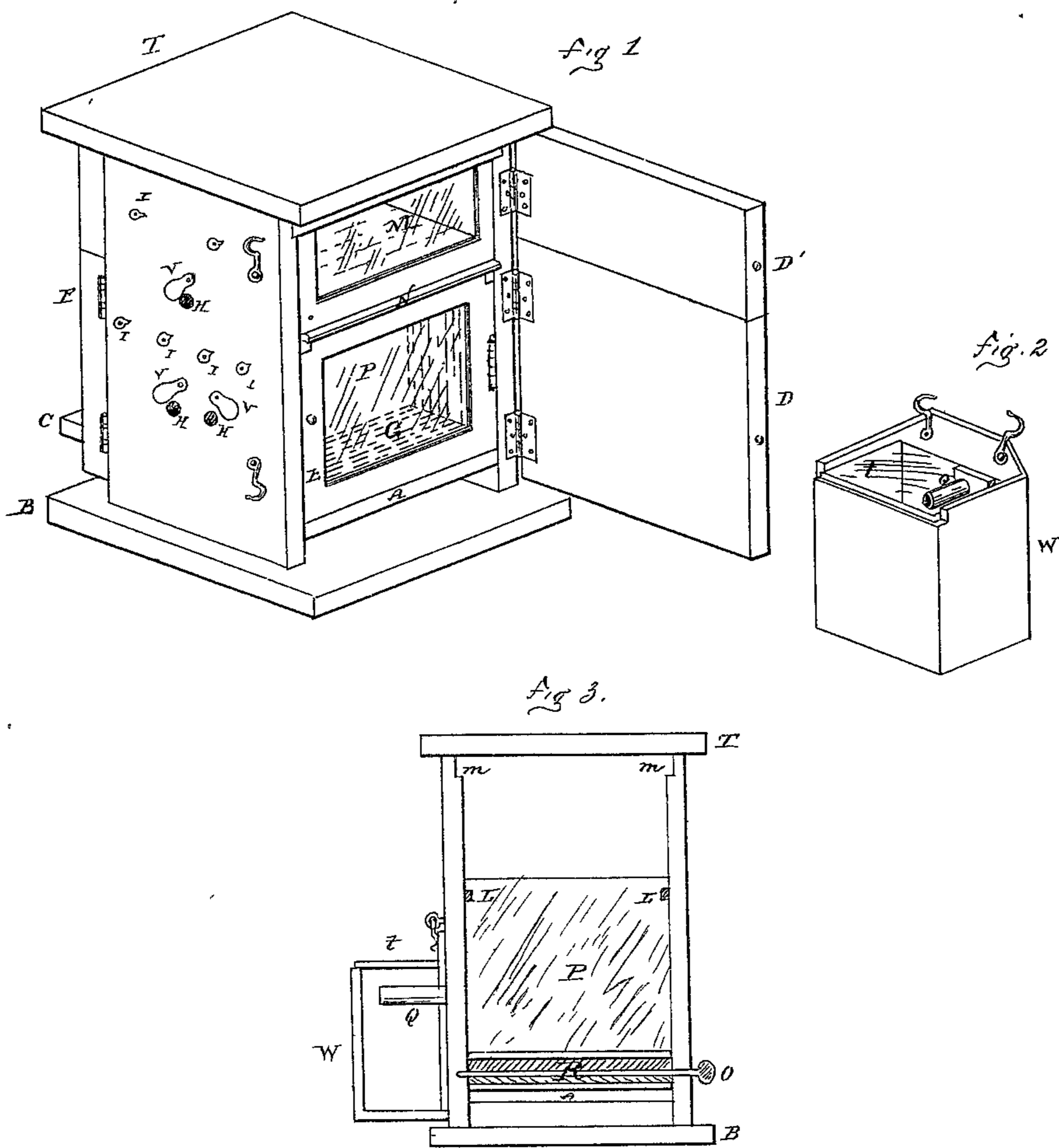


A. M. BRUBAKER & B. R. WITMER.

Bee-Hives.

