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PATENTED OCT. 23, 1906.

C. D. LINDERMAN.

TARGET TRAP.

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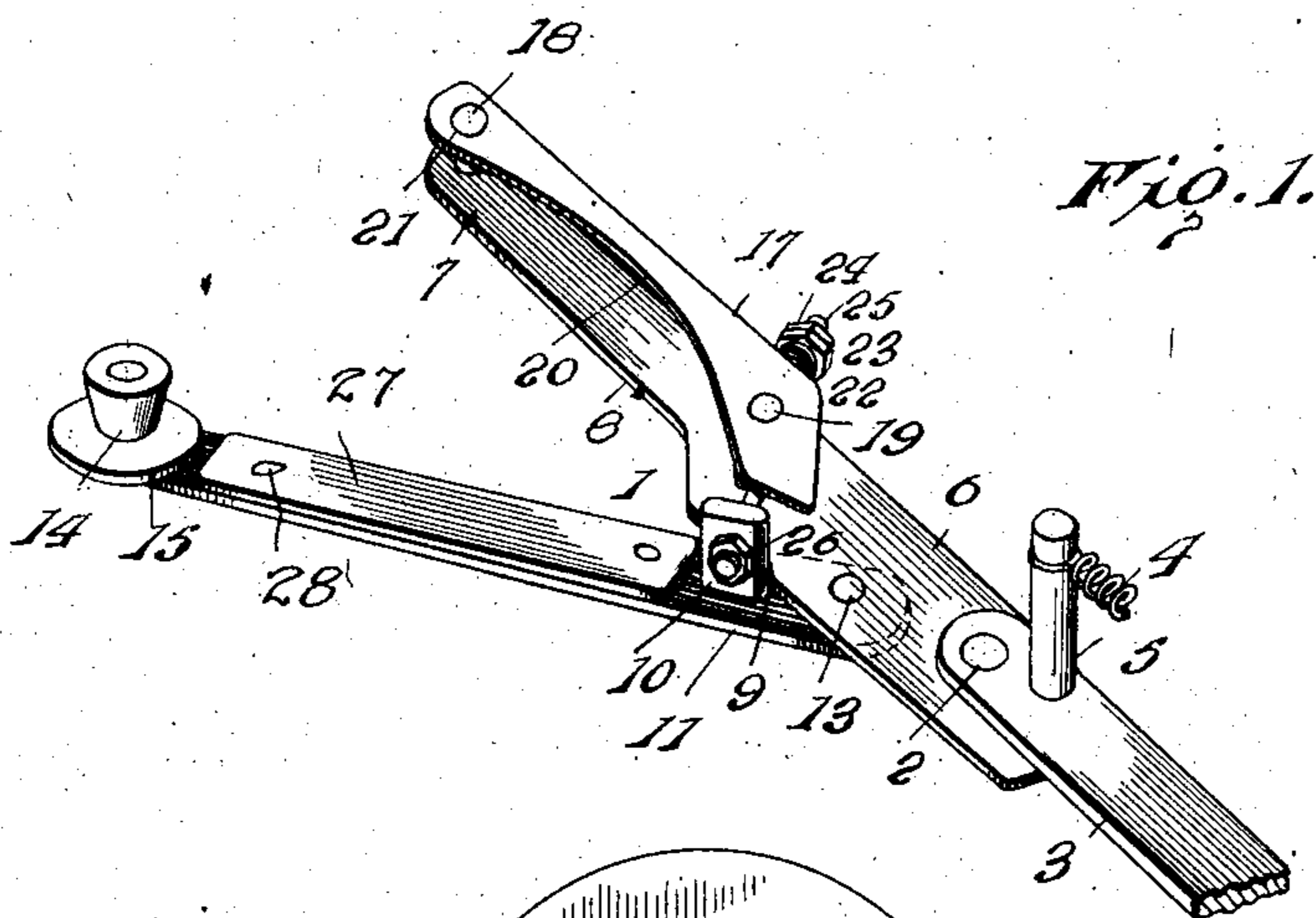


Fig. 2.

