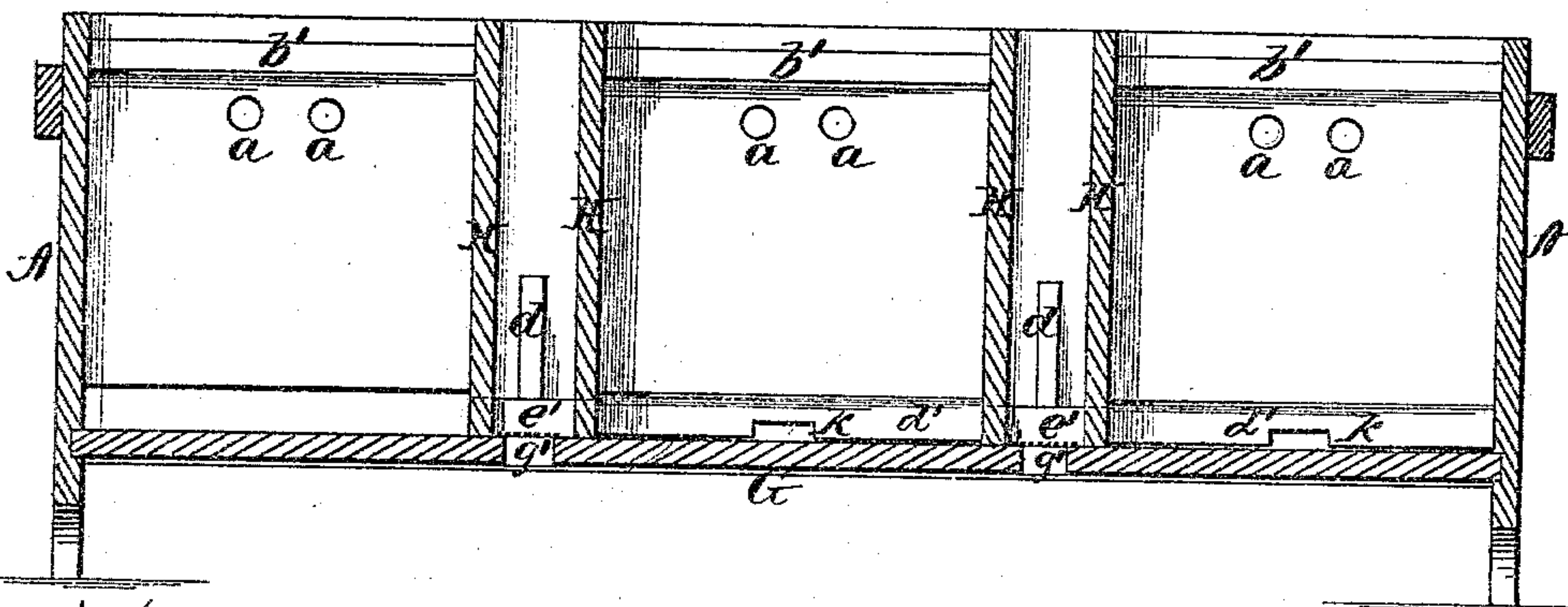
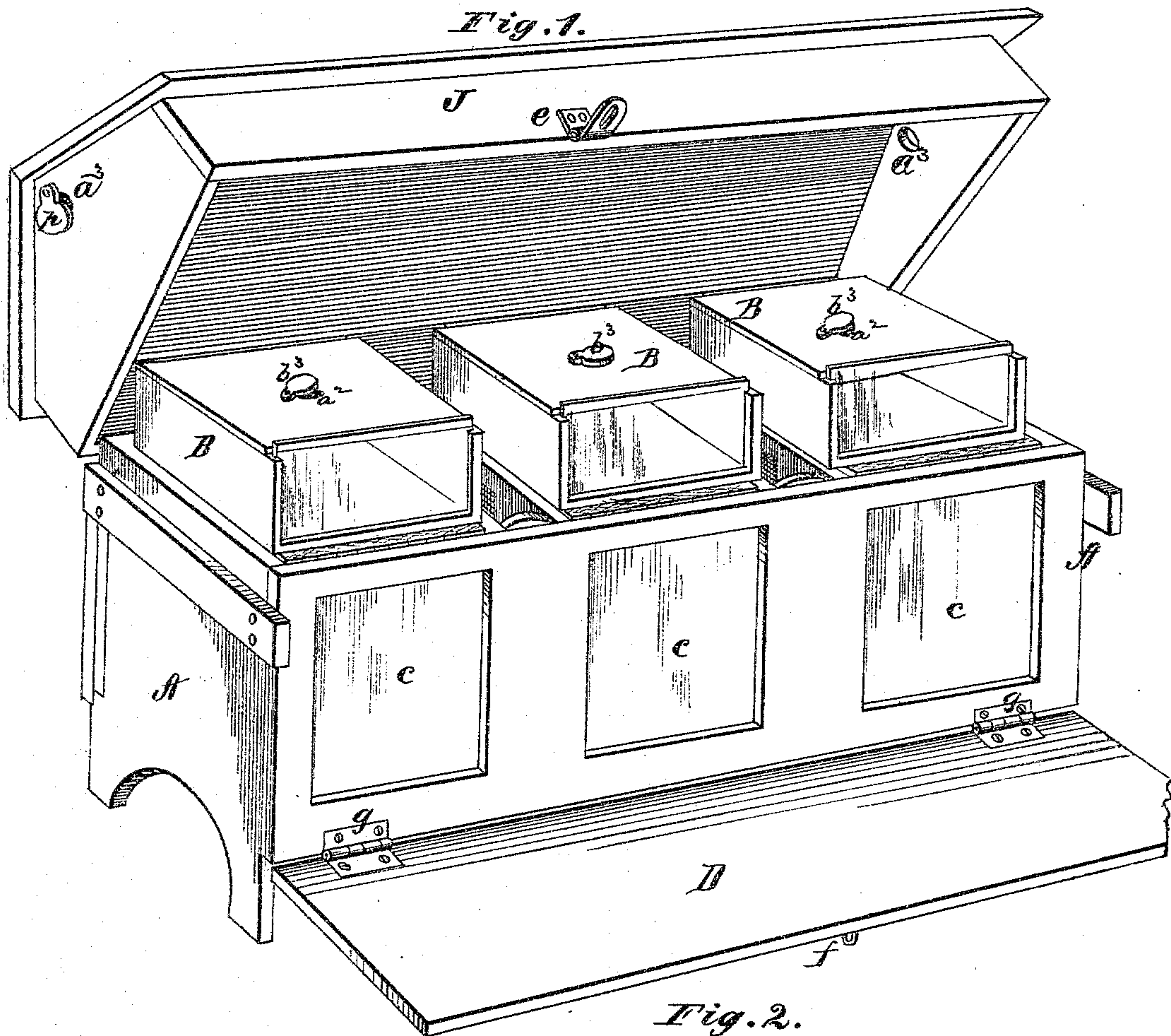


