

B. B. HOTCHKISS.

Magazines for Attachment to Machine-Guns.

No. 154,551.

Patented Sept. 1, 1874.

Fig. 2.

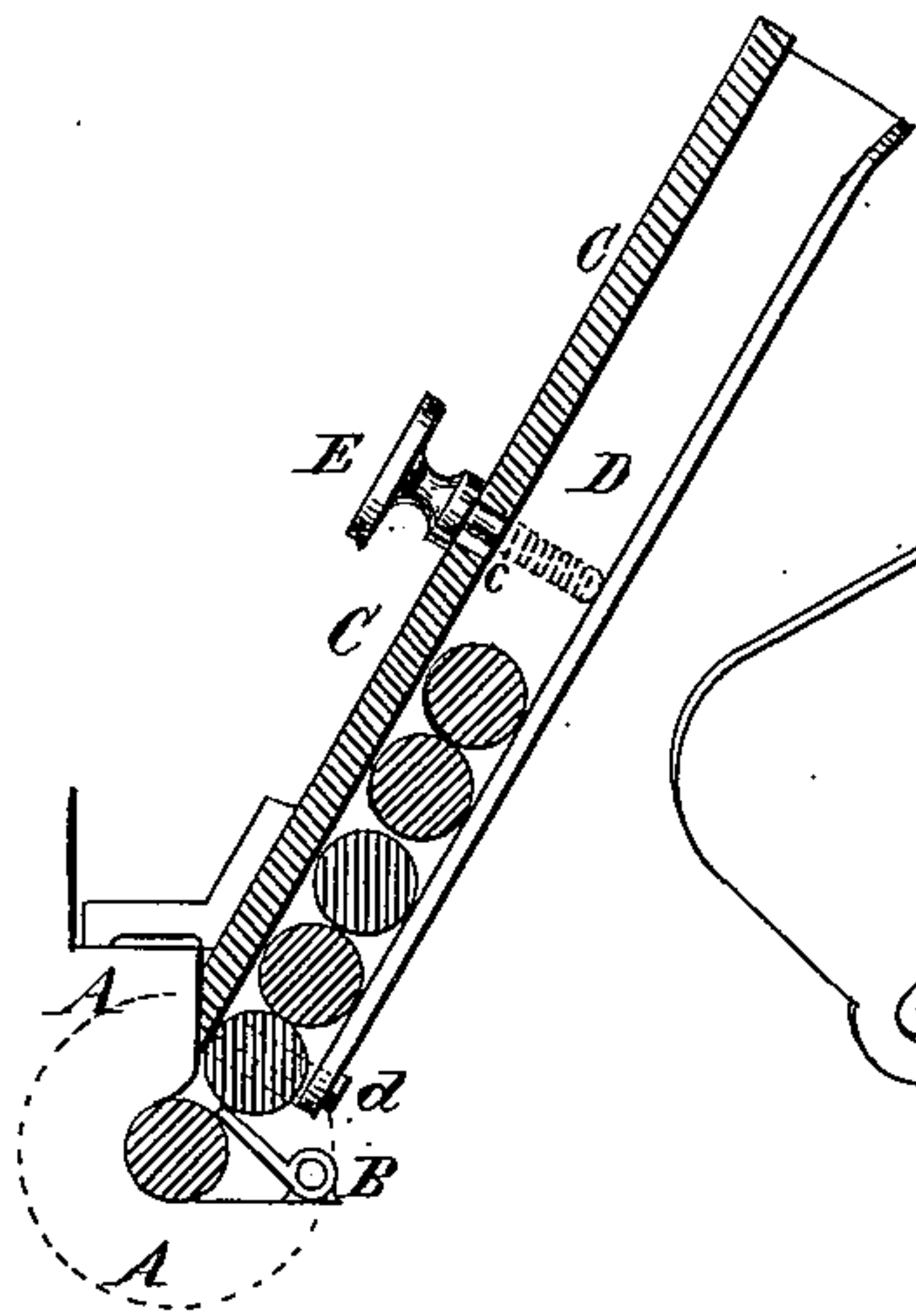


Fig. 1.

