

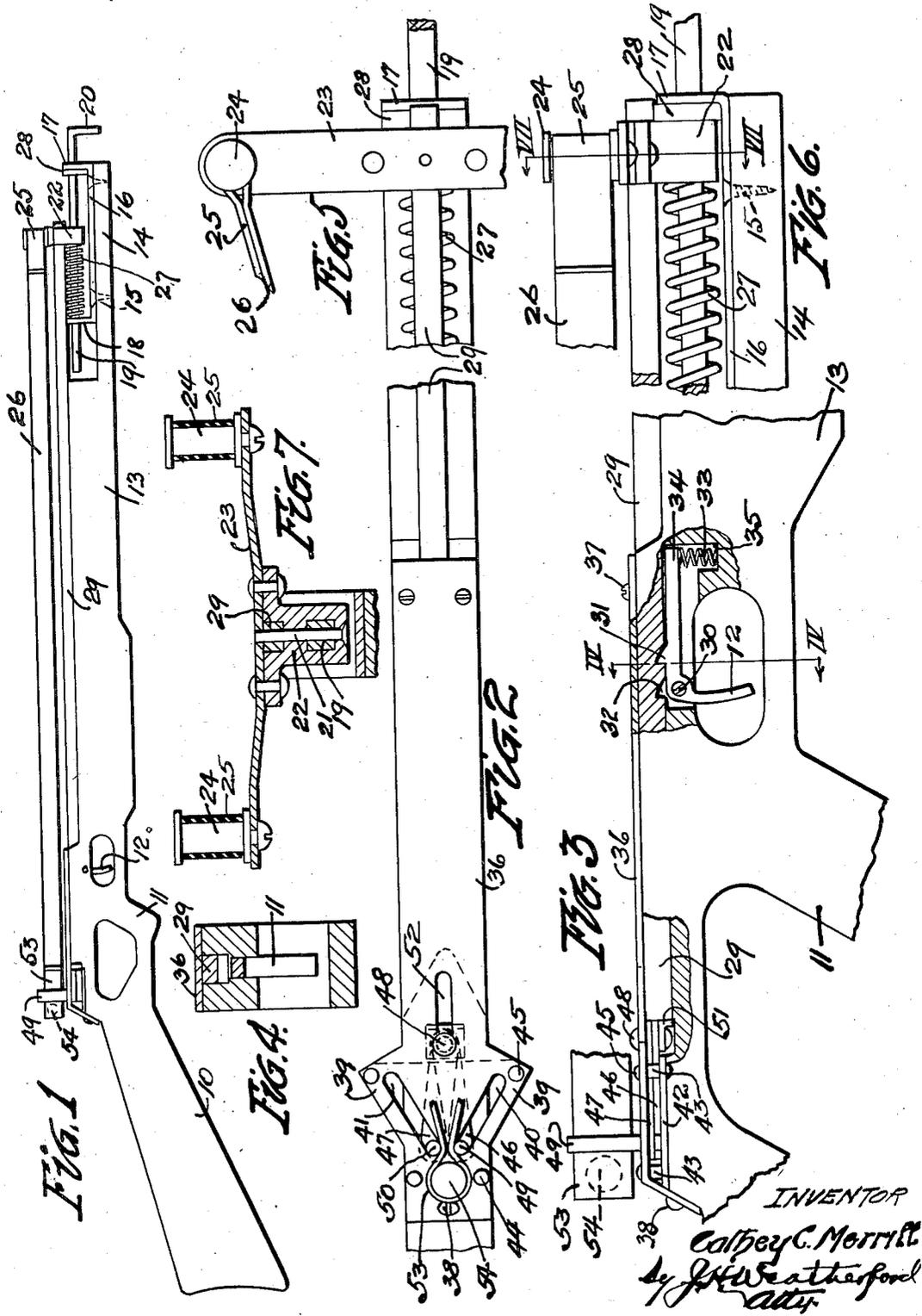
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SLING GUN

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## SLING GUN

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5 Claims. (Cl. 124—14)

This invention relates to a device for throwing a projectile by the combined power of a rubber band and a spring and to the means by which the projectile is held and subsequently released.

The objects of the device are;

To provide projecting means in which the action of a rubber band or bands is supplemented by the action of the spring whereby to give a snap or throw additional to the action of the bands;

To provide holding and releasing means which will permit the release of the projectile without action thereon to disturb the true line of flight; and

To generally improve the details of construction by means of which these and other objects are accomplished.

The means by which the foregoing and other objects are accomplished and the manner of their accomplishment, will be readily understood from the following specification on reference to the accompanying drawing, in which,—

Fig. 1 is a side elevation of the gun showing the spring and elastic band retracted with the projectile in place ready for firing.

Fig. 2 is a plan view on an enlarged scale of a fragmentary portion of the gun showing the holding mechanism in similar position.

Fig. 3 is a corresponding side elevation of the same portion of the device, showing the holding mechanism and the trigger mechanism.

Fig. 4 is a transverse sectional elevation taken as on the line IV—IV of Fig. 3.

Fig. 5 is a plan view of a fragmentary portion of the front end of the gun after discharge.

Fig. 6 is a corresponding side elevation of the same fragmentary portion of the device, and

Fig. 7 a transverse section on the line VII—VII of Fig. 6.

Referring now to the drawing in which the various parts of the device are indicated by numerals, 10 is a gun stock, 11 a hand grip, 12 a trigger and 13 the body or barrel portion of the gun.

Mounted on the forward end 14 of the gun barrel, as by screws 15, is a bracket 16 having upwardly extending lug portions 17, 18, in which a rod 19 is slidably mounted. This rod is preferably square or of polygonal cross sections to prevent rotation thereof, and may have its forward end downwardly turned to form a handle 20.

