

(No Model.)

E. L. LEWIS.
CATAPULT.

No. 539,183.

Patented May 14, 1895.

Fig. 4.

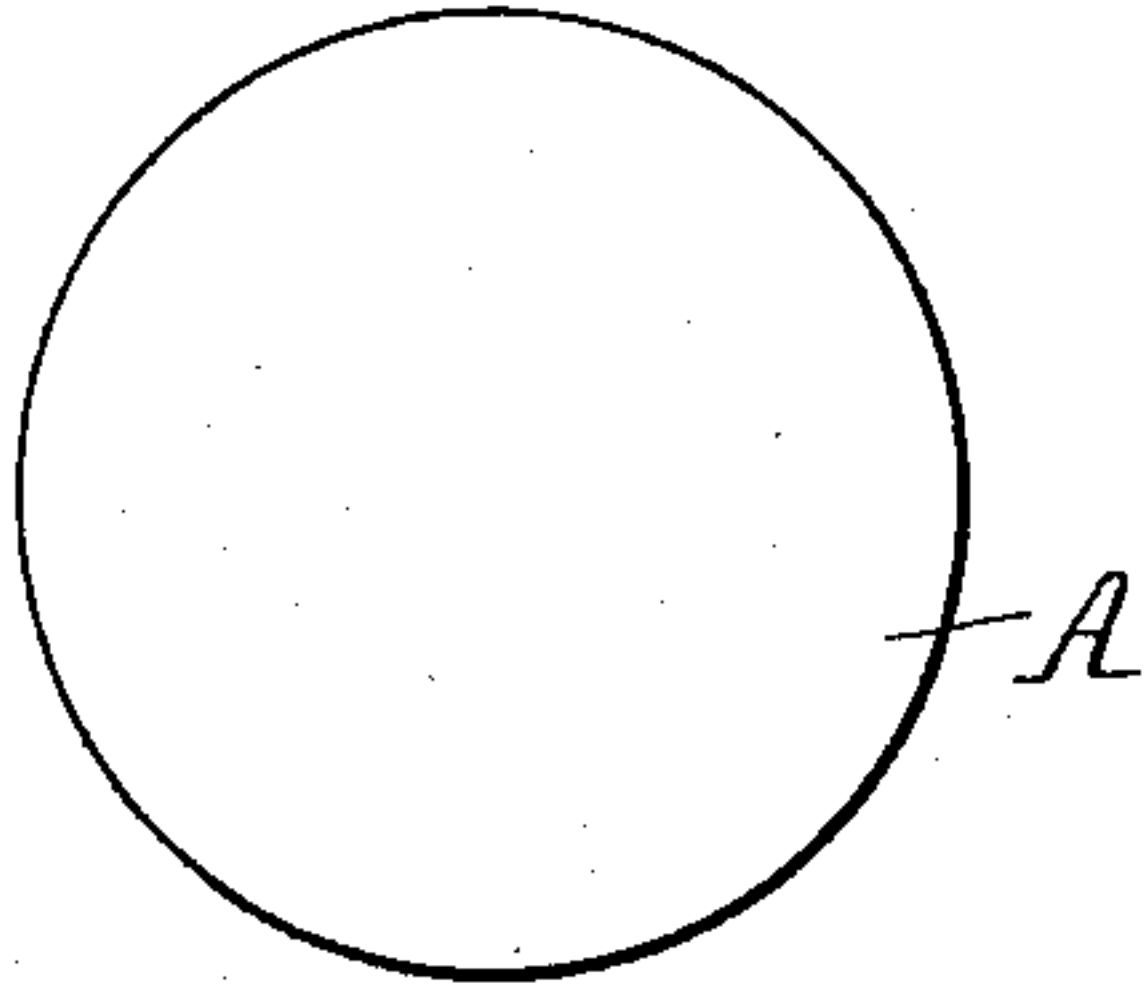


Fig. 5.

