

(No Model.)

J. P. HALLENBECK.
SAFE.

No. 550,717.

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Fig. 1.

Fig. 2.

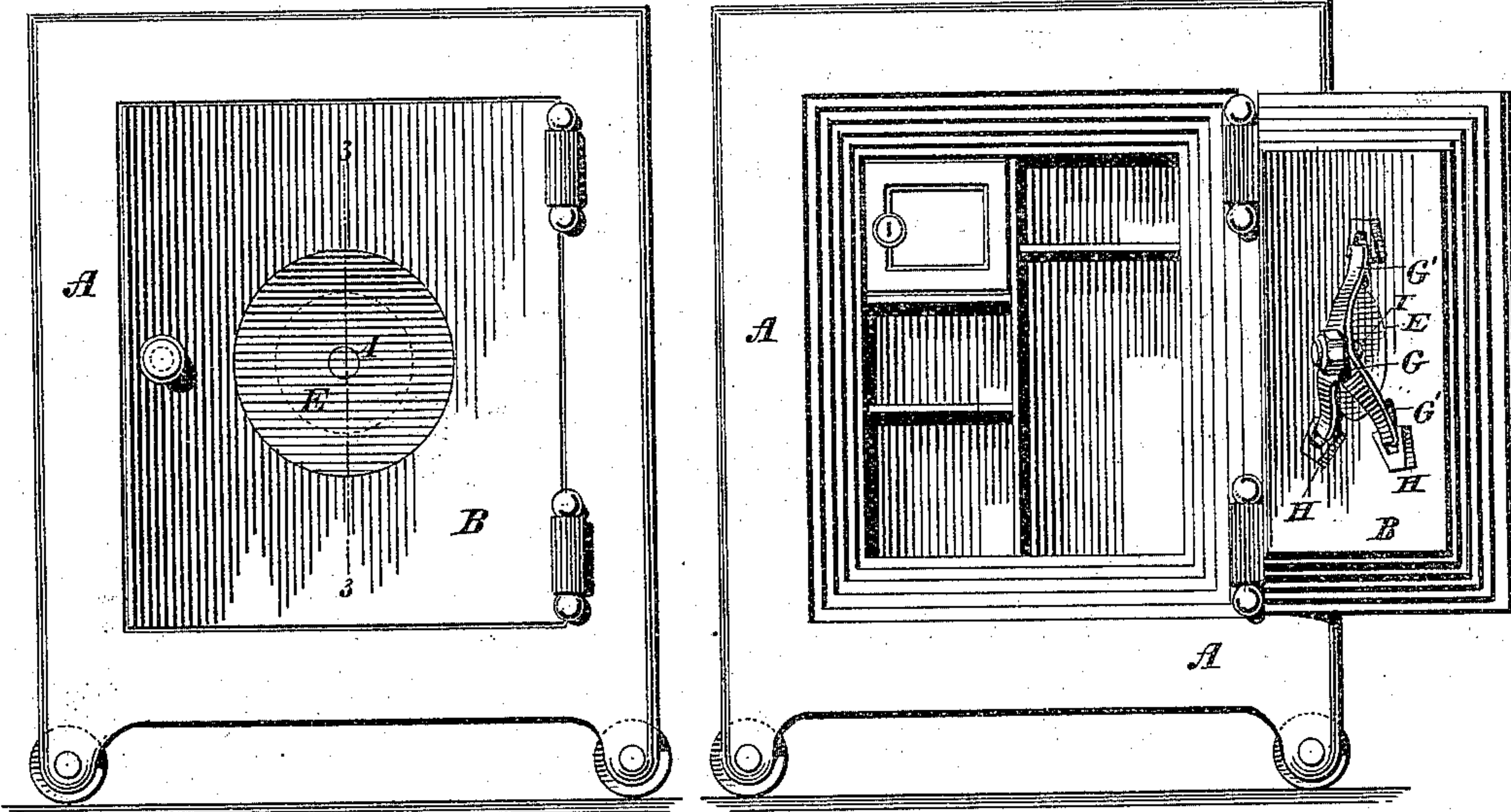


Fig. 3.

Fig. 4.

