

No. 706,342.

J. C. PORTERFIELD.
HAND TRAP.

Patented Aug. 5, 1902.

(Application filed Apr. 6, 1901.)

(No Model.)

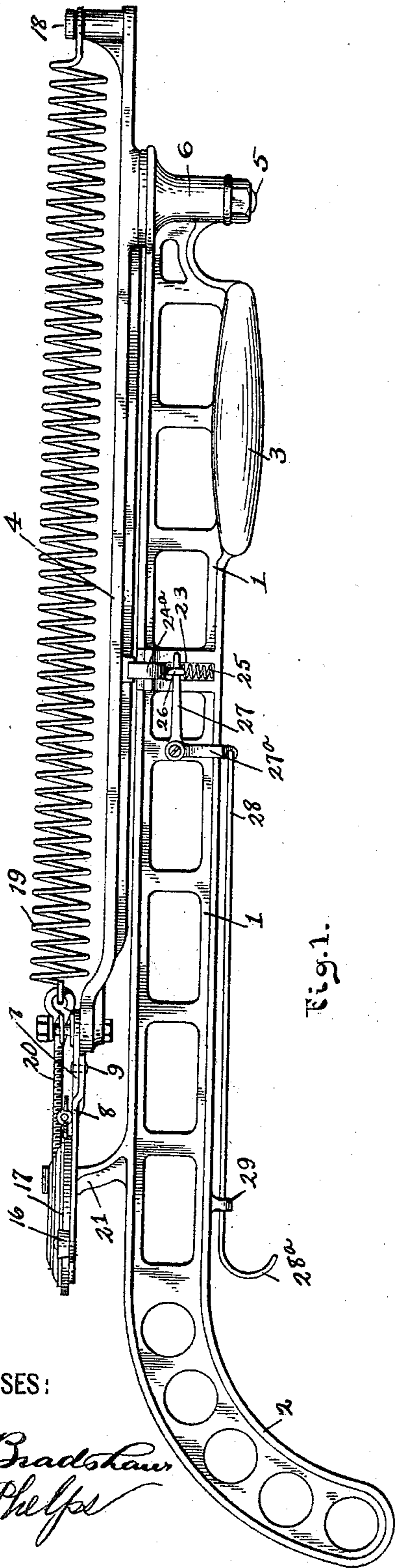


Fig. 1.

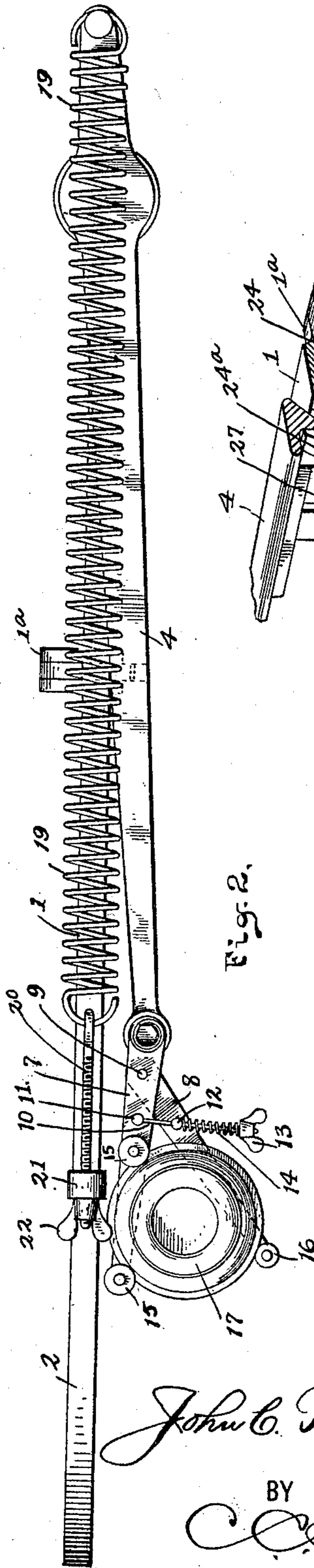


Fig. 2.

