(No Model.) 2 Sheets—Sheet 1.

F. C. DAMM.

TARGET TRAP.

No. 477,927. Patented June 28, 1892.

Fig 1.

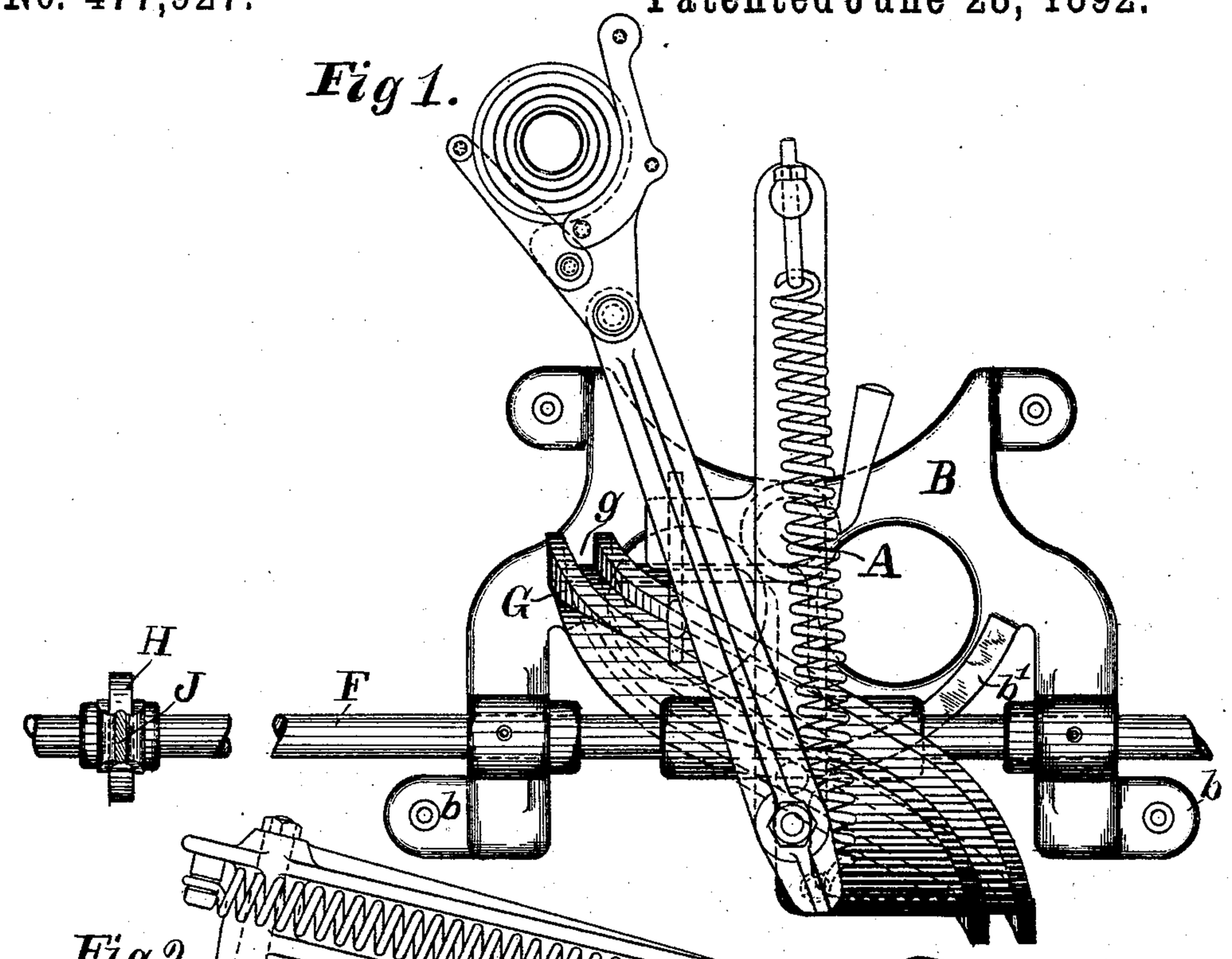
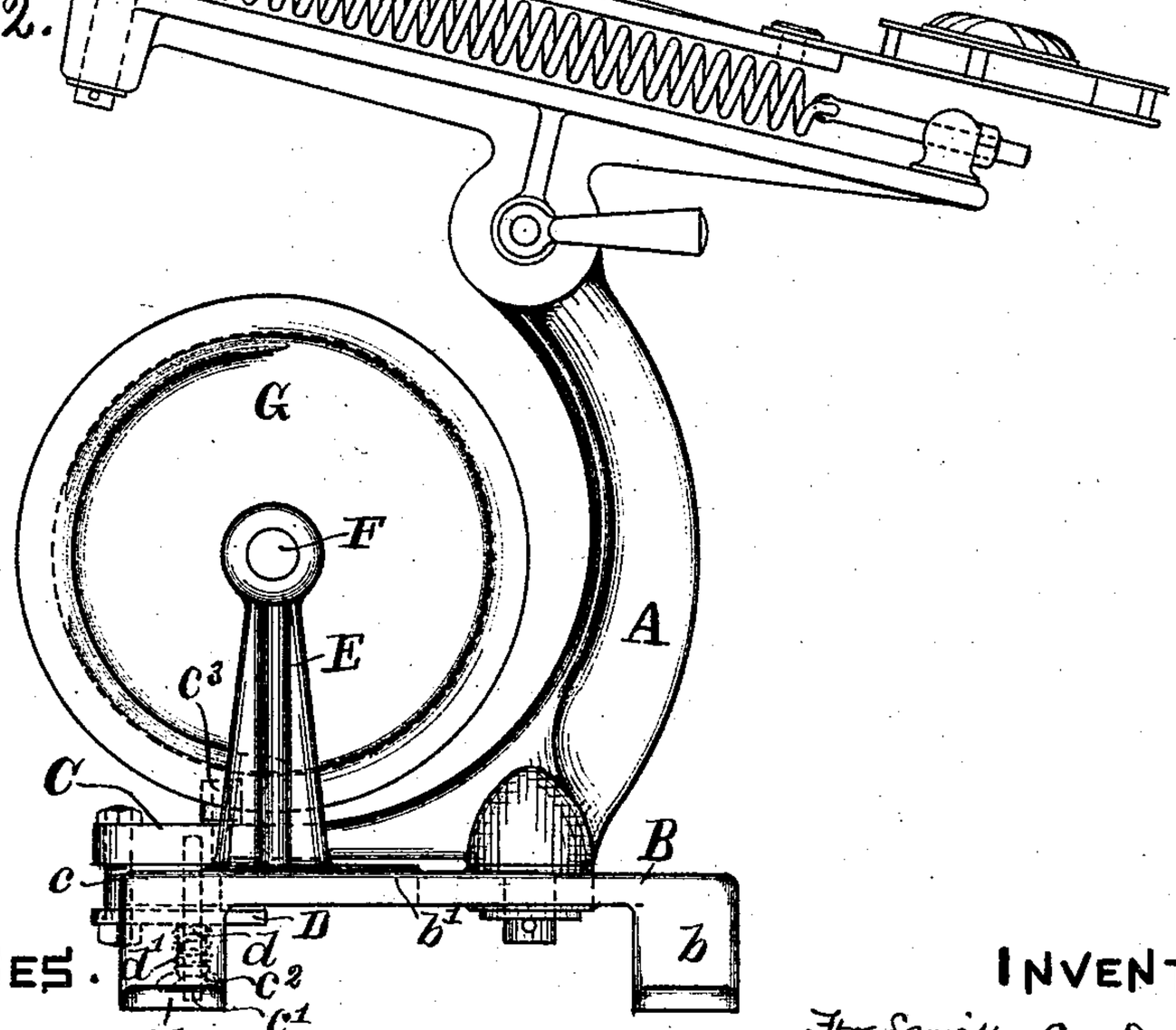


