(No Model.)

J. J. KING.

BALL TRAP.

No. 304,654. Patented Sept. 2, 1884.

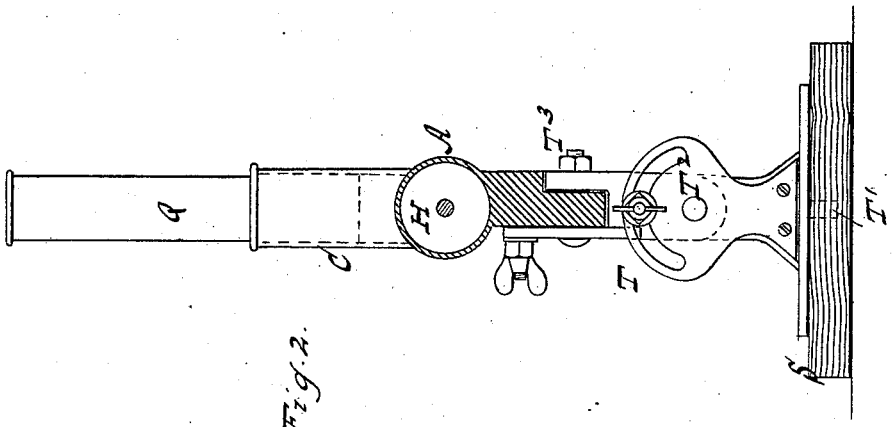

Fig. 2.

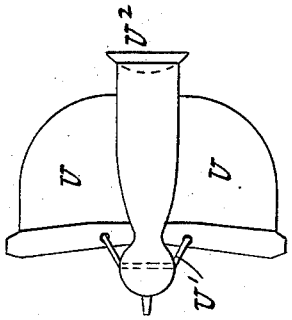

Fig. 3.

Fig. 1.

WITNESSES:

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JEREMIAH J. KING, OF NEW YORK, N. Y.

BALL-TRAP.

SPECIFICATION forming part of Letters Patent No. 304,654, dated September 2, 1884.

Application filed January 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH J. KING, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Traps for Throwing Clay Pigeons, of which the following is a specification.

This invention relates to spring-traps for throwing "clay pigeons," so called, and other similar objects into the air for target-shooting; and it consists in the novel construction and arrangement of parts hereinafter described, tending to promote the efficiency of such traps.

In the accompanying drawings, Figure 1 is a longitudinal section of a trap embodying my invention. Fig. 2 is a cross-section thereof. Fig. 3 is a sectional view of the clay pigeon preferably used.

Similar letters indicate corresponding parts.

The letter A designates a cylinder, which is closed at one end, as by means of a cap, B, and on the other or open end of which is a spout, C, which projects in a lateral direction substantially at a right angle to the cylinder, and is provided with a shoulder, D, at its junction therewith.

Into the cylinder A is fitted a piston, E, having a suitable packing to hug the inner surface of the cylinder, and between this piston and the closed end of the cylinder is arranged a spring, G, which acts on the piston with a tendency to impel it toward the open end of the cylinder. A rod, H, passes freely through the piston F, thus allowing the piston to move independently of it, and on the inner end of this rod is a head, I, for engaging the piston when the rod is drawn outward. Said piston-rod H, moreover, is of such length that when it is pushed to an extreme inner position it passes through and beyond the open end of the cylinder, as shown in Fig. 1, thus cleaning the piston in its operation, as hereinafter explained. A catch, J, is arranged in the side of the cylinder A to engage the piston F when it is drawn back against the spring G, and a trigger, K, is connected to this catch for retracting it, the trigger being exposed to the action of a spring, L, tending to hold it and the catch in a locking position. For allowing the trigger K to be operated from a distance, a cord, N, leading through a guide-pulley, O, may be used, and for manipulating the piston-rod H it is provided with a handle, P, at the outer end.

When the trap is applied to use, the pigeon or other projectile is inserted into a sheath, Q, which is fitted air-tight into the spout C; or it may be inserted directly into the spout, and the piston-rod H is drawn back until the piston F passes the catch J, when the rod is returned to an inner position, bringing its head I beyond the open end of the cylinder. The piston F is then released from the catch J, and in the ensuing motion thereof under the impulse of the spring G, the air in the cylinder is compressed, thus projecting the pigeon from the spout into the air. The motion of the piston F is regulated by the shoulder D, against which it strikes, in distinction from striking the pigeon, which is important, since the pigeon would otherwise be injured or destroyed, and to soften the contact of the piston with the shoulder the latter is furnished with a cushion, R, of india-rubber or other suitable material. The cylinder A and concomitants are supported on a base, S, by a frame, T, having three pivotal connections, $T' T^2 T^3$, whereby this cylinder may be adjusted to any desired angle, one such connection being vertical and the other or remainder horizontal. The lateral bending of the spout C greatly facilitates the operation of the trap, in that it enables the pigeon to be thrown vertically. The cylinder A being in a horizontal position when the spout is vertical, and the rear end moving upward when the spout is to be angularly adjusted, the piston-rod can still be conveniently drawn back, whereas, if the spout were straight and adjusted vertically with the cylinder, the piston-rod would not be accessible.

The pigeon which I use is made of plaster-of-paris or other similar material, with wings U, Fig. 3, both of which are connected to an elastic band, U', for spreading them when the pigeon emerges from the spout, and also with a packing, U^2, on the tail portion of the body.

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

1. The combination, substantially as hereinbefore described, of the cylinder closed at one end, the spout on the other or open end of the cylinder, having a shoulder at its junction

therewith, the piston fitted into the cylinder, the piston-impelling spring, the piston-rod passing freely through the piston and through and beyond the open end of the cylinder, the head on the inner end of the piston-rod, the catch arranged in the side of the cylinder to engage the piston, and the trigger for retracting the catch.

2. The combination, substantially as herein-before described, of the cylinder closed at one end, the spout on the other or open end of the cylinder bent laterally substantially at right angles to the cylinder, for the purposes specified, and having a shoulder at its junction with the cylinder, the piston, the piston-impelling spring, the piston-rod, the catch, and the trigger.

3. The combination, substantially as herein-before described, of the cylinder and the spout bent laterally substantially at right angles to the cylinder, for the purposes specified, with the piston, the piston-impelling springs, the catch and trigger, and the supporting-frame having the three pivotal connections, one vertical and the others horizontal.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JEREMIAH J. KING. [L. S.]

Witnesses:
W. HAUFF,
CHAS. WAHLERS.