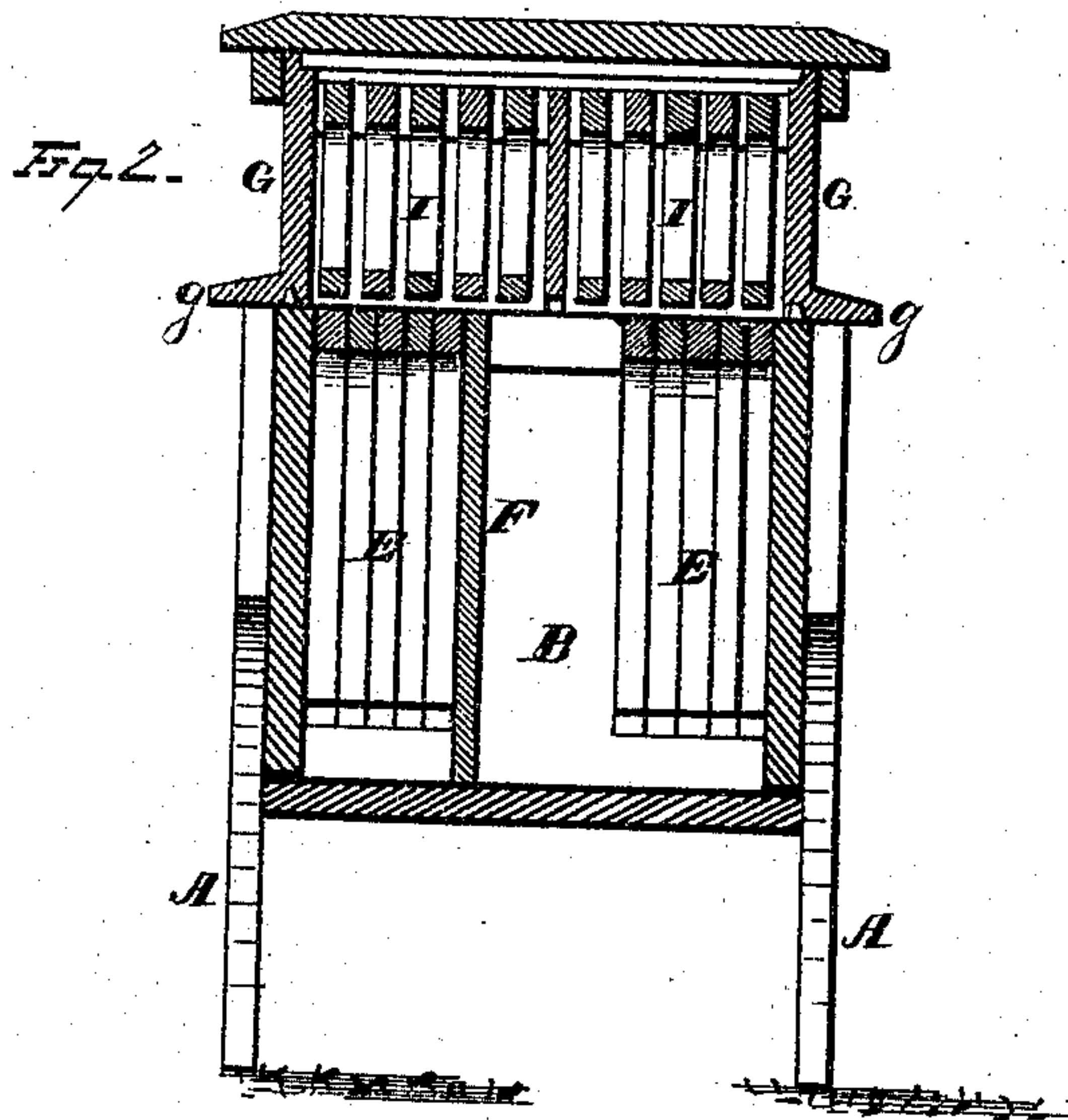
