

No. 672,434.

Patented Apr. 23, 1901.

C. BACHMAN & J. S. FISHER.
CATAPULT.

(Application filed Dec. 11, 1899. Renewed Sept. 25, 1900.)

(No Model.)

Fig. 1

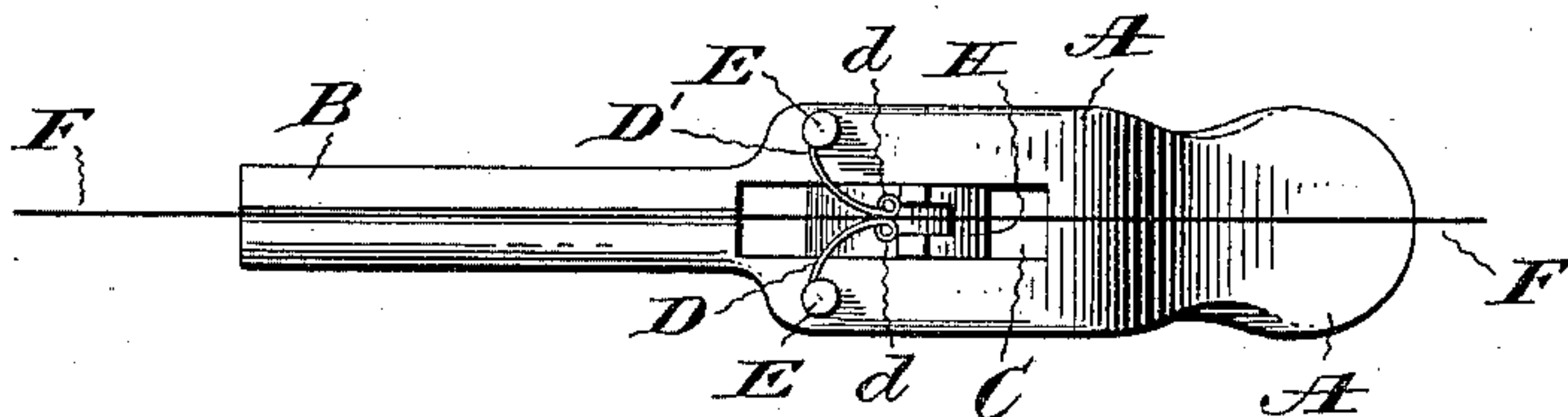


Fig. 2

