No. 647,038. Patented Apr. 10, 1900.

E. SHERMAN.

TARGET TRAP.

(No Model.) (Application filed May 19, 1898.)

Fig. 3.

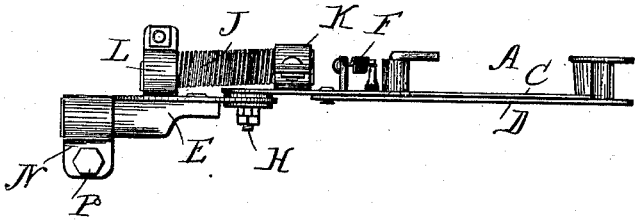


Fig. 2.

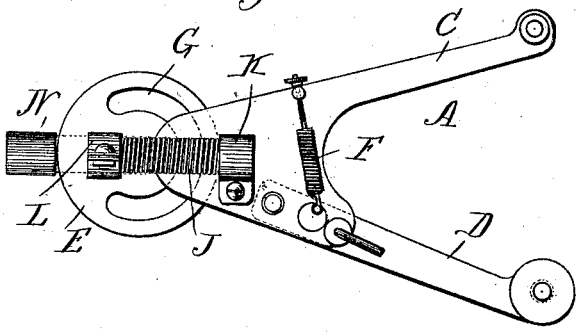
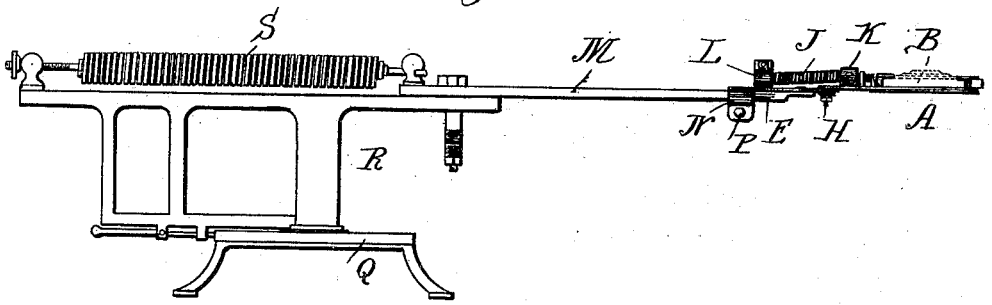


Fig. 1.



Witnesses.
Chas. W. Whitfield
E. C. Semple

Inventor
Elisha Sherman
by Brown & Darby
Atty's.

UNITED STATES PATENT OFFICE.

ELISHA SHERMAN, OF LEAVENWORTH, KANSAS.

TARGET-TRAP.

SPECIFICATION forming part of Letters Patent No. 647,038, dated April 10, 1900.

Application filed May 19, 1898. Serial No. 681,104. (No model.)

To all whom it may concern:

Be it known that I, ELISHA SHERMAN, a citizen of the United States, residing at Leavenworth, in the county of Leavenworth and State of Kansas, have invented a new and useful Improvement in Target-Traps, of which the following is a specification.

This invention relates to target-traps.

One object of the invention is to provide means for efficiently supporting and adjusting the target-carrier whereby the inclination of flight of the target may be regulated without disturbing the position or sweep of the arm upon which the carrier is mounted.

Other objects of the invention will appear more fully hereinafter.

The invention consists, substantially, in the construction, combination, location, and relative arrangement, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally specifically pointed out in the appended claims.

Referring to the accompanying drawings and to the various views and reference-signs appearing thereon, Figure 1 is a view in side elevation of a target-trap embodying the principles of my invention. Fig. 2 is a detached detail view in plan of the target-carrier on an enlarged scale. Fig. 3 is a side elevation of the same.

The same part is designated by the same reference-sign wherever it occurs throughout the several views.

In the construction of target-traps it is important to provide means whereby the inclination of the carrier, and hence of the target when held in the trap, may be adjusted in order that the inclination of flight of the target when projected from the trap may be varied. Heretofore the change in inclination relative to a horizontal plane of the target-carrier has been secured by constructing the frame of the trap in hinged sections, the axis of the hinge or pivot being horizontal, thus enabling the frame which carries the projecting-arm, to which the carrier proper is pivoted, to be tilted vertically. This construction is open to many disadvantages. For instance, it is objectionable to construct the framework of the target in sections pivoted together on account of the expense involved in such construction. Moreover, such construction involves a tilting vertically of the arm upon which the carrier proper is mounted, and the tilting of this arm out of its normal or horizontal position decreases the sweep described by such arm when the trap is sprung, and hence decreases the efficiency of the trap in its throwing qualities. Again, by merely tilting the throwing-arm vertically the inclination of the bird or target relative to the plane of movement of the projecting-arm is not varied—that is to say, the carrier proper, in which the target or bird is mounted, is tilted with the projecting-arm, but does not change inclination relative to such arm or relative to the plane in which such arm moves. This is objectionable, because by merely tilting the projecting-arm without varying the angle between the target-carrier and the plane of movement of the projecting-arm the best results of the trap in elevating the target or bird are not secured. In other words, a desirable elevation of flight of the bird or target is not thereby secured.

It is the special purpose of the present invention to provide a construction and arrangement of target-traps wherein the objections above noted are removed and avoided, and wherein a simple, efficient, and economical apparatus is produced, and wherein the desired variation in elevation of the flight of the target or bird is secured by varying the inclination of the carrier proper relative to the plane of movement or sweep of the projecting-arm and without varying the inclination of such arm, and hence without varying the extent of sweep of such arm or its projecting power.