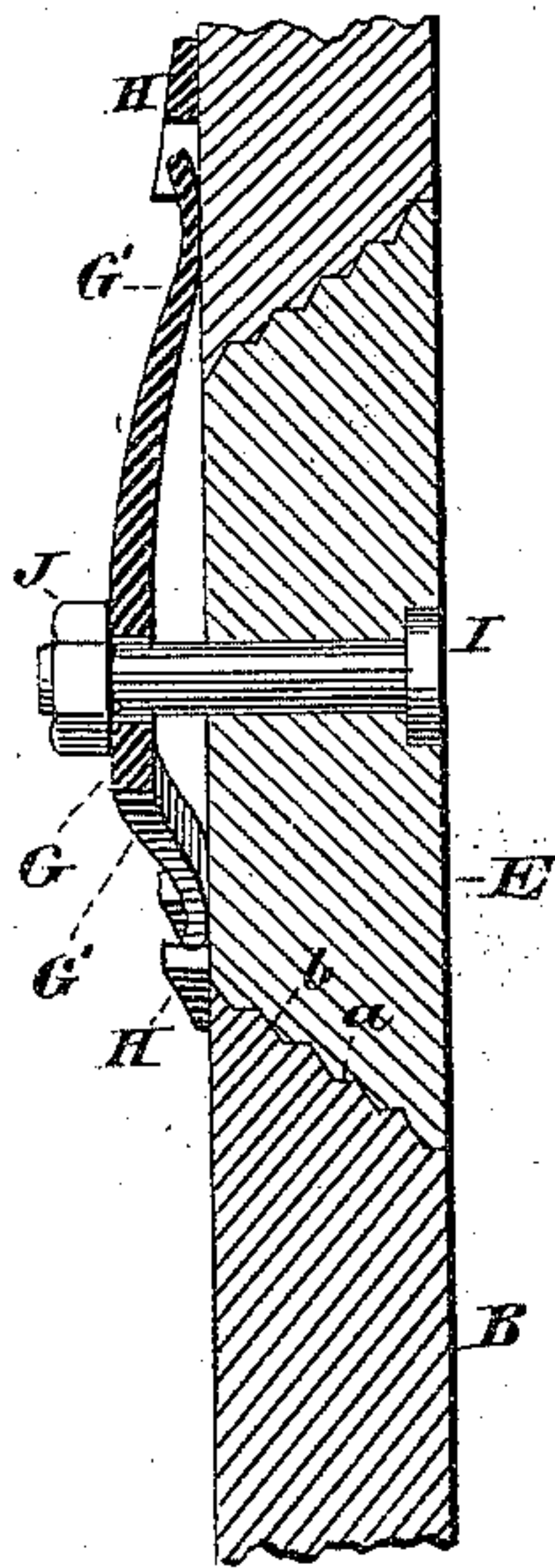


Fig. 5.