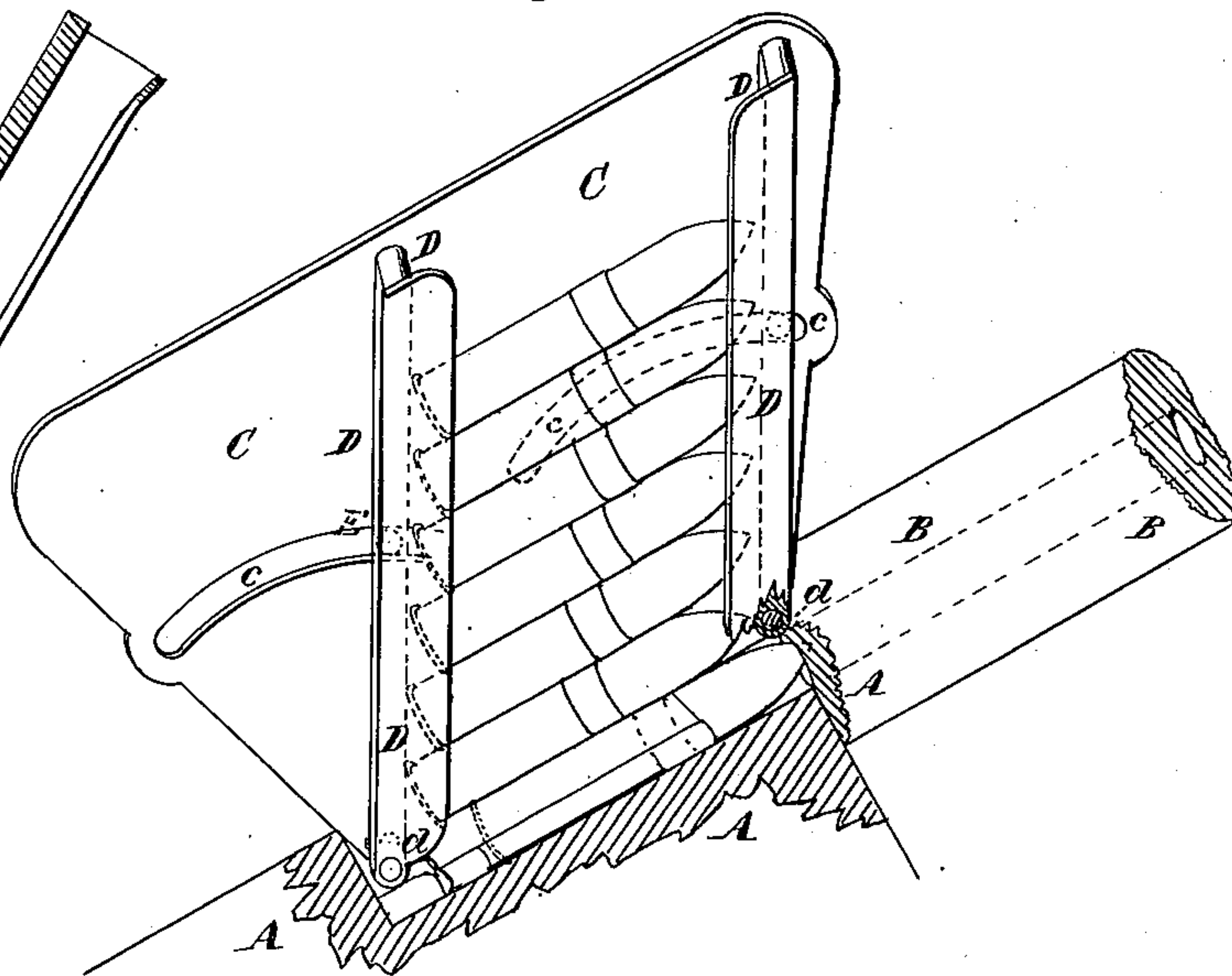