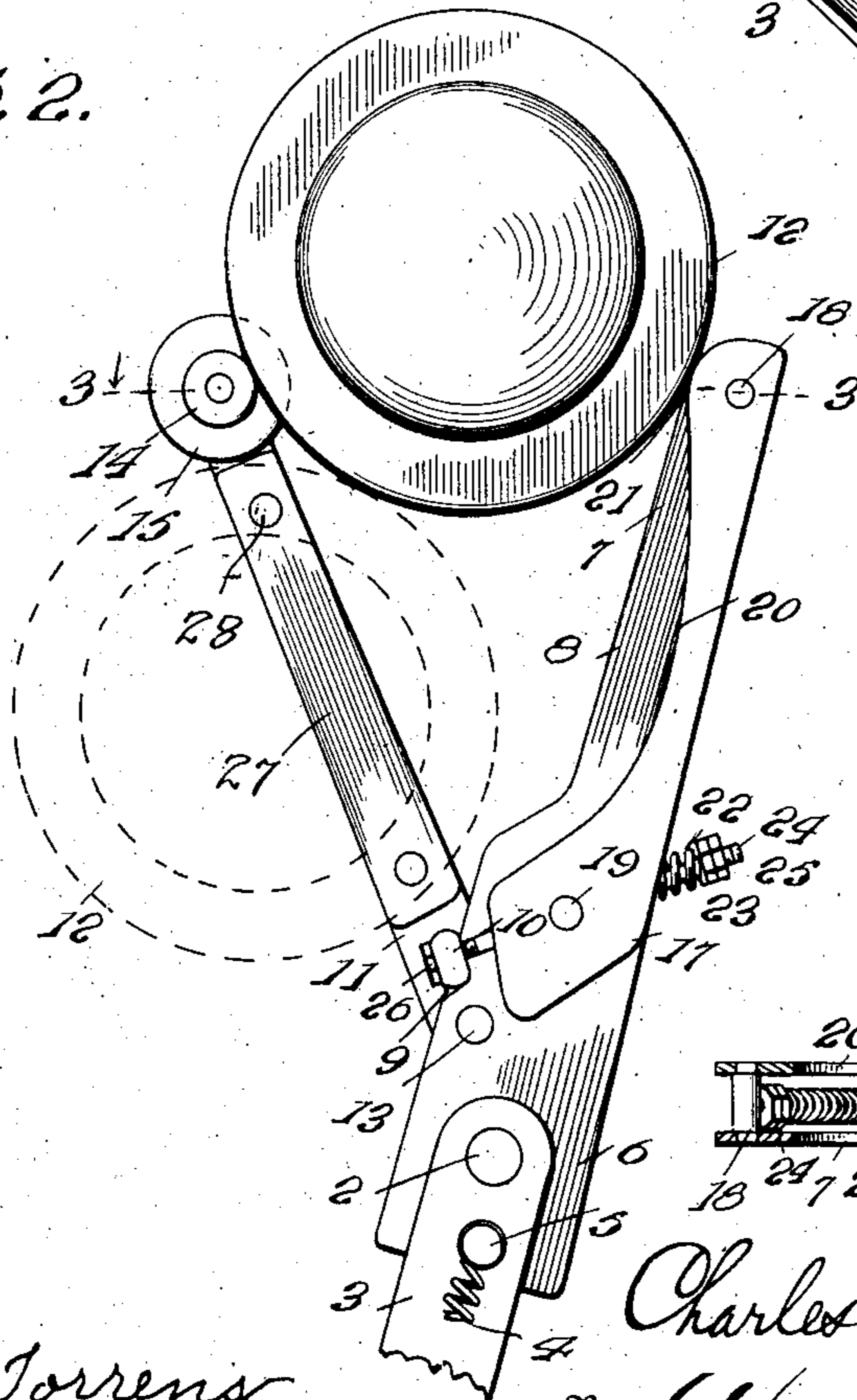
