

Arthur Gray's "Imp^d Bee-Hive"

PATENTED

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Fig. 1.

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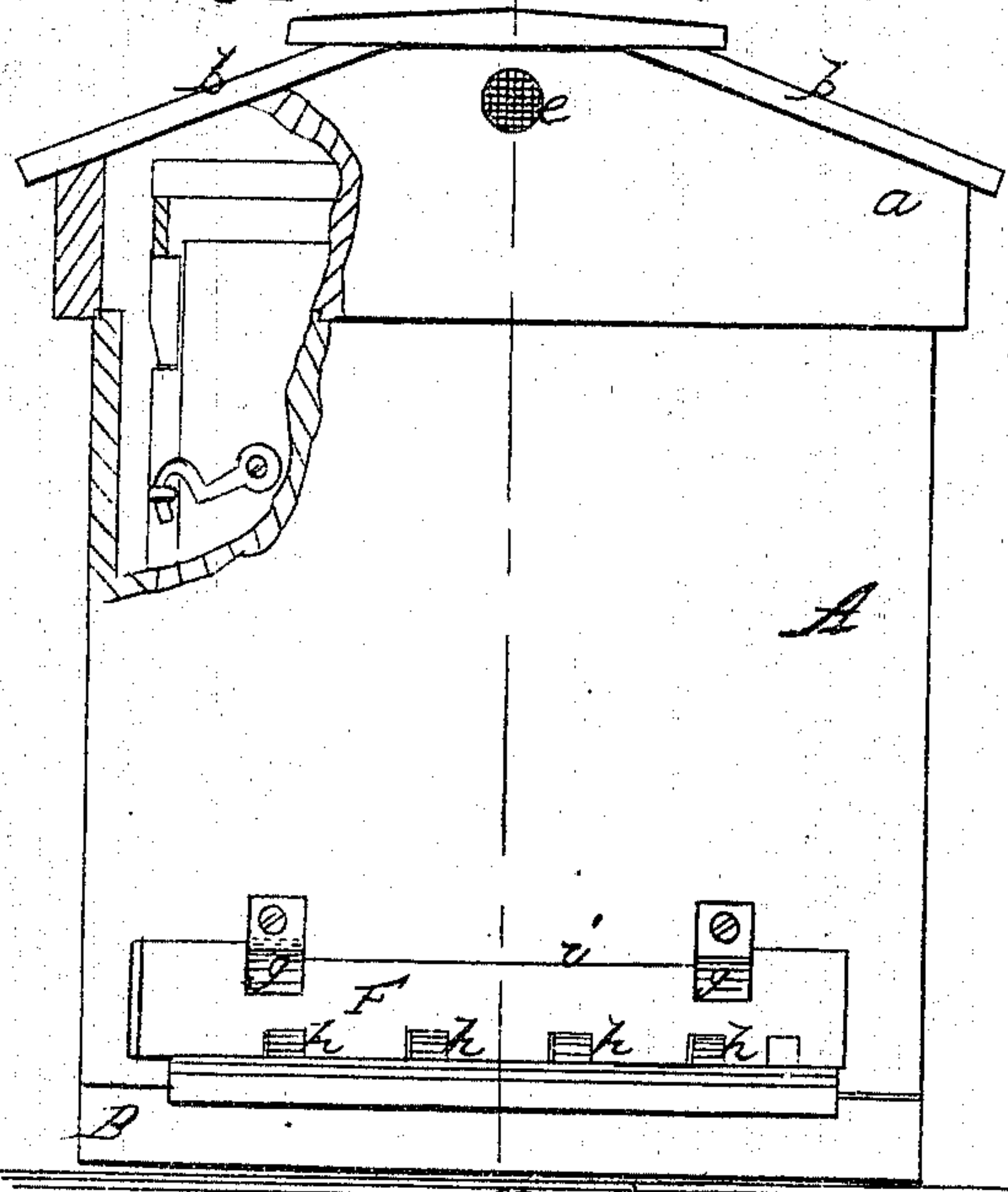


Fig. 2.

