F. B. WHITCHER.

TOY.

APPLICATION FILED FEB. 25, 1909.

940,223.

Patented Nov. 16, 1909.

Fig. 1.

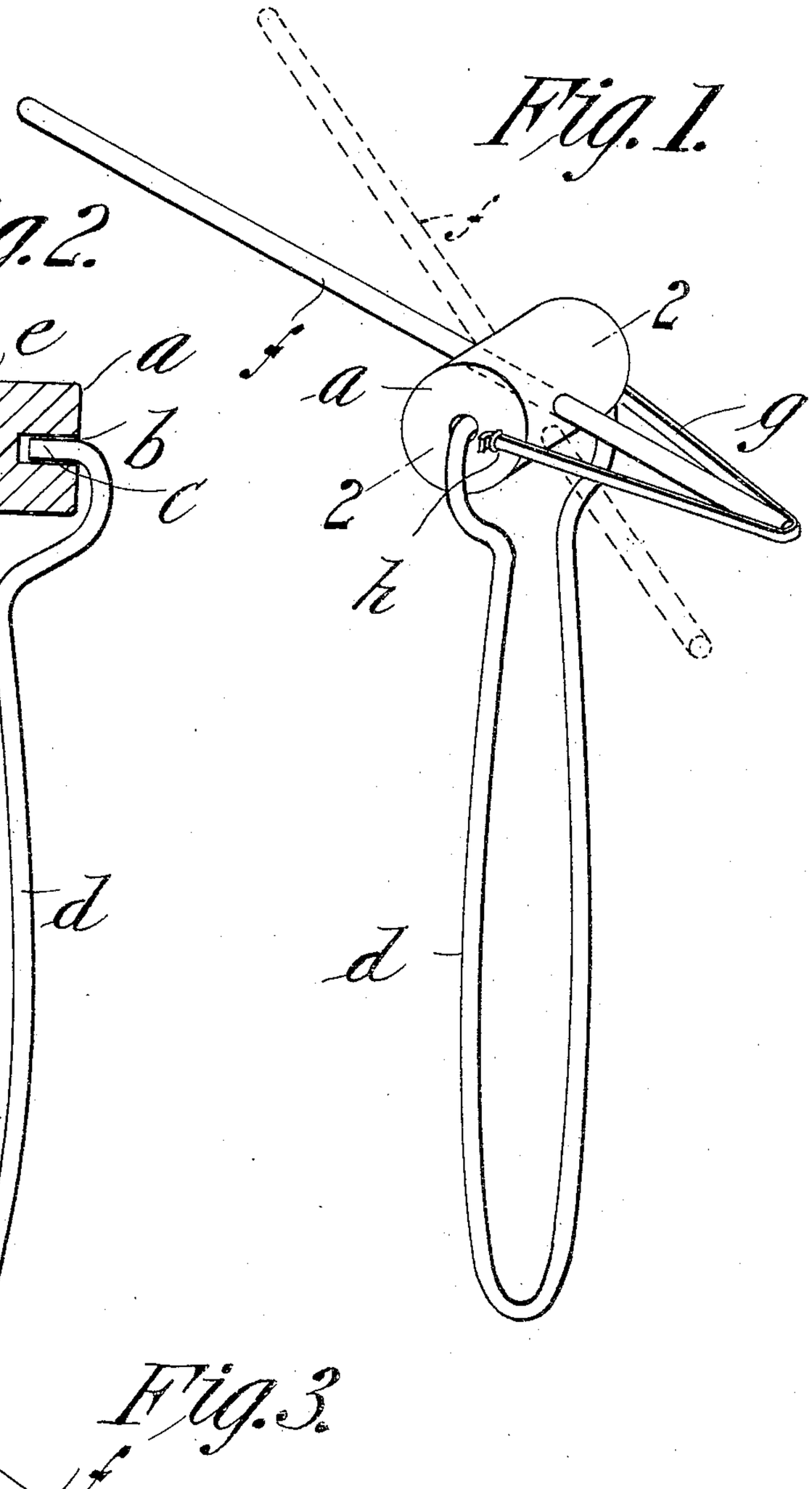


Fig. 2.