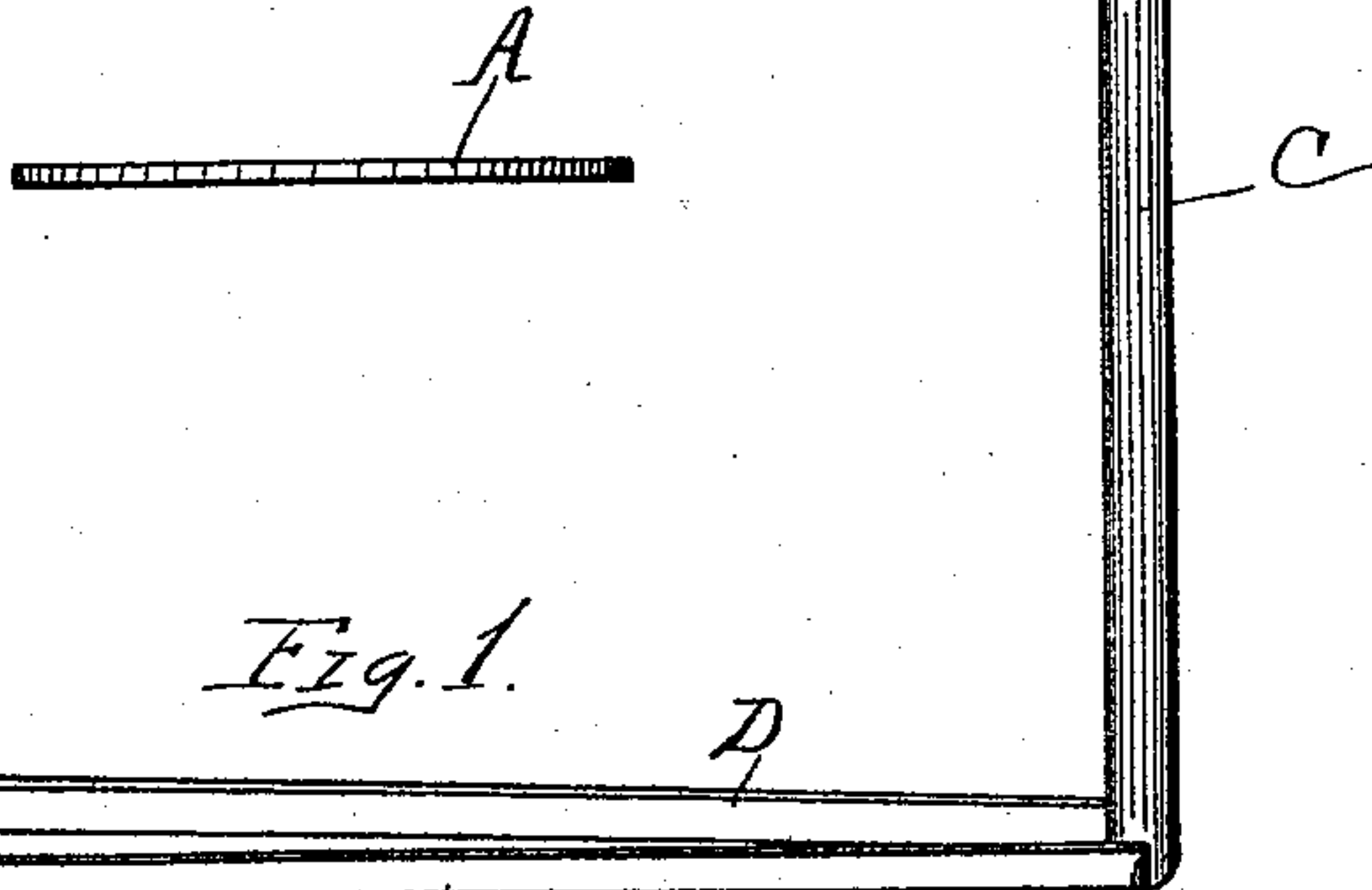


Fig. 1.