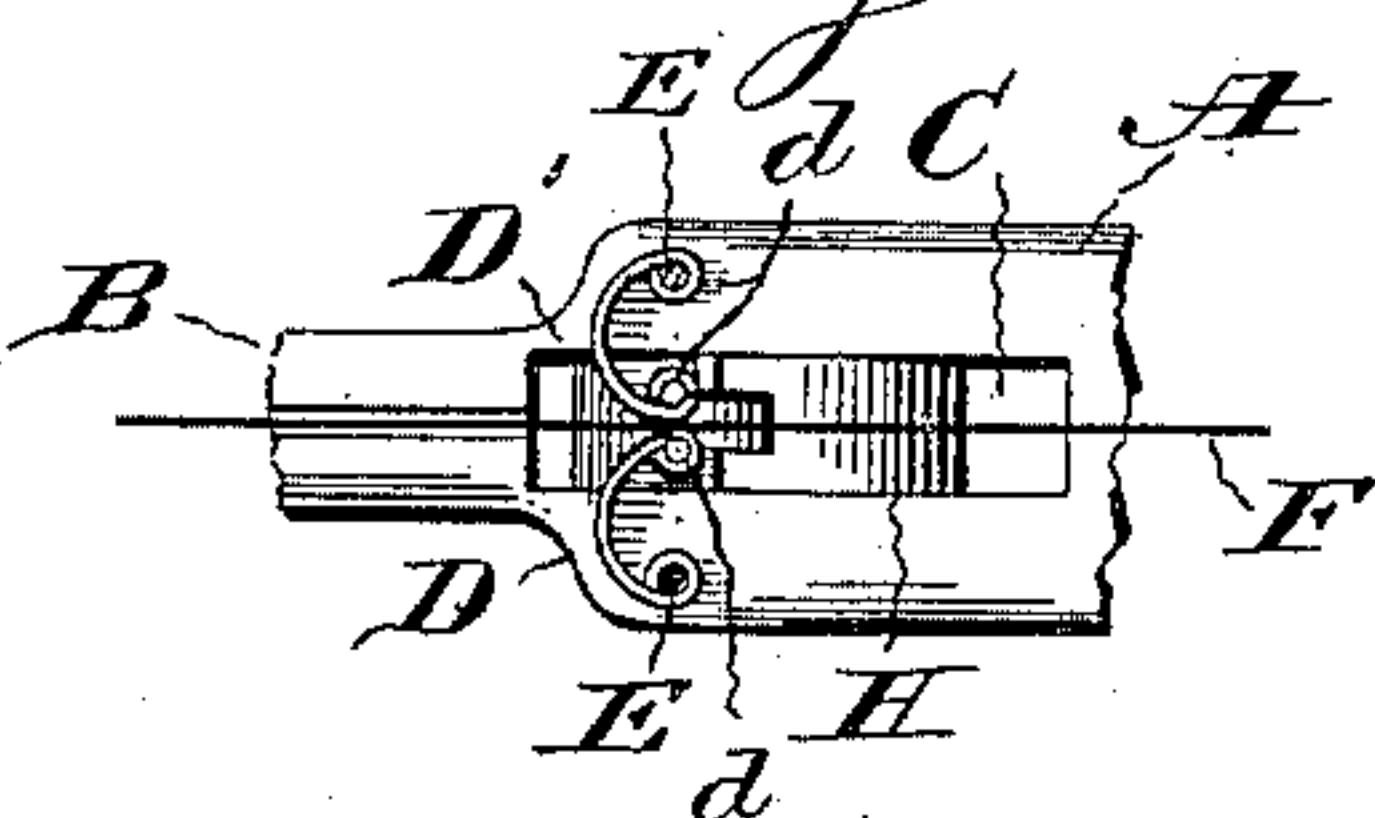


Fig. 3

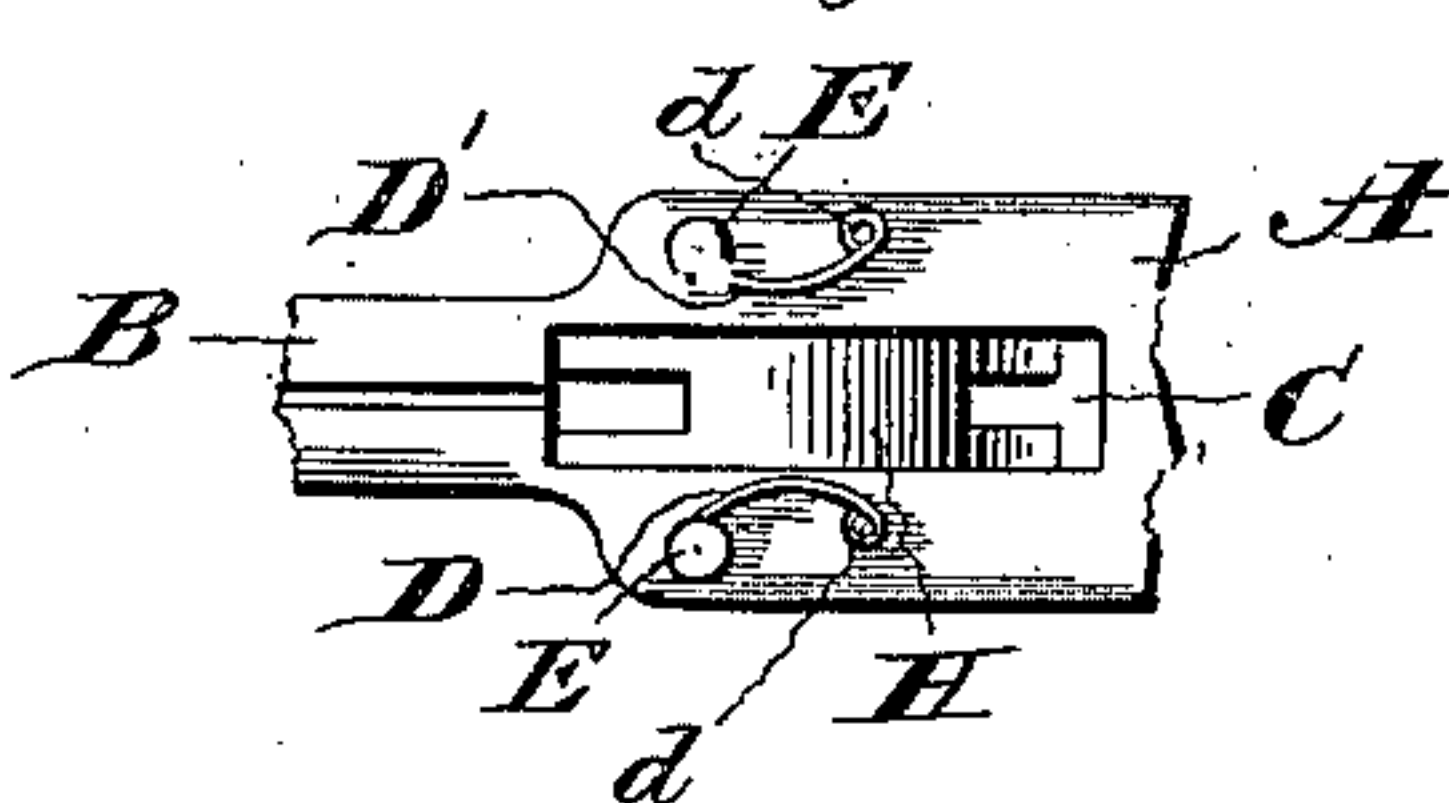
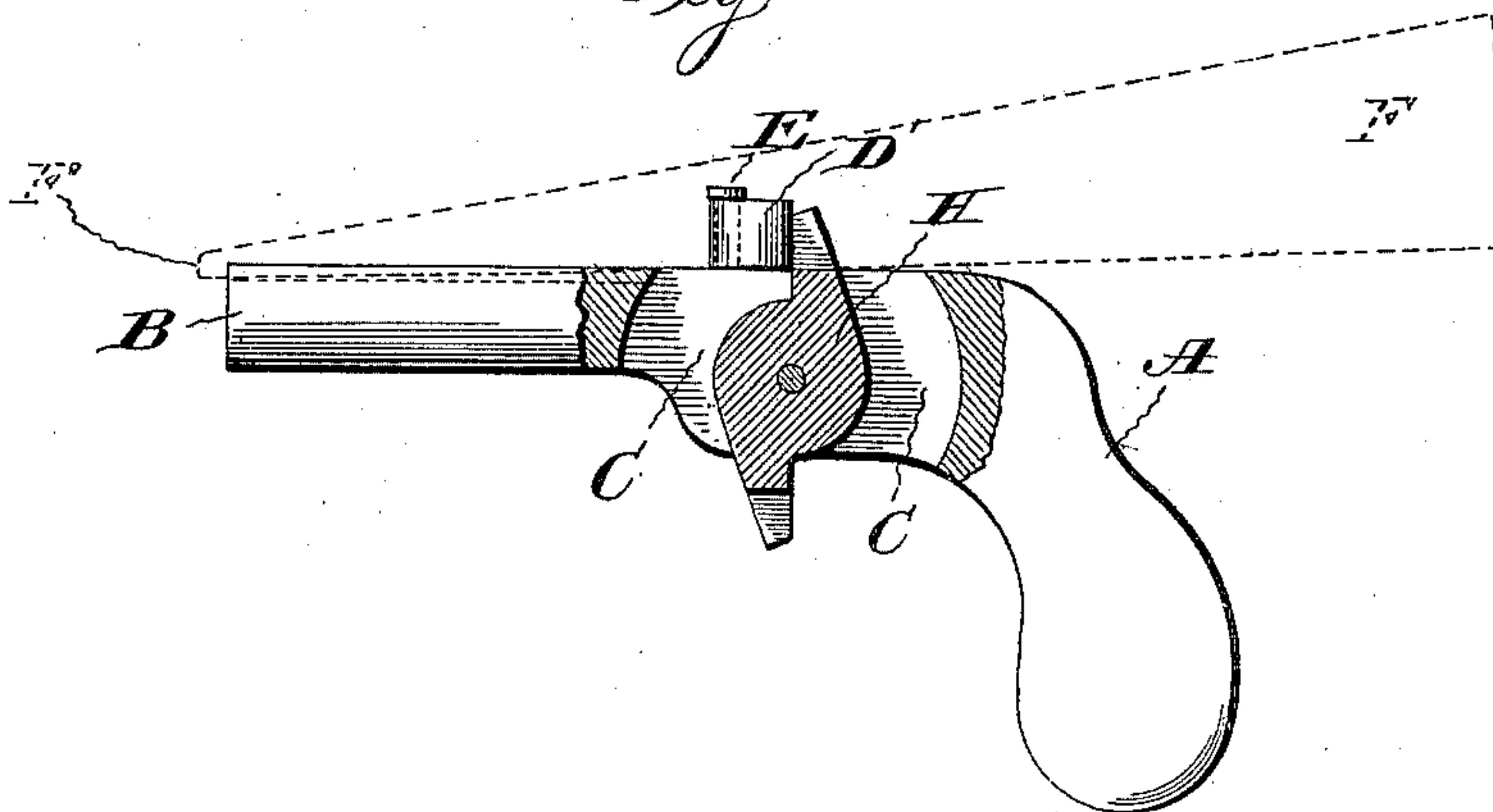