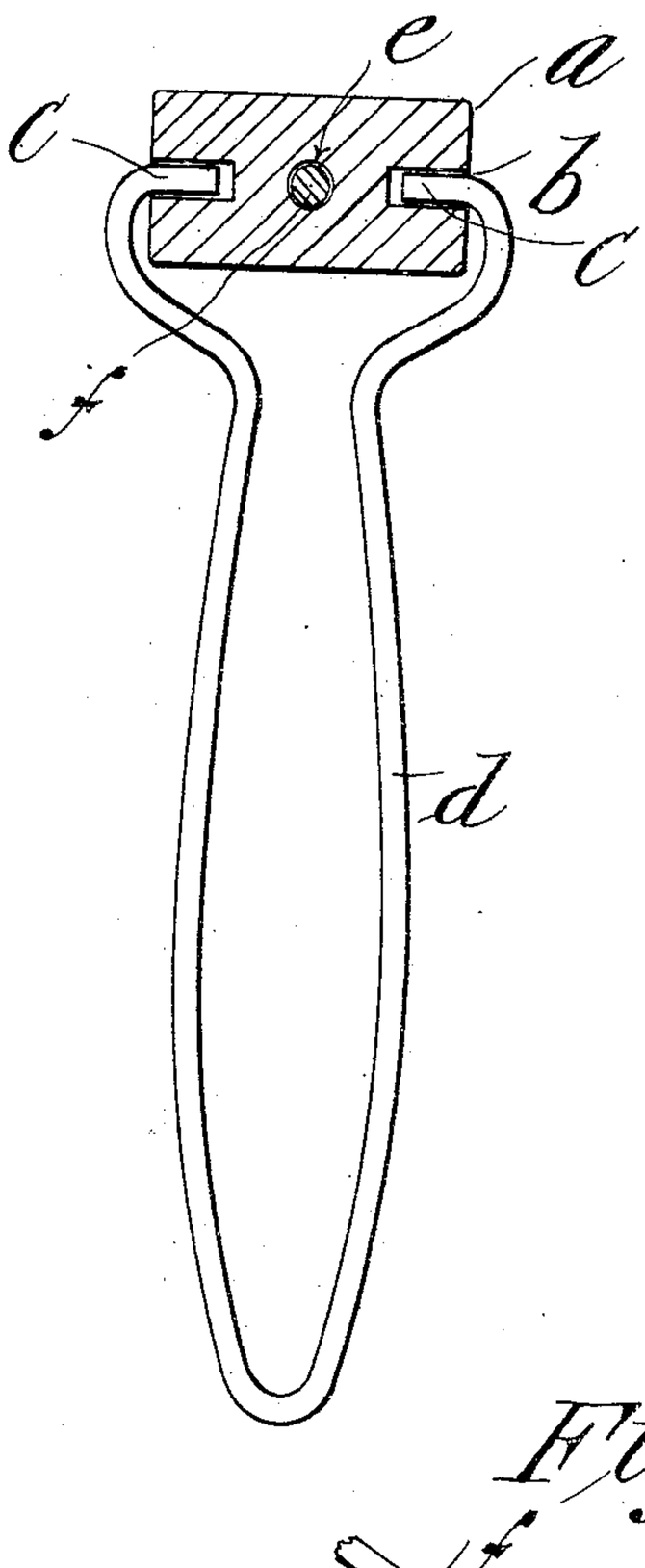
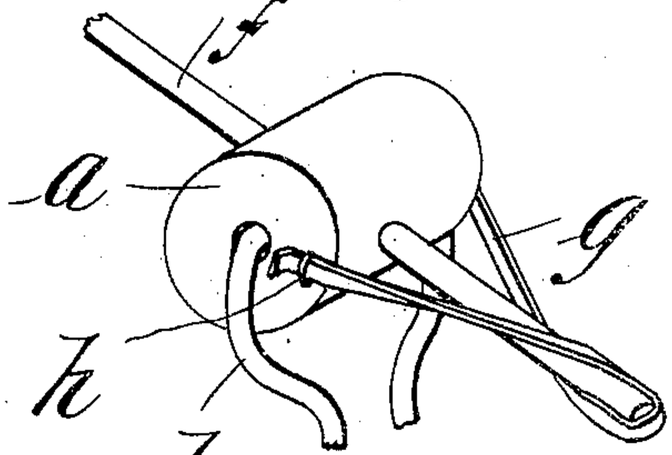


Fig. 3.