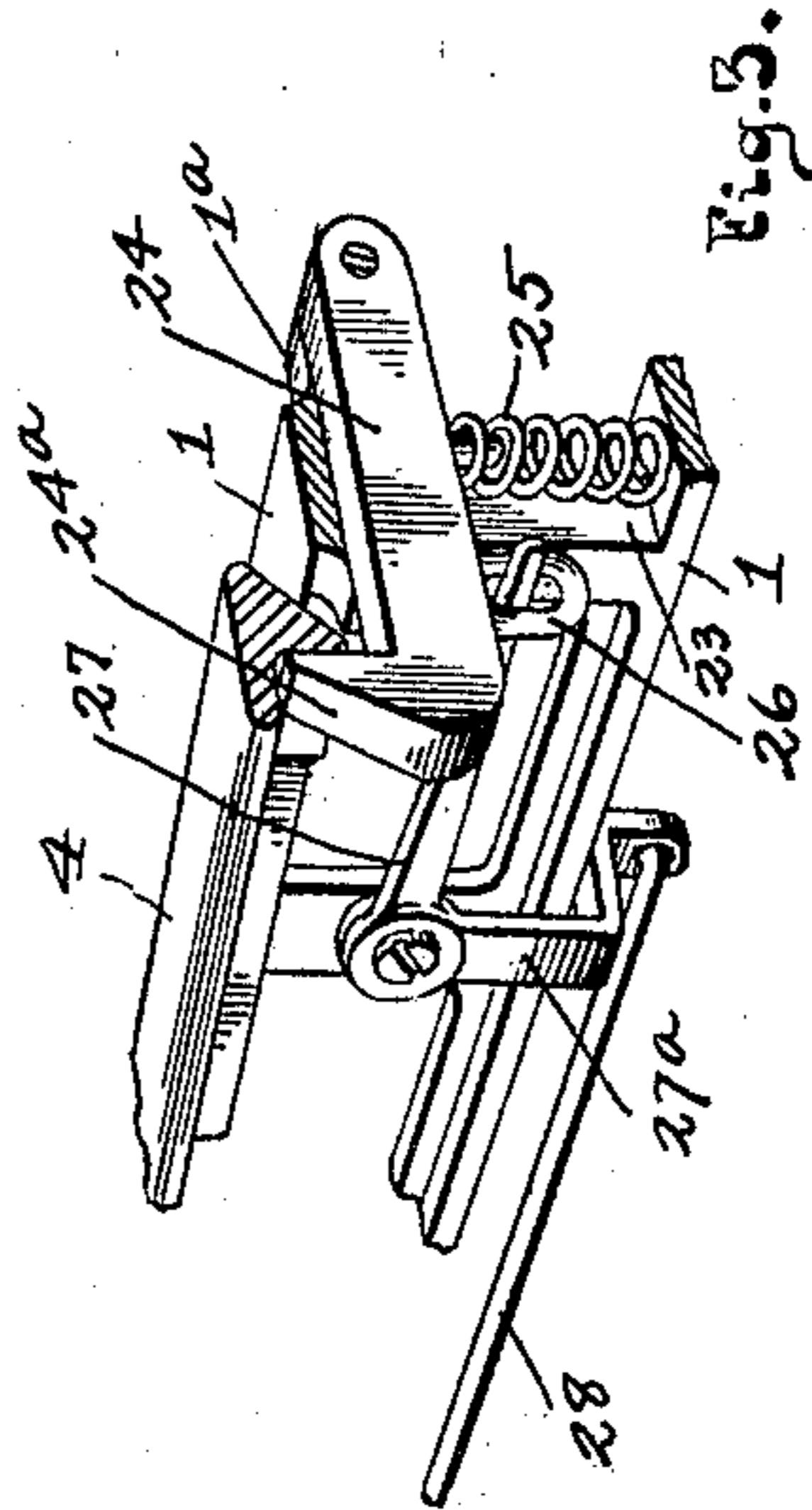


Fig. 3.

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HAND-TRAP.

SPECIFICATION forming part of Letters Patent No. 706,342, dated August 5, 1902.

Application filed April 6, 1901. Serial No. 54,598. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. PORTERFIELD, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Hand-Traps, of which the following is a specification.

My invention relates to the improvement of hand-traps for throwing clay pigeons or targets; and the objects of my invention are to provide a simple and inexpensive portable trap of this class which may be supported and operated by hand, to provide an improved construction of releasing and throwing mechanism, and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved hand-trap. Fig. 2 is a plan view of the same, and Fig. 3 is a detail view in section of the trigger or carrier-arm releasing mechanism.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ a horizontal frame bar or body 1, the rear end portion of which is preferably curved downward, as indicated at 2, to form a suitable gun-like handle. I also form the under side of the forward portion of the frame-body 1 with a rounded enlargement or handhold 3.