No. 136,642.

Patented March 11, 1873.



Witnesses  
W. B. Wiley  
John Bender.

Inventors  
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# UNITED STATES PATENT OFFICE.

ALMUS M. BRUBAKER AND BENJAMIN R. WITMER, OF MILLERSVILLE, PA.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 136,642, dated March 11, 1873.

*To all whom it may concern:*

Be it known that we, ALMUS M. BRUBAKER and BENJAMIN R. WITMER, of Millersville, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Bee-Boxes, of which the following is a specification:

Our invention relates to the combination, with the box and valved perforations, of a separate swarming-cage or decoy-box, provided with a glass tube and a glass cover, suspended to the bee-box, so that the glass tube matches the perforation in the box or hive, and through which the bees pass singly (open to inspection) into the cage. Thus the egress of the queen-bee will be seen, and her presence secured to the brood before transferring them (when inclined to swarm) into a new box or other portion of the same, thereby securing their reconciliation to the change.

The accompanying drawing shows the general plan and our improvement. Figure 1 shows in perspective two doors open, and the side with the perforations; Fig. 2, the swarming-cage detached; and Fig. 3, a section of the bee box and cage, partition, and valve.

The box in itself is an ordinary box, with a square top, T, and bottom D, a false bottom, A, with wire netting, to allow the débris to fall through. This bottom is extended into a stage or platform, C, in the front, leaving the space beneath it open at both ends, (when the outer door D is opened,) and is easily kept clean, and supplies ample ventilation by being open in front under the stage C. P shows a central partition, having an open space along its entire length below, communicating between the frames G on each side. There is a valve, R, to close this opening by means of a turn-button, o, on the outside of the box. L L show two ledges, on which the ordinary frames are suspended on each side of the partition P. These frames are visible through glass-framed doors E. There are also external doors D F. The space above the partition and frames contains the honey-box M, which has the ordinary glass front and a slatted bottom. We suspend this by side ledges fitting into grooved ways *m* made in the top of the vertical sides. To shut off communication between the frames G and box M, we use the ordinary flat valve N to slide in and cover the space between them. The box M is also protected by an outer door, D'. The door F has a slot for the passage of the bees in and out over the stage C, with a sliding

door to close the slot for shutting the bees in or out, as usual. A similar slot is in the glass door, leading to the interior of the box. In Fig. 1 we show three perforations through the box H H H, each with a valve, V, also eyed staples I for the hooks on the swarming-cage W; so affixed that when the latter is suspended to the outside of the bee-box the glass tube Q opening into the cage may fit over either of the openings H elected, or that department from which the bees inclined to swarm are to be drawn. This swarming-cage W, with its glass tube Q and sliding glass top *t*, duly adjusted, gives the greatest facility to inspect the number and condition of the bees in their passage in single file through the tube into the cage, and to observe the all-important passage of the queen-bee, to secure the necessary conditions to establish a new colony.

We have used various patented boxes, but always felt a defect in time of swarming or in transferring bees, which led us to experimenting in order to overcome this objection, and resulted in the arrangement specified.

The bees with their queen can be easily secured for transportation in the cage, or readily transferred into a new box, or otherwise disposed of. We find this arrangement of the partition P, valve R, which enables us to shut out the bees from the one side of the frames, as by means of the flat valve N from the upper box, and apply our cage to either of the three departments, to withdraw the bees.

We are not aware that this arrangement was ever before known or used, but we are fully persuaded of its efficiency and usefulness, and deem it a highly desirable improvement.

We do not claim the box or frames, doors, &c., as such are variously employed.

What we claim, and desire to secure by Letters Patent, is—

A detachable swarming cage W, when the same is provided with a glass tube, Q, and sliding glass top *t*, so as to be applied to a bee box or hive, adapted to communicate at two or more points with said cage W and tube Q, in the manner and for the purpose specified.

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Witnesses:

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