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L. B. TRUESDELL

2,279,766

MARBLE SHOOTER

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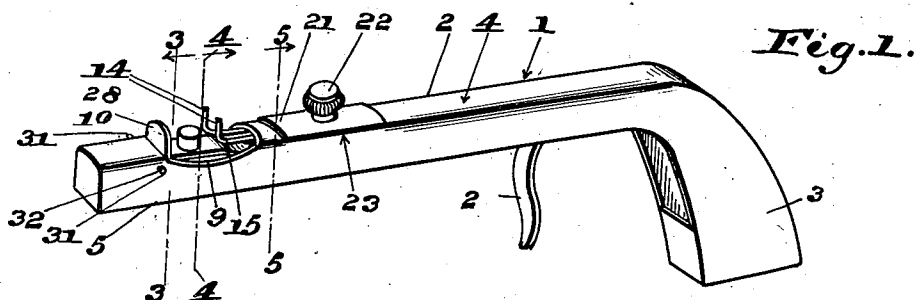


Fig. 1.

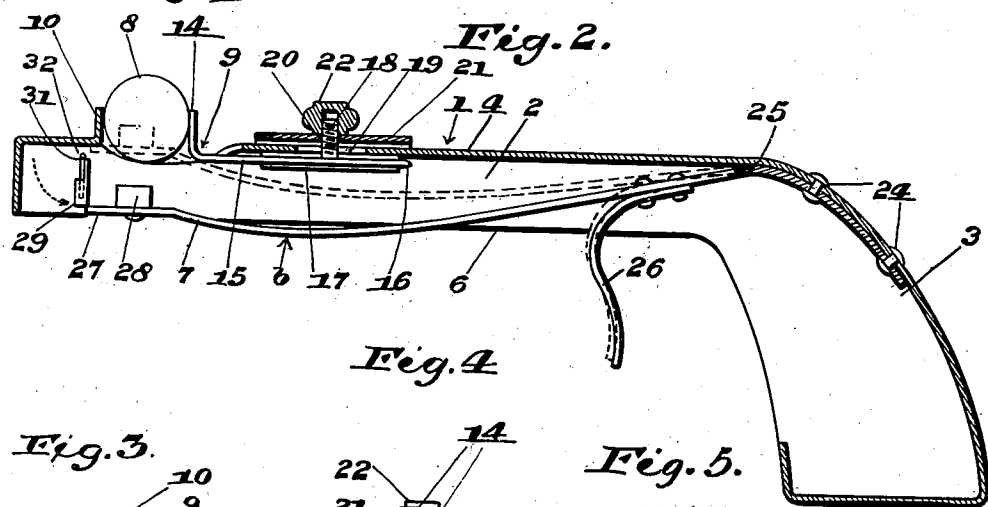


Fig. 2.

Fig. 4

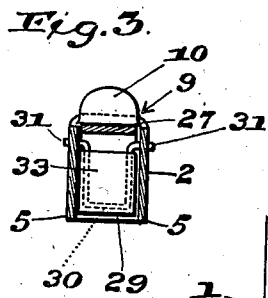


Fig. 3.

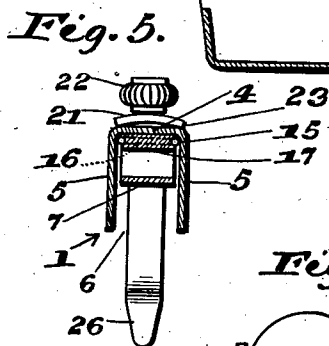


Fig. 5.

Fig. 6.

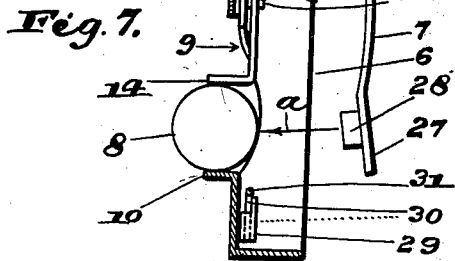


Fig. 7.

Inventor
Lucius B. Truesdell.

Munn, Anderson & Liddy
Attorneys

UNITED STATES PATENT OFFICE

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MARBLE SHOOTER

Lucius B. Truesdell, De Land, Fla.

