

P. D. ZEIGLER.
TOY GUN.

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1,058,931.

Patented Apr. 15, 1913.

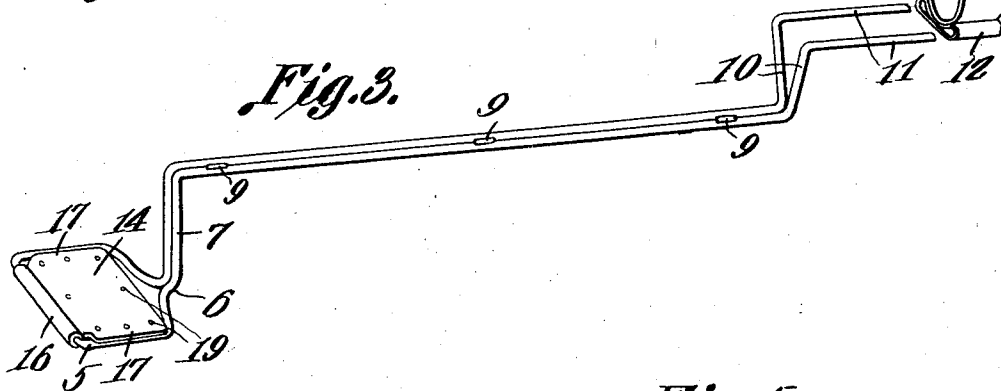
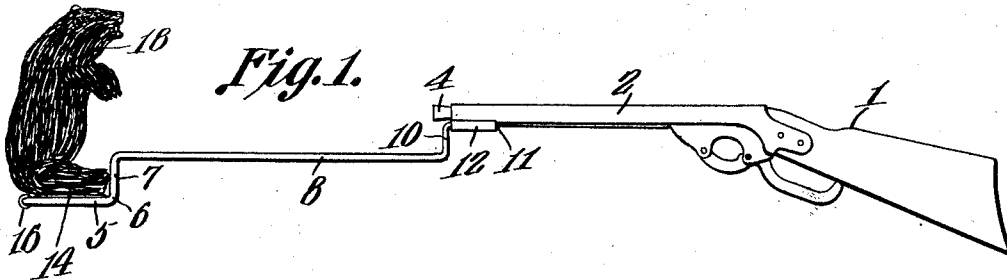


Fig. 4.

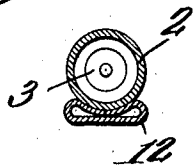
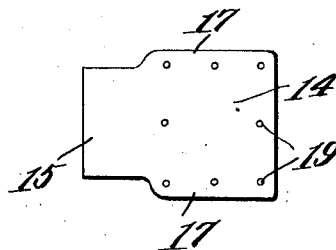


Fig. 5.



Witnesses

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TOY GUN.

1,058,931.

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To all whom it may concern:

Be it known that I, PERRY D. ZEIGLER, a citizen of the United States, residing at Dubois, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Toy Gun, of which the following is a specification.

One object of the present invention is to provide a supporting structure, adapted to be assembled with an arm, the supporting structure being so shaped that a target, carried by the supporting structure, will be positioned in the trajectory of the arm.

Another object of the invention is to provide a supporting structure, adapted to be assembled with an arm, the supporting structure carrying a pivotally mounted target, and the supporting structure being so shaped that the projectile will strike the target at such a distance above the pivotal mounting of the target, as to effect an overturning of the target.

Another object of the invention is to provide a target-supporting structure which may be assembled with the barrel of an arm in such a manner that the target cannot swing transversely of the path of the projectile.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings,—Figure 1 shows the invention in side elevation; Fig. 2 is a bottom plan upon an enlarged scale, parts being broken away; Fig. 3 is a perspective of the structure shown in Fig. 2; Fig. 4 is a transverse section upon the line 4—4 of Fig. 2; and Fig. 5 is a plan of the blank from which the target-supporting platform is fashioned.

In the drawings there is shown an arm 1 which may be an air gun, a spring gun, or other device having a relatively small propelling power. The barrel of the arm is denoted by the numeral 2, and located within the barrel 1 is a spring-actuated plunger (see Fig. 4) denoted by the numeral 3, the

plunger being adapted to compress the air within the barrel 1, to expel the projectile 4, although it is within the scope of the invention that the projectile 4 may be expelled by direct contact with the plunger 3. Generally considered, the form of the arm 1 may be varied, without jeopardizing the utility of the invention.

There is provided a supporting structure which, preferably, is fashioned from a single piece of material, bent upon itself to form a loop 5, the loop being closed as indicated at 6 and the constituent material of the supporting structure being carried in a direction at right angles to the plane of the loop, to form a projection 7, the projection 7 being prolonged in a rectangular direction, to form contacting parts 8, the contacting parts 8 being secured together at suitable intervals by drops of solder, or in any other desired manner, as indicated at 9. The free ends of the parts 8 are rectangularly disposed, to form diverging projections 10, which may be resilient, the projections 10 terminating in rectangularly disposed fingers 11, spaced apart. The fingers 11, the parts 8 and the loop 5 ordinarily lie in parallel planes, the projections 7 and 10 lying in parallel planes, at right angles to the planes in which the parts 7, 8 and 5 are located. A pair of spaced sockets 12 are secured to the under side of the barrel 2 of the arm 1, adjacent the muzzle of the arm, the sockets 12, if desired, being fashioned by bending the ends of a strip of material toward each other, as will be understood best when Fig. 3 is examined.