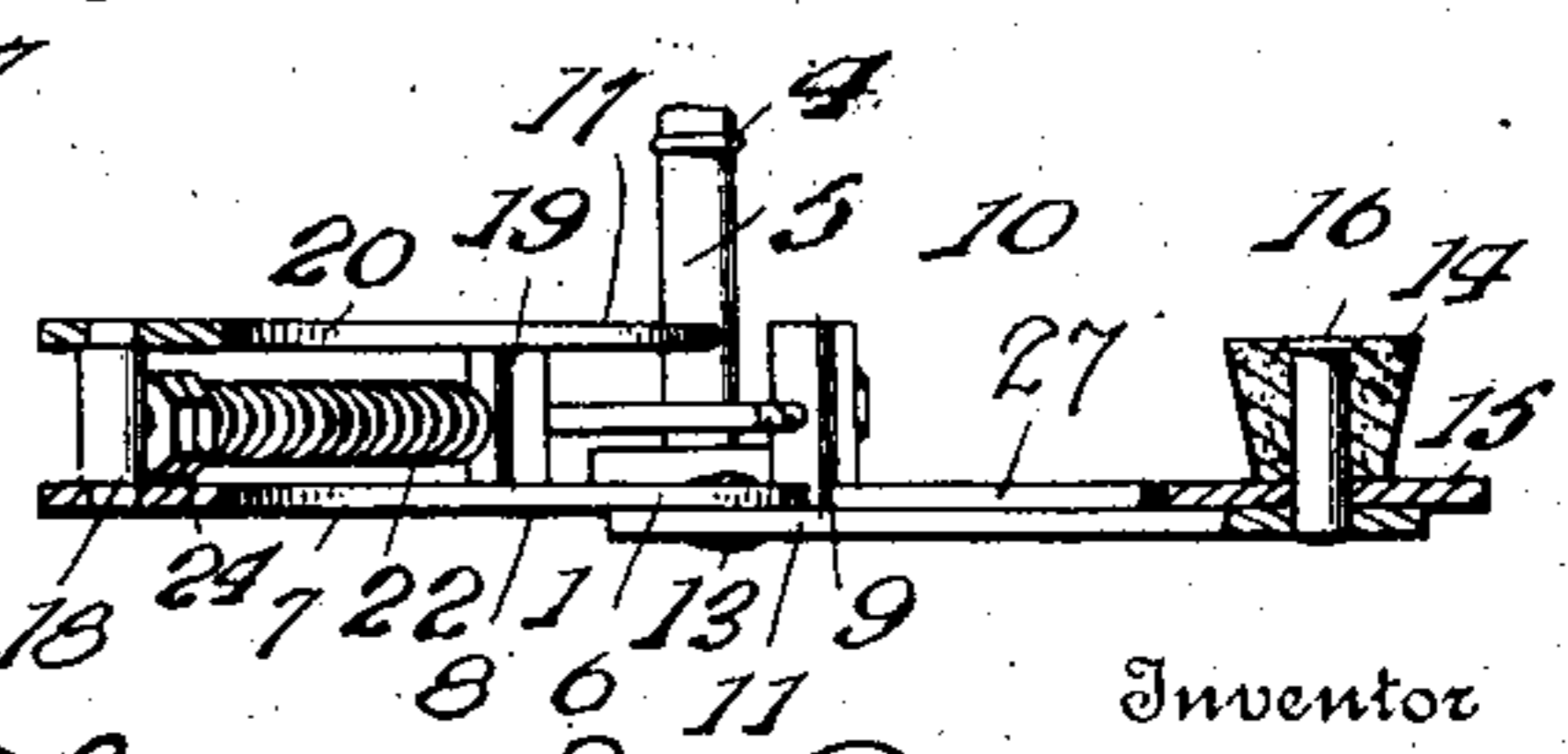


