

*S. A. J. B. & F. J. Short & J. Kyle,*

*Bee Hive.*

*No. 112,388.*

*Patented Mar. 7. 1891.*

Fig. 4.

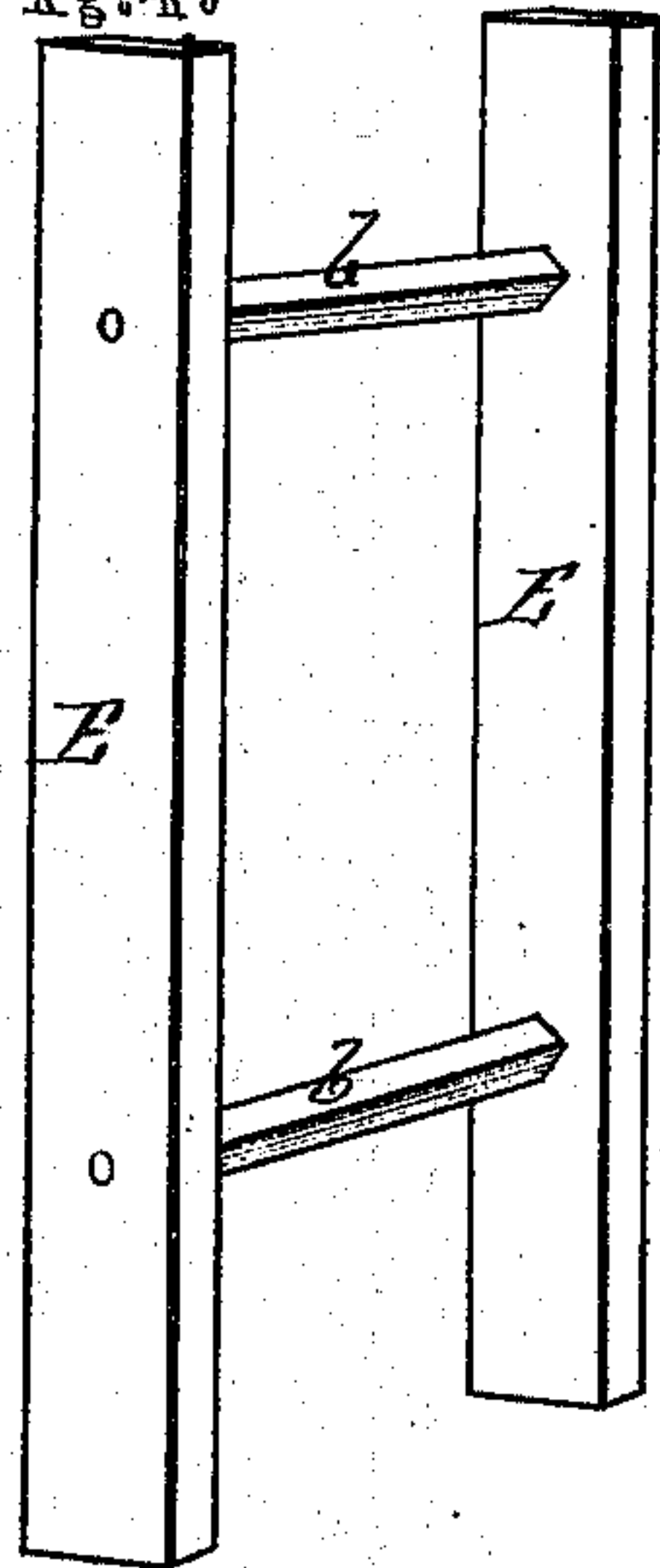


Fig. 1.