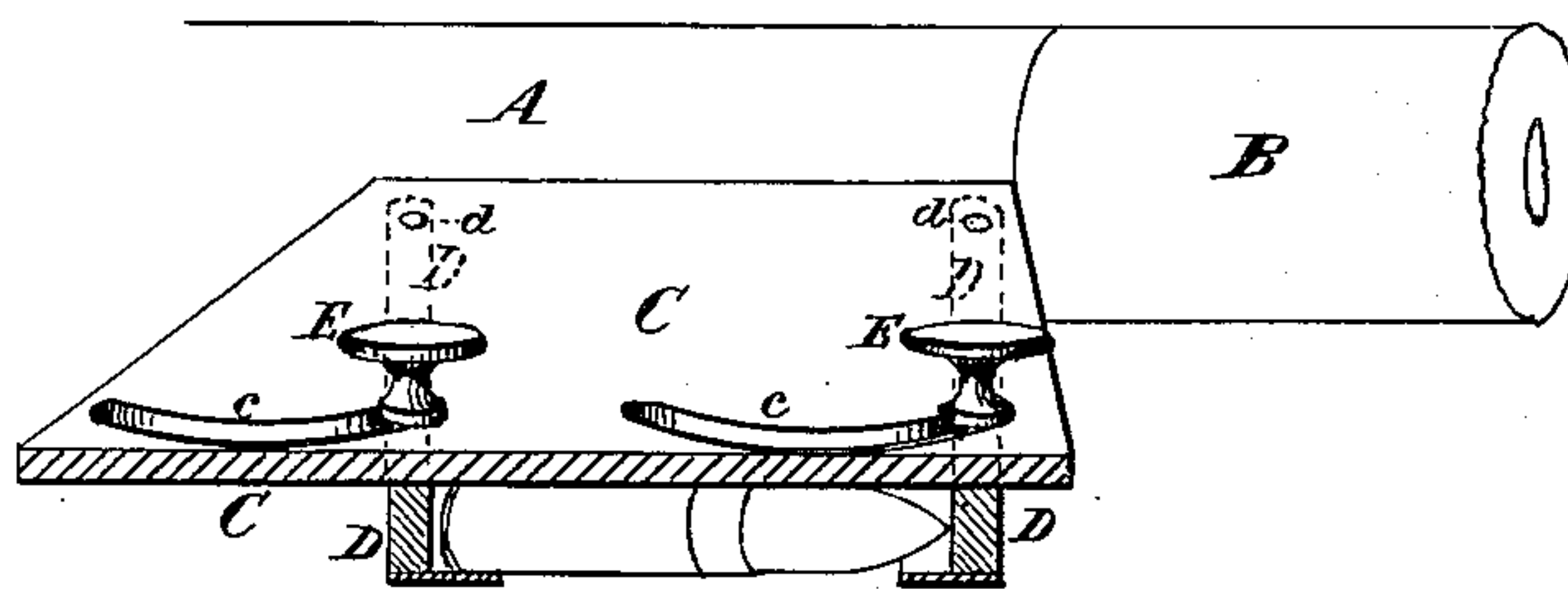


