July 19, 1932. W. A. COVENTRY 1,868,312

TOY GUN

Filed Nov. 27, 1929

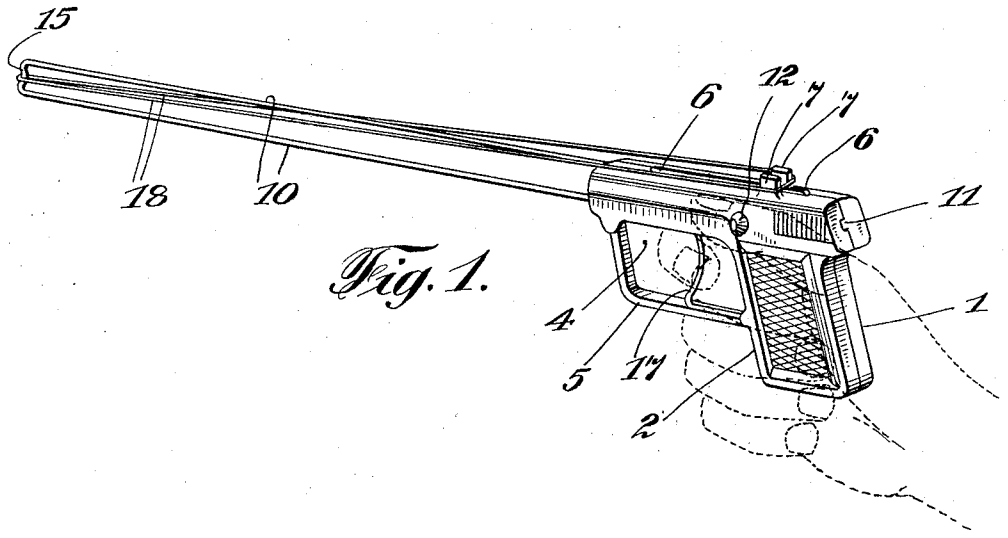



Fig. 1.

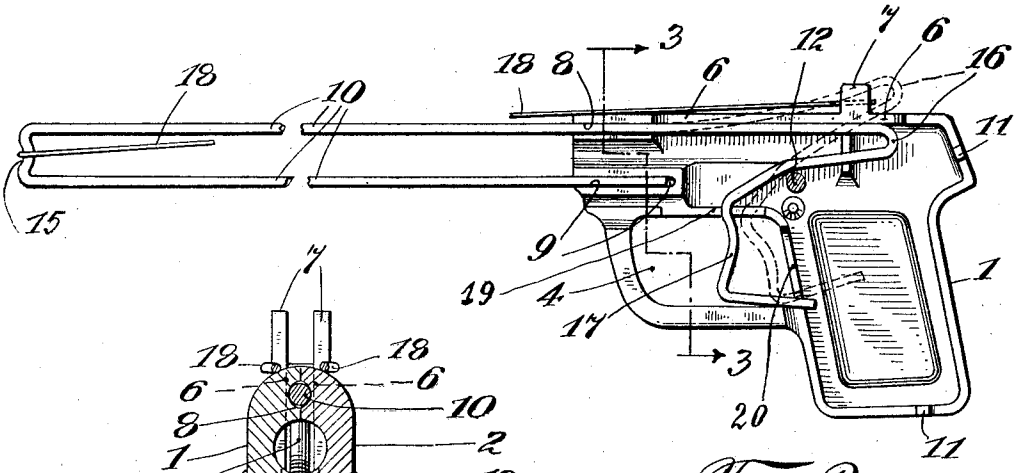



Fig. 2.

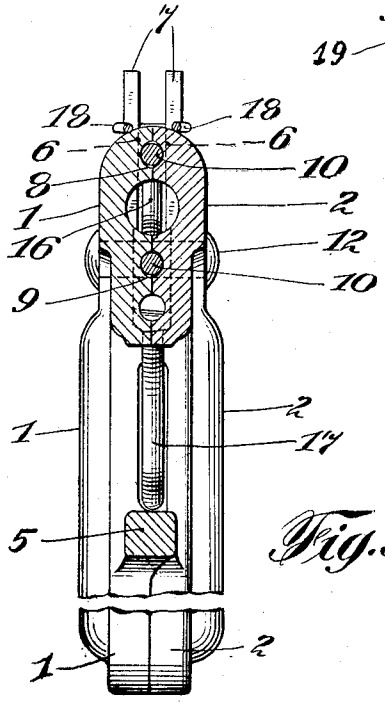



Fig. 3.