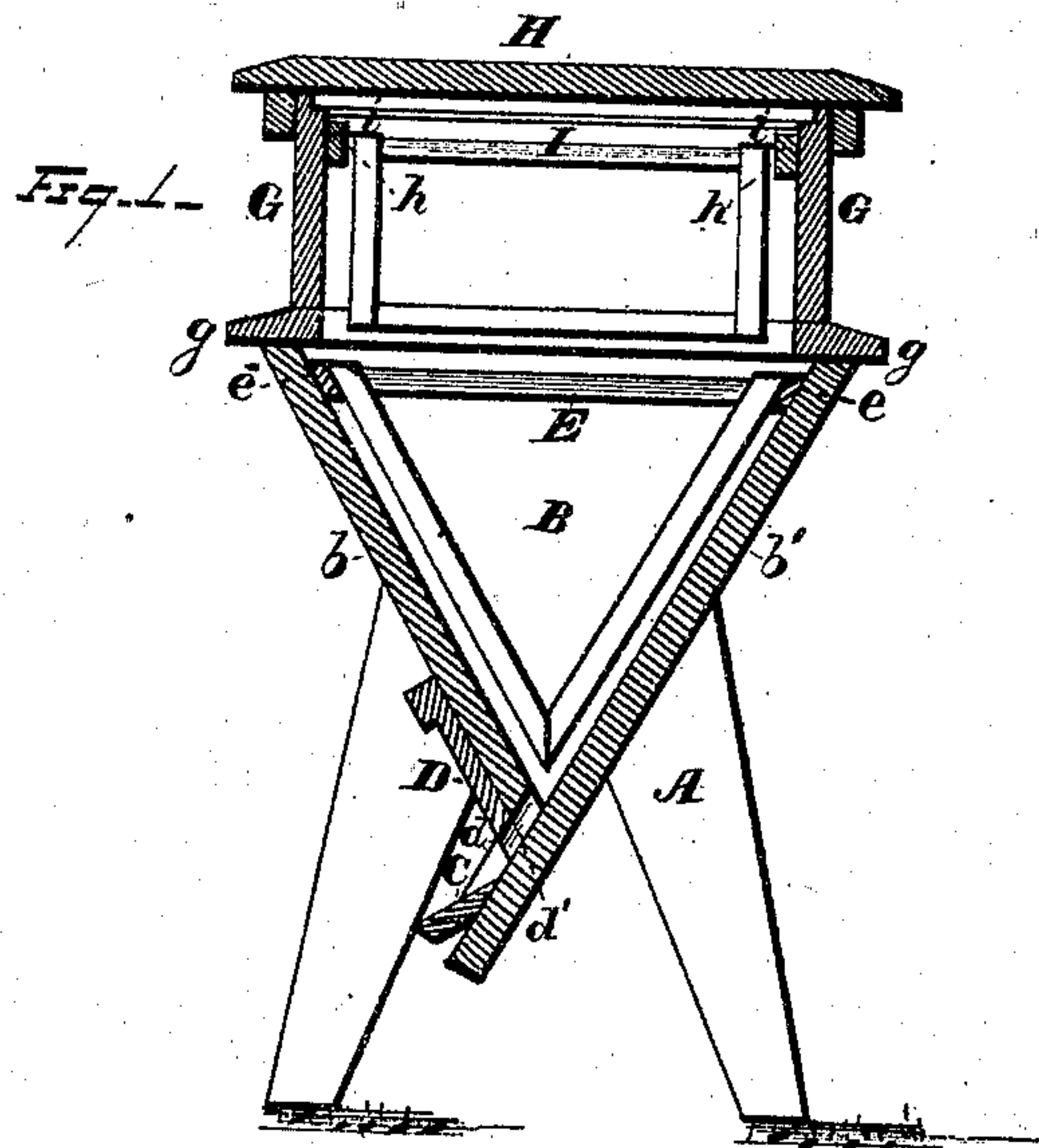