A. CANNIFF.

Improvement in Bee-Hives.

No. 132,052.

Patented Oct. 8, 1872.



Witnesses.

W. C. Stewart  
Jno M. Ballaway

Inventor.

Albert Canniff.



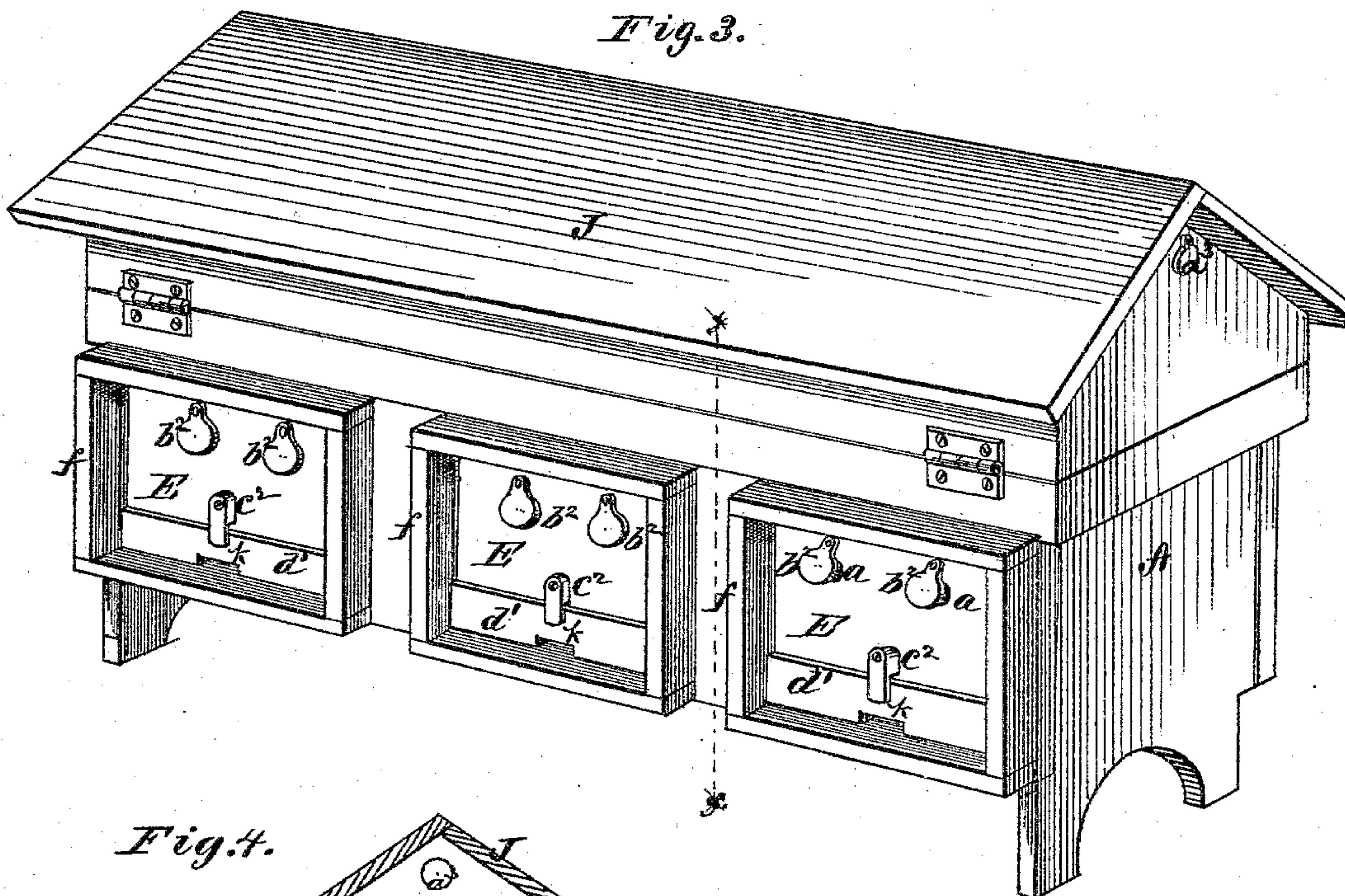
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