WITNESSES:

H. L. Sprague

Harry W. Bowen.

INVENTOR,

Frank B. Whitcher.

BY

Chapin & Co.

ATTORNEY.

UNITED STATES PATENT OFFICE.

FRANK B. WHITCHER, OF WEST SPRINGFIELD, MASSACHUSETTS, ASSIGNOR OF TWO-THIRDS TO THE MAYNARD RUBBER CORPORATION, OF SPRINGFIELD, MASSACHUSETTS, A CORPORATION OF CONNECTICUT.

TOY.

940,223. Specification of Letters Patent. **Patented Nov. 16, 1909.**

Application filed February 25, 1909. Serial No. 480,013.

To all whom it may concern:

Be it known that I, FRANK B. WHITCHER, a citizen of the United States of America, residing at West Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Toys, of which the following is a specification.

My present invention relates to improvements in toys and is of the nature of a catapult, or bow and arrow device.

Broadly, the invention consists in providing a handle element to which is pivotally secured a barrel or arrow-guiding element and elastic projecting means for the arrow, whereby the arrow, which is properly guided in the barrel element, may be projected at various distances in accordance with the tension placed on the projecting means, and whereby the direction of the arrow may be varied by rotating the arrow-guiding means element in the handle.

In the drawings forming part of this application,—Figure 1 is a perspective view of my improvement, the dotted line position showing the manner in which the arrow can be directed in various directions before the same is discharged. Fig. 2 is a sectional view on line 2—2, Fig. 1, illustrating the connecting means between the handle and the barrel and arrow-guiding means. Fig. 3 is a perspective view illustrating the manner in which the projecting means may be coiled about the arrow for the purpose of obtaining the "rifling effect", that is for imparting a rotary motion to the arrow as it leaves the barrel or arrow-guiding element.

Referring to the drawings, *a* designates a barrel or arrow-guiding element that is provided with recesses *b* in the opposite ends thereof, and located in the recesses are the inturned ends *c* of the handle *d* which is preferably made from spring wire so that the inturned ends can be readily separated for insertion in the recesses *b*.

e designates an opening or arrow-guiding hole through the barrel *a*, which is preferably arranged at right angles to the axis of the barrel.

f designates the arrow which is adapted to be projected by means of the elastic band *g* which is suitably secured to the opposite ends of the barrel *a* by means of the staples *h*, or other suitable means. Fig. 1 illustrates this elastic band under tension having been drawn back by the operator grasping the arrow *f*. It will be readily seen by referring to said Fig. 1 that simultaneously with the placing of the band *g* under tension, the operator, by means of the arrow, can rotate the barrel *a* on the handle *d* so as to aim or direct the arrow in any direction he pleases, before releasing his grasp on the same and allowing the band *g* to recoil, which recoiling action will project the arrow, as readily understood.

By referring to Fig. 3, it will be seen that the band *g* is shown as slightly twisted about the end of the arrow *f* and as this band will grip the end of the arrow *f*, it is clear that when the operator releases his grasp from the arrow, the band, in assuming its original form, will impart to the arrow a more or less rotary movement, thus causing the arrow to be projected more nearly in a straight line and greatly increasing the accuracy in shooting at a target when so used.

It is further obvious that other elastic means than that shown may be substituted, and that various equivalent means may be substituted without departing from the spirit and scope of my invention.

What I claim, is:—

In a toy of the class described, an arrow-guiding and supporting element, means for pivotally supporting the arrow-guiding element, an opening through the arrow-guiding element for receiving an arrow, means for projecting the arrow comprising an elastic element secured to the arrow-guiding element, whereby when the arrow is placed in the barrel and the elastic element placed under tension, the arrow may be projected as described.

FRANK B. WHITCHER.

Witnesses:
WM. H. CHAPIN,
K. I. CLEMONS.