

No. 894,738.

PATENTED JULY 28, 1908.

P. J. HINDMARSH.

TARGET TRAP.

APPLICATION FILED FEB. 21, 1908.

2 SHEETS—SHEET 1.

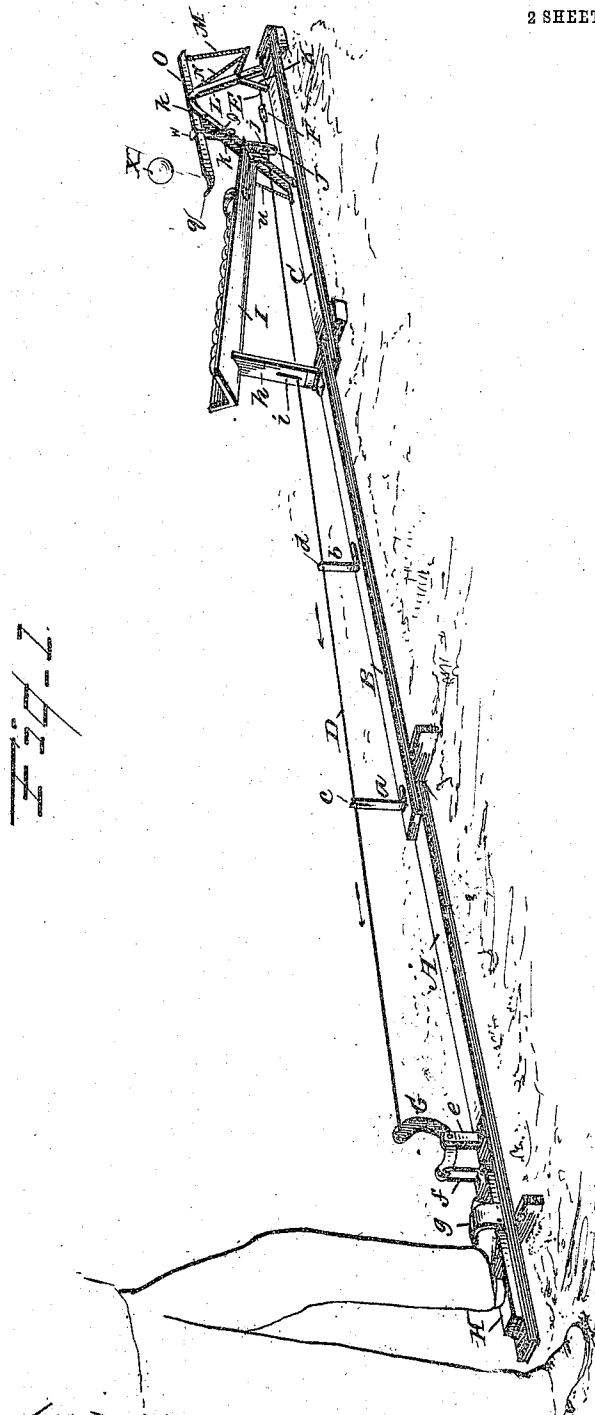


Fig. 1.

Witnesses

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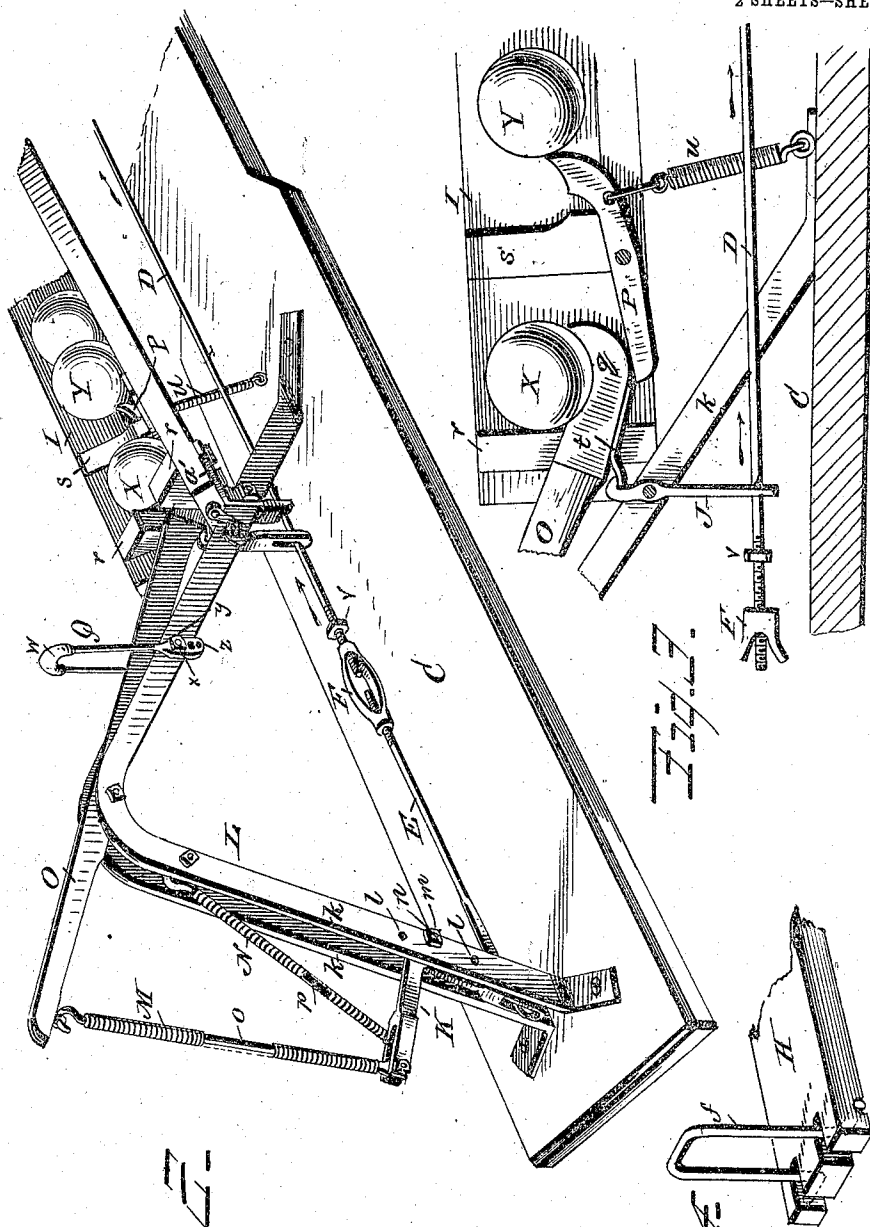
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2 SHEETS—SHEET 2