Rigidly mounted on the rod 19 and secured thereto as by a screw 21 is a block 22 to which is fastened a transversely disposed fork member 23 carrying posts 24 around which the outer ends 25

of rubber bands 26 are looped, the member and posts forming a sling fork. Disposed around the rod 19 between the rear lug 18 and the block 22 is a compression spring 27 preferably of greater pull compressive strength than the retracted tensile strength of the rubber bands 26. 28 is a bumper as of rubber disposed around the rod 19 and between the forward lug 17 and the block 22. 29 is a release bar, the front end of which is secured to the block 22 as by the screw 21. This rod extends rearwardly along the top of the gun barrel past the trigger 12 and adjacent the rear or grip end of the barrel. The trigger 12 is pivotally mounted as on a pin 30 passing through the barrel and has an upwardly extending lug 31 adapted to engage in one of two or more notches 32 in the underside of the rod 29. The lug 31 is held in engagement with one of these notches as by a spring 33 underlying a forwardly extending portion 34 of the trigger, the spring 33 being disposed in a recess 35 in the gun barrel. Adjacent the trigger 12 and rearwardly thereof, the rod 29 lies in a suitable groove in the barrel portion 13, of the gun, and is covered and held in place in such groove by a plate 36 secured as by screws 37, 38.

The plate 36 is broadened adjacent its rear end by side extensions 39 and is provided with rearwardly converging slots 40, 41. Disposed below the widened portion of the plate 36 is an underlying plate 42 which is separated from the plate 36 by spacers 43, the two plates being secured together by rivets 44, 45. Disposed in the space thus formed between the two plates are a pair of arms 46, 47, pivotally connected at their forward ends by a pin 48. Extending upwardly from the arm 46 through the slot 40 is a jaw member 49 and from the arm 47, through the slot 41, is a jaw member 50, the jaw members 49 and 50 being slidable along the slots 40 and 41 respectively. Also secured to the forward end of the arms by the pin 48 is an abutment plate 51 against which plate and the outer ends of the arms 46, 47, the release rod 29 abuts when in retracted position. The upper end of the pin 48 is slidably disposed in a slot 52 in the plate 36. The rear ends of the rubber bands 26 are secured to a missile loop 53, preferably the usual leather strip folded in U-shape, and adapted to receive a missile such as a bullet 54.

In using the gun a missile is engaged in the missile loop 53 and the loop retracted, stretching the rubber bands 26 until the loop lies between the jaws 49 and 50, and the missile rearward of the jaws. This action retracts the fork member 23

and partially compresses the spring 27 and at the same time moves the release rod 29 rearwardly, into contact with the abutment 51 and the ends of the arms 46, 47, and starts the jaws 49, 50 rearwardly and toward each other in the slots 40, 41. Additional pressure is then exerted on the handle member 20 further compressing the spring 27 and firmly clamping the jaws 49, 50 against the sides of the missile loop in front of the missile. During this final movement the release rod 29 is further retracted, causing the notches 32 to pass over the trigger lug 31 and the lug to engage with one of these notches. In some cases where the missile is large this engagement may be with the rear notch, but under ordinary conditions will be with the forward notch. A pull on the trigger 12, disengages the lug 31 from the notch with which it is in engagement and allows the spring 27 to throw the release rod 29 forward and permit the jaws 49, 50 to move forward and spread apart and release the missile loop and the missile therein, this action being equal on opposite sides of the loop and thereby allowing smooth and accurate release of the missile. Discharge of the missile is accomplished through the contraction of the rubber bands 26 and the concurrent forward movement and throwing action of the spring 17, on the sling fork.

30 What I claim is:

1. In a sling gun, the combination with missile propelling means including a missile loop, of a pair of jaws adapted to be moved rearwardly and inwardly into contact with opposite sides of said loop forwardly of a missile disposed in said loop, fixed means converging rearwardly for slidably supporting and guiding said jaws against opposite sides of said loop, means for moving said jaws rearwardly into engagement with said loop, and means for holding said jaws in retracted position, manually operable for releasing said jaws.

2. In a sling gun, the combination with missile propelling means including a missile loop, of a pair of jaws adapted to be moved rearwardly and

inwardly into contact with opposite sides of said loop forwardly of a missile disposed in said loop, a stationary plate having rearwardly converging slots for slidably guiding said jaws against opposite sides of said loop, means for moving said jaws rearwardly into engagement with said loop, and means for holding said jaws in retracted position, manually operable for releasing said jaws.

3. In a sling gun, an elongated barrel portion, a sling fork slidably mounted on the forward end of said barrel portion, a spring urging said fork forward, a pair of elastic bands having their forward ends secured to said fork, and their rear ends to a missile-loop, and means adjacent the rear end of said barrel portion for releasably securing said missile loop, said securing means being manually releasable.

4. In a sling gun an elongated barrel portion, a sling fork slidably mounted on the forward end of said barrel portion, a spring urging said fork forward, a pair of elastic bands having their forward ends secured to said fork, and their rear ends to a missile-loop, means, adjacent the rear end of said barrel portion, adapted to engage said loop, means interconnecting said fork and said loop engaging means for rendering said latter means effective on retraction of said fork, and manually operable means for releasing said loop retaining means.

5. In a sling gun, an elongated barrel portion, a sling fork slidably mounted on the forward end of said barrel portion, a spring urging said fork forward, a pair of elastic bands having their forward ends secured to said fork, and carrying at their rear ends a missile-loop, means, adjacent the rear end of said barrel portion, adapted to engage said loop, a rod secured to said fork, extending rearwardly therefrom, and rearwardly movable into actuating engagement with said loop engaging means on retraction of said fork, said rod being notched, and manually releasable trigger means adapted to engage a said notch in said rod to retain said rod in rearward position.

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