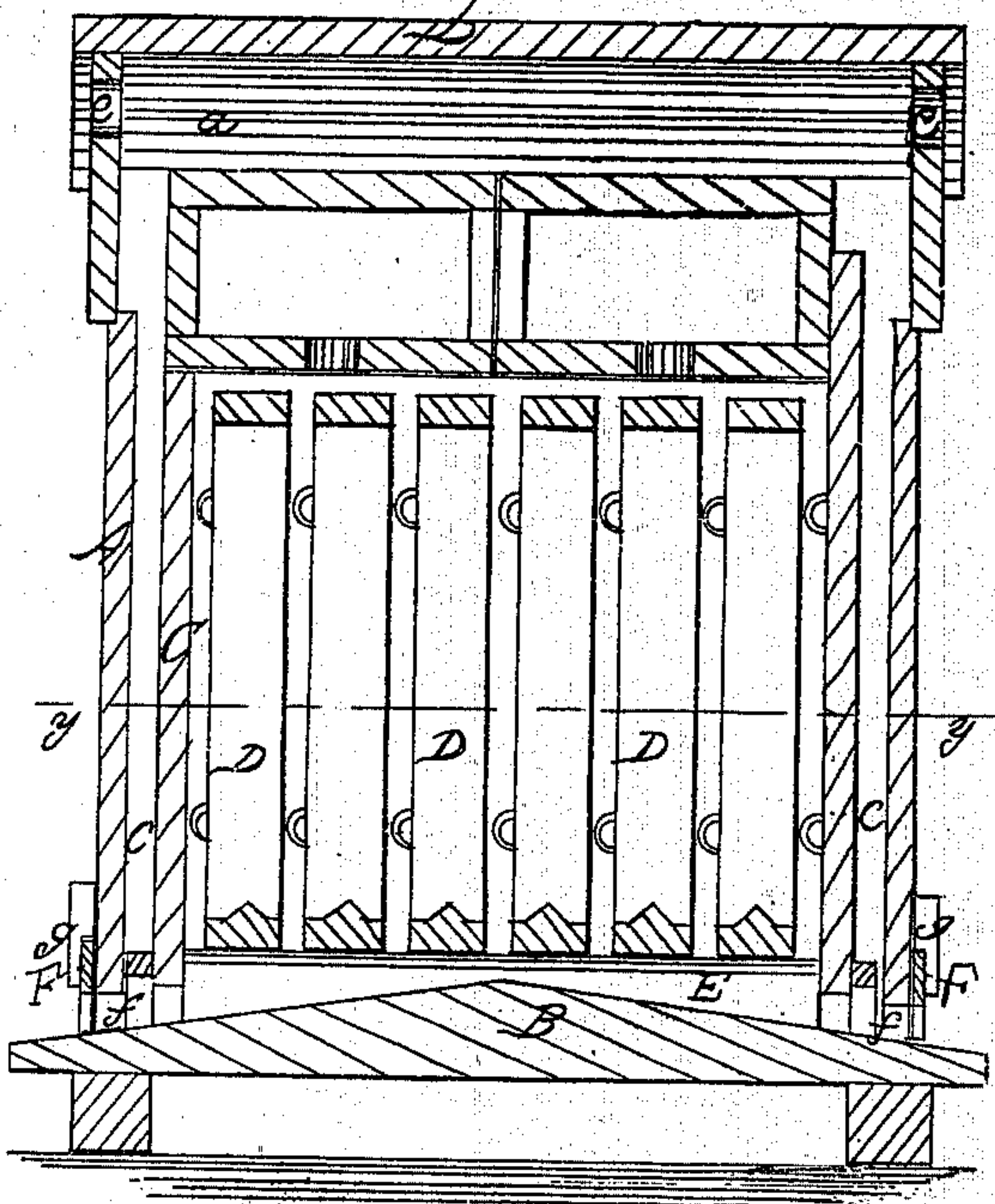


Fig. 3.