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UNITED STATES PATENT OFFICE.

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TARGET-TRAP.

No. 894,738.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed February 21, 1908. Serial No. 416,977.

To all whom it may concern:

Be it known that I, PERCY J. HINDMARSH, citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Target-Traps, and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The present invention has reference to that class of target-traps for discharging or ejecting artificial birds such as spherical objects, disks and other like targets into the air to be shot at and in which is provided a magazine for storing a number of such targets, and the object of the invention resides in a simple and practical target projecting mechanism which can be readily operated and adjusted to the weight and character of the object to be discharged.

The invention consists in the several details of construction substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings represents a perspective view of the complete target-trap showing one of the targets leaving the trap after being discharged therefrom. Fig. 2 a perspective view on an enlarged scale of the target projecting mechanism showing one of the targets in the magazine in position to be discharged. Fig. 3 a side elevation partly in section of a portion of the projecting mechanism with the targets in position as indicated in Fig. 2. Fig. 4 a detail perspective view of the front end of the foot treadle.

In the accompanying drawings A, B and C represent three sections adapted to be folded together when not required for use, the middle section resting upon the ends of the two outer sections.

Any number of sections may be used and connected together in any desirable manner, and when extended as shown in Fig. 1 of the drawings form the platform of the trap, said sections being of any suitable width and length as found best adapted to the purpose.

The section B has upright guides *a b* for the operating cable D; the cable engaging an open elongated slot *c* in the guide *a* and through a hole *d* in the guide *b*, the elongated open slot in the guide first mentioned

allowing the free play of the cable when operated. The cable which consists of the two cable-sections D E are connected together at their inner ends by the turn-buckle F of the ordinary construction so that the cable may be shortened or lengthened for the purpose hereinafter described.

The rear end of the cable-section D is connected to a segmental lever G the same being pivoted to and between the short standards *e* which are secured to the platform section A.

The segmental lever G may be controlled by any suitable means but preferably by foot-power in which is provided a foot-treadle H hinged to the platform section A and connected to the segmental lever by the link *f* or any other preferred means found desirable, said treadle having a toe-strap *g* for the insertion of the toe, as shown in Fig. 1 of the drawings.

The magazine for containing the targets consists of an inclined trough I supported at its rear end by a standard *h* having an elongated slot *i* through which the cable-section D passes, said standard being hinged to the platform B so that it can be folded down against the same when the trap is not in use. The opposite or front end of the trough I is supported in any desirable manner but preferably by the brackets *a'* suitably attached to the outer sides of the trough and the brackets detachably connected to the sides of the bars *k* of the frame L by bolts and nuts or any other like fastenings that will admit of the brackets being detached from the bars of the frame when it is desired to remove the trough for packing or when the target-trap is not required for use.

The cable-section D after passing through the elongated slot *i* in the standard *h* passes through a similar slot *j* in a latch J and thence connected by the turn-buckle F to the cable-section E as shown more clearly in Figs. 2 and 3 of the drawings.

The short cable-section E is connected at its outer end to a bell-crank lever K in any suitable manner, said lever being pivoted to and between the side bars *k* of the frame L and through the medium of the perforations *l* in said bars, the lever may be raised or lowered through the pivot-bolt *m* and nut *n*.