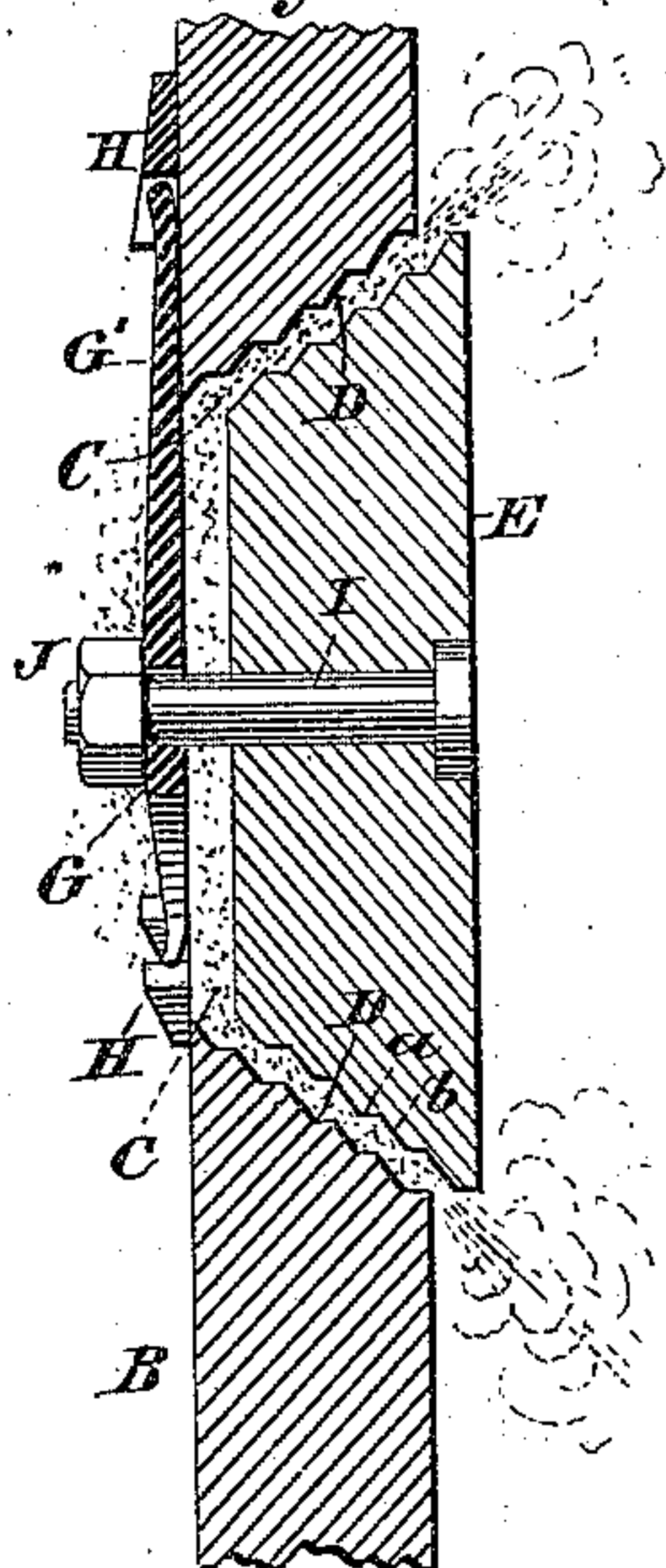
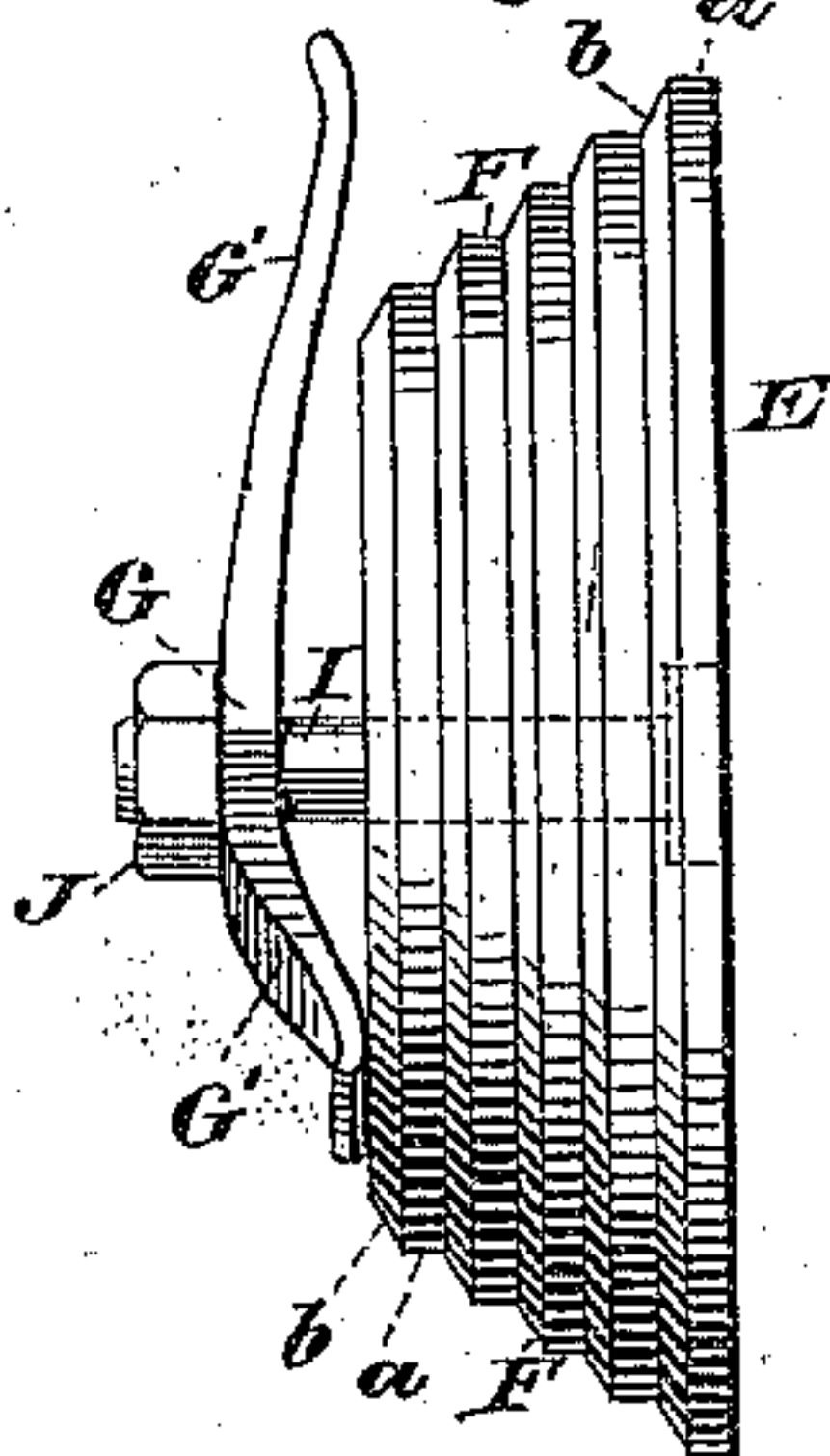