Fig. 3.



Witnesses.

*[Handwritten signatures of witnesses]*

Inventor.

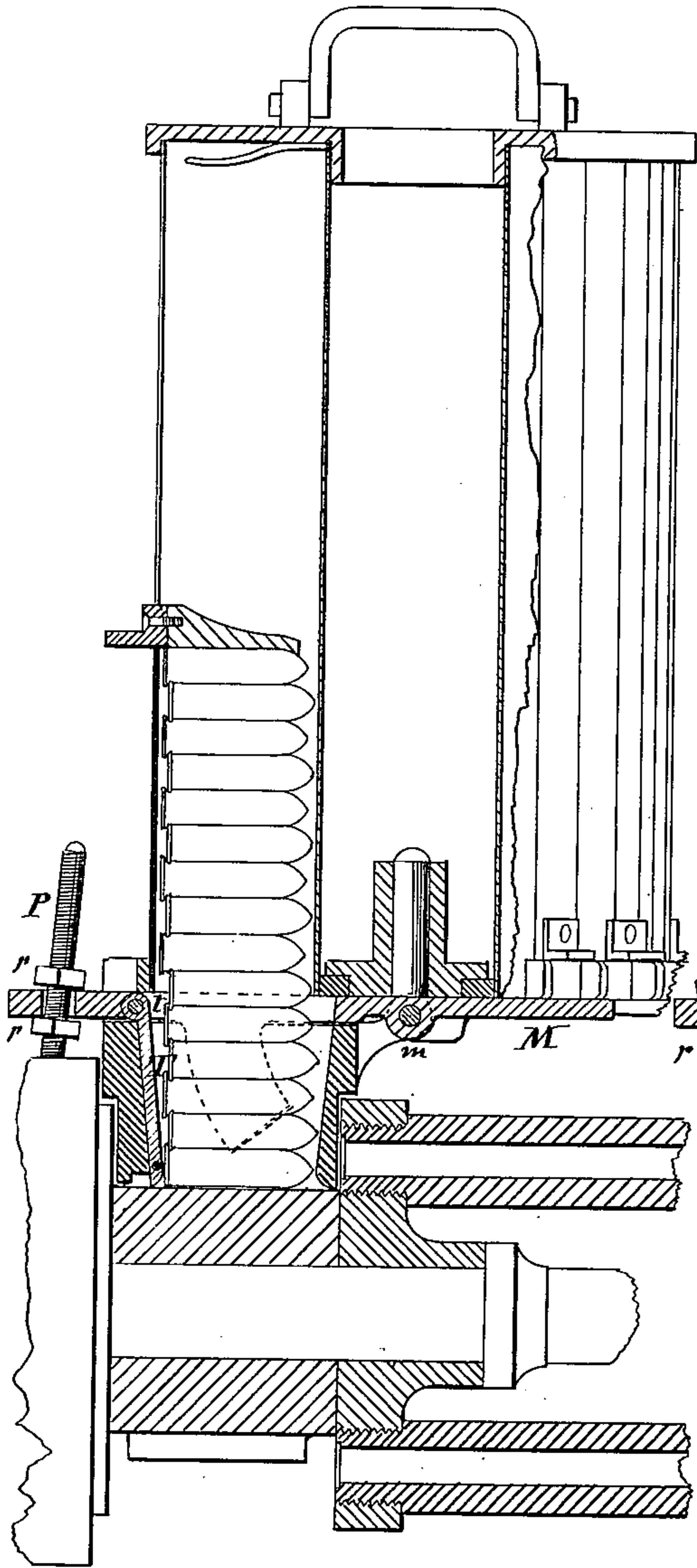
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B. B. HOTCHKISS.

