

UNITED STATES PATENT OFFICE.

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TARGET.

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To all whom it may concern:

Be it known that I, FRANK J. JOHNSTON, citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Targets, of which the following is a specification.

My invention relates to targets, and particularly to those of a rotary type, or in which some portion of the target is adapted to be set in motion by the impact of the bullet.

The object of the invention is to provide a simple, practical, novel and effective form of rotary target for use in shooting-galleries and elsewhere, which will combine with it, as a feature of interest and attraction, a wheel of fortune.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a front elevation of the invention, with portions broken away to show the internal mechanism. Fig. 2 is a side elevation of the same in partial section, in the direction of the arrow Z, Fig. 1. Fig. 3 is a section on line X—X, Fig. 2, and taken on a plane approximately at right angles to the view of Fig. 2. Fig. 4 is a plan view of the actuating mechanism.

A is a fixed support of any suitable description, in which is suitably fixed a hollow hub 2. On the front end of this hub is loosely mounted a ratchet 3, and on the opposite end is loosely mounted an actuating arm 4; the ratchet 3 adapted to have a free spinning movement on the hub, and the arm 4 having a limited rotary motion about the hub as a pivot. The arm 4 is here shown as fixed to a collar 5 which is loose on the hub, and a set screw 6 passes through the collar and engages loose in a circumferential groove 7 in the hub. The collar 5 carries a bracket 8 which extends toward the ratchet 3, and the front end of this bracket is provided with a pawl 9 engaging the teeth of the ratchet 3; a spring 10 serving to hold the pawl in operative contact with the ratchet. Thus it will be seen that by rocking the arm 4 in one direction the pawl 9 will ride free over the ratchet, while rocking the arm 4 in the opposite direction will cause the ratchet to turn. The

purpose of this construction will be apparent hereinafter.

Suitably fixed to the hub in front of the ratchet 3 is a stationary target 11 which has a central plate 12 set into it, forming a bull's-eye. This bull's-eye plate 12 has a central perforation in line with the bore 13 which extends through the hub.

Fixed to the rotary part 3 is an indicator of suitable description, here represented as an arrow 14, which is designed to travel over the face of an annular fixed plate 15 when the ratchet 3 is revolved. This plate 15 is stationary, like the target 11, and sits in back of the target. Preferably, as here shown, this plate 15 is subdivided in any suitable manner, and the various subdivisions colored and numbered after the fashion of a wheel of fortune.

Hinged to the back of the support A is a pendent arm 16 which carries a removable hardened steel block 17 normally closing the rear end of the bore 13. This swinging weighted arm 16 has the function of a latch member interposable in the path of a catch or cam lug 18 carried by the bracket 8 and the projection 19 on the collar 5. Normally the arm 16 swings in by gravity to carry the plate 17 against the end of the hub and in line with the bore 13, so that the plate 17 will form a stop to a bullet passing through the bull's-eye and the hole 13; the force of the bullet acting to swing the arm 16 outward in the position represented by dotted lines, Fig. 2, so as to release the catch 18 and allow the arm 4 which had been previously engaged by the latch 16 to swing downward under the tension of a spring 20, or equivalent means. The tension of the spring 20 is sufficient to give the ratchet and arrow 14 a rapid spinning motion when the catch 18 is released, and the ratchet and arrow will continue to spin a number of times free beneath the dog 9 until the arrow finally comes to rest over some one or other of the numbered divisions of plate 15.

The device is reset by suitable means, as the cord 21 leading to the counter, or other convenient place.

In operation, the arm 4 is lifted by the cord 21, or other suitable means, to cause the catch 18 to pass by and engage behind the detent or latch 16. The tension on the cord 21 is then slackened so that the spring

may act in the desired manner whenever the detent 16 is swung outward, as when the marksman makes a dead center shot. The marksman knows every time he hits the bull's-eye, because the arrow is set in motion, and there is thus added the interesting feature of the rapidly spinning arrow over the target after each successive shot.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. The combination with a target having a central bull's-eye opening, of a rotary arrow having its axis of revolution coaxial with the target, means operative by a bullet passing through the bull's-eye opening in the target to actuate the arrow, said means including a loose ratchet to which the arrow is fixed, a swinging arm carrying a pawl engaging the ratchet, a detent member normally interposed across said bull's-eye opening in the target, means in conjunction with said swinging arm to engage said detent to hold the arm against movement in one direction, and means acting against said detent tending to turn the arm and ratchet.

2. In a target, the combination of a hollow hub, a target having an opening corresponding with the opening in the hub, a ratchet

member turnable loose on the hub, an arm turnable loose on the hub, a pawl carried by the arm and engaging the ratchet, means acting on the arm to turn the latter in one direction, an indicator carried by the ratchet, and a detent normally disposed across the hub opening and acting on the arm to hold the latter against movement in one direction.

3. In a target, the combination of a hollow hub, a target having an opening corresponding with the opening in the hub, a ratchet member turnable loose on the hub, an arm turnable loose on the hub, a pawl carried by the arm and engaging the ratchet, means acting on the arm to turn the latter in one direction, an indicator carried by the ratchet, and a detent normally disposed across the hub opening and acting on the arm to hold the latter against movement in one direction, said detent comprising a swinging weighted arm engaging a cam catch on said pawl-carrying arm.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK J. JOHNSTON.

Witnesses:

CHARLES A. PENFIELD,
CHARLES EDELMAN.