Fig 2.



WITNESSES.

Frank. Miller.

Albert H. Bates.

INVENTOR.

Frederick C. Damm

By his attorney

E. L. Thurston

(No Model.) 2 Sheets—Sheet 2.

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Fig 3.

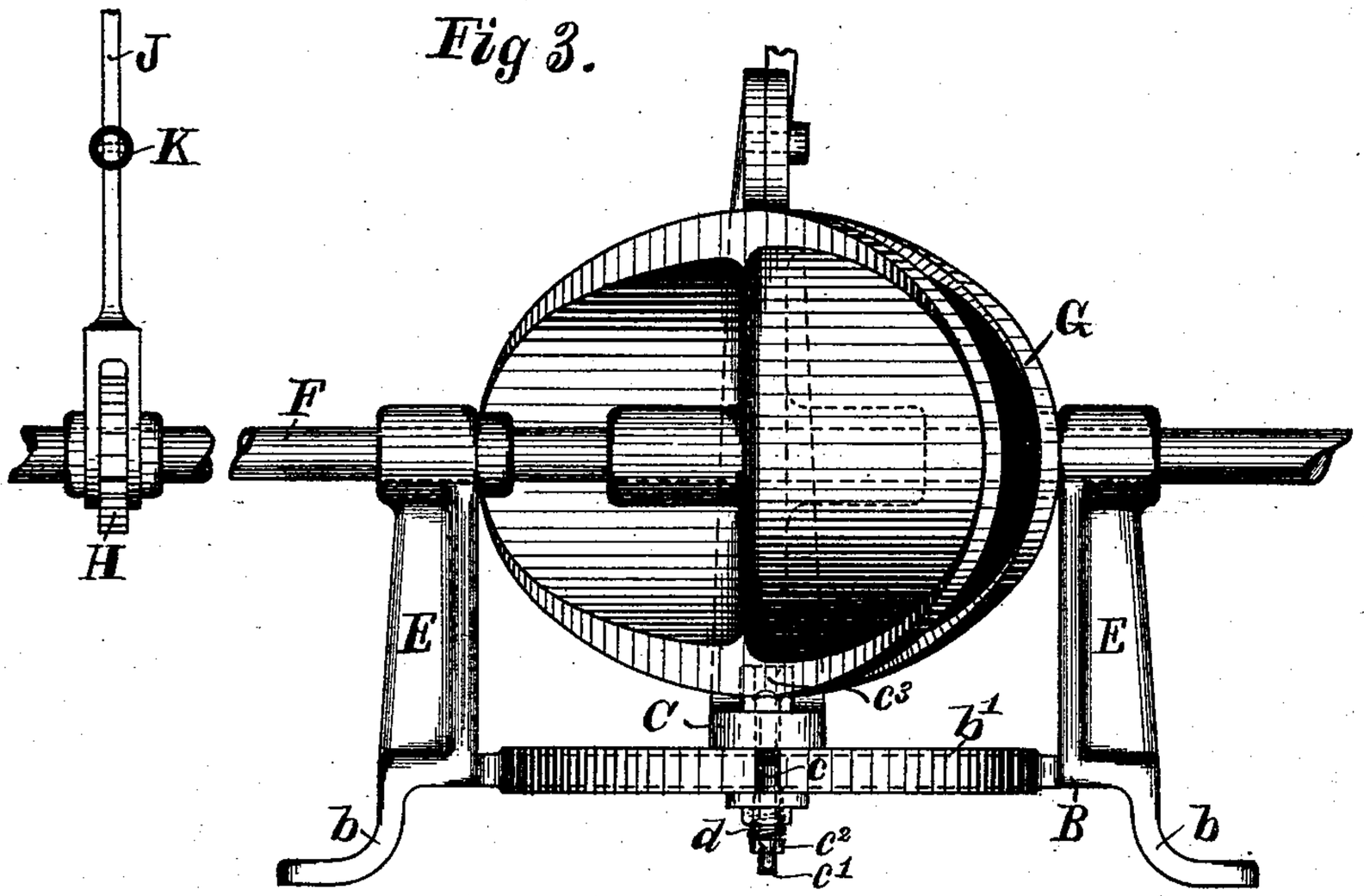


Fig. 5.