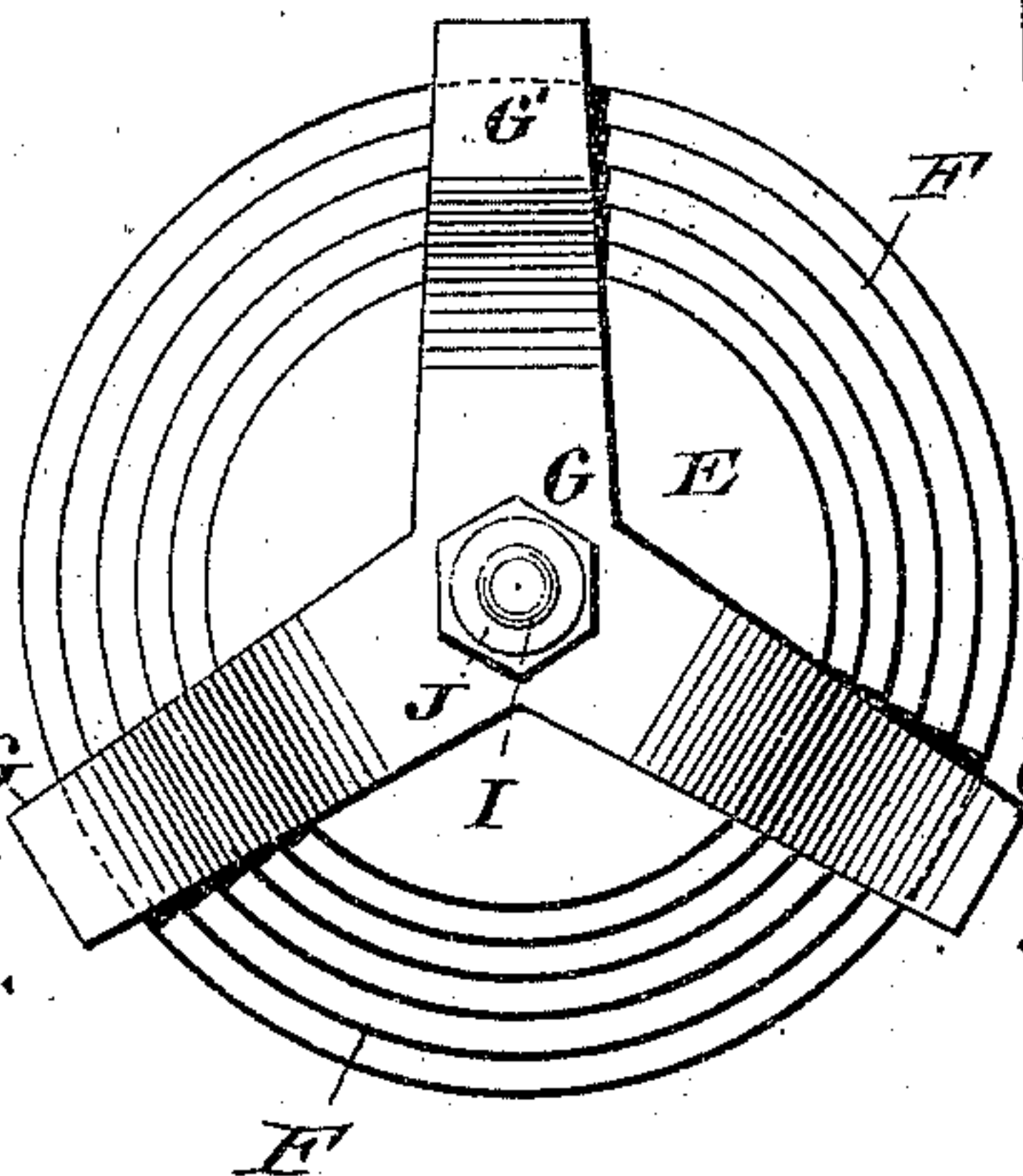


