

No. 650,008.

Patented May 22, 1900.

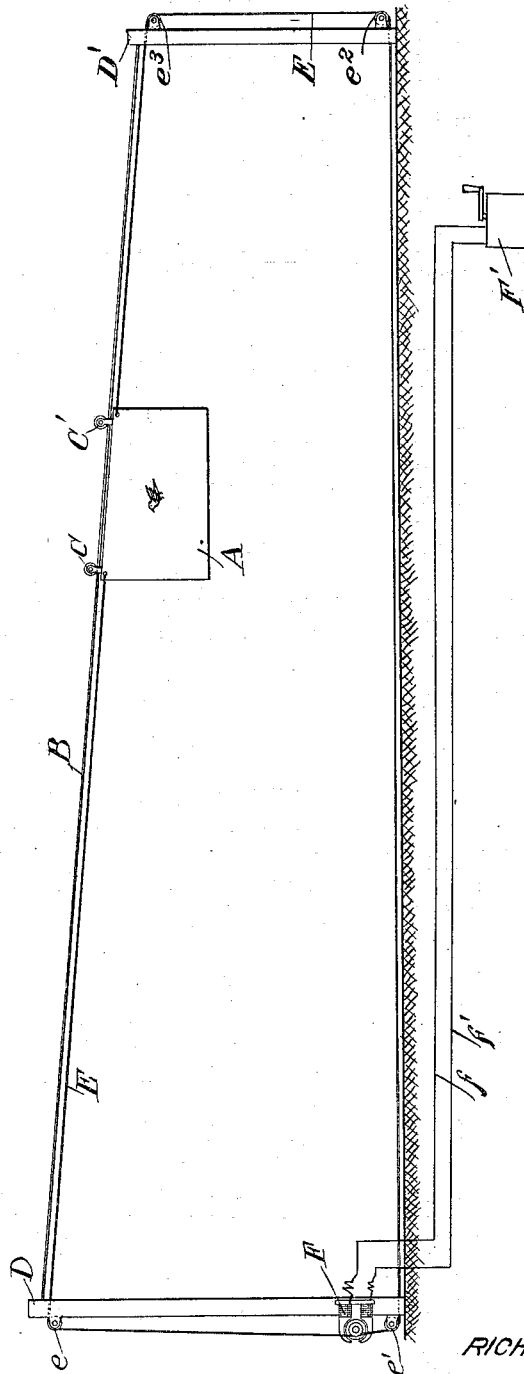
R. B. HAMEL.
MOVABLE TARGET.

(Application filed July 19, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1



WITNESSES:

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No. 650,008.