I have shown in the accompanying drawings illustrative means embodying the principles above set forth and as the best form of means in which I at present contemplate embodying such principles, though I desire it to be understood that the invention is not limited or restricted to the exact details of construction therein shown.

In the particular form shown reference-sign A designates the carrier proper. This may be of any suitable or convenient form of construction adapting it to receive the target or bird B, as indicated in dotted lines in Fig. 1. As the invention does not reside in the specific construction of the holding parts

of the carrier, I have shown a common form of carrier, comprising the arm C, to which is pivoted the arm D, the bird or target being held in the fork between such arms in the usual manner, a spring F being arranged to yieldingly press the pivoted member D of the carrier toward coöperating member C.

Reference-sign E designates the carrier-plate. This carrier-plate is provided with a circular slot G, in which freely rides a bolt or projection H, from the inner end of carrier A. A stout coiled spring J is rigidly connected at one end in any suitable manner to the carrier A, as shown at K, and at the other end to the carrier-plate E, as shown at L. From this construction it will be observed that the carrier A has free movement relative to the carrier-plate, and not being pivoted to such plate and its only connection with such plate being through spring J such carrier has a freedom of movement relative to the carrier-plate, owing to the flexibility of spring J, which is desirable in securing the best results in projecting and releasing the bird or target. Carrier-plate E is mounted in any suitable manner upon the free end of arm M of the trap, so as to permit axial or rotary adjustment relative to said arm. This adjustment may be secured by providing the carrier-plate E with a divided sleeve N, adapted to receive the end of arm M, and a suitable bolt P serves to clamp sleeve N, and hence also carrier-plate E, in adjusted position axially or rotarily relative to arm M and upon such arm. By this construction it will be readily seen that the inclination of carrier A relative to the plane of movement of arm M may be readily regulated, thus varying and regulating the inclination of the flight of the target or bird without varying or affecting the angle of movement of arm M. In other words, the plane of movement of arm M, and hence the extent of its sweep and its projecting efficiency, is not altered, the desired variation in the angle of the flight of the bird or target being secured by varying the inclination of the carrier relative to the plane of sweep of arm M.

Projecting-arm M may be actuated in any suitable or convenient manner; but I desire it to be understood that my invention is not limited or restricted to the particular form or arrangement of means for actuating the projecting-arm, and my invention is applicable to any specific form of trap. In the particular form shown an ordinary and usual construction and arrangement of means for actuating arm M is disclosed, wherein Q is the base, R the frame, suitably mounted thereon, and S the tension-spring through which the actuation of arm M is effected.

The operation of my invention will be readily apparent to persons skilled in the art from the foregoing description, taken in connection with the accompanying drawings.

Many variations and changes in the specific construction and arrangement embodying the principles of my invention may be made without departure from its spirit or scope. While, therefore, I have shown and described a preferred construction illustrating an embodiment of my invention, I do not desire to be limited or restricted thereto; but,

Having set forth the object and nature of my invention and a form of apparatus embodying the same and having described the construction, function, and mode of operation thereof, what I claim as new and useful and of my own invention, and desire to secure by Letters Patent of the United States, is—

1. In a target-trap, a bird or target projecting arm and means for actuating the same, in combination with a carrier, loosely mounted on the free end of said arm for movement relative thereto and means for adjusting the inclination of such carrier relative to the plane of movement of such arm, as and for the purpose set forth.

2. In a target-trap, a bird or target projecting arm and means for actuating the same, a carrier-plate mounted on said arm for rotary or axial adjustment relative thereto, and a carrier flexibly connected to such plate, as and for the purpose set forth.

3. In a target-trap, a bird or target projecting arm and means for actuating the same, in combination with a carrier-plate having a sleeve adapted to receive the end of said arm, whereby the plane of inclination of such carrier-plate relative to the plane of movement of such arm may be varied, and a carrier flexibly connected to such plate, as and for the purpose set forth.

4. In a target-trap, a bird or target projecting arm, a carrier-plate, a carrier mounted and guided upon said plate, and a spring attached at one end to said plate and at the other end to said carrier, for yieldingly holding said carrier to said plate, as and for the purpose set forth.

5. In a target-trap, the combination with a bird or target projecting arm, of a carrier loosely connected thereto, and a spring rigidly connected at one end to said carrier and at the other end to said arm, the tension of such spring being exerted in a line longitudinal with respect to such arm, as and for the purpose set forth.

6. In a target-trap, the combination with a projecting-arm, of a carrier, a spring forming the connection between such arm and carrier, and a guide for said carrier, as and for the purpose set forth.

7. In a target-trap, a carrier-plate provided with a circular slot, a carrier, a spring connected at one end to said carrier-plate and at the other end to said carrier, a projection carried by said carrier and arranged to operate in said slot, and a projecting-arm to which said carrier-plate is connected, as and for the purpose set forth.

8. In a target-trap, the combination with a projecting-arm and operating mechanism therefor, of a carrier-plate removably attached to said arm, a carrier having free movement relative to said carrier-plate, and a spring connected to said plate and to said carrier, as and for the purpose set forth.

In witness whereof I have hereunto set my hand, this 12th day of May, 1898, in the presence of the subscribing witnesses.

ELISHA SHERMAN.

Witnesses:
A. A. TROEM,
GA. J. CHAPLIN.