

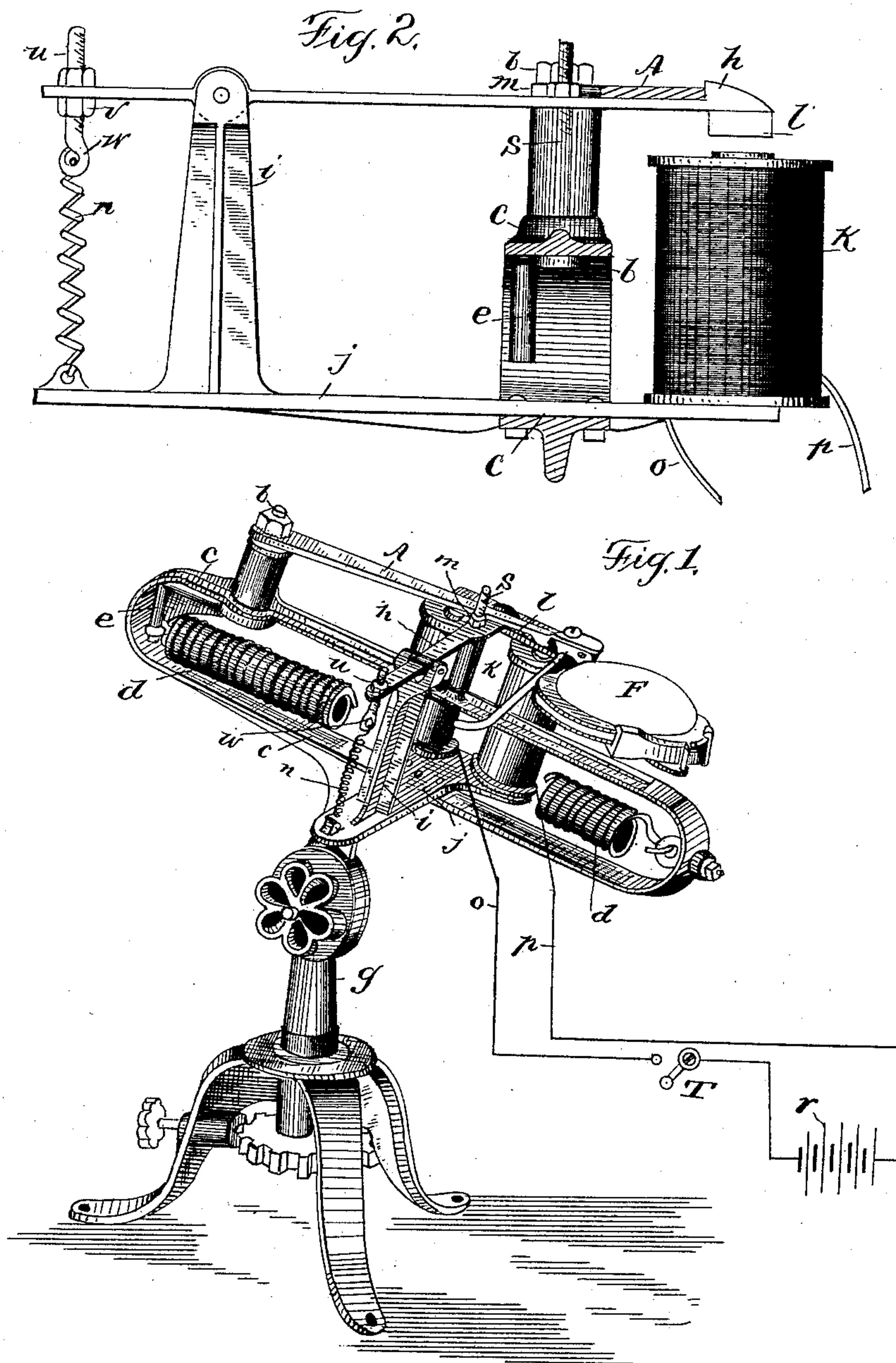
(No Model.)

J. B. BENNETT & F. W. SAMUELS.

TARGET TRAP.

No. 360,647.

Patented Apr. 5, 1887.



Attest

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UNITED STATES PATENT OFFICE.

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TARGET-TRAP.

SPECIFICATION forming part of Letters Patent No. 360,647, dated April 5, 1887.

