\frac{3}{4}$ inch in diameter said holes to be closed with covers when necessary in said covers to be holes of the said size as above and to be cov-

ered with wire gauze. A hole is made in center of bottom H² Fig. 3 2 inches in diameter covered with gauze the above is presumed to be a correct explanation of the case to be one cleat K Fig. 1 and one on each side K² for the purpose of suspending said case. The upper drawer should be made of $\frac{1}{2}$ inch stuff said drawer to be $12\frac{1}{2}$ inches wide and 6 inches high and 14 inches deep. The two remaining drawers should be $12\frac{1}{2}$ inches wide $10\frac{1}{2}$ inches high and the same depth of the first to be mortised in top and bottom of said drawers (A Fig. 4) corresponding with mortises in the shelves G above referred to excepting in the top of the upper drawer which should not be mortised said tops of drawers to be $\frac{5}{16}$ inch shorter than sides and bottoms for the purpose of entering glass into grooves in sides; said tops of drawers to be fastened to sides with small screws. A tin tube B $\frac{3}{8}$ inch in diameter is fitted into holes on rear of said drawers B' Fig. 2, said tubes to project from said drawers one inch so that the same shall be flush with the outside of the case standards L Fig. 3 in said drawers two in each $\frac{1}{4}$ inch square are for the support of the honey. A movable tube J Fig. 3 $\frac{3}{4}$ inch in diameter 12 inches long is to be inserted in the holes H when the bees are to be changed from one box to the other. 4 tin slides Fig. 5 the use of said slides and tube is explained hereafter.

Method of managing the bees.—First to get a swarm of bees into the hive go through the ordinary method have your hive in readiness by unhooking the bottom board and turning it back. Then get the bees on a table, or on boards prepared for that purpose; place the hive over them and they will readily ascend into the drawers; when that is the case you will gently raise the hive, close the bottom and the covers over the hole to prevent their escape and then remove them to their destined place.

For dividing or multiplying colonies of bees.—This should be done between the first day of May and the first day of August; the bees should not be permitted to occupy the upper drawer until you have performed the dividing of the bees, when the two lower drawers are filled with bees and you are desirous to form a new colony you must place one of the tin slides under the lower drawer above the lower shelf and one above the drawer and under the second shelf; also one

above the second shelf and under the middle draw—then stop the tube in the lower drawer and close the opening into the middle drawer and you have the bees fastened in the two drawers then prepare the empty hive by placing it near the one that contains the bees then withdraw the middle drawer and place it near; then withdraw the lower box containing the bees and place it in the hive you have taken the empty drawer from also place the empty one in the hive you have just removed the full one from; then withdraw the two slides from above and below the drawer that contains the bees; also the slide under the middle drawer in the other hive that the bees may have access to the empty drawer; then withdraw the stopper from the drawer that contains the bees; close the opening in both the hives to prevent the bees from passing out of either hive; then remove the two hives a few rods from each other and keep them closed for about 36 hours; then give them their liberty; during the time of their confinement they should have access to water which may be had by placing a vessel containing it on the upper side of the bottom board and then closing it again; this should be done previous to dividing or introduce a slide under the lower drawer and then withdrawing it after depositing the vessel with water. The dividing should be performed in the evening when all of the bees are in the hive.

Method of removing old comb and at the same time not injuring the bees.—When the comb has become old and unfit for use and you wish to remove it say the middle drawer you will take one of the slides Fig. 5 introduce one above the middle drawer and one below and above the middle shelf and introduce the tube J Fig. 7^c into the hole through which the bees pass out from the middle drawer so that they are compelled to pass through the tube and when they attempt to return the hole will be closed by the tube and they will enter the upper and lower drawers and presently the middle drawer will be freed from the bees; then withdraw and introduce an empty drawer in its stead. Previous to withdrawing the drawer introduce a slide above the lower drawer and one below the upper drawer that the bees may be prevented passing into the vacancy when the middle drawer is withdrawn. When that is withdrawn introduce an empty one remove the slides and also the tube that the bees may have access to the empty drawer.

To remove honey from the hive which should be taken from the upper drawer

put one of the slides under the upper box and above the upper shelf then introduce the tube so that the bees shall be compelled to pass through it and they will leave it and enter the other drawers; then remove it, introduce an empty one and withdraw the tube and slide that they may have access to the empty one.

To prevent robbing the hives by other bees.—Should it be your own that have commenced the deed close up the depredators (put a vessel containing water in the lower part of the hive) and keep them in for 3 or 4 days and then give them their liberty if they attempt it again, again close them up; should it be foreign depredators close the hive as soon as discovered and keep them in the hive until about sunset then open and give these bees the privilege of returning home. Then close your hive remove it a few rods and place an empty one in its place and introduce a tube of about 8 inches long into the middle drawer so that the one end will be even with the hive. The robbers will enter the tube into the empty drawer and will not be able to return and then dispose of them at your pleasure.

To prevent injury from the moth about sunset put the tin slide under the lower drawer and above the lower shelf then put a vessel containing vinegar and water well sweetened and you will find many of the millers drowned in the morning; or instead of the sweetened liquor put some old comb in its stead and the millers will lay their eggs in it and then they may be destroyed at pleasure.

Feeding bees.—This should be done in the month of October and can very readily be performed in my hive by putting a vessel containing the food on the bottom board and closing it and it prevents all other insects having access to it.

I do not claim constructing the hive of several boxes placed one above another with communications between them and each box having its separate and respective opening nor the mode of ventilating; but

What I do claim as my invention and which I desire to secure by Letters Patent is—

My manner as herein described of freeing the honey boxes from bees; and also of equalizing the hives by the use of the long tube as set forth.

OLIVER REYNOLDS.

Witnesses:

WM. P. ELLIOT,
RICHARD KEY WATTS.