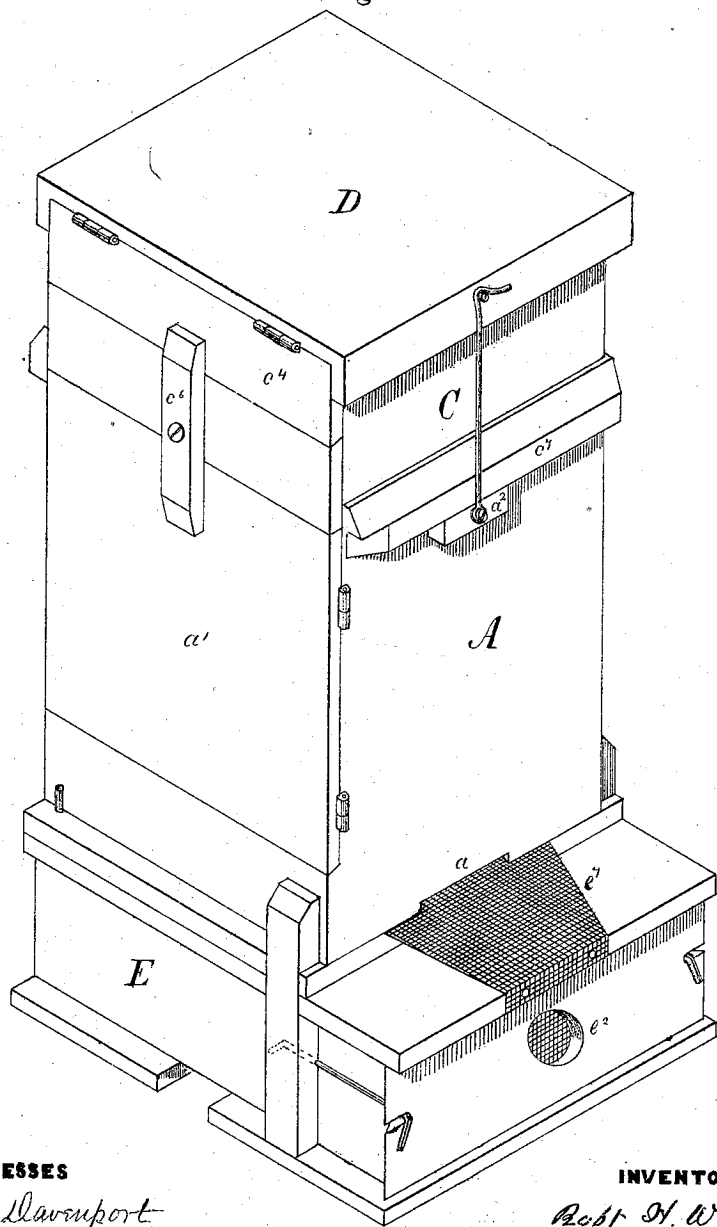


R. H. WOODSIDE.  
Bee-Hives.

No. 137,645.

Patented April 8, 1873.

Fig. 1.



WITNESSES

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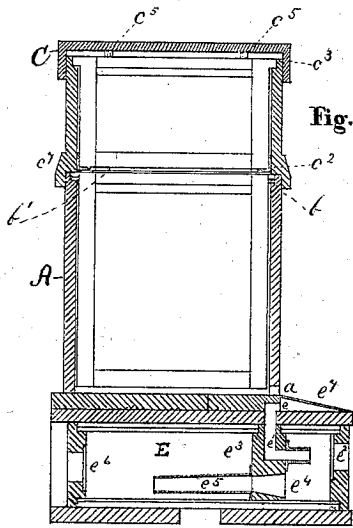


Fig. 2.

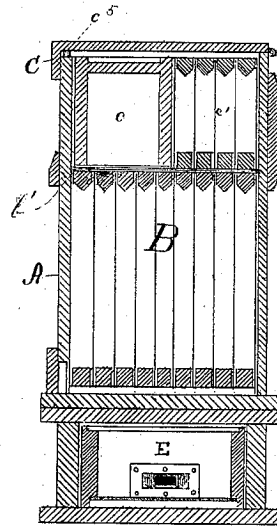


Fig. 3.

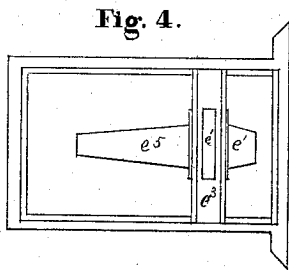


Fig. 4.

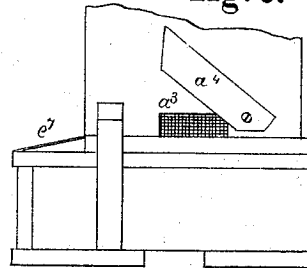


Fig. 5.

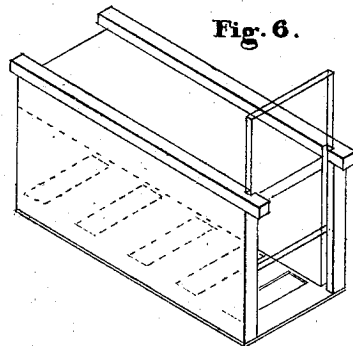


Fig. 6.