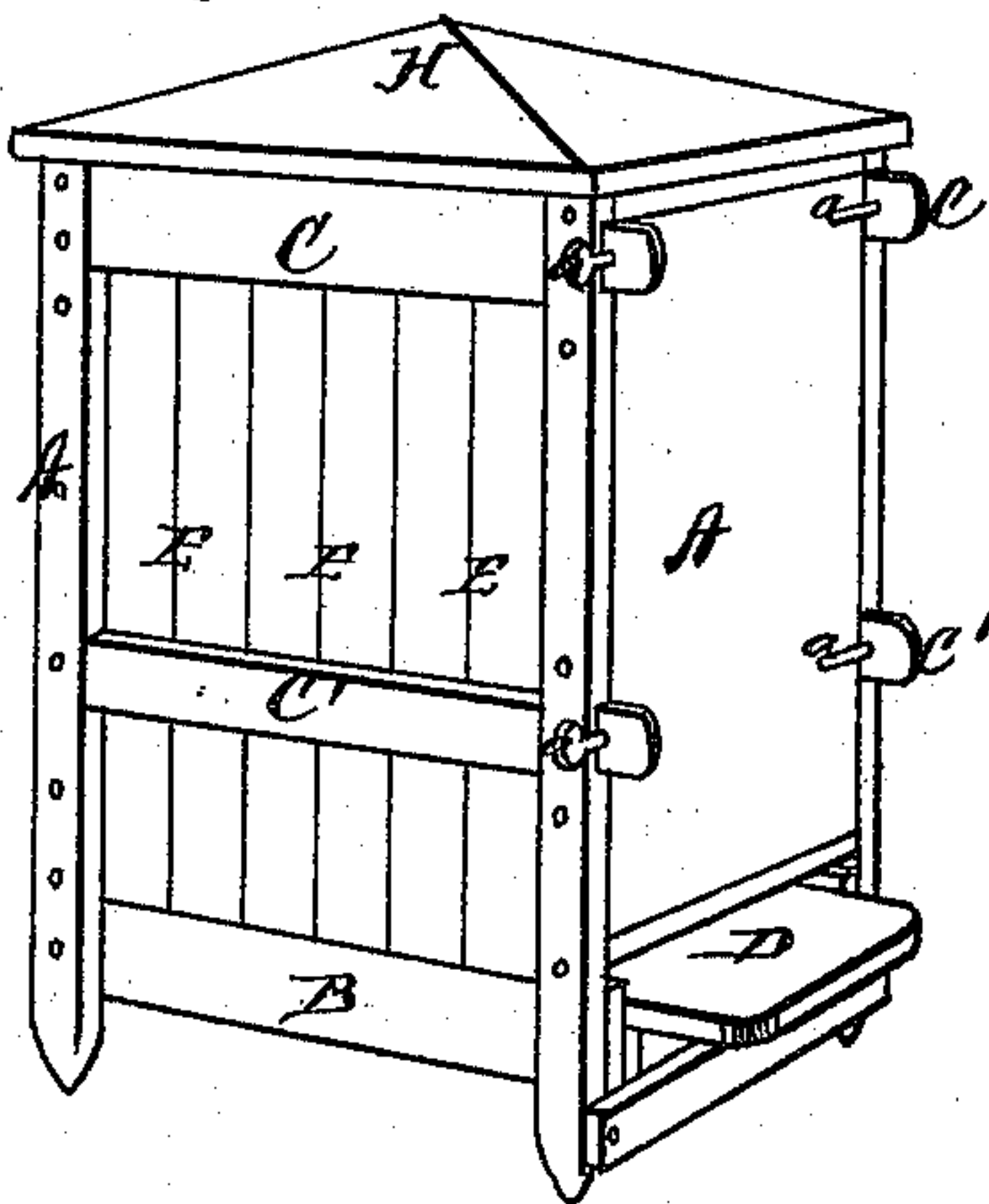


Fig. 3.