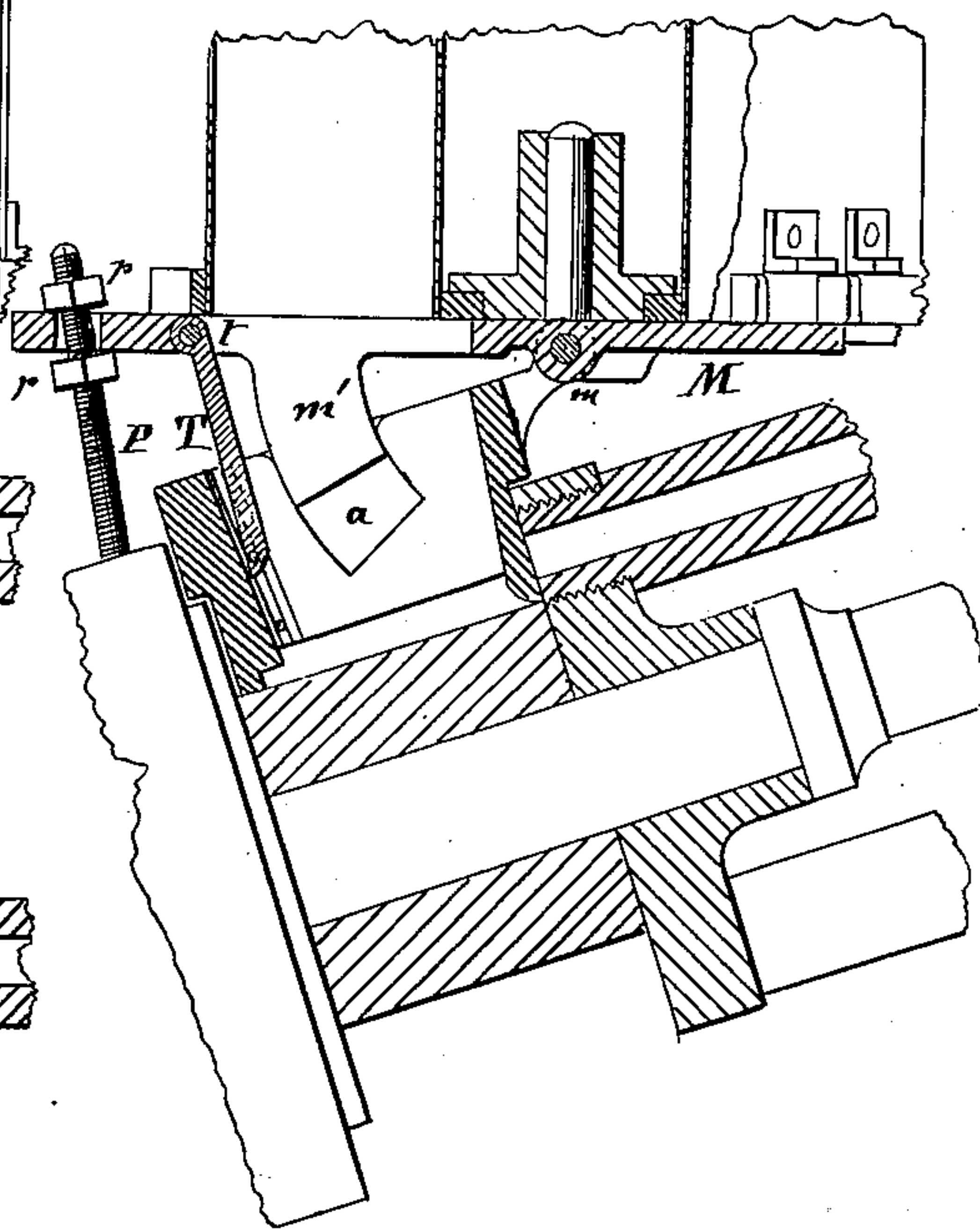
Magazines for Attachment to Machine-Guns.

No. 154,554 *Fig. 4.*

Patented Sept. 1, 1874.



*Fig. 5.*



Witnesses.

*R. H. White*  
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Inventor.

*B. B. Hotchkiss*  
by his attorney *J. L. Wilson,*  
*New York City.*



# UNITED STATES PATENT OFFICE.

BENJAMIN B. HOTCHKISS, OF NEW YORK, N. Y.

## IMPROVEMENT IN MAGAZINES FOR ATTACHMENT TO MACHINE-GUNS.

Specification forming part of Letters Patent No. 154,551, dated September 1, 1874; application filed February 26, 1874.