The upper end of the bell-crank lever K has connected thereto suitable springs M N

and through the coils of the springs are rods *o* *p* respectively as shown in Fig. 2 of the drawings, said rods preventing the springs from "buckling".

The rods are nearly the length of the springs or may be somewhat shorter and have no connection with the fastening means at the ends of the springs, each being independent of the other.

The springs *M N* connect respectively with the throwing lever *O* and the frame *L*, as shown in Fig. 2 of the drawings, the throwing lever being suitably pivoted to and between the bars *k* of the frame and has a suitable supporting shoe at its end to support the target as indicated at *X* in Fig. 3 of the drawings.

The shoe *q* of the lever extends between the stops *r* which form the lower end of the trough *I*, stops *s* secured to the inner sides of the trough are located a suitable distance from said stops so that a space between them will be left sufficient to allow the target to pass down in position to be taken up by the shoe *q* of the throwing lever *O*, as shown in Fig. 3 of the drawings.

Upon the under side of the shoe *q* of the throwing lever *O* is a catch or keeper *t* with which the pivoted latch *J* engages when the trap is set ready to be operated in projecting the target, the targets in the magazine automatically and successively taking their position in the trough to be taken up by the throwing lever as each target is thrown.

A trip-feed *P* is suitably pivoted to the trough and is spring actuated through the medium of the spring *u* connected thereto and to the platform-section *C*, as shown in Fig. 3 of the drawings, thus providing means for holding the trip-target as indicated at *Y* back in position until the trap is sprung to throw the target *X*.

In Fig. 3 of the drawings is shown the target projecting mechanism set ready to throw the target, and by pressing down upon the treadle *H* or other operating means employed, the sectional cable will be drawn in the direction of the arrows which will release the latch *J* from the catch or keeper *t* and allow the springs *M N* to operate the throwing lever *O* to project the target, the movement of the sectional cable as above set forth will draw inward the lower end of the bell-crank lever *K* giving tension to the springs.

In the above movement of the sectional cable the lug *v* on the cable-section *D* will strike the lower end of the pivoted latch *J* and release the latch from engagement with the catch or keeper *t* which action of the latch will release the throwing-lever *O* which is forced upward through the medium of the springs hereinbefore described thus throwing the target.

A yoke *Q* with buffer *w* is provided which is rendered adjustable on the frame *L* by

means of the bolt *x*, nut *y* and the series of perforations *z* in the lower ends of the yoke, and by this adjustment of the yoke the extent of the upward motion of the throwing lever *O* is regulated.

The yoke may be rendered adjustable in any well known manner and any means may be employed in place of the yoke that will act as a stop for the upward movement of the throwing lever, and any means may be employed to render the throwing lever spring actuated as found most desirable.

When the operator takes his weight off the treadle or foot lever *H*, the spring *N* will draw up on the bell-crank lever *K* drawing back the sectional cable and pushing up the spring *M*, which will draw down the end of the throwing-lever *O* which is to receive the target until the catch or keeper *t* is brought in engagement with the pivoted latch *J* at which time the target indicated at *Y* will take the place of the target *X* which has been thrown ready to be again acted upon by the throwing lever.

As soon as the end of the throwing-lever *O* moves upwards the end will be released from contact with the trip-feed *P* and the spring *u* will draw the feed downward allowing the target to automatically roll in position between the stops *r s* ready to be taken up by the shoe on the end of the throwing lever when brought down in position.

To obtain greater or less tension on the spring *M* in order to throw targets of different weight, the turn-buckle *F* is turned in the proper direction which will change the position of the lug *v* nearer to or farther from the latch *J*. This operation lengthens or shortens the cable-section *E* and consequently raises or lowers the foot-treadle or lever *H* to correspond with the necessary length of pull on said cable.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a target-trap, a magazine comprising an inclined trough to receive the targets, a suitable platform and an upright frame connected thereto, a throwing-lever pivoted to the frame, a bell crank lever pivoted to the frame, suitable springs connecting with the bell-crank lever and connecting with the throwing-lever and with the frame, a spring actuated feed device connecting with the trough, a latch device connecting with the throwing-lever, and an operating cable connected to the bell-crank lever and adapted to operate the latch device, substantially as and for the purpose specified.

2. In a target-trap, a magazine comprising an inclined trough, a platform and an upright frame connected thereto, a spring actuated throwing lever supported by the frame and adapted to receive the target, an adjustable yoke upon the frame to limit the

upward movement of the throwing lever, a
spring actuated feed device, and a latch de-
vice, a foot-treadle or lever, an operating
cable connecting with the throwing lever
5 and foot-treadle or lever and adapted to
operate the latch device, substantially as and
for the purpose set forth.

In testimony whereof I affix my signature
in presence of two witnesses.

PERCY J. HINDMARSH.

Witnesses:

ERNST HUNGER,
VICTOR SEYMOUR.