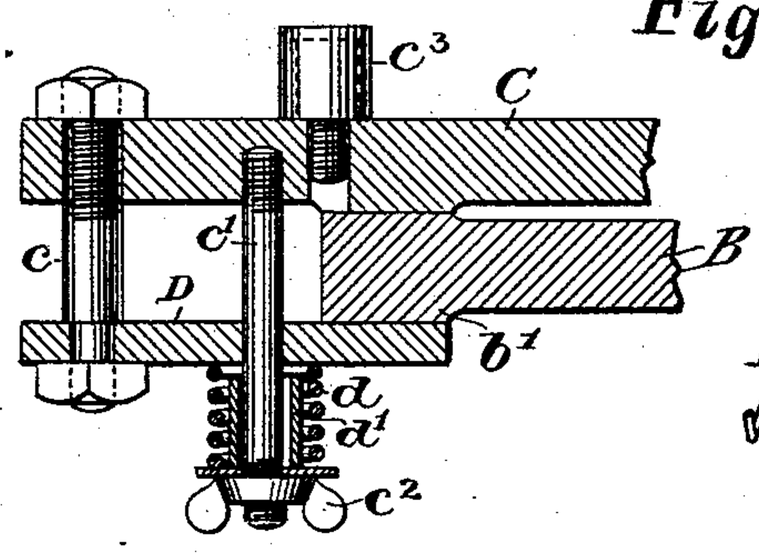
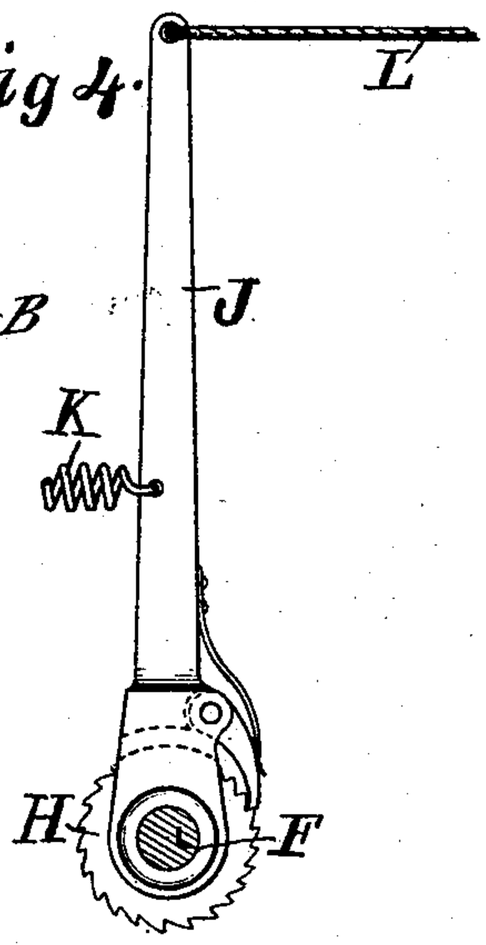


Fig 4.



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Frederick C. Damm

By his attorneys,

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UNITED STATES PATENT OFFICE.

FREDERICK C. DAMM, OF FINDLAY, ASSIGNOR TO THE CLEVELAND TARGET COMPANY, OF CLEVELAND, OHIO.

TARGET-TRAP.

SPECIFICATION forming part of Letters Patent No. 477,927, dated June 28, 1892.

Application filed June 27, 1891. Serial No. 397,676. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK C. DAMM, a citizen of the United States, residing at Findlay, in Hancock county and State of Ohio, have invented certain new and useful Improvements in Target-Traps, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of a trap containing my invention. Fig. 2 is a side elevation of said trap. Fig. 3 is a front view thereof with the throwing-arm and its operating mechanism removed, and Fig. 4 is a side view of the mechanism for operating the shaft. Fig. 5 is a vertical longitudinal sectional view of the outer end of the arm C and the parts connected and adjacent thereto.

My invention relates to traps for throwing the so-called "flying targets" or "artificial birds."

The objects of my invention are to provide means whereby the direction in which the target will be thrown by the trap may be instantly and easily changed as often as advisable, and, if desired, by an operator placed at a distance from the trap, and to provide means adapted to simultaneously change the direction of throw of a number of traps.

My invention consists in the construction and combination of parts hereinafter described, and pointed out definitely in the claims.

Referring by letters to the parts of the trap shown in the drawings, B represents the base of the trap, which is provided with legs *b b*, by means of which the base may be secured in a fixed position.