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3 Claims. (Cl. 124-16)

This invention is an improvement in toys, its particular purpose, as its name implies, being to shoot marbles. This game, as everyone knows, is commonly played by knuckling to the ground and shooting a marble into a group of marbles in a ring solely by the force of the player's thumb. The improved shooter enables the player to project the marbles with greater force than before, and avoids the possibility of his thumb either becoming calloused or sprained. With this preamble in mind, the objects of the invention are summarized as follow:

One, to provide a toy which is primarily intended for shooting marbles, and which while replacing the time-honored mode of using one's thumb and knuckling to the ground, demands the same skill and adds much to the force with which the marble can be projected.

Two, to provide a marble shooter which has a novel detent as one of its outstanding principles, the setting of which is accomplished by gravity as a preliminary to emplacing the marble.

Three, to provide a marble shooter which is so patterned that it can be manufactured at an economical rate so as to make it a ready article of sale at low-price stores.

Other objects and advantages will appear in the following specification, reference being had to the accompanying drawing, in which:

Figure 1 is a perspective view of the improved marble shooter,

Figure 2 is a longitudinal section thereof,

Figure 3 is a cross section taken on the line 3-3 of Fig. 1,

Figure 4 is a cross section taken on the line 4-4 of Fig. 1,

Figure 5 is a cross section taken on the line 5-5 of Fig. 1,

Figure 6 is a detail plan view, and

Figure 7 is a fractional sectional and elevational view illustrating the true-up-ended position of the device in its shooting position.

In carrying out the invention the marble shooter 1 is seen to comprise what is herein conveniently termed the barrel 2 and the handle 3. The so-called barrel 2 is merely simulated because as seen in the sectional views in Figs. 3, 4 and 5 it does not comprise a tube as is ordinarily seen on guns, revolvers and the like.

The simulated barrel 2 is U-shaped in cross section, the U being inverted so that the bridge 4 is on top and the sides 5 depend therefrom in the downward direction. The barrel is thus open along the bottom, as at 6, and conveniently so because upon occasion the trigger bar 7 is dis-

placeable from its customary location inside of the barrel, both in the set position (Fig. 2) and in the position (Fig. 7) that it assumes preparatory to projecting the marble.

Said marble, designated 8, is emplaced in an opening 9 in the bridge 4 of the barrel 2, said opening ordinarily comprising a longitudinal slot. The marble 8 is rested on the side edges of said slot or opening, said side edges desirably being curved in concave form to afford a better rest than if straight. The marble is additionally supported in place by a ledge 10 which is bent into the erect position. Said ledge is the product of that portion of the bridge 4 which is bent up in the formation of the slot 9.

In actual practice the ledge 10 may stand at a slight pitch in the direction of the opening 9, but usually said ledge will be perpendicular to the barrel 2 (Figs. 2 and 7). The retainer fingers, later described, will generally hold the marble firmly enough against the ledge 10.

The device is up-ended when assuming the shooting position (Fig. 7). At this time the marble is held against the ledge 10 by the recently mentioned retainer fingers 14. These fingers are the angularly bent parts of a wire 15 which extends back under the bridge 4 (Fig. 2) where it is marginally applied in loop form at 16 to a slide 17 which comes directly under the bridge. Said slide has an upstanding stud 18 which is operable in the slot 19 in the bridge. It goes through a hole 20 in a friction plate 21 which is surmounted by a thumb nut 22 screwed onto the stud 18.

Said friction plate is bowed transversely (Figs. 4 and 5), the longitudinal margins 23 riding the bridge. It is readily perceived that by screwing the thumb nut 22 in the proper direction there will be either an increase or decrease of pressure of the friction plate 21 against the bridge because of increased or decreased bowing, resulting in pulling the slide 17 up against the nether side of the bridge more or less tightly and ultimately holding the retainer fingers with the desired degree of tension.