INVENTOR
William A. Coventry
BY
Norman N. Holland
his ATTORNEY

Patented July 19, 1932 1,868,312

# UNITED STATES PATENT OFFICE

WILLIAM A. COVENTRY, OF LANCASTER, PENNSYLVANIA, ASSIGNOR TO GREY IRON CASTING COMPANY, OF MOUNT JOY, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA

## TOY GUN

Application filed November 27, 1929. Serial No. 410,061.

The present invention relates to toy guns and the like, and more particularly to a toy gun adapted to project rubber bands.

Toy guns such as air rifles or bullet rifles are relatively expensive for a child's toy and are also dangerous. This accounts, in a large measure, for the popularity of band shooters where ordinary rubber bands may be used as missiles and each band may be used repeatedly until lost. Due to the size of the bands and their soft, resilient character, children cannot damage property or endanger other children with them. The present type of band shooters are relatively large and expensive and are not sufficiently rugged to withstand the rough usage to which they are subjected. Since such toys are used mostly by small children, their cost and construction are important. Children cannot ordinarily buy expensive toys and, when bought, they subject them to the roughest kind of use. They may be tossed around, left in damp or wet places and used as hammers and as all sorts of other tools.

The present invention aims to eliminate the objections and difficulties enumerated above and to provide an inexpensive band shooter which is constructed of a minimum number of parts not likely to become disarranged, and to reduce the cost of the articles sufficiently to permit their sale by chain store syndicates.

An object of the invention is to provide an inexpensive toy gun adapted to project bands of rubber or of other elastic material.

Another object of the invention is to reduce the number of parts in a toy gun, thereby to minimize the cost thereof and also to minimize breakage.

Another object of the invention is to provide a toy gun or band shooter having a barrel and trigger mechanism formed from a continuous rod of wire bent upon itself and secured to the handle of the gun.

Another object of the invention is to provide a rubber band shooter, substantially in the form of a gun, having a band releasing mechanism integral with the barrel forming member, which is simple in construction and effective in operation.

A further object of the invention is to provide a toy gun, realistic in appearance, and adapted to afford safe amusement for small children.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

While the present invention is not limited to any particular form of gun, one embodiment of the toy gun has been chosen for the purpose of illustration and description and is shown in the accompanying drawing, wherein

Fig. 1 is a perspective view of a gun showing a rubber band in position to be projected;

Fig. 2 is a longitudinal sectional view illustrating details of the gun; and

Fig. 3 is a vertical sectional view along the lines 3—3 of Fig. 2.

Referring again to the drawing, there is shown a pair of butt forming members 1 and 2 which may, for convenience, be metal castings. Preferably, these members are made to simulate the general features of an automatic pistol. The castings 1 and 2 are preferably hollow to provide sufficient space for the operative parts of the gun and to reduce the weight and cost thereof. A suitable aperture 4, in the castings 1 and 2, provides a suitable trigger guard 5. Along the upper edges of the castings, there are provided recesses 6 adjacent projections 7. The projections 7, extend upwardly from the butt of the gun to form holding means for an elastic band, the recess 6 providing an opening between the projections 7 for the movement of a releas-

ing means to be described hereinafter. The muzzle end of the castings is provided with grooves 8 and 9 to receive a wire 10 adapted to form the barrel of the gun. Suitable interlocking projections and depressions 11 are formed in the castings 1 and 2 rigidly to hold them in position when assembled. Preferably, the castings are assembled by means of a rivet 12 extending through suitable apertures therein.

The barrel of the gun is preferably formed of a single wire member 10 which fits into the grooves 8 and 9. Preferably, the lower portion 14 of the wire member has its end terminating in the groove 9 in the muzzle of the gun and extends outwardly the necessary distance and is then bent upwardly to form the end of the barrel, and also a suitable notch 15 for an elastic band. The end portion of the barrel is arcuate in shape to prevent the elastic band from slipping off the end of the barrel. The return portion of the barrel forming wire fits into the grooves 8 and extends beyond said grooves along and immediately beneath the recess 6 in the castings 1 and 2. At the end of the recess, the wire is bent downwardly into a loop 16 and a trigger 17. The upper portion of the trigger projects outwardly into the aperture 4 by passing through the recess 19 in the castings 1 and 2. The lower portion of the trigger passes through the recess 20 and terminates within the castings. The lower portion of the loop 16 preferably passes above the rivet 12, when the trigger is pressed, the loop 16 will have to move upwardly since it is pivoted or clamped by the grooves 8 in the muzzle of the gun.

Pressure upon the trigger, as will be observed, will cause the loop to be raised upwardly through the slot 6 and between the projections 7. The rubber band 18, stretched from the end 15 of the barrel over the projections 7, will be forced upwardly and released by the loop 16 actuated by the trigger 17. The projections 7 serve as a holding means for the rubber band and, in addition, give the appearance of the usual sight on a revolver.