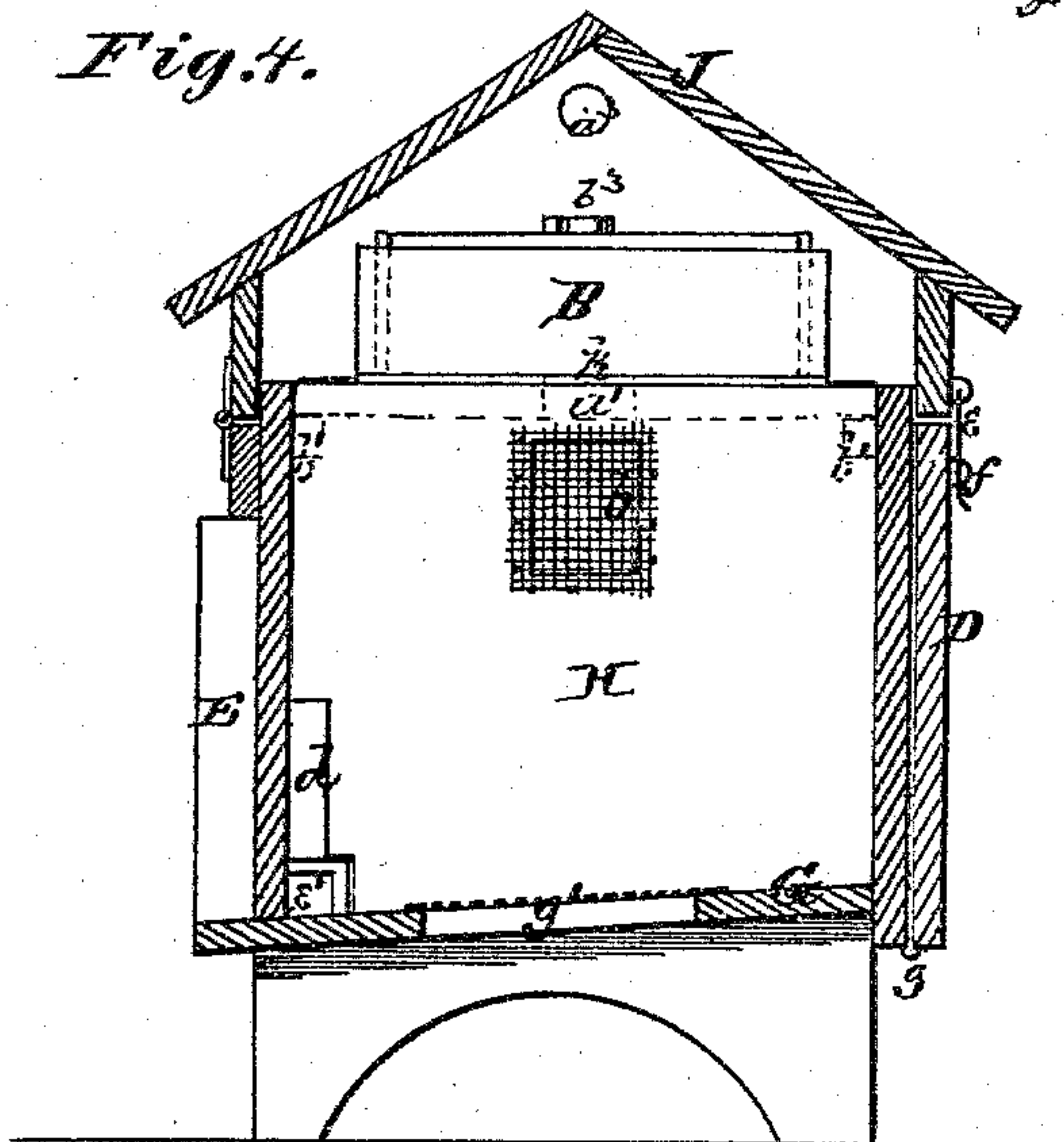
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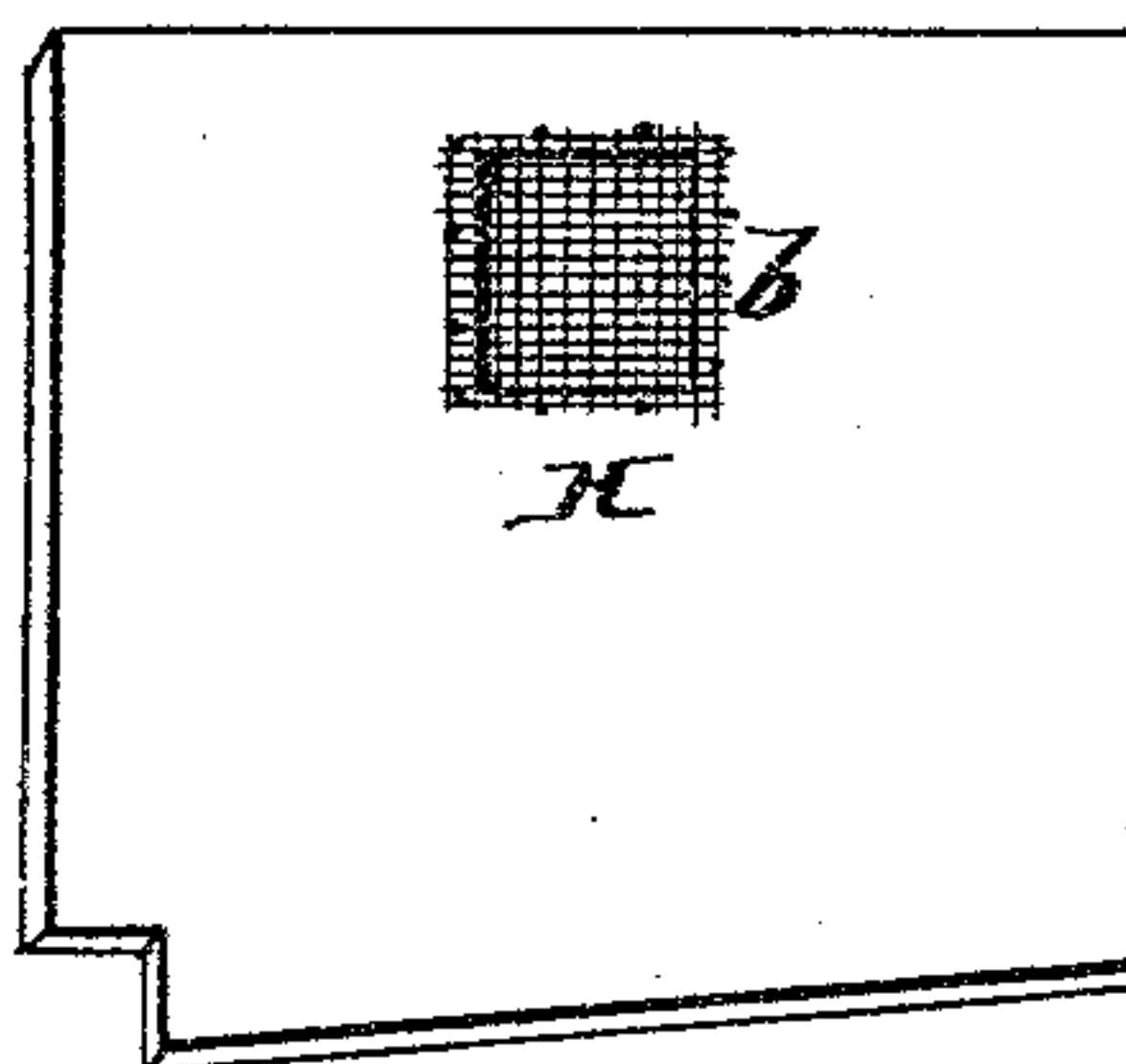
*Fig. 3.*