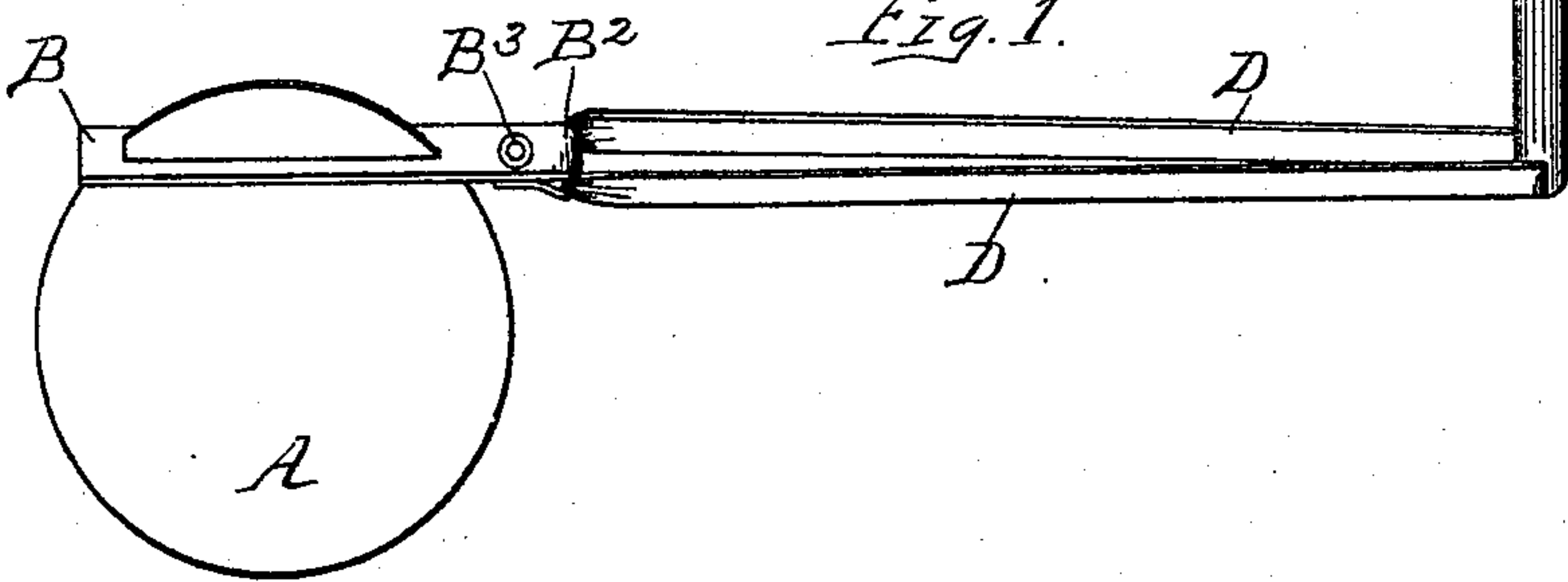


Fig. 2.