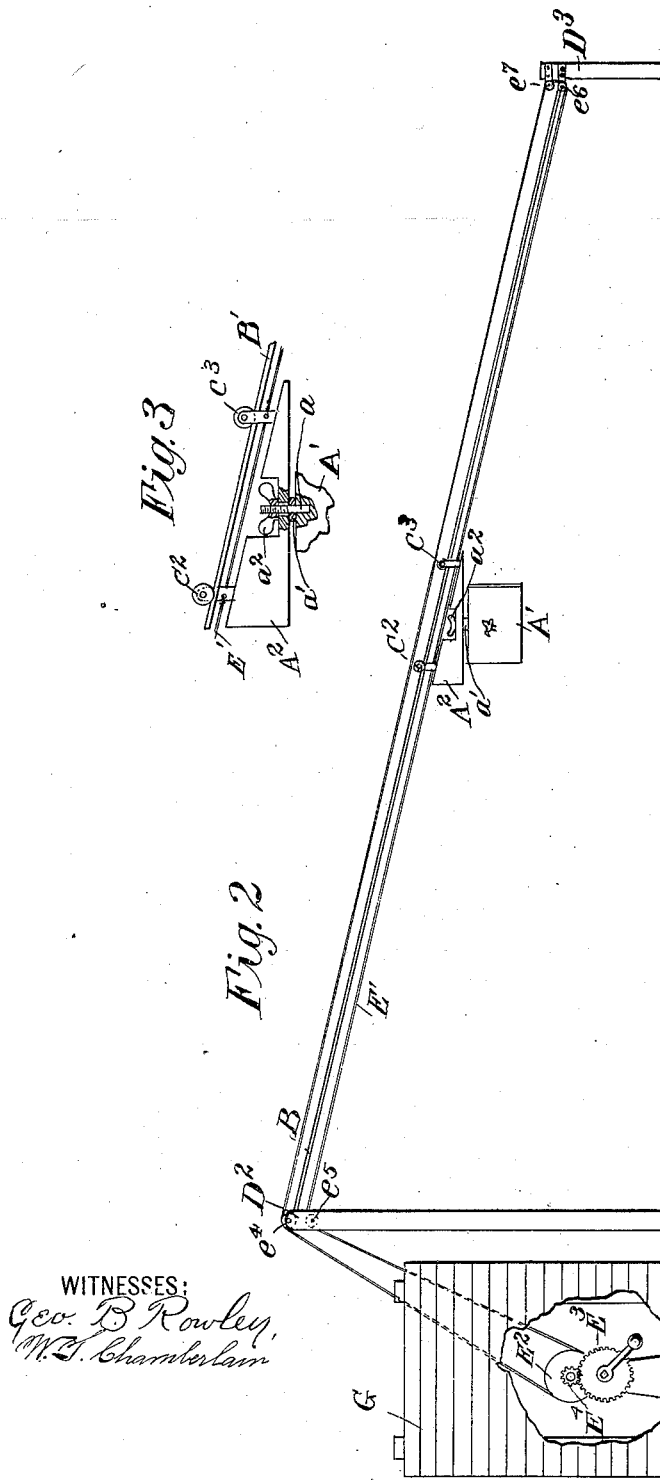
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2 Sheets—Sheet 2.



UNITED STATES PATENT OFFICE.

RICHARD B. HAMEL, OF BELLPORT, NEW YORK.

MOVABLE TARGET.

SPECIFICATION forming part of Letters Patent No. 650,008, dated May 22, 1900.

Application filed July 19, 1899. Serial No. 724,430. (No model.)

To all whom it may concern:

Be it known that I, RICHARD B. HAMEL, residing at Bellport, in the county of Suffolk and State of New York, have invented a new and useful Improvement in Movable Targets, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a diagrammatic view of my invention, showing the target operated by an electric motor and a rheostat for regulating speed thereof. Fig. 2 is also a diagrammatic view showing a modified construction and arrangement and the target operated by hand. Fig. 3 is a front elevation showing detail of construction of the target-carrier. Figs. 4 and 5 respectively show in detail front and side views of adjustable carrier for breakable targets.

My invention relates to movable land-targets for small-arms practice.

One object of my invention is to provide a movable target the movement of which will closely approach in direction and speed the flight of a bird starting from ground.

A further object of my invention is to provide a movable target which will allow the marksman to determine his individual error.

In the drawings illustrating the principle of my invention and the best mode now known to me of applying that principle, D D' are supports between which is stretched a wire B. Suspended from the wire trackway B by the pulleys and hangers C C' is the target A, to the ends of which is secured the cord E. The center of the target is suitably indicated. The brushes of the electric motor F are connected with any suitable source of electrical energy and has in its field-circuit $f f'$ a rheostat F'. The cord E passes over the pulleys e, e', e^2 , and e^3 and is wound around the drum of the electric motor F. By the arrangement above described the speed of the target may be varied from the start to the finish of its run.

By stretching tightly the supporting-wire B it is obvious that the direction of movement of the target will be constant from start to finish and that by varying the respective heights of the supports of the wire B this direction of movement of the target may be varied at will. For this purpose a telescopic

construction of the supports, with any suitable means for clamping the supports at any predetermined height, will be found convenient and desirable. It is also obvious that if the supporting-wire B is stretched loosely the weight of the target will stretch the supporting-wire and cause the target to travel lower than if the wire were tightly stretched; but as it approaches the support of the wire B at the finish of its flight it will take an upward turn. The more loosely the wire is strung the greater will be this upward turn at the finish of the flight.

In Fig. 2 the cord E' passes around the pulley E², which is driven by hand through the spur-gear E³ and the pinion E⁴, fast upon the same shaft with the pulley E². This driving mechanism is contained in the bullet-proof inclosure G.