Application filed July 17, 1886. Serial No. 208,336. (No model.)

To all whom it may concern:

Be it known that we, JOHN B. BENNETT and FRANK W. SAMUELS, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Flying-Target Traps, of which the following is a specification.

Our invention relates to an improvement in that class of flying-target traps used in practice-shooting in which the target is thrown by a spring-actuated throwing-arm which is retained in a set position by a catch-lever.

Heretofore in this class of traps the catch-lever has been withdrawn from the throwing-arm, and the target thereby thrown by pulling a cord secured to the catch-lever and extending therefrom to a distant station.

There are various objections to this method of springing the trap, particularly where several traps are used together, among which objections are the following: The cords or ropes leading from the various traps often become tangled; the stretching of the cords renders the instant of flight of the target uncertain; the shooter, by watching the ropes, can generally tell from which trap to expect the target, and the position of the trap cannot be changed relatively to the attendant without interfering with the action of the cord. The trap is also liable to be jerked out of position, thus changing and interfering with the flight of the target.

The object of our improvement is to remedy these and other difficulties.

The accompanying drawings illustrate our invention.

Figure 1 is a view in perspective of the entire device. Fig. 2 is an end elevation, on a larger scale, of the tripping mechanism as seen from the right, Fig. 1.

A is the throwing-arm, which is mounted on a short crank-shaft, *b*, mounted so as to turn in the frame *c*. Said throwing-arm is actuated by the spiral spring *d*, secured at one end to the frame and at the other end secured to the crank *e* of shaft *b*.

F is a target to be thrown. The frame *c* is mounted on a suitable standard, *g*. The construction thus far is common and well known. The throwing-arm is shown in the illustration in its set position ready for throwing the tar-

get. Said arm is held in its set position by the catch-lever *h*, which is pivoted to the standard *i*, which projects from a plate, *j*, secured to frame *c*, and carrying at its opposite end the electro-magnet *k*.

To that end of the catch-lever which engages the throwing-arm is secured an armature, *l*, and that end of the lever is drawn upward against an adjustable stop, *m*, on a rod, *s*, projecting from the frame, by a spring, *n*, the tension of which may be nicely adjusted by the nuts *u* and *v* on the eyebolt *w*, to which the spring is attached. Wires *o* and *p* form, with the battery *r*, an electric circuit, in which the magnet *k* is included.

The operation of our device is as follows: The stop *m* having been adjusted so as to bring the armature *l* as near the magnet as possible, and yet leave sufficient space for the movement of the catch-lever, the throwing-arm A is turned to the position shown, thus turning the crank-shaft *b* and extending the spring *d*. The target-throwing arm passes over the hooked end of the catch-lever *h*, and is engaged and held thereby. The marksman being in position, the attendant closes the electric circuit by means of a switch, T, or other suitable means; or it may easily be arranged so that the marksman can close the circuit by means of a switch or push-button operated by the foot. The catch-lever, carrying or forming an armature, or through the action of an armature in close proximity to the poles of the electro-magnet, is thus instantly drawn out of engagement with the target-throwing arm, and the target is thrown by the recoil of the spring *d*.

Although we describe herein a certain construction of a target-trap in detail, we do not wish to be understood as confining or limiting our invention to any special details of construction of the target-throwing mechanism, or to the special arrangement described of the electro-magnet, armature, and catch-lever, as these parts may be modified in many ways and produce the same result; but

We do claim as our invention--

1. In a flying-target trap, the combination, with the spring-actuated throwing-arm and the frame on which the throwing mechanism is mounted, of a catch-lever, an armature, an electro-magnet, and an electric circuit within which said magnet is included, all relatively

so arranged that the catch-lever is withdrawn and the throwing-arm is released by the movement of the armature when attracted by the electro-magnet, substantially as specified.

- 5 2. In a flying-target trap, the combination, with the spring-actuated throwing-arm, the frame on which the throwing mechanism is mounted, the catch-lever carrying an armature and arranged to engage and hold the throwing-arm when set for throwing, and an electro-magnet arranged to attract said armature, and

to thereby release the throwing-arm, of the adjustable stop and the tension-spring, whereby the catch-lever is adjusted relatively to the electro-magnet, substantially as and for the 15 purpose specified.

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Witnesses:

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