The invention further includes a target-holding platform 14 which is hinged to one end of the loop 5. Noting particularly Fig. 5 it will be observed that the platform 14 is provided at one end with a tongue 15, which as shown at 16 in Fig. 3, is bent around one end of the loop 5, so as to afford a pivotal mounting for the platform. The platform 14 is equipped along its sides with lateral extensions 17, adapted to engage the sides of the loop 5, so that the platform, at its free end, cannot swing downwardly through the loop. The target 18 may be of any desired form, and may be, if desired, allowed to rest loosely and removably upon the platform 14. Under ordinary circumstances, however, the target 18 is secured to the plat-

form 14, and to this end, the platform is equipped with openings 19, whereby the target may be stitched to the platform, or be secured thereto in any other desired manner.

In practical operation, the fingers 11 are inserted into the sockets 12 and the target 18 is disposed in upright position, as shown in Fig. 1. The arm is then loaded, and when the projectile 4 is expelled, the same will strike the target 18, and tip the target over, the target and the platform 14 swinging upon the pivotal connection 16 between the platform and the loop 5; or, if the target 18 is removably mounted upon the platform 14, the target will be knocked off the platform by the projectile 4.

Especial attention is directed to the fact that the device herein disclosed calls for no specific construction of arm. The device may be assembled with an arm of any sort, without changing the form of the arm, it being necessary, merely, to secure the sockets 12 to the under side of the barrel of the arm, adjacent the muzzle.

An arm of the type herein disclosed does not have a flat trajectory, and, even in view of the short range, suitable provision must be made for the trajectory. The contacting parts 8 constitute the body member of the structure, and since the fingers 11 are elevated above this body member, the target-holding platform 14 being depressed below the body member, it is obvious that, even though the projectile 4 should drop to a considerable extent in its flight, the target will be struck fairly. Moreover, since the platform 14 is depressed, as above described, the projectile 4 will strike the target 18 at such a distance above the pivotal mounting 16 of the platform, as to effect, with certainty, an over-turning of the target 18.

It is obviously desirable that the supporting structure, including the platform 14, shall not swing transversely of the muzzle 2 of the arm 1, since, by such a swinging movement, the target 18 might be disposed out of the path of the projectile 4. To obviate such a consequence, the two spaced fingers 11 are provided, it being obvious that when the fingers 11 are engaged in the spaced sockets 12, the target and associated parts cannot swing transversely of the barrel 2 of the arm 1.

It is desirable that the range should be a fixed one, and in this connection, it is to be noted that the projections 10 are adapted to engage the sockets 12. Furthermore, when the target 18 is removable, the target is placed in abutment with the projections 7, and thus, a fixed range is assured.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a body member; means for securing one end

of the body member to the barrel of an arm; a platform hinged to the other end of the body member; and a target upon the platform; the hinged mounting of the platform being located below the body member, and said means being located above the body member, to permit the projectile to strike the target at a distance from the hinged mounting of the platform.

2. In a device of the class described, a body member having a finger at one end, and being provided with a hinged platform at its other end; a target upon the platform; the finger being elevated to depress the hinged mounting of the platform, and to increase the distance between the hinged mounting of the platform and the point at which the target is struck by a projectile; and means for securing the finger to the barrel of an arm.

3. In a device of the class described, a body member; means for securing one end of the body member to the barrel of an arm; and a platform hinged to the other end of the body member, the hinged mounting of the platform being located below the plane of the body member; and a target upon the platform.

4. In a device of the class described, a body member having oppositely extended projections, one of which is provided with a finger and the other of which is provided with a target-holding platform; an arm engaging socket to receive the finger, one projection constituting a target stop and the other projection engaging the socket, to fix the range.

5. In a device of the class described, a body member; means for securing one end of the body member to an arm; and a target hinged to the other end of the body member for swinging movement in the direction of the length of the body member.

6. In a device of the class described, a supporting structure fashioned from a single piece of material bent upon itself to form a loop, spaced fingers, and contacting parts connecting the loop and the fingers; means for securing the fingers to an arm; a platform hinged to the loop; and a target upon the platform.

7. In a device of the class described, a supporting structure fashioned from a single piece of material bent upon itself to form a loop, spaced fingers, and contacting parts connecting the loop and the fingers, the fingers being elevated, and the loop being depressed; means for securing the fingers to the barrel of an arm; a platform hinged to the loop; and a target upon the platform.

8. In a device of the class described, a supporting structure fashioned from a single piece of material bent upon itself to form a loop and to form contacting parts, the loop being depressed below the plane of the

contacting parts; means for connecting the
contacting parts with an arm; a platform
hinged to one end of the loop and having a
lateral extension resting upon one side of
5 the loop to prevent the loop from swinging
through the platform; and a target upon
the platform.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature
in the presence of two witnesses.

PERRY D. ZEIGLER.

Witnesses:

MARY SIMMONS,
ALICE McFALL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."