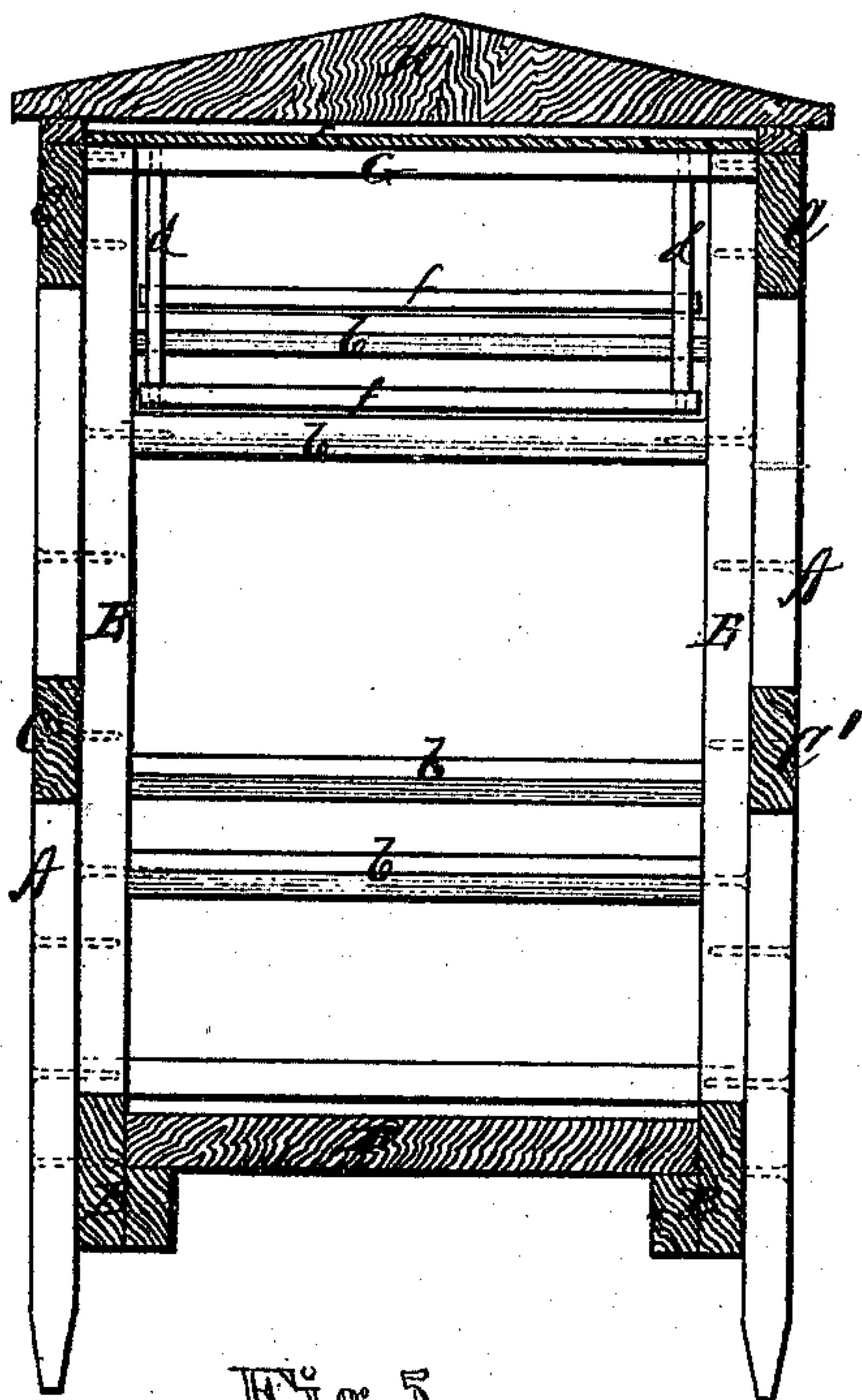


Fig. 5.