The latter factor is intended solely for regulating the ease with which the thumb nut 22 can be slid back and forth. Said nut is employed as a thumb-piece in sliding the fingers 14 back and forth into engagement with or disengagement from the marble 8. The trigger bar 7 to which reference has been made, comprises a long leaf spring. It is anchored at one end by rivets 24 to the handle 3. It is adapted to be flexed substantially at the bowing 25. It has a finger piece 26 which serves as a trigger. Its free end 27

comprises a short level part to which a striker button 28 is affixed. This button is adapted to make contact with the marble as suggested by the arrow *a* (Fig. 7).

An outstanding feature of the device is a detent 29. This is built upon a U-wire 30 (Fig. 3), the terminals 31 of which are bent outwardly in the form of pintles which make a hinge connection with holes 32 in the sides 5 (Fig. 1). The detent is adapted to swing freely. Its specific construction is of little consequence, the showing adopted herein consisting of a metal covering 33 over the major part of the U-wire, this providing the required weight. Inasmuch as the fit of the pintles 31 is loose it follows that the detent 29 is adapted to freely gravitate to the erect position (Fig. 2) when the device is held horizontally. The detent will then catch the tip of the free end 27, the operator having pulled back on the trigger 26, thus accomplishing the temporary holding of the trigger bar in the full line position *b*.

The operation is readily understood. The shooter is first held in the horizontal position (Figs. 1 and 2) so that the detent 19 can freely gravitate to its erect and engaging position when the trigger bar 7 is retracted from the barrel 2 by pulling on the trigger 26. The marble 8 is then emplaced upon the concave edges of the opening 9 and in back of the ledge 10, whereupon the retaining fingers 14 are pushed against the marble by applying thumb pressure against the head of the thumb nut 22.

The marble is now held sufficiently secure to keep it from rolling out when the device is up-ended as in Fig. 7. This is the shooting position. The point of the shooter is rested on the ground. The trigger bar 7 is held retracted as long as the detent 29 stays in place. But by now pulling the trigger 26 again, and this time farther back than the position *b* (Fig. 2), said detent 29 will drop to the full line position (Fig. 7), and when the player lets go of the trigger the bar 7 will spring forwardly and dislodge the marble by virtue of the engagement of the striker 28.

The player will be required to exercise as much skill in the use of the toy as was required of him in shooting marbles in the old way. The drawing back of the trigger 7 to the ultimate shooting position will require some judgement as to how far to do the drawing in order to achieve the proper shooting of the marble, and the player will also have to watch his aim in order to send the marble in the intended direction.

I claim:

1. A marble shooter comprising a simulated barrel of inverted U form including a bridge having a marble opening and a slot, an outstanding ledge at one extremity of the opening, retainer fingers operable in the opening in confronting relationship to the ledge and having slide means located over the slot under the bridge, and friction means over the slot on top of the bridge, having connection with the slide means and constituting a thumb-piece for the manipulation of the retainer fingers.

2. A marble shooter comprising a simulated barrel of inverted U form including a bridge having a marble opening and a slot, a ledge at one extremity of the opening to assist in the support of a marble rested on the margins of the opening, retainer fingers operable in the opening and including a wire loop extending back under the bridge, a slide covering the slot from the nether side of the bridge and having the wire loop applied to the margins thereof, a friction plate covering the slot on top of the bridge being bowed transversely and having a hole, a screw stud upstanding from the slide extending through the slot and hole, and a thumb nut screwed onto the stud, being adapted to regulate the tension of the friction plate and for use as a thumb-piece in sliding the retainer fingers back and forth.

3. A marble shooter comprising a simulated barrel of U form in cross section, said barrel including a bridge having a slot and an opening extending into the sides of the barrel to provide margins of concave formation, a ledge upstanding from the bridge at one extremity of the opening to be abutted by a marble rested on the margins of the opening, retainer fingers projecting through the opening having sliding means covering the slot on the nether side of the bridge, a combined thumb piece and friction means connected with the slide means, being accessible and operable from the top of the bridge for setting the position of the retainer fingers, a resilient trigger bar attached to a part of the barrel and having a striker button in line with the opening for impact against the marble, and a freely swingable detent for temporarily holding the trigger bar back while emplacing the marble, said detent including a U-wire having out-turned pintles in hinge connection with the sides of the barrel.

LUCIUS B. TRUESDELL.