Fig. 4



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES BACHMAN AND JAMES S. FISHER, OF BALTIMORE, MARYLAND,
ASSIGNORS, BY MESNE ASSIGNMENTS, TO THE HERCULES MANUFACTURING COMPANY, OF SAME PLACE.

CATAPULT.

SPECIFICATION forming part of Letters Patent No. 672,434, dated April 23, 1901.

Application filed December 11, 1899. Renewed September 25, 1900. Serial No. 31,069. (No model.)

To all whom it may concern:

Be it known that we, CHARLES BACHMAN and JAMES S. FISHER, citizens of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Toy Pistols, of which the following is a specification.

Our invention relates to improvements in toy pistols of the character in which spring-impelled darts or projectiles are employed; and the invention consists in the peculiar construction and arrangement of parts that will be hereinafter described.

In the accompanying drawings, Figure 1 is a plan view of a toy pistol constructed in accordance with our invention, the parts being arranged in the positions occupied preparatory to discharging the dart or projectile. Fig. 2 is a similar view of a portion of the device, showing the parts in the positions occupied just prior to discharging a dart. Fig. 3 is a view like Fig. 2, showing the parts in the positions occupied after the dart has been discharged; and Fig 4 is a side view, a portion of the body being broken away to show the power-applying device or trigger-piece and the dart being shown in dotted lines.

Like letters of reference designate corresponding parts in the several figures of the drawings, referring to which—

A indicates the body of the toy, which, as shown in the drawings, is made in the form of a pistol. This may be made of any suitable material, and the barrel B may be formed integral with or separate from and detachably connected to the stock or butt.

The forward end of the stock or butt portion of the body A is bifurcated or provided with a vertical slot C, and D D' designate metal plates or arms which are pivotally connected to the body A to move about vertical axes. Each of these arms D D', which are made of sheet metal, is bowed or curved longitudinally and has one end bent upon itself to form a sleeve through which extends the stationary pivot or stud E, by which said arm is connected with the body A. As shown, these arms D D' are arranged on opposite sides of the slot C in the stock, the pivot-pins E being in the same transverse plane, and

each is of a length slightly greater than the distance from the pivot or supporting pin E therefor to the central longitudinal plane of the slot C. Therefore when the arms D D' are adjusted, as shown in Figs. 1 and 4 of the drawings, the inner ends thereof will be in rear of the plane of the pivots E and will contact one with the other or with a dart or projectile placed between them in the central longitudinal line or plane of the body A. The dart or projectile F, which may be of any suitable material, consists of a relatively thin body, which in using the toy is inserted between the inner ends of the spring-arms D D', as shown in Fig. 1. Preferably the said inner dart-engaging ends of the arms D D' are bent upon themselves, as at *d*, thereby providing smooth and rounded surfaces for frictionally engaging the dart.

The propelling-arms D D' are caused to tightly grip the dart and to apply power thereto by means of a power-transmitter H. This device, which is preferably of the form shown in Fig. 4, is pivotally supported at or near its middle upon a horizontal axis within the slot C in the stock A, and one end thereof projects below the stock and serves as a trigger. The upper end of the trigger-piece H is adapted to engage with the inner ends of the propelling-arms D D' and to force said ends forward between and to points in advance of the pivots E for said arms. By reference to the drawings it will be seen that the power-transmitting device consists of a central body portion which is pivotally connected to the stock A in the manner above described and two oppositely-extending arms, each adapted to alternately serve as a trigger and as the means for applying power to the propelling-arms. The outer end of each of said arms is bifurcated or provided with a notch or groove through which that portion of the dart F that initially lies in rear of the arms D D' extends.