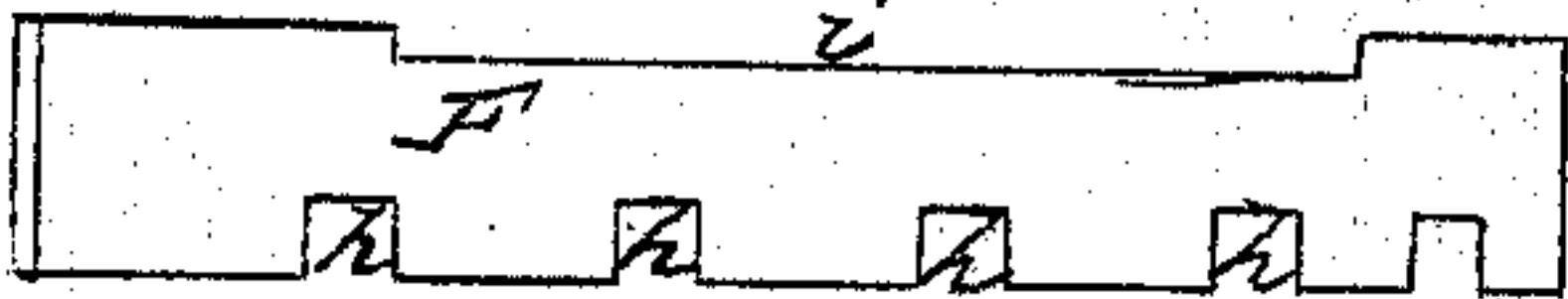


Fig. 3.

