

I. A. PAINE.
BALL-THROWER.

No. 175,870.

Patented April 11, 1876.

Fig. I.

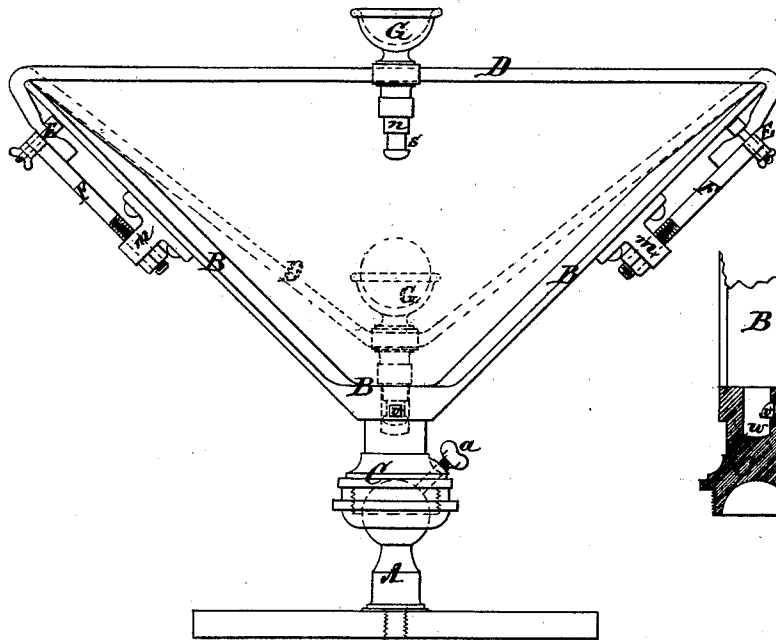
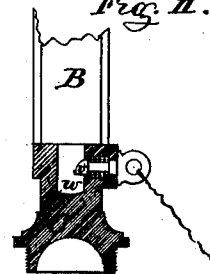


Fig. II.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BALL-THROWERS.

Specification forming part of Letters Patent No. **175,870**, dated April 11, 1876; application filed March 6, 1876.

To all whom it may concern:

Be it known that I, IRA A. PAINE, of New York, in the State of New York, have invented a new and useful Ball-Thrower, of which the following is a specification:

The nature of my invention consists in the arrangement of an elastic cord or cords on a suitable frame, and provided with a cup capable of containing the ball to be thrown.

In the lower part of the frame a recess is made, into which the foot of the cup fits, and is held by a spring-catch, which, on being released, will cause the cup to fly upward, on account of its connection with the elastic cords, and thus propel or throw the ball; and, further, in arranging a ball-joint between the bottom of the frame and the foot or stand of the machine, for the purpose of throwing the ball in any desired direction.

The object of my invention is a machine for throwing balls, which I prefer to make of glass, in any desired direction, to be shot at with a shot-gun, to teach and practice pigeon-shooting.

In the accompanying drawing, Figure I represents a front view of the machine, embodying my invention. Fig. II is a cross-section of a part of the same.

A is the stand or base of the machine, and B the frame, consisting of two diverging arms joined near the bottom. This frame B is attached to the base or stand A by means of a ball-joint, C, arranged with a suitable set-screw, *a*, to fasten and fix the frame at any desired angle or inclination. Over the ends of the arms elastic bands or cords D are stretched, fastened to screw-clamps E, provided with bolts F, to attach the same to lugs or projections *m*, fast on the outsides of the arms.

By this arrangement the elastic cords or bands D may, by means of these bolts F, be stretched more or less, as may be desired, and consequently the ball be thrown with greater or less velocity.

In the center of the elastic cords a cup, G, is firmly secured, the foot or end *n* of which

fits into a corresponding hole, *w*, in the lower part of the frame B. In this hole *w* a spring-catch, *v*, is arranged, whose end fits into the recess *s* in the foot *n* of the cup G. To the outer projecting end of this spring-catch *v* a cord is attached, for the purpose of pulling said catch *v* out of the recess *s*, and thus liberate the cup G, so as to be acted upon by the power of the elastic cords.

The operation of the machine is as follows: The cup G is pressed downward, so that its foot *n* enters the hole *w* in the lower part of the frame B, and is there held fast by the spring-catch *v*, entering the recess *s* in the foot *n* of the cup. The ball to be thrown is then placed into the cup G, as shown in dotted lines in Fig. I. When the string attached to the outer end of the catch *v* is pulled the cup G will be liberated, when the action of the elastic cords D will force the cup G, together with its ball, upward, and thus propel or throw the latter a considerable distance, to act as a target for the person to shoot at, similar to the rising of pigeons out of a trap.

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

1. The combination of a frame, B, having diverging arms, with elastic cords D, provided with a cup, G, or a similar receptacle for a ball, attached in their center, and the spring-catch *v*, entering a recess or hole, *w*, in the bottom of the frame, substantially in the manner and for the purpose described.

2. In combination with a frame, B, provided with elastic cords D, the screw-clamps E and tightening-bolts F, arranged in the manner and for the purpose set forth.

3. In combination with a frame, B, arranged and constructed as above described, and its foot or stand A, the ball-joint C, and set-screw *a*, substantially in the manner and for the purpose specified.

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Witnesses:

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