A represents a post, which supports the throwing-arm and its operating mechanism. The throwing-arm and its operating mechanism may be of any suitable construction. The post A is pivoted to the base B. Rigidly secured to the post, just above the base B, is an arm C. The base B, just beneath the outer end of the arm C, is in form of the arc of a circle of which the post-pivot is the center. Passing vertically downward from the outer end of the arm C is a bolt *c*, which serves to guide the vertical movement of a friction-plate D, which extends beneath the curved edge *b'* of the base B.

c' represents a threaded pin secured to the under side of the arm C and passing through the plate D. Surrounding the pin *c'* is a coil-spring *d*, which thrusts endwise against the plate D, and an adjustable thumb-nut c^2 on said pin. Inside the spring *d* and surrounding the pin *c'* is a loose sleeve *d'*. The nut c^2 may be screwed up or down, thereby causing the plate D to be pressed against the edge of the base B with a greater or less spring-pressure, or the nut may be screwed up until it forces the sleeve *d'* against the plate D with sufficient force to practically clamp the arm C to the edge of the base.

E E represent standards, in which are journaled the horizontal shaft F. Rigidly secured to this shaft is an inclined endless cam G, which engages with the arm C, whereby when the cam G is revolved the arm C and the post A, to which it is secured, oscillate back and forth through an arc of about one hundred and twenty degrees. In the construction shown this inclined cam is in the form of a diagonal groove *g*, and a friction-roller c^3, mounted on the arm C, operates in said groove.

At some convenient point on the shaft F a ratchet-wheel H is keyed, and a lever J, loosely mounted upon the shaft, bears a pawl adapted to engage with said ratchet. A contractile coil-spring K is attached at one end to some fixed point and at the other to the lever J. A cord L, which may be carried to and operated from any point, is secured to the lever. By pulling upon the cord the lever is drawn back, thereby revolving the shaft and cam G and turning the throwing-arm to the right or left, as the case may be. When the cord is slackened, the spring draws the lever backward.

With the above-described combination of parts an operator at any point can change the position of the throwing-arm and consequently the direction of its throw. The post A oscillates through an arc of only about one hundred and twenty degrees, so that the target is never thrown toward the shooter's stand. It is clear, also, that any number of traps may be set in line and connected to and operated by the same shaft and lever. No favoritism can be shown, because all of the

traps must be operated at one time, and it is clear that the operator cannot calculate on turning even one trap through any definite angle, since when the roller c^3 is in one part of the cam-groove the motion of the trap will be different from its motion when the roller is in another part of said groove, even when the lever J is moved through the same arc.

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

1. In a target-trap, the combination of a base and a post carrying the throwing-arm and its actuating mechanism pivoted to said base with a rotatable shaft, means for rotating it, a cam secured to said shaft, an arm rigidly connected with the post, and suitable connections between the said arm and cam, substantially as set forth.

2. The combination of a base, a post carrying the throwing-arm and its operating mechanism pivoted to said base, and an arm rigid with said post with standards secured to said base, a shaft mounted in said standards, a cam secured to said shaft and engaging with said arm, and means for rotating said shaft step by step, substantially as and for the purpose specified.

3. The combination of a base, a post pivoted thereto carrying the throwing-arm and its operating mechanism, an arm rigid with said post, and a friction-roller mounted on said arm with standards secured to said base, a shaft mounted in said standards, means for revolving said shaft step by step, a piece secured to said shaft having in its periphery an endless cam-groove in which the friction-roller is held, whereby the post is oscillated as the shaft is revolved, substantially as and for the purpose specified.

4. The combination of a base, a post carrying the throwing-arm and its operating mechanism pivoted to said base, and an arm rigid with said post with standards secured to said base, a shaft mounted in said standards, a cam secured to said shaft engaging with said arm, a ratchet-wheel secured to the shaft, a lever loosely mounted on the shaft, a pawl attached to the lever, and a spring for moving said lever in one direction, substantially as and for the purpose specified.

5. The combination of a base a part of the edge of which is in the form of a circular arc, a post carrying the throwing-arm and its operating mechanism pivoted to said base at the center of curvature of said curved part, and an arm rigid with said post and extending over the curved part of said base with a spring-actuated pressure-piece carried by said arm and adapted to press against said curved part of the base, substantially as set forth.

FREDERICK C. DAMM.

Witnesses:
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V. T. SPITTER.