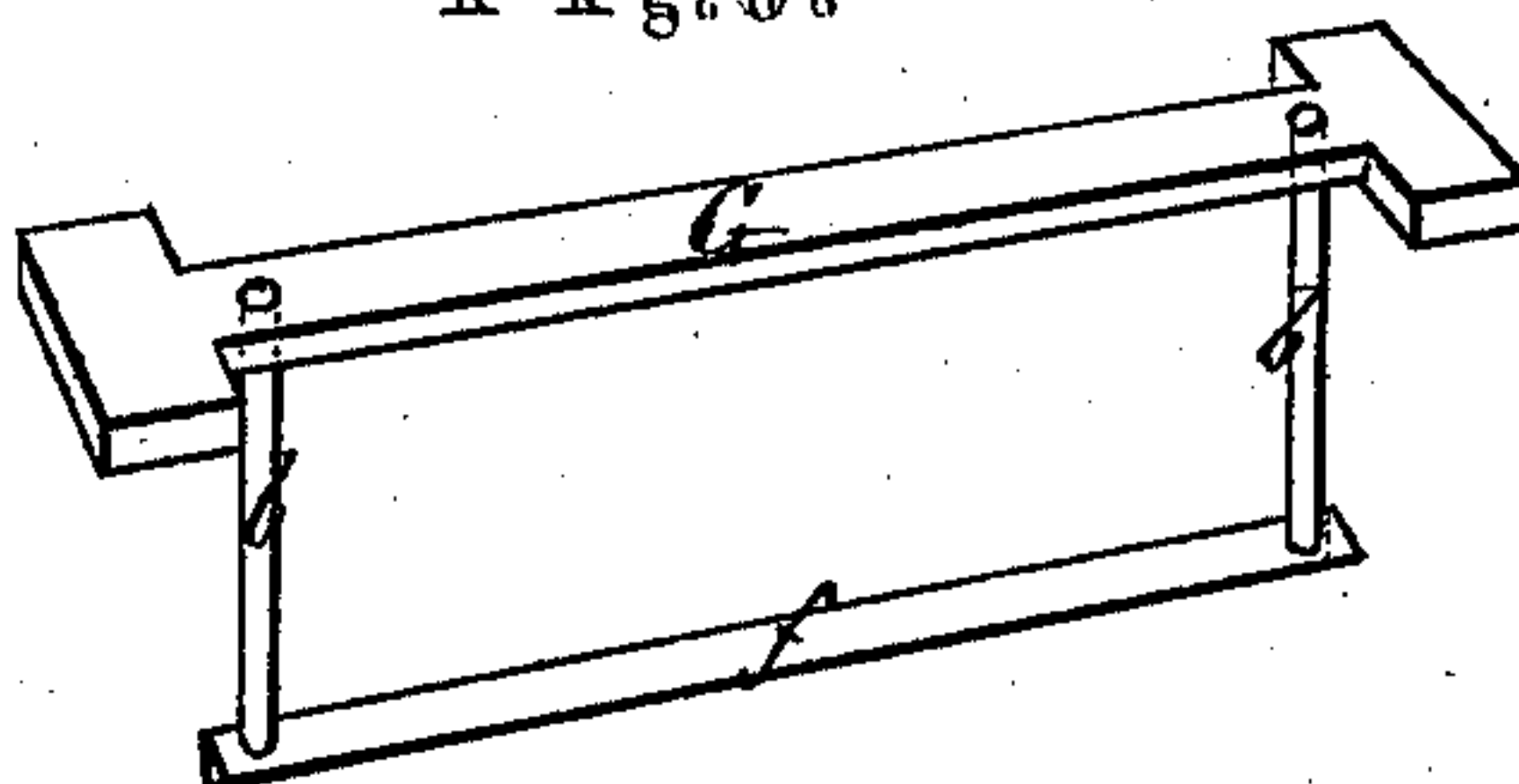
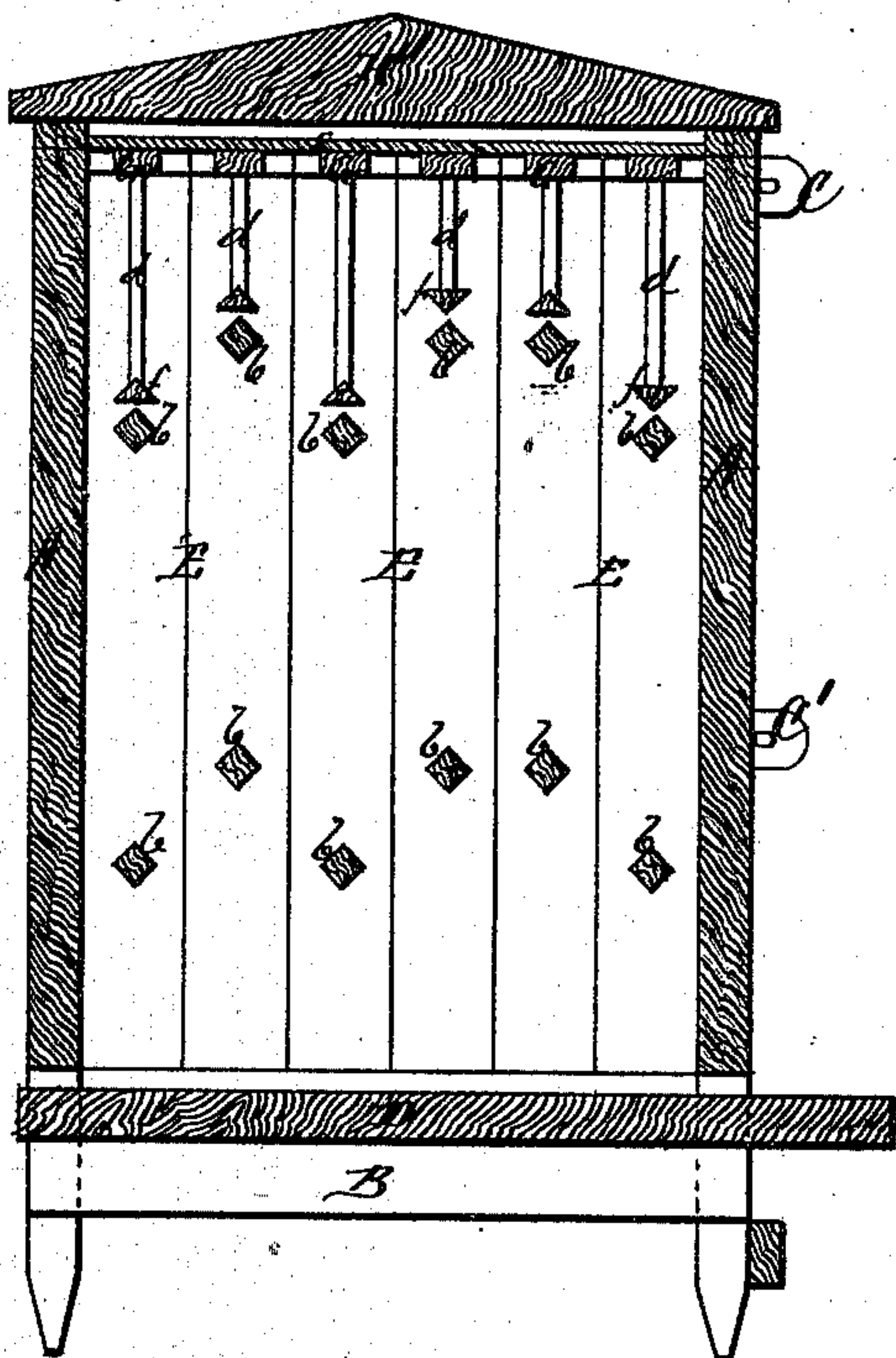