It will be noticed that in the embodiment of our invention herein illustrated the barrel portion B is provided with a centrally-arranged longitudinally-extending groove which is in alinement with the slot C in the stock and serves as a guide for the dart or projectile.

The operation of our improvements will be

readily understood from an examination of the drawings in connection with this specification. The parts being in the position indicated in Fig. 1, the operator grasps the stock or butt of the pistol-shaped body and applies pressure to the projecting trigger in the ordinary manner. As the upper end of the power-transmitting device is moved forward the inner adjacent ends of the arms D D' are forced toward the barrel, and as this movement continues the said arms are compressed or placed under tension, and thereby curved or bowed beyond their normal positions, as shown in Fig. 2, so that when the inner ends of said arms have been moved to a point in advance of the pivots E and so that the inner end of one ceases to act as a stop or abutment for the other said ends spring apart and act to propel the dart rapidly forward. The force applied to the arms D D' is sufficient to cause them to swing about their pivots E and into the positions illustrated in Fig. 3, so that but little, if any, further movement or adjustment is required to set them for propelling another dart.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The herein-described toy pistol consisting of a body, two spring-arms rotatably mounted at their outer ends upon independent vertical pivots and adapted, when adjusted, to extend inwardly and rearwardly from their supports, to engage with opposite sides of a projectile, and means arranged to apply power to the inner free ends of said spring-arms and to force said ends forward of the pivots for said arms.

2. The herein-described toy pistol consisting of a body, two longitudinally-curved, spring-like, arms, having their outer ends loosely connected to pins on the pistol-body and their inner ends arranged to engage opposite sides of a projectile placed between said pins, and an actuating device pivotally connected with the pistol-body and having one end projecting below said body, to form a trigger, and its other end adapted to engage the inner ends of said arms.

3. In a dart-propelling device, the combination of a body, two yielding arms, each mounted to vibrate about a pivot at one end and to have its other and free end engage with one side of a dart arranged between said pins, when said free end is in rear of its pivotal pin, and power devices arranged to force the dart-engaging ends of said arms to points in advance of the pivot-pins.

4. The herein-described toy consisting of a

body, two parallel pins on said body, two yielding arms, one pivotally connected to each of said pins, adapted to engage with opposite sides of a dart or projectile arranged between said pins, and a power-applying device pivotally mounted within a slot formed in the body between said pins, one end of said device projecting beyond the body and the other end being adapted to contact with the dart-engaging ends of the yielding arms when the latter are in operative position.

5. In a toy of the character described, the combination of a body, two spring-arms, each pivotally connected at one end to the body, the free ends of said arms being adapted to engage with opposite sides of a dart, and a power-applying device arranged to force the dart-engaging ends of said arms from points in rear of their pivots to points in advance thereof and having a guide slot or groove formed therein to receive the body of the dart engaged by said arms.

6. In a toy the combination of a body, two parallel pins arranged on said body, two spring-arms each having one end loosely connected to one of said pins, the other ends of said arms being adapted to engage a dart or projectile placed between them, and means for applying power to said arms to move them simultaneously in opposite directions about their pivots while engaging a dart.

7. In a toy pistol, the combination of dart engaging and propelling devices, and a power-applying device having a rotatable body and two arms extending in different directions and each adapted to alternately act as a trigger and as the device for applying power directly to the dart-propelling devices.

8. In a toy pistol, the combination of a stock having a vertical slot formed therein, two pins arranged on opposite sides of said slot, two spring-arms each having one end connected with one of said pins as a pivot and adapted to engage at their opposite ends with a dart or projectile arranged between them, and a trigger having a body pivotally mounted within the slot in the stock and having one arm extending below the stock and another arranged to apply power to the free ends of the spring-arms when the latter are in operative position.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES BACHMAN.
JAMES S. FISHER.

Witnesses:

CHARLES H. MILLIKIN,
C. ROLLINS ROGERS.