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES D. LINDERMAN, OF CORTLAND, NEBRASKA.

TARGET-TRAP.

No. 834,211.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed March 6, 1906. Serial No. 304,492.

To all whom it may concern:

Be it known that I, CHARLES D. LINDERMAN, a citizen of the United States, residing at Cortland, in the county of Gage and State of Nebraska, have invented certain new and useful Improvements in Target - Traps, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to target-traps, and more particularly to the swinging arms or carriers which hold the targets to be thrown by such traps.

The object of the invention is to provide a simple and practical device of this character in which the targets may be readily inserted without danger of breakage and by means of which they will be given a very fast rotary or spinning motion as they leave it and fly through the air.

Other objects and advantages of my invention, as well as the structural features by means of which these objects are attained, will be made clear by an examination of the specification, taken in connection with the accompanying drawings, in which the same reference-numerals designate corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view of the improved target carrier or holder. Fig. 2 is a top plan view of the same, showing in dotted lines the manner in which the target is inserted in the device and in full lines the manner in which it discharges the target; and Fig. 3 is a sectional view taken on the plane indicated by the line 3 3 in Fig. 2, the target being omitted.

Referring to the drawings by numeral, 1 denotes my improved target carrier or holder, which is pivotally mounted at 2 upon the usual swinging arm 3 of a target-trap of any description and held in an angular position with respect to said arm by the usual spring 4, connected at one of its ends to a post or stud 5 upon the body or main arm 6 of the carrier. This body or main arm 6, at one end of which is located the pivot 2, is in the form of a flat metal plate of substantially rectangular shape and having its other or free end 7 reduced in width by cutting away its inner edge 8 from its end 7 to about the center of the body. The inner edge 8 and the edge of the end 7 are rounded transversely,

and said end 7 is also rounded or curved longitudinally, as shown, for a purpose hereinafter to appear. The inner edge of the body 6 has formed in it adjacent to its pivoted or inner end a notch 9 to receive a stop stud or lug 10, provided upon a swinging spring-actuated arm 11, which latter co-acting with the body or main arm 6 to clamp the target 12 between them. The arm 11 consists of a straight narrow piece or strip of metal which has its inner end pivoted at 13 upon the under side of the body 6 adjacent to the pivot 2 and its outer or free end provided with a tapered or frusto-conical-shaped stop or head 14, of rubber or the like, and a circular metal plate or disk 15. This head 14 and disk 15 are secured upon the upper face of the free end of the arm 11 by a rivet or similar fastening 16 passed through said parts, and they are adapted to engage the target 12 as shown in the drawings, the target being of the usual circular form and having an annular shoulder. The target is retained in the carrier between the rubber head or stop 14 and a plate 17, which is secured to and spaced from the upper face of the body 6 by two studs or posts 18 and 19, the former being disposed at the outer end 7 of the body and the latter adjacent to its center. This plate 17 is of a peculiar shape. Its inner edge 20 is concave or curved, so as to impart to the target as it leaves the device a rapid rotary motion, and its outer edge is straight and disposed immediately above the outer edge of the body. The outer end 21 of the plate 17 is rounded, as shown, and its inner end is pointed or tapered. The swinging arm 11 is actuated toward the body or main arm 6 by a coil-spring 22, which surrounds a rod 23 and is confined between the stud or post 19 and a nut 24 upon the outer screw-threaded end 25 of said rod. The latter slides freely through an elongated opening or slot in the post 19 and has its other end passed through an opening in the stud or post 10 and carrying a head 26. It will be seen that by adjusting the nut 24 the tension of the spring may be varied to regulate the clamping action of the device upon the target. The portion of the arm 11 between the stud 10 and the head 14 is thickened, preferably by a plate or strip of metal 27, which is riveted, as at 28, upon the upper face of the said arm. This plate is of

such thickness that its upper or outer face lies in the same plane with the upper face of the body or main arm 6.

The operation of the invention is as follows:

5 The target is inserted between the two arms 6 and 11 at one side of the device, as indicated by the dotted lines in Fig. 2. It will be observed that the target is pushed over the thickened portion 27 of the arm 11 and
10 between the upper face of the arm 6 and the curved plate or strip 17, the rounded or beveled edge 8 of the arm 6 permitting the target to slide upon said arm without danger of breakage. The target when in position in
15 the carrier is clamped between the rubber stop 14 which engages its outer edge or periphery, and the curved edge 20 of the plate 17, which edge engages the circular or annular shoulder upon the target, as will be readily
20 understood. When the trap is discharged, a swinging motion with great force is imparted to the arm 3, and the centrifugal force produced by the swinging movement of the carrier will throw the target. As the latter
25 leaves the carrier, as seen in full lines in Fig. 2, it rolls upon the curved edge 20 of plate or strip 17 and will be given a very fast rotary motion to facilitate its flight through the air.

30 Having thus described my said invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination with the arm 3 of a target-trap, of the body or main arm 6 piv-
35 oted at 2 upon the arm 3 and having the outer portion of its inner edge 8 cut away

and curved, the inner portion of said edge being formed with the notch 9, the post 5 upon the arm 3, the spring 4 connected to said post, the plate 17 having its inner edge 20 curved 40 longitudinally, the studs 18 19 projecting from the upper faces of the arm 6 and secured to the plate 17 for spacing the latter above said arm 6, said post 19 being formed with a transverse opening, the pivot 13 depending 45 from the main arm 6 intermediate the post 19 and the pivot 2, the swinging arm 11 mounted upon the pivot 13 and engaged with the bottom of the main arm 6, the plate 27 secured upon the upper face of the arm 11, 50 the upper face of the plate 27 being in the same plane as the upper face of the main arm 6, the disk 15 and the rubber stop 14 secured upon the outer end of the arm 11, the stop-stud 10 projecting upwardly from the arm 11 55 and adapted to engage the notch 9 in said arm 6, said stop-stud being formed with a transverse aperture, the screw-rod 23 passed through the apertures in the stud 10 and post 19 and having a head at one of its ends 60 and screw-threads at its opposite end, a nut engaged with said screw-threads, and a coil-spring surrounding said rod 23 and confined between said nut and said post 19, substantially as shown and for the purposes set 65 forth.

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

CHARLES D. LINDERMAN.

Witnesses:

A. B. McNICKLE,
JAMES WINDLE.