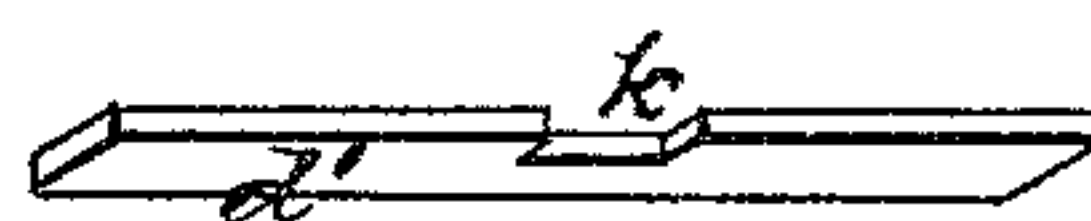
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



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# UNITED STATES PATENT OFFICE.

ALBERT CANNIFF, OF FORT SCOTT, KANSAS.

## IMPROVEMENT IN BEE-HIVES.

Specification forming part of Letters Patent No. 132,052, dated October 8, 1872.

*To all whom it may concern:*

Be it known that I, ALBERT CANNIFF, of Fort Scott, in the county of Bourbon and State of Kansas, have invented certain new and useful Improvements in "Bee Houses and Hives;" and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of an "extensible bee-house with interior bee-hives," as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing which forms a part of this specification, and in which—

Figure 1 is a perspective view from the rear of my bee-house, showing the top and rear door open; Fig. 2 is a longitudinal vertical section of the main part of the house; Fig. 3 is a perspective view from the front of the entire bee-house; Fig. 4 is a transverse vertical section through line *xx*, Fig. 3; and Figs. 5 and 6 are views of detached pieces.

A represents the body of the bee-house, made of any suitable material, and of such size, form, and shape as may be desired. The width or depth should be of the same size as the hives to be used, and the length to correspond with the number of hives required, the house being divided into such hives by partitions, as hereinafter described. The end pieces of the box or house A are extended down sufficiently to constitute legs, and are shaped accordingly. The bottom G of the box slants downward and forward, as shown in Fig. 4, for the purpose of allowing dirt and other substances to be more easily swept or carried out by the bees. The true back is formed of wood with glass plates C C, for the purpose of more clearly observing the interior of the hives. A false back, D, of wood, is attached by hinges *g g*, shutting upward and perfectly closing and darkening the hives, the said false back being fastened by means of a staple, *f*, on which the hasp *e* on the cover closes. The house proper is divided into alternate hives and air-spaces, as shown in Fig. 2, by means of vertical partitions H H, of the shape and construction shown in Fig. 5,