*To all whom it may concern:*

Be it known that I, BENJAMIN B. HOTCHKISS, of New York city, in the State of New York, temporarily residing in Paris, France, have invented certain Improvements in Feeding Cartridges to Machine-Guns, of which the following is a specification:

It has heretofore been found extremely difficult to feed machine-guns with proper rapidity and certainty either at high elevations or extreme depressions. My improved mechanism obviates that difficulty by making the feed case or drum adjustable in inclination relatively to the gun, so that, as the elevation of the gun is increased or diminished, the feed-case can be correspondingly inclined thereon, so as to stand always perpendicularly, or nearly so.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification, and represent two modifications, one much more elaborate than the other, but both involving the same general idea.

Figure 1 is a side elevation, showing one of the simplest forms of feed-cases, with a central vertical section of a portion of the breech of the gun. Fig. 2 is a cross-section. It represents the parts in the plane of the section, with only such other parts as are necessary to indicate the application of the feed-case to the gun. Fig. 3 is a horizontal section. The additional figures show the same principle of construction as applied to more elaborate cylindrical loading-cases. Fig. 4 is a vertical section, partly in elevation, showing the gun nearly level, and the charging-cylinder mounted with its axis nearly at right angles thereto. Fig. 5 is a portion of a corresponding view, with the gun considerably inclined, the charging-cylinder having been properly adjusted in position to allow for the inclination.

Similar letters of reference indicate corresponding parts in all the figures wherever they occur.

Referring to Figs. 1, 2, and 3, A B represent the ordinary parts of a gun of the mitrailleuse or Gatling construction. C is the

vertical plate fixed on the breech portion of the gun, which forms one side of the feed-trough. D D are front and rear guide-pieces, made capable of turning on the pivots or hinges *d d*, and of being set or held at any required inclination by means of screws E, standing in slots *c*. The cartridges, being fed down in the feed-trough formed by the front and rear guide-pieces D D and the wall C, always stand and move downward with their axes parallel to the barrel B. The space between the guide-pieces D D will be always about right however the inclination of the gun, and consequently the relative inclination of the guide-pieces, may be changed. At all practicable inclinations of the gun the guide-pieces D D may be correspondingly inclined relatively thereto, so as to stand upright, and the cartridges introduced at the top will feed down vertically.

In the more elaborate Figs. 4 and 5 the feed-drum is represented as mounted on a platform, M, which is capable of being tilted on pivots or hinges *m*, and of being adjusted in the required inclination by means of the nuts *p p* on the screw-bolt P. In this construction the feed-trough leading from the platform M down to the line of the barrel is made capable of expansion and contraction by means of a slide-piece, T, pivoted at *t* to the platform M, and guided at its lower end in a groove in the fixed walls of the gun. The cartridges are prevented from escaping laterally when the gun is at a great elevation by means of the side wings *m'*, which extend down into corresponding recesses *a* in the side of the fixed feed-trough.

The invention may be readily adapted to various forms and proportions of machine-guns. A trough with solid sides can be made to feed into a gun by having the bottom cut out at the desired angle, and pivoted on one side.

I have found it impossible to feed a gun successfully at an elevation of more than twenty degrees when the feed-trough is stationary in a plane at right angles to the line of the barrel. The cartridges will not slide down with sufficient freedom when the passage is thus greatly inclined; but with my adjustable trough the path for the motion of the

cartridges may be always very nearly vertical, and the cartridges feed down perfectly.

I claim as my invention—

1. The adjustable guides D, turning on centers *d*, in combination with a sustaining part, C, and confining means E, all adapted for attachment on the barrel B of a machine-gun, as herein specified.

2. In combination with a machine-gun, an adjustable inclined feed-passage, adapted to

allow the cartridges to be supplied vertically at all practicable inclinations of the gun, as herein specified.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

B. B. HOTCHKISS.

Witnesses:

CH. T. THIRION,

DAVID T. S. FULLER.