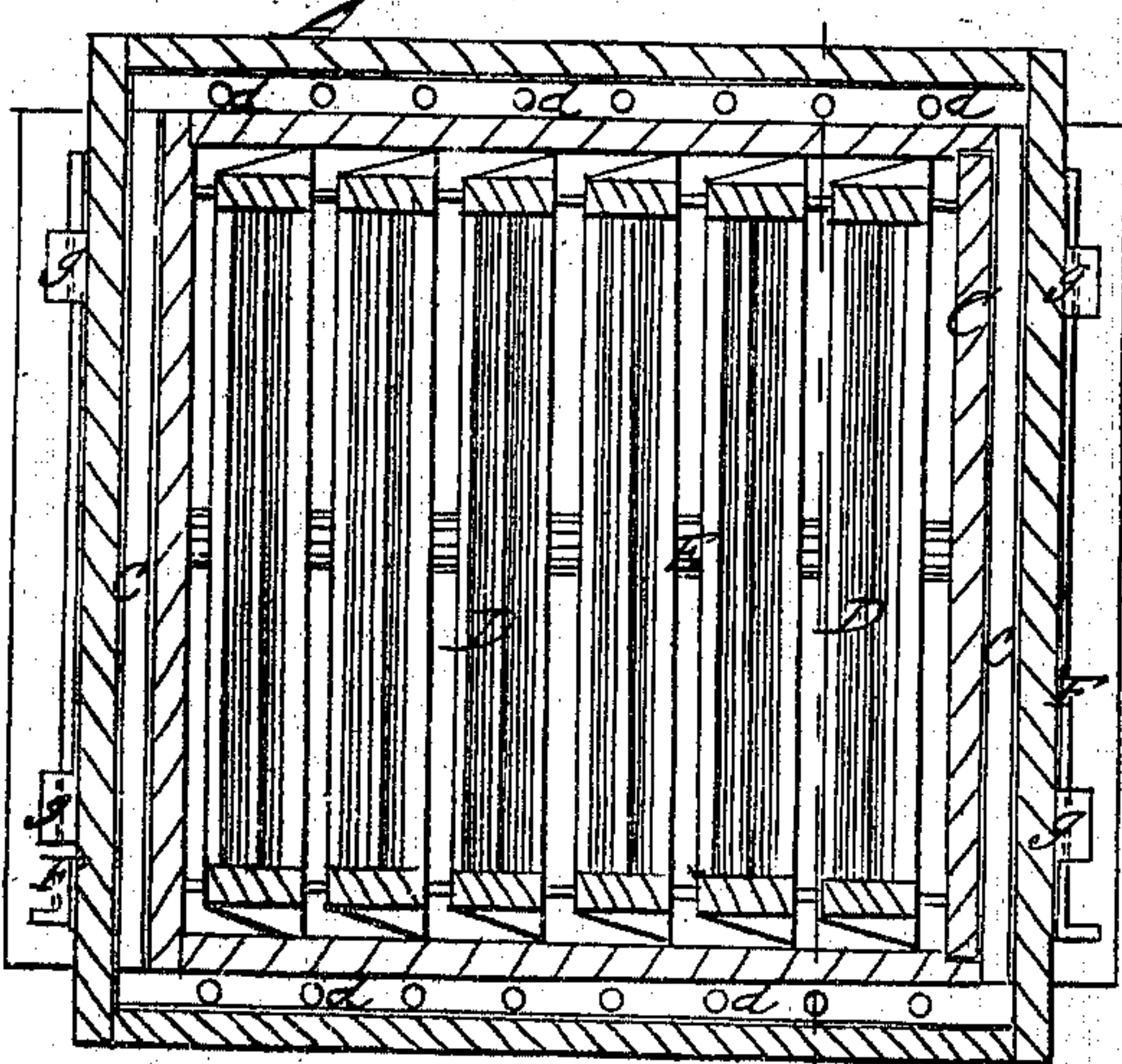
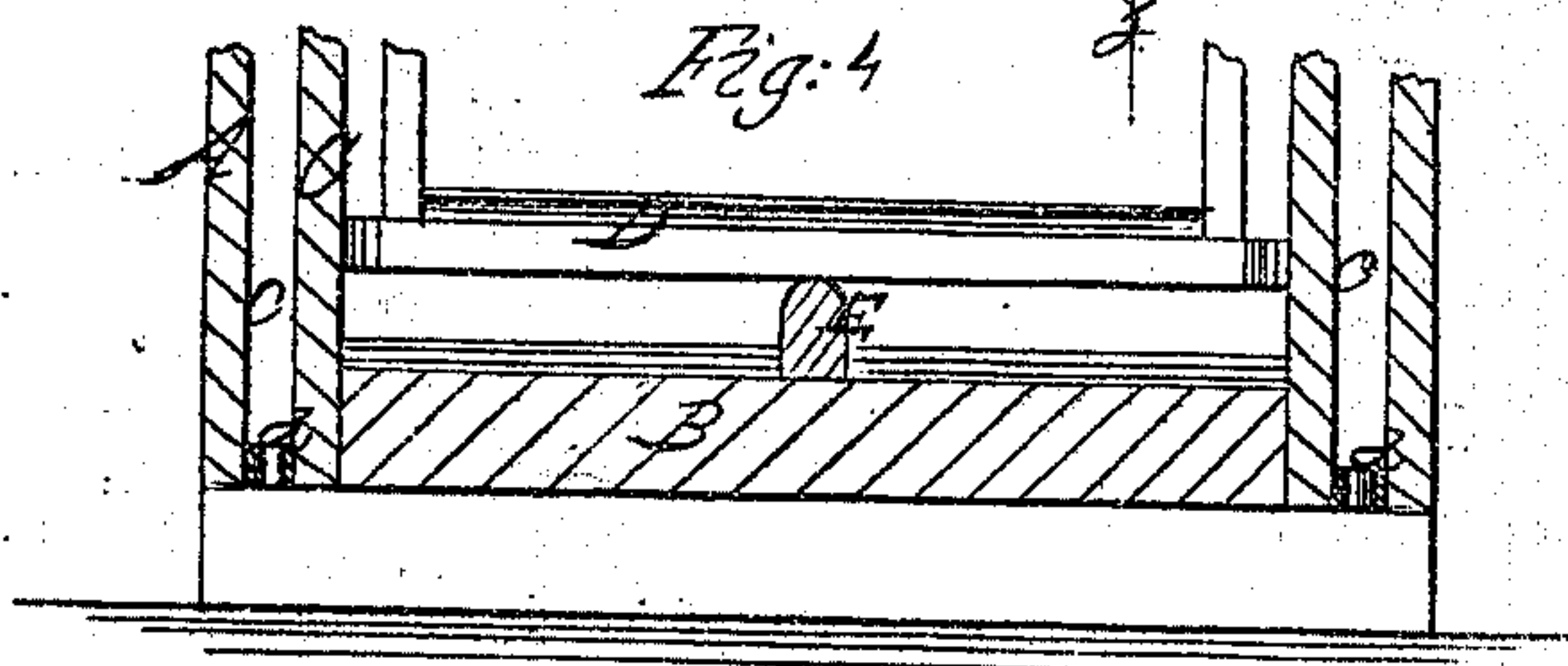


Fig. 4.



