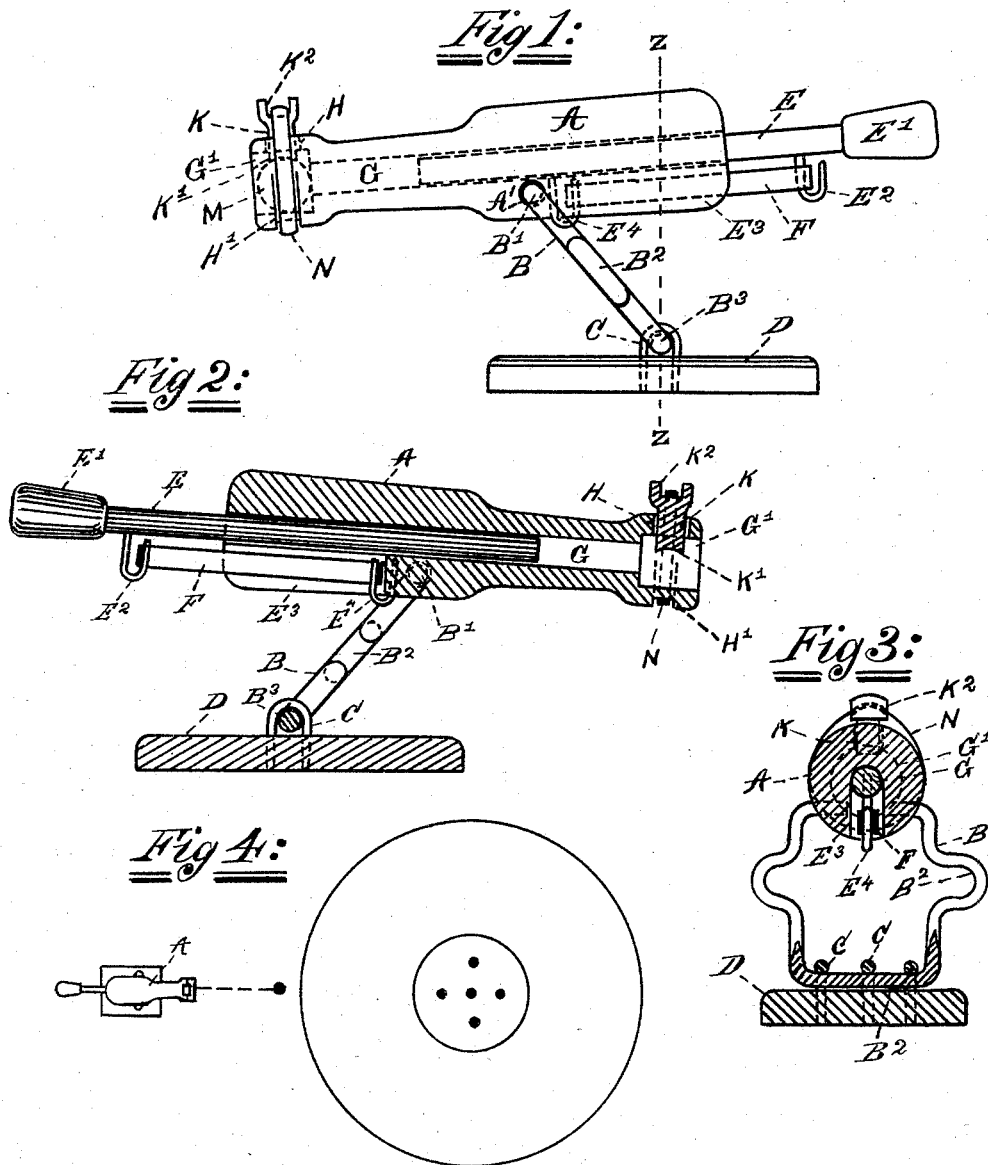


(No Model.)

R. J. CHIPMAN.  
DEVICE FOR SHOOTING MARBLES.

No. 492,491.