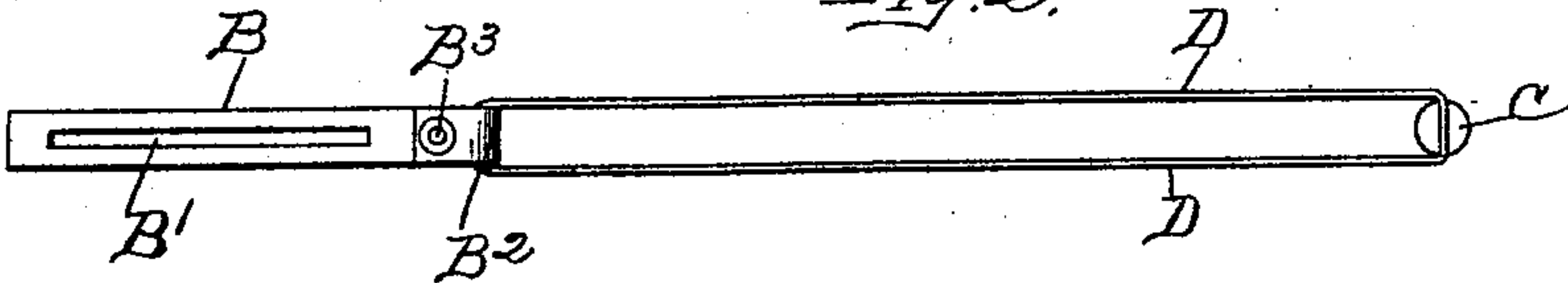
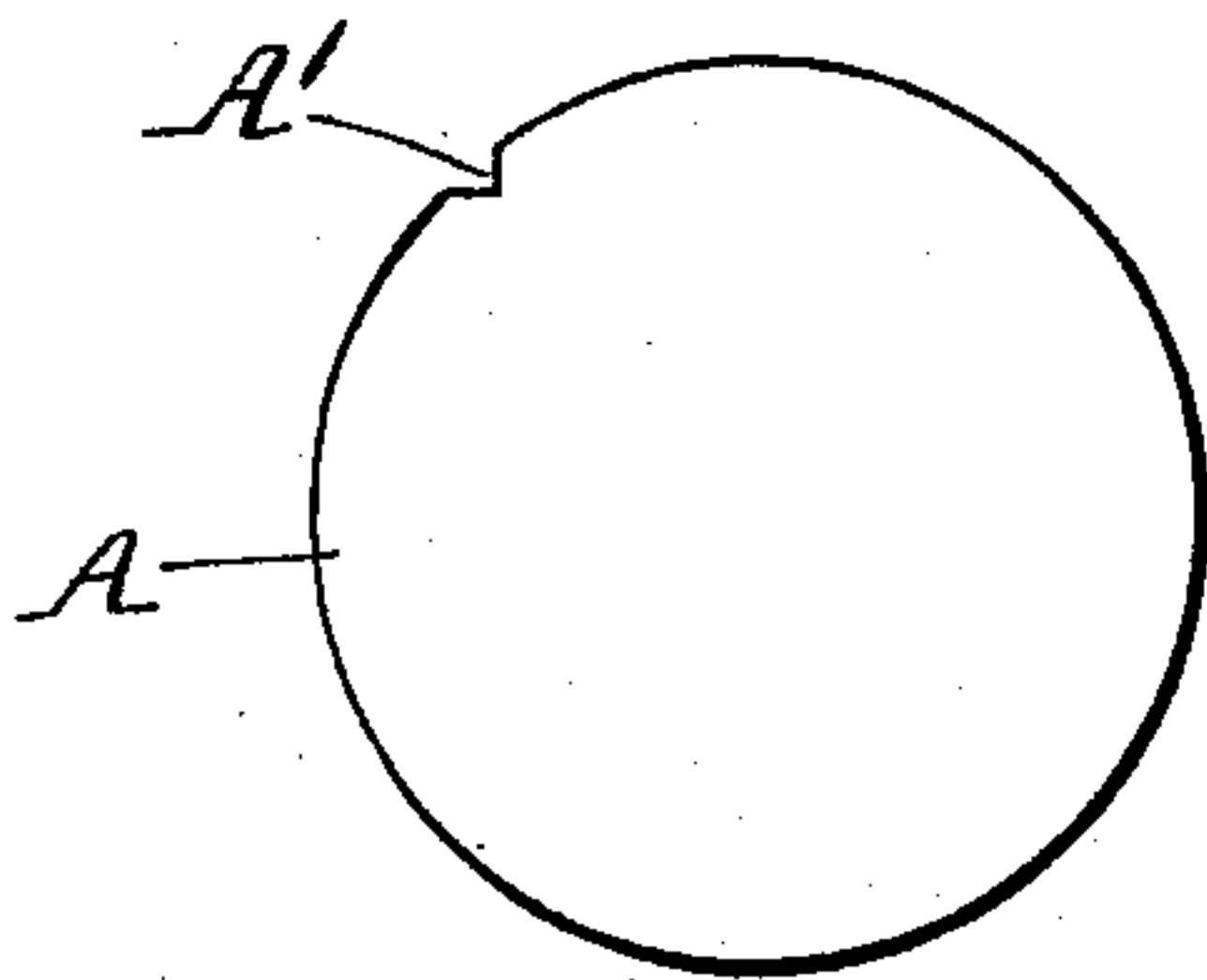


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ELLIOTT L. LEWIS, OF TROY, NEW YORK.