Fig. 6.



WITNESSES:

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INVENTOR

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BY
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UNITED STATES PATENT OFFICE.

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SPECIFICATION forming part of Letters Patent No. 550,717, dated December 3, 1895.

Application filed March 8, 1895. Serial No. 540,966. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. HALLENBECK, a citizen of the United States, residing at Mount Vernon, Westchester county, in the State of New York, have invented certain new and useful Improvements in Safes, of which the following is a full, clear, and exact description.

My invention has for its object to provide a means whereby safes, vaults, and the like may be rendered burglar-proof, and more particularly to protect the same from being blown apart by means of explosives introduced therein; and it consists in the novel features of construction hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, wherein like letters of reference indicate like parts, Figure 1 is a front view of a safe, the door thereof being closed and showing my improvement applied thereto. Fig. 2 is a similar view, the door thereof being thrown open and showing the means at the back thereof for supporting the yielding disk. Fig. 3 is a detail section of a portion of the door, taken on the line 3 3 of Fig. 1, showing the yielding disk in its normal or closed position. Fig. 4 is a similar view showing said disk in its open or extended position. Fig. 5 is a detail side view of the disk, showing the bolt and spring; and Fig. 6 is a detail rear view of the same.

In the drawings, A designates the safe, and B the door, having a centrally-located circular aperture C therein, said aperture being larger in diameter at its outer edge and tapering toward the inner and provided upon said tapering surface with a series of rabbets D.

E is a circular disk, likewise having a tapering edge provided with rabbets F, conforming to those upon the interior surface of the aperture C.

G is a spring having radial arms G', supported in notched projections H upon the inner surface of the door and made integral therewith, and I is a bolt passing through the center of the disk E, and spring G, having a nut J upon the threaded end thereof at the back of the said spring, whereby said spring G is held against the inner surface of the door B and the disk E supported within the

aperture C, the tension of the spring G being adapted to be regulated by tightening or loosening the nut J.

The tension of the spring G should be so adjusted that the same will offer just a trifle less resistance to the outward pressure within the safe, due to the expansion of the gases caused by the explosion, than the hinges, bolts, or other parts of the safe or vault offer, so that when an attempt is made to blow open the safe or vault the said disks offering the least resistance will be the first to yield, and in doing so create an annular passage between the edges of said disks and the apertures, whereby the force of the explosion will be overcome, and as soon as said outward pressure ceases the said disks will resume their normal positions.

In this connection it will be observed that the faces *a* of the rabbets D and F are made very narrow and are at right angles to the walls of the safe, while the faces *b* are made wider and arranged at an angle corresponding to the taper of the aperture, so that the slightest outward movement of the disk E will at once create an annular space between the same and the inner surface of the aperture.

It will also be observed that I have shown the yielding disk as applied to the door of the safe only and have shown and described the same as being circular in form. I do not, however, limit myself thereto, as said disks or plates may be made of any desired shape and size and located in any desired part of the safe or vault and that any number of said disks may be employed.

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

1. The combination with a safe body having conical, circular apertures in the walls thereof provided with a series of rabbets upon said conical surfaces, of circular disks having similar rabbets upon the edges thereof corresponding to the apertures, and the rabbets therein, and fitted within said apertures, guideways and supports arranged upon the inner sides of the walls adjacent to the edges of said apertures, of springs having radial arms adapted to work within said guide ways, and bolts passing through the centers of said

disks and springs provided with nuts secured thereon at the rear of said springs, substantially as specified.

2. The combination with a safe body having
5 ing conical, circular apertures in the walls thereof provided with a series of rabbets having narrow horizontal faces, and wider inclined faces upon said conical surfaces, of circular disks having similar rabbets upon the
10 edges thereof corresponding to the apertures and the rabbets therein fitted within said apertures, of recessed projections arranged upon the inner sides of the walls adjacent to

the edges of the apertures, of springs having radial arms supported within said recessed
15 projections, and bolts passing through the centers of said disks and springs provided with nuts secured thereon at the rear of said springs, substantially as specified.

Signed at the city of New York, in the
20 county and State of New York, this 6th day of March, 1895.

JOSEPH P. HALLENBECK.

Witnesses:

GUSTAVE DIETERICH,
JOHN KEHLENBECK.