In Fig. 3 the target is made up of two parts—viz., a carrier A² and the target proper, A', adjustably secured thereto by the screw-threaded stud a , washer a' , and wing-nut a^2 . By means of this vertically-placed clamping-screw, which operates as an adjustable swivel, the target A' may be adjusted and secured at any angle to the line or plane of travel, so that the marksman may secure practice on an object moving in a direction more or less toward or from his position angularly, as in real fieldwork, as well as point-blank or at right angles to the plane of travel. It will readily be seen that the marksman by varying his position may at pleasure vary the character of the flights offered him from "crossing" to "straight-away;" but unless the target were adjustable with reference to its carrier the marksman could not vary his position without being compelled to shoot at an angle to the face of the target. By adjustably securing the target A' to its carrier in the manner described the target A' may be set and fastened at any angle with the carrier A², so as to enable the full face of the target always to be squarely presented to the marksman whatever the position from which he may shoot.

One of the chief obstacles in learning to be a successful wing-shot is the difficulty in ascertaining and hence overcoming the personal error. By the use of a target of suitable size

the target will usually show on its face where the marksman is hitting with reference to the center, and he will thus be enabled to determine his individual error, for if he misses the center of the target the point where the bullet struck will be marked on the steel portion of the target. By noting this mark the marksman determines his personal error. A coat of paint will efface the mark of the shot or bullet and the target is new.

If desired, a small breakable target may be used when the marksman has become sufficiently expert in place of the larger and heavier target above described. By the use of this lighter target a much higher rate of speed will be obtained with the same amount of motive power and with less wear and tear. There will also be the added advantage to the marksman to be derived from practicing at a small target with a more rapid flight. The breaking of the target will mark the successful shot. In the target shown in Figs. 4 and 5, Fig. 5 being a side view of what is shown in Fig. 4, the target A^2 is one of the well-known forms of clay pigeons and is clamped to the hook supported between the end d^5 thereof and the foot d^4 of the spring-controlled clamp d^3 . The clamp d^3 slides in a hole in the lug d' and is controlled by the spring d^2 , which bears against the lug d' at its upper end and against the foot d^4 of the clamp d^3 .

In ordinary clay-pigeon shooting the clay pigeons are sent from a spring-trap. The trajectory of the clay pigeon does not resemble the path of flight of a bird rising from the ground either in direction or speed. By the means invented by me and herein described and claimed the speed and direction of movement of the target are under control. Therefore a marksman may arrange the apparatus so that the movement of the target will resemble the flight of a bird in speed and direction under any assumed condition. One who has become an expert shot with the target herein described will therefore experience no

difficulty in the matter of marksmanship when hunting game.

Any suitable mechanism may be used for moving the target, and I do not limit my invention to the means described, nor do I confine myself to a target movable only in one direction along the wire B, for it is obvious that with suitable mechanism the target may be moved in either direction with equal facility.

I do not claim a movable target automatically reversible at the end of its travel, my device for a secure adjustment of the target at a fixed angle to the plane of travel being for a different purpose; but

What I claim, and desire to secure by Letters Patent, is—

1. In movable target apparatus, fixed supports, a wire trackway suspended between said supports, a carrier traveling on said trackway, means for moving said carrier back and forth, a target suspended from said carrier, and means for adjusting and securing said target at different angles inclined to the plane of travel of the carrier, substantially as and for the purpose specified.

2. In movable target apparatus, a trackway suspended above the ground at an inclination, a carrier movable along said trackway, a target suspended from said carrier, and a vertical clamping-screw between said carrier and said target, whereby the latter may be adjusted and secured at a fixed angle inclined to the plane of travel of the carrier, substantially as and for the purpose specified.

3. In movable target apparatus, an inclined suspended trackway, a carrier movable along said trackway, means for moving said carrier, a removable target, and a spring clamping mechanism for readily attaching and detaching said removable target to and from said carrier, substantially as specified.

RICHARD B. HAMEL.

Witnesses:

DANIEL PETTY,
JOHN B. ROBINSON.