Fig. 2.



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# United States Patent Office.

SAMUEL ARCHABALD SHORT, FREDRICK JACKSON SHORT, JOHN BUNION SHORT, AND JASPER KILE, OF DECATUR, ALABAMA.

Letters Patent No. 112,388, dated March 7, 1871.

## 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 we, SAMUEL ARCHABALD SHORT, FREDRICK JACKSON SHORT, JOHN BUNION SHORT, and JASPER KILE, of Decatur, in the county of Morgan and State of Alabama, have invented a new and valuable Improvement in Bee-Hives; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of our bee-hive in perspective view;

Figure 2 is an enlarged longitudinal vertical section, and

Figure 3 is an enlarged transverse vertical section of the same;

Figure 4 is an enlarged perspective view of one of the comb-frames; and

Figure 5 is an enlarged perspective view of one of the honey-frames.

The nature of our invention consists in the construction and arrangement of a bee-hive, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing.

A A represent the end pieces of the hive, and are composed of posts connected by boards, the posts extending below the ends proper, so as to form feet for the hive to rest upon.

The two end pieces A A are connected on each side by means of two bars, O O', secured to the posts of one end piece, and tenons on the other ends of said bars passing through mortises in the posts of the other end piece, and fastened by keys *a a*, as shown in fig. 1.

The bar O is placed near the upper ends of the end pieces A A, and the bar O' at any suitable point below the former.

The end pieces A A are further connected on each side, a short distance above the lower ends, by a bar, B, placed on the inner sides of the posts of the end pieces, their upper edges coming about on a line with the lower edge of the panels of the end pieces.

The inner sides of the bars B B are provided with grooves or ledges, on which a sliding bottom, D, is placed, its upper face being so far below the lower edge of the panels of the end pieces as to form a convenient entrance for the bees.

The comb-frames consist of end bars E E, connected by square comb-guides *b b*. The end bars E E of said comb-frames rest upon the bars B B, and reach up to a short distance below the upper edges of the bars C C, the said end bars E forming the entire sides of the hive, and filling up the whole space between the end pieces A A.

In the upper end of each comb-frame is placed a honey-frame, composed of the top bar G, vertical rods *d d*, and lower triangular guide *f*, as shown in fig. 5. The ends of the top bars G rest upon the upper ends of the end bars E E, and fill up the space flush with the upper sides of the bars C C.

On the top of the honey-frames is laid a glass plate, *e*, and the entire hive covered by a lid, H.

A hive made in this manner may have as many frames or divisions as may be desired. These divisions avoid the air-spaces in a hive where there should be comb, and they also make the comb movable.

It will be noticed that the guides *b b* are arranged at different levels in the hive for the purpose of giving the bees comb to travel on from bottom of the hive to top of honey-chamber. This arrangement does away with all holes or places for the bees to crawl through to get into top boxes or frames.

The horizontal guides *f f* of the honey-frames are also arranged at different heights, to correspond with the position of the upper system of guides *d d*.

Having thus fully described our invention,

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

1. In a bee-hive, comb-frames and honey-frames constructed substantially as herein described, so that the honey-frames will be within the upper ends of the comb-frames, as set forth.

2. The combination of the end pieces A A, bars B C C, bottom D, comb-frames E *b*, honey-frames G *d f*, glass plate *e*, and lid H, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

SAMUEL ARCHABALD SHORT.  
FREDRICK JACKSON SHORT.  
JOHN BUNION SHORT.  
JASPER KILE.

Witnesses:

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