and which are provided at or near the upper edge with a wire-cloth-covered opening, *b*, for the purpose of ventilation. These partitions are not fixed, but admit of being drawn out above and moved laterally the width of the air-spaces. They are held in place by cleats *b<sup>1</sup>* upon the inside of each hive, and by movable pins or other device suitable therefor on the sides of the air-spaces, which will admit of free lateral motion upon that side, the purpose of which lateral motion is to avoid tearing the comb. In the bottom G of the box in each air-space is a wire-cloth-covered opening, *g'*, for ventilating purposes. At the bottom and front of each air-space is a covered passage-way, *e'*, for the bees to pass out of one hive through the adjoining partitions and air-space into the adjoining hive. This passage-way may be from one to two inches inside measurement, to admit of the free passage of the bees when inclined to swarm, and may be closed by a sliding gate, *d*, of any suitable material. The main front entrance of each hive is made as shown in Fig. 2, and is open the full width of each hive, leaving a clear space the full width, so as to present no obstacle to the cleaning of the hive, the floor of the hive extending out one or two inches, forming a platform and part of the porch, hereinafter described. The doors *d'* are of the same length, but somewhat broader, and provided with a slot or aperture, *k*, in the middle of one side, which admits of partially or entirely closing the entrances, as the door is put in with said slot above or below. Each door *d'* is held in place by a button, *e<sup>2</sup>*, as shown in Fig. 3. At the top of each hive, in front and near the middle, laterally, are two small holes, *a a*, about three-quarters of an inch in diameter, for extra entrances during the working season, which openings may be opened or closed by pendulum-doors *b<sup>2</sup> b<sup>2</sup>*, as shown in Fig. 3. The top of each hive-space is covered by slats resting upon the cleats *b<sup>1</sup>*, with a passage-hole, *a<sup>1</sup>*, of suitable size, on the side of each for the upward and downward passage of the bees from the hive-spaces below to the honey-boxes B above, and vice versa. These slats are put in loosely and unconnected, so as to be removed at will. The honey-box B rests loosely upon these slats, and is provided in the bottom with an opening, *h*, placed transversely to and over



the slats. It is made of such dimensions as will best conform to the size of the house and the hive below it, and is constructed with the front and back of glass sliding up and down in grooves cut in the sides for that purpose, the top of the box being shortened to admit of such sliding. When the glass is in, the box is completely closed with the exception of the aperture *h* in the bottom. In the center of the top of the box is a hole or entrance, *a*<sup>2</sup>, with a cover, *b*<sup>3</sup>, for the passage of the bees into the cover or roof *J*, and thence out by the holes *a*<sup>3</sup> in the gable ends of the same. The front of the house is divided into as many porches or recesses *E* as there are hives, to divide the same and prevent the bees lying over from one to the other, as well as for the appearance of the hive and for protection to the bees while lying out. The roof *J* of the house is constructed as shown, and forms a perfectly tight cover hinged on in front and open upward and forward. In the peak of each gable is an entrance or escape hole, *a*<sup>3</sup>, closed by the pendulum-door *p* for the purpose above set forth and for ventilation.

For ventilating the hive it is only necessary to open the holes *a*<sup>3</sup> in the gables, and a free current passes up through the air-chamber by way of the gauze-covered holes *g*<sup>1</sup> in the floor, and out of the said holes *a*<sup>3</sup>, thus making the hive warmer in winter and cooler in summer. The hives can be ventilated by opening the holes in the top of the honey-boxes. By closing these holes dead-air spaces and perfect freedom from draft are obtained.

If it is desired to remove a swarm of bees from one hive to the other, as soon as the bees

show symptoms of swarming the slide-gate *d* is raised and the passage-way through the box *e*<sup>1</sup> cleared, when the bees will gradually work over, the other entrances being closed, and begin work in the next hive, and so on. To put swarms into a new hive the top of the honey-box is closed, the bees driven upward into it, and the box then removed.

To remove honey from the honey-boxes the holes in the honey-boxes and the holes in the gables are opened, the roof of the house being down, and the bees will pass out, a sheet of tin having first been passed between the honey-box and the opening in the slats below to prevent their returning.

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

1. The arrangement of the house *A*, with inclined bottom *G*, porches *E* in front, glass plates *C* in the back, false hinged back *D*, and cover *J*, all substantially as and for the purposes herein set forth.

2. The arrangement for ventilation and other purposes, consisting of the openings *g*<sup>1</sup>, *b*, *a*<sup>1</sup>, *h*, *a*<sup>2</sup>, and *a*<sup>3</sup>, all substantially as herein set forth.

3. The arrangement of the body *A* with inclined bottom *G*, porches *E*, hinged false back *D*, movable partitions *H*, cleats *b*<sup>1</sup>, covered passages *e*<sup>1</sup>, slides *d*, honey-boxes *B*, and cover *J*, all constructed and used substantially as set forth.

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Witnesses:

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JNO. M. GALLOWAY.