Patented Feb. 28, 1893.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ROBERT J. CHIPMAN, OF PATERSON, NEW JERSEY, ASSIGNOR OF ONE-HALF  
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## DEVICE FOR SHOOTING MARBLES.

SPECIFICATION forming part of Letters Patent No. 492,491, dated February 28, 1893.

Application filed July 11, 1892. Serial No. 439,595. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT J. CHIPMAN, a citizen of the United States, residing in the city of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful improvement in an adjustable shooting apparatus or a device for shooting marbles for games or amusement, whereby the marble or shot may be propelled and projected with force and accurately adjusted with respect to the object aimed at, of which the following is a specification.

The shooting device being located on and forming part of the adjustable carriage may be used for many different games and purposes such as parlor billiards, bagatelle, pyramids, ring tour &c. and in all games in which spherical objects are the principal ones used when playing. The adjustment of the height of the barrel or tube being obtained by a wire connecting link which is pivoted on the stand or foot plate on one end (the lower) and at the upper, pivoted on the sides of the barrel near the center of gravity allowing by the inclination of the connecting link a degree of accuracy to be obtained not possible in cases where the tube or barrel is held in the hand and by the action of the discharge causing variation of direction, deviation of aim arises which in my invention is avoided as the adjustment is kept firm by the action of the tension given to the pivots of the connecting link. The parts being simple in their construction the cost of manufacture is reduced to a very great extent by the absence of screws or pins which by becoming loose or detached to a great extent destroys the value of the article. This may be readily understood when I state that the connecting link being in one piece of a suitable form and made of metal wire preferably brass in forming is given such a degree of tension or spring that when the link is connected with the tube or barrel the tension or spring holds the parts in contact. Another advantage is evident in the method of holding the shot or ball in the tube of the barrel by means of a pin inserted loosely in a hole provided in the mouth end of the tube on its upper part and on its end which is in contact with the marble or shot is cupped or indented to partly

embrace the shot and hold it in position, thereby preventing the marble or shot falling out when the muzzle of the tube or barrel is depressed. The pin being held in contact and kept in tension by a rubber spring which surrounds the barrel at its nozzle or mouth and passing over the crutch formed in the upper part of the pin so holding it in a firm embrace but permitting it to rise and fall as the shot or marble is inserted or discharged. The tension or spring given to the propelling rod or piston being imparted by an elastic rubber band secured to the rod at its outer end and to the breech of the tube or barrel by suitable securing hooks may easily be removed or replaced by others. I attain these objects by the device described in the following specification and illustrated in the accompanying drawings, in which

Figure 1 is a front elevation of my newly invented device. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross section on line Z Z showing method of adjusting connecting link. Fig. 4 is a view showing a game to be played using my device for discharging the shot or marble.

I will now describe the construction and use of my newly invented device.

Similar letters of reference indicate like parts.

A Fig. 1 represents a hollow tube or barrel pivoted by holes A' formed on each side about the center of gravity lengthwise on a wire connecting link B to lower part B<sup>2</sup> being pivoted on a stand or block D and held in position by the staples C' the two sides of the link B have formed about the middle of their length loops B<sup>2</sup> suitably formed by bending the wire forming the link which tends to impart rigidity and also forms a means of holding the link when adjusting the tube as in Fig. 4. The stand or block D being rectangular in form of suitable weight or thickness may be constructed of wood, iron, marble or other suitable material, the staples C being riveted after their insertion in suitable holes or simply driven or screwed in. The barrel A is hollow throughout its length the part G being slightly larger in diameter than the rod E which slides within it. The muzzle or mouth end K' is enlarged to accommodate the marble