CATAPULT.

SPECIFICATION forming part of Letters Patent No. 539,183, dated May 14, 1895.

Application filed January 15, 1895. Serial No. 535,024. (No model.)

To all whom it may concern:

Be it known that I, ELLIOTT L. LEWIS, a citizen of the United States, residing at Troy, county of Rensselaer and State of New York, have invented certain new and useful Improvements in Catapults, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in perspective of my improved catapult and projectile therefor in position for use. Fig. 2 is a plan view or edge view of the catapult. Fig. 3 is a side elevation of the disk projectile. Fig. 4 is a similar view of a modified form of projectile. Fig. 5 is an edge view of the projectile.

A— is the projectile which is in the form of a disk, and may be made of sheet-metal, pasteboard, or other thin material.

B— is the projectile-carrier which may be formed of a strip of leather, or other desired material, and is provided with the longitudinal slot or opening B'— adapted to receive one edge of the projectile, as shown in Fig. 1. The carrier is connected with a suitable support, as the rod C— by one or more strips of rubber D—, or other elastic material. I have shown the elastic connection in the form of a common rubber band which is inserted at one end in a slit in one end of the support, and at the other end in an eye B²— formed on one end of the carrier by passing the end of the carrier through the band and securing it upon the body of the carrier by an inserted rivet B³—.

The projectile may be provided with a notch A'— in its peripheral edge adapted to receive the rear end wall of the carrier slot, as seen in Fig. 1.

The operation of the apparatus is as follows: The projectile is inserted in the carrier slot as shown, and the projecting inserted edge grasped between the thumb and fingers of one hand at a point near the notch at the

rear end of the carrier. The support is firmly grasped by the other hand; the elastic connection subjected to the desired tension by drawing the projectile and carrier away from the support; and the projectile and carrier suddenly released from the thumb and fingers, whereupon the resilient force of the elastic connection will hurl the projectile a long distance. By providing the carrier with a longitudinal slot which is in line with the elastic connection when under tension, and adapted to receive one edge of the projectile, the plane of the disk is made to coincide with the plane of forward movement so that the initial movement of the projectile is edgewise. By providing the disk with a peripheral notch adapted to receive the rear end wall of the carrier slot, the impelling force can be applied to the projectile at a point in its periphery which is a considerable distance from the diametrical line which is parallel to the line of initial movement, thereby imparting to the disk a rotary as well as a forward movement. Since the plane of rotation coincides with the plane of initial forward movement, the rotary movement will tend to maintain the disk in the same plane throughout its entire flight, thereby insuring the maximum speed.

When desired, the projectile-carrier may be made an integral part of the elastic connection, and the connection may be made with a fixed support.

It is characteristic in my improvement in disk projecting devices that the carrier receives one edge only of the disk in an opening in said carrier and in such manner that the disk and carrier can be jointly grasped near the free end of the latter and directly in line with the elastic cord or the like to put the latter under tension, the major part of the disk being at such time held at one side of the carrier and free to leave the same in a direction slightly inclined to the line of the carrier and cord when under tension.

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

1. The catapult comprising a support, a movable carrier having an opening to receive and fit one edge of a disk-projectile the opposite edge and major part of the disk being left entirely free, and an elastic connection between said carrier and support, the carrier in

operation holding the disk near one end thereof and at the end of the opening therein with both the disk and carrier in situation to be jointly grasped by the thumb and fingers and
5 directly pulled in the line of the elastic connection, substantially as set forth.

2. The catapult comprising a movable carrier, having an opening to receive and fit one edge of a disk-projectile the opposite edge
10 and major part of the disk being left entirely free, and an elastic disk-propelling device secured to said carrier, the carrier in operation

holding the disk near one end thereof and at the end of the opening therein with both the disk and carrier in situation to be jointly
15 grasped by the thumb and fingers and directly pulled in the line of the elastic connection, substantially as set forth.

In testimony whereof I have hereunto set my hand this 10th day of January, 1895.

ELLIOTT L. LEWIS.

Witnesses:

IDA MAE LEWIS,

FLORA T. METZ.