R. P. WALTHALL.

BEE-HIVE.

No. 182,338.

Patented Sept. 19, 1876.



WITNESSES  
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By

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# UNITED STATES PATENT OFFICE.

RUFUS P. WALTHALL, OF BOONEVILLE, MISSISSIPPI.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 182,338, dated September 19, 1876; application filed April 8, 1876.

*To all whom it may concern:*

Be it known that I, R. P. WALTHALL, of Booneville, in the county of Prentiss and State of Mississippi, have invented certain new and useful Improvements in Bee-Hives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

In the drawings, Figure 1 is a vertical cross-section of my improvement, and Fig. 2 a central vertical longitudinal section through same.

My invention consists in a hive of such a construction as appears from the following full description, and as is finally claimed.

Referring to the drawings, A are suitable standards, and spreading at an angle so as to form a firm and stable support for the boxes. B is the lower compartment, formed by the two sides *b b'* coming together at their lower extremities at an angle, so as to cause their included space to be that of a V in its transverse section. One side, *b'*, extends down farther than its opposite, *b*, so as to give a basis for the alighting-board C, and also for the button *d*, which latter engages with the sliding door D, which regulates the opening-entrance for the bees. This entrance *d'* is just at the extremity of the shorter side *b*, and has on either side thereof guides, in which travels the sliding door D. E are the comb-frames, of triangular build, and pendent from cleats *e e*, running parallel with and attached to the sides *b b'* at their upper extremities, so that they may swing free of the inclosing-chamber B, and in no wise engage with same.

F is a division-board, of solid and continuous surface, and of outline corresponding to that of the brood-frames. This division-piece also rests upon the cleats *e e*, and can be desirably changed from place to place thereon, so as to shut in a greater or less number of the frames. Thus the latter may be made to be closed or open chambers, containing one or more of the frames, as may be wished. Any number of these may be used, and to

serve purposes of queen raising, &c., with advantage.

The top or mouth of this lower compartment is entirely open, so that no obstruction whatever prevents the free and full removal of one or all of the frames, which it is seen can be done without any injury to the bees, the frames being vertically removable.

Surmounting such chamber B is a rectangular box-casing, G, consisting of four adjoining sides, whose lower extremities are provided with flanges *g*, slightly inclined from the horizontal plane, and well overlapping and extending out beyond the sides of the lower chamber. Thus when this box-casing is covered with its cap H, snugly fitting over same, the hive is protected from the foul weather, and the lower frames rendered least liable to its attack.

Directly attached to the inner sides of this upper casing G, by cleats *h* supporting same, are the honey-frames I, of rectangular form, and provided with projecting lugs *i*, which engage with the supporting-strips *h*, and thus sustain the frames in vertical and easy swinging position.

Full and open communication is maintained between this compartment with its honey-frames and the lower apartment with its brood-frames, the same thus forming one chamber, yet having advantage of two and independent ones. Suitable lugs and slots, respectively, upon the uniting surfaces of the two frame-works allow of their engagement horizontally, and consequent fastening.

It is apparent that the main advantage attendant upon my hive is in the simple construction of this upper chamber, whereby at very little detail of mechanism the honey-frames are therein pendent, and the two main chambers, respectively, for the brood and honey frames are freely made one apartment, and yet can be at once disconnected, and the brood-frames readily subjected to the operation of the bee-keeper. The simplicity and neatness of this construction is, so far as I am aware, new with me.

It is evident the sliding door D serves as a moth-trap, and that as the moth deposit eggs

in the comb, according to their instinctive habit, the bees will clear their combs of all impurities, and throw them loose from the comb, hence the construction is such that the trimmings will all fall out through the door.

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

The herein-described bee-hive, consisting of the lower apartment B, partition F, dividing the apartment into open and close brood-chambers, which are provided with frames E,

combined with the removable box G, having detachable top H, said box having swinging frames I pivoted thereto, all constructed and arranged substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of April, 1876.

RUFUS P. WALTHALL.

Witnesses:

R. C. MARTIN,

M. J. HOPWOOD.