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# UNITED STATES PATENT OFFICE.

ROBERT H. WOODSIDE, OF COULTERSVILLE, ILLINOIS.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. **137,615**, dated April 8, 1873; application filed August 30, 1872.

*To all whom it may concern:*

Be it known that I, ROBERT H. WOODSIDE, of Coultersville, in the county of Randolph and State of Illinois, have invented a new and useful Improvement in Combined Bee-Hives and Moth-Traps; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 is a perspective view of the invention. Fig. 2 is a side elevation in central section. Fig. 3 is a back elevation in central section. Fig. 4 is a plan of moth-trap. Fig. 5 is a side elevation, showing ventilating-opening. Fig. 6 is a perspective view of the honey-box.

Like letters of like kind refer to like parts.

This invention consists in the combination of a hinged cap of peculiar construction with supporting-studs; in the peculiar construction of the moth-trap, and the combination with it of other parts; and in the construction of the hive as a whole, as will be fully described hereinafter.

In the drawing, A represents the main body of the hive. This part is mainly constructed in the usual way, having an aperture,  $a$ , in front for the passage of the bees, and a hinged door at the side for the purpose of examination of interior of hive. A glass slide is arranged just inside of the door. B represents the frames with which the main portion of the hive is provided. These are suspended in position by means of the slender points  $b$  on either side of the upper portion of the frames, which rest upon ledges, with which the sides, at their upper inside edges, are provided. The points  $b$  are made quite small to diminish the liability of injuring the bees. Resting on the portion A is the cap C. Its object is to provide room for a honey-box,  $c$ , and additional frames  $c^1$ , which rest on an angle-iron,  $c^2$ , that is attached to the inner lower edge of the cap. If preferred, they can be suspended by means of projections or studs  $c^3$ , similar to those in the frames below. D represents the cover of the cap hinged to a ventilating-door,  $c^4$ , which forms a portion of one of the sides of the cap. By this arrangement either cover or door can be swung on a common hinge. The cover when closed rests upon two studs,  $c^5$ , to pre-

vent injury to the bees. A button,  $c^6$ , fastens the door  $c^4$ , and also the door  $a^1$ . The lower edge of the cap is provided with a flange,  $c^7$ , projecting outwardly and downwardly to shield the parts beneath. On the inside of this flange are recesses, into which fit projecting pieces  $a^2$  that are attached to the outside of the portion A. In this way the cap is readily fastened in place. Resting on top of frames  $b$  is a sheet of metal, or a board,  $b'$ , that serves to separate the frames B from the cap above. In the lower edge of one of the sides of the part A is an aperture,  $a^3$ , for the purpose of ventilation. Whenever desired (as in cold weather) this can be closed by the piece  $a^4$ . This feature can be operated in connection with the ventilating-door  $c^4$ . The hive rests on a sub-structure or moth-trap, E. Just below the aperture  $a$  is another aperture,  $e$ , opening into a passage-way,  $e^1$ , which extends a short distance into the board forming the bottom of the hive; thence downward and forward into the trap, which extends in front of the hive. Opposite the end of the passage  $e^1$  in the front wall of the trap is an aperture,  $e^2$ , for the admission of light. This is guarded by a wire-netting. The trap is divided by a party-wall into two compartments, the large one being to the rear. In the party-wall  $e^3$ , beneath the level of the tube  $e^1$ , is an aperture,  $e^4$ , with which another tube or passage-way,  $e^5$ , is connected, and which extends back toward the rear of the rear compartment of the trap. Opposite the end of the tube  $e^5$  in the rear wall of the trap is an aperture,  $e^6$ , for the admission of light. This also is guarded with netting. The trap is made in the form of a drawer in order that it may be easily withdrawn and its contents emptied. Stretching from the front upper edge of the trap back to a point between the apertures  $a$  and  $e$  is a wire-netting,  $e^7$ . To prevent a new swarm of bees from commencing in the cap the plate  $b'$  is inserted. After a few days this can be removed. The cap is arranged so that it can be filled with honey-boxes exclusively, or with frames, or with both frames and boxes.

The moth-fly is entrapped as follows: Its habits incline it invariably to light on the edge of the hive-rest or that part of the sub-structure that projects in front of the hive; thence

moving toward the hive it is diverted by means of the netting  $e^7$  into the aperture in the trap  $e$ ; thence it passes down and forward through the passage-way  $e^1$  and falls down into the forward compartment of the trap; thence it naturally passes into the passage or tube  $e^5$ , and, being attracted by the light coming through the aperture  $e^6$ , it passes through and falls down into the rear compartment of the trap, and, owing to the peculiar shape and arrangement of the various parts, is unable to escape. The nettings guarding the apertures  $e^2$  and  $e^6$  are of sufficient degree of fineness to prevent the passage of the moth.

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

1. The combination of the hinged cap D having the flange  $e^3$  with the stud  $e^5$ , as described.

2. The combination of the netting entrance-way  $e^7$ , the moth-entrance  $e$  beneath it, and the moth-trap E, as described.

This specification signed and witnessed this 8th day of August, 1872.

ROBERT H. WOODSIDE.

Witnesses:

JNO. R. DE MUIR,  
ALBERT FAIRO.