In the manufacture of such a device, the butt forming members may be readily and inexpensively formed of suitable castings and the barrel forming wire member may be bent into its proper shape by automatic machinery prior to assembling the parts. The three elements may be readily assembled and secured together by the rivet 12. The several parts are simple and inexpensive in construction and may be secured rigidly in position by a single rivet.

In the operation of the device, the rubber band 18 is stretched from the end 15 of the barrel over the projections or sight 7, in which position it will remain until released by pressure upon the trigger 17. By pressing upon the trigger in the usual manner, the loop 16 is moved upwardly through the recess 6 intermediate the projections 7 about the clamped portion of the wire at the muzzle of the gun. This forces the elastic band upwardly over the projections 7, thereby releasing it. The rubber bands may be purchased in various stores, particularly stationery stores, or, as is often the case, may be cut from inner tubes used in automobile tires.

It will be seen that the present invention provides an attractive, rugged toy gun construction formed from three parts which may be assembled by the application of a single rivet. The butt of the gun simulates the butt of an automatic pistol and is made from a pair of inexpensive castings. The barrel of the gun is made from a continuous wire which is bent at one end to form the releasing member for the bands and also to form the trigger for operating the releasing member. Since these movable portions are made of a single piece of wire, there is nothing to break or to get out of order; hence, the gun is very rugged in construction and capable of withstanding very rough usage. Further, the device may be manufactured at a very low cost so that it may be sold in chain store syndicates at a price attractive to children.

As various changes may be made in the form, construction, and arrangement of parts without departing from the spirit and scope of the invention and without sacrificing its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. In a device of the class described, the combination of means forming the butt of a gun, a member bent upon itself to form the barrel of the gun, and means for engaging an elastic band, one end of said member being adapted to be moved to engage and release said band from said engaging means.

2. In a device of the class described, the combination of a member adapted to form the barrel of a gun, a pair of butt members adapted to hold said barrel forming member and to permit movement of a portion of said barrel forming member, and means for actuating said movable portion of the barrel forming member to release a missile.

3. In a device of the class described, the combination of a member adapted to form the barrel of a gun, a pair of butt members adapted to engage said barrel forming member and to pivotally support a portion thereof, and a trigger integral with said pivoted portion to actuate said pivoted portion about its pivot to release an elastic band.

4. In a device of the class described, the combination of a wire or rod bent upon itself to form the barrel of a gun, the outer end of the barrel being adapted to receive and

hold a rubber band, a pair of butt forming members adapted to engage said wire and to hold it in position, the upper portion of said wire forming the barrel being adapted to be pivoted at a point intermediate its ends, said pivoted end extending within the hollow butt of the gun and being bent into the form of a trigger, said butt members having a recess adjacent said pivoted end and a projection extending upwardly from said recess for receiving an elastic band whereby, when the trigger is pressed, said pivoted end is moved upwardly to release the elastic band from said projection.

5. In a device of the class described, the combination of a pair of butt forming members grooved to receive a wire, a wire bent upon itself to form the barrel of the gun with its ends secured in said grooves, one end of said wire extending inwardly along the upper edge of the butt forming members and being bent downwardly to form the trigger, whereby pressure upon the trigger raises the end of the wire extending along the upper portion of the butt members.

6. In a device of the class described, the combination of a pair of butt forming members adapted to be clamped together to form the butt of a gun, a recess along the upper portion of the butt forming members with upwardly extending projections on the sides of said recess for engaging and holding an elastic band, and a releasing means comprising a substantially resilient member bent upon itself and adapted to be raised through said recess and between said projections to release said band.

7. In a device for projecting elastic bands, the combination of means for forming a butt and a small rod bent upon itself to form the barrel of a gun, said rod having one end bent to provide a band releasing means, and a trigger formed from said rod pivoted within said butt and adapted to raise said releasing means.

8. In a device of the class described, the combination of members forming the butt of a gun, said members being grooved to receive a wire, and a wire secured in said grooves at the muzzle of the gun and extending outwardly a substantial distance from the muzzle and being bent upon itself and returned to said muzzle passing through a second groove, one end of said wire being formed into a loop within said butt forming members, said loop being adapted to act about the fixed portion of the wire to release an elastic band, and a trigger integral with said loop.

9. In a device for projecting elastic bands, the combination of a wire member for forming the barrel of the gun, said wire member having a loop bent therein to provide a band releasing means, and a trigger portion formed from said wire adjacent to said loop and adapted to move said loop upwardly.

10. A band releasing device for a toy gun comprising a substantially resilient wire member, a trigger formed from said member, and a band releasing portion integral with said trigger adapted to be bent upwardly to release a band when said trigger is pulled and adapted to return to its normal position when the trigger is released, said releasing portion being normally out of engagement with the band.

WILLIAM A. COVENTRY.