Witnesses
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ARTHUR GRAY, OF REILEY, OHIO.

Letters Patent No. 71,381, dated November 26, 1867.

IMPROVEMENT IN BEE-HIVES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ARTHUR GRAY, of Reiley, in the county of Butler, and State of Ohio, have invented a new and improved Bee-Hive; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in the construction of bee-hives, whereby the temperature of the hive may be rendered uniform, or nearly so, that is to say, cool in summer and warm in winter; the hive also kept in a clean state, and the bee-entrances rendered capable of being varied in dimensions, so as to prevent the egress of the bees, and still admit air for ventilation, and also control the escape of the drones, and admit of the free egress and ingress of the "workers," as may be desired. In the accompanying sheet of drawings—

Figure 1 is a side view of a bee-hive constructed according to my invention.

Figure 2, a vertical section of the same, taken in the line *x x*, fig. 1.

Figure 3, a horizontal section of the same, taken in the line *y y*, fig. 2.

Figure 4, a vertical section of the lower portion of the same, taken in the line *z z*.

Figure 5, a detached view of one of the entrance-slides.

Similar letters of reference indicate like parts.

A represents the exterior case of the hive, which may be of quadrilateral form, and provided with a cap, *a*, having a double pitch top, *b*, as shown clearly in fig. 1. This case A rests upon a bottom board, B, the upper surface of which is inclined two ways, from the centre downward, as shown in fig. 2. Within the case A there is placed another case, C, which contains the comb-frames D, a space, *e*, being allowed between the two cases, which communicates with the external air, by means of holes *d*, in the bottom board B, vent-openings *e* being made in the ends of the cap *a*, (see figs. 1 and 2.) By this means, it will be seen, a free circulation of air is admitted through the space *e*, and the hive kept in a cool state in summer, while in winter the hive may be kept in a warm state by filling the space *e* with any suitable non-conducting material, such as straw, etc. The comb-frames D rest upon a strip, E, which is secured to the upper surface of the bottom board B, and extends entirely across its two inclined surfaces, the upper edge of the strip being in a horizontal plane, so that the comb-frames may all be retained at the same height, and in a proper relative position with each other. This will be fully understood by referring to figs. 2 and 3. The strip E also serves as a means to allow the bees to reach the comb-frames with facility from the bottom board B. In hives provided with suspended frames, the bottoms of which are above the bottom board, they are compelled to form steps of wax to effect this end. The inclined surfaces of the bottom board B render the strip E necessary, as the frames would otherwise require to be suspended or rest at irregular heights on said surfaces, which would prevent the escape of filth from the hive. The two sides of the hive, at their lower ends, have notches *f* made in them, at equal distances apart, and over these notches a metal slide, F, is fitted in suitable guides *g*. These slides are notched at one edge, as shown at *h*; the notches *h* corresponding in size to the notches *f* in the hive.

It will be seen by moving the slide F longitudinally, the notches *f* may be virtually enlarged or diminished, contracted sufficiently to prevent the bees from passing out from the hive, and at the same time admit air for ventilation. The opposite edges of the slides have one long notch, *i*, made in them, as shown clearly in fig. 5, and by inserting the slides so that the notches *i* will be in line with the notches *f*, in the sides of the hive, the drones will be kept in the hive, while the "workers" will be allowed to pass freely in and out, the notches *i* being of such a depth as to admit of that result, which is an important one during the time of swarming.

What I claim as new and desire to secure by Letters Patent, is—

1. The case C, when placed within the case A, and resting upon the inclined bottom B, to form the chamber *e*, surrounding said case C, through which chamber the air passes from the openings *d* in the bottom B to the openings *e* in the top *a*, affording constant ventilation, as herein shown and described.

2. The adjustable slides F, fitted in the guide *g*, constructed as described, having notches *h* upon their lower sides, and the long notch *i* upon their upper sides, registering with the notches *f* in the hive, as herein described for the purpose specified.

ARTHUR GRAY.

Witnesses:

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J. W. FRAZEL.