This invention relates to a manually operated foot target thrower for throwing targets into the air. Specifically, the invention relates to a device for use in target shooting.

Manually operated target throwers are many in number, and varied in structure. In target throwing for practice shooting, it is desirable to obtain adjustability in the flight pattern of the target. Generally, in stationary target throwers, this is accomplished by a considerably complicated mechanism. It would obviously be impossible to incorporate this complicated mechanism into manually operated portable target throwers.

Thus it is a primary object of the invention to provide a manually operated portable target thrower wherein adjustability of the flight of the target is easily obtained.

It is further an object of the invention to provide a target thrower light in weight such that it is portable.

It is further an object of the invention to provide a target thrower adaptable to foot operation.

It is further an object of the invention to provide a target thrower having means for holding and throwing one or more targets.

It is further an object of the invention to provide a portable target thrower which is stable and can be placed on the ground and used without the necessity of fixtures to hold the thrower stationary.

These and further objects will become apparent in view of the following description and accompanying drawing.

In the drawing:

Figure 1 is a perspective view of the invention; Figure 2 is a top view of the invention.

Referring to the drawing, the invention comprises a base 1 upon which the thrower is mounted. The base is stabilized by a cross arm or stabilizer 2 when the device is in operation. A steel form 5 is attached to the base as shown.

A primary element of the foot target thrower is the U-shaped wire spring member 6. As can be seen from either of Figures 1 or 2, the free ends of the steel spring are inserted into cylindrical holders 7 attached to the lower front end of the steel form 5. The cylindrical holders merely comprise two metal tubes open at both ends. The cylindrical holders are located such that the steel spring extends from the holders in a forward and upward direction and is then deformed rearwards about the steel form. The base of the U-shaped steel spring provides a means to which the foot release member 9 can be hooked. This foot release member comprises an L-shaped portion pivotally attached to the base as shown, and an arm 9, also L-shaped in the manner shown to hook over the base of the wire spring. The arm is attached to the foot release in such a way that it is vertically adjustable. The present invention envisions using two bolts in the upstanding portions 8 and 9 of the foot release for fine adjustment.

At the forward end of the steel form a rubber bumper 12 is attached by means of a bolt bolted to the frame and wing nut 13. The rubber bumper in one form comprises merely a cylindrical rubber washer shaped in the manner shown. The metallic washer 14 is placed between the wing nut and the rubber bumper.

Several features of the invention should now be evident. The drawing shows a single clay pigeon 15 placed on the U-shaped wire spring. In target shooting, it is often desirable to require simultaneous flight of more than one target. It should be evident that 2 or more targets could be placed on the thrower at one time. It should be further obvious that tension in the spring can be varied by adjusting the vertical height of the foot release member. Thus the targets can be thrown a shorter or longer distance as desired. Finally, adjustability is obtained by placing the target either towards the front or towards the rear of the U-shaped wire spring. By placing the target towards the rear of the U-shaped spring, a higher angle of flight is obtained. Obviously placing the target towards the front of the U-shaped spring provides a lower angle of flight. It should be noted that this ease of adjustability of flight is obtained without the necessity of special holders for the targets. The distance between the parallel arms of the U-shaped spring is such that a target can easily and with stability be set thereon.

Operation of the foot thrower is as follows:

The U-shaped wire spring is bent rearwards around the form and gripped by the foot release arm 9. The targets are placed on the spring, which is then released by pressing the foot on the portion 16 of the foot release. The rubber bumper 11 provides the necessary shock absorption when the spring is released.

It is also to be understood that the scope of the invention is not to be limited to the specific embodiment described and illustrated in the specification and drawing. Having thus described the invention, what is claimed as new is:

A target thrower comprising a base member, a resilient throwing arm, a form means attached to said base about which said throwing arm is deformed, said throwing arm comprising a U-shaped rod, cylindrical holder means attached to the lower front portion of said form for holding the free ends of said U-shaped rod, said form means being shaped such that said rod extends from said holding means forward and upwards and is then deformed rearwards, rubber bumper means attached to the front portion of said form to absorb the shock from said throwing arm, and foot lever hook means pivotally attached to the rear of said base to hold and release the rearmost portion of said throwing arm, said foot lever hook means being adjustable in length to control the amount of deformation of said throwing arm.

References Cited in the file of this patent

UNITED STATES PATENTS

243,222 Davenport June 21, 1881
257,469 Card May 9, 1882
1,115,148 Zimmerman Oct. 27, 1914
1,912,360 Blanchard June 6, 1933
2,653,592 Sowitsky Sept. 29, 1953

FOREIGN PATENTS

101,499 Great Britain Sept. 28, 1916