or shot M which in use is placed in the recess so formed. A hole H is provided in the upper part of the muzzle within which the loose pin K is located. Pin K at its lower end K' is formed hollow, to partly surround the marble or shot M and to hold it in embrace. The upper end is bifurcated or formed like a crutch K<sup>2</sup> in which the rubber band N is held. The band N surrounds partly the muzzle end of the barrel and is held in position opposite the crutch K<sup>2</sup> by the groove H' the elastic tension of the band keeping the pin K and band N in position. At the breech end at the lower or under side a slot E<sup>3</sup> is formed to allow the hook E<sup>2</sup> secured to the rod E to traverse longitudinally as the rod E by its handle E' is drawn out or returned by the spring or rubber band F. The rubber band F is attached to the hook E<sup>4</sup> which is secured to the under side of the barrel A at its breech end. The springs or rubber bands F and N may be superseded by springs formed of brass wire and the barrel or tube A with its rod E may be constructed of hard wood, zinc, brass, iron, composition metal as may be desirable and designed, ornamented &c. to suit the taste.

In use or operation a marble M of a suitable size is inserted in the enlarged mouth G' of the tube or barrel A which in entering forces upward the pin K in the hole H sufficiently to allow the marble M to partly enter the cup K' formed on the end of the pin K the rubber band N which is held by the crutch K<sup>2</sup> in the pin K and groove H' in the muzzle of the barrel A by its tension holds the marble M firmly in position. The stand—D—to which the device is attached may be located in a position that is in line with the object to be struck as in Fig. 4. The tube or barrel A is then leveled or adjusted by lowering the tube or inclining the link B backward or forward as in Fig. 1. on the pivot B<sup>3</sup> holding the link B by the loops B<sup>2</sup> in one hand and the barrel A with the other the muzzle being raised or lowered to suit the aim by the pivots B<sup>3</sup> which engage the barrel A in the holes A'. When the aim is adjusted the rod E by its handle E' is drawn out thereby placing the rubber band F in strong tension by means of the hooks E<sup>2</sup> E<sup>4</sup> upon which it is stretched, the hook E sliding in the slot E<sup>3</sup> formed to receive it in the breech end of the barrel A. When the rod is drawn out a sufficient distance to give by reason of the tension on the band F a light or heavy blow to the marble M the handle is let go and the rod E returns quickly and its front end striking the marble M held in the enlarged part G' of the tube G disengages it from the pin K and ejects it violently or gently toward the object to be struck or that at which it is directed or aimed as described,

the requisite force of the blow being regulated by the distance the rod E is drawn out of the tube G of the barrel A when in use. It is obvious that this device may be used for a variety of games or purposes and being detached can be used on any board or table desirable.

Having described the construction and use of my newly-invented device, what I claim as new, and desire to secure by Letters Patent, in an adjustable shooting apparatus is as follows:

1. A shooting device consisting of a hollow tube or barrel within which a rod or plunger is located and moves freely operated by the hand and having a returning tension imparted by an elastic band or spring. The barrel, or tube being adjustably mounted on a stand by a reciprocating link and having an enlarged part of the bore formed to receive a marble or spherical object intended for a missile the same being held by the pressure of a pin formed concave on its end and kept in position by a rubber elastic band which surrounds the muzzle of the tube on its outer surface and is held in a suitably formed crutch located in the upper part of the pin, substantially as specified.

2. A shooting device consisting of a barrel in which is loosely located a rod controlled by a spring, and which can be adjusted vertically or horizontally by a movable supporting link which is pivoted on its upper end to the barrel or tube and at its lower end to a stand or plate. The tube having a suitably enlarged part of its bore formed to receive a marble or other missile or projectile held in position by a pin suitably formed at its end and controlled by a rubber tension spring substantially as specified.

3. A shooting device or toy gun operated by springs acting upon a loose rod working or reciprocating with in a suitably formed barrel and operated also by the hand for the purpose of discharging spherical objects at a mark wherein the aim is adjusted by a suitably formed link pivoted upon the barrel or tube and the base or stand, the backward or forward motion of the barrel or tube causing the tube to raise or lower horizontally or may be raised or depressed at the mouth or breech pivotally at the same time, a device holding the spherical missile from falling out of the muzzle when the muzzle is depressed or following the discharging rod when the breech is depressed substantially as specified.

ROBERT J. CHIPMAN.

Witnesses:

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