4 represents the carrier-arm, which in its outer portion is provided with a vertical pin 5, which is pivotally supported in the socket termination 6 of the frame-bar 1. The outer end of the carrier-arm has pivotally connected therewith one finger 7 of a target carrier or holder, the remaining finger 8 thereof being pivoted at 9 to the inner portion of said finger 7. These fingers 7 and 8 of the carrier are adjustably connected in the usual manner through the medium of a rod 10, which extends from a pin 11 on the finger 7 loosely through a pin 12 on the finger 8 and carries a thumb-nut 13 on its outer threaded end. Between the pin 12 and thumb-nut 13 is arranged a coiled spring 14. Upon the finger 7 are arranged, one at the outer extremity thereof and the other at a point near the center of the length of said arm, target-holding

disks 15, while a similar disk 16 is mounted on the outer end of the finger 8. Between these holders is adapted to be removably supported the usual form of clay-pigeon or disk target 17. Connected with an upwardly-projecting pin 18 on that end of the carrier-arm 4 which is nearest its pivot-point is one end of a coiled spring 19, the latter extending longitudinally over the carrier-arm and having its remaining end connected with an adjusting-screw 20, which has a threaded engagement with the internally-threaded upper end of an arm 21, which rises from the rear portion of the body 1. The outer or rear end of the screw 20 carries an adjusting thumb-nut 22. At a point near the center of the length of the body or bar 1 is provided a slotted opening 23. Through the upper portion of this slotted opening extends a transverse catch-bar 24, one end of which is pivoted, as indicated more clearly in Fig. 3, to a lateral extension 1^a of the frame-bar 1. The remaining and outwardly-projecting end portion of the catch 24 is provided with an upturned hook end, as indicated at 24^a. The hook-bar 24 is normally elevated through the medium of a spring 25, which is arranged between the under side of said hook-bar and the base of the bar 1. The hook end of the catch-bar 24 is also provided with a downwardly-projecting eyepiece 26, through the vertical slotted opening of which projects the forward end portion of the upper arm of a bell-crank lever 27, this lever being pivoted at the junction of its arms to the side of the frame-bar 1. The lower or downwardly-extending arm 27^a of the bell-crank lever 27 has connected therewith the forward end of a rearwardly-extending trigger-rod 28, the latter running through a keeper 29 on the under side of the frame-bar 1 and preferably terminating in a finger-hook 28^a.

In utilizing my invention for the purpose of throwing the target 17, which is previously engaged by the carrier-fingers 7 and 8, the spring-actuated carrier-arm 4 is turned on its pivot until it assumes the position shown in the drawings—that is, a position substantially parallel with the bar 1. At the close of this swinging movement of the carrier-arm 4 said arm trips over the hook projection 24^a of the

spring-actuated catch 24, said catch thus engaging the outer side of said carrier-arm and holding the same in the position shown and described. By now pulling rearward upon the trigger-rod 28 it is obvious that the downward movement of the upper arm of the bell-crank 27 will serve to pull the head of the catch 24 out of engagement with the carrier-arm 4, thus permitting the spring 19 to act in imparting a sudden and rapid forward and swinging movement to said carrier-arm of such force as to release the target 17 from the carrier and impart thereto the desired sailing movement through the air.

15 In holding the trap-body in position for operation it is obvious that the forward hand of the operator may grasp the handhold 3, while the rear hand grasps the handle portion 2 in position for engaging a finger with the finger termination 28^a of the trigger-rod.

From this construction and operation it will be seen that a simple and effective target-throwing mechanism is provided which comprises comparatively few parts and which may be supported and operated by hand.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a hand-trap, the combination with a frame-bar 1 having a handhold enlargement 3 in its forward portion and a downturned rear end portion, a spring-actuated catch-bar

pivotally connected with said bar 1, an operating-lever for said catch-bar and a rearwardly-extending trigger-rod connected with said operating-lever, of a carrier-arm having at one end means for holding removably a target and a spring connecting its remaining end with a pin in the rear portion of the bar 1, substantially as specified.

2. In a hand-trap, the combination with a frame-bar having a handhold enlargement in its forward portion and a downturned rear end portion, and a rearwardly-extending trigger adjacent to the downturned rear end portion, of a spring-actuated carrier-arm having at one end means for holding removably a target, said carrier-arm being adapted to be released by the trigger.

3. In a hand-trap, the combination with a frame-bar having a handhold enlargement in its forward portion and a downturned rear end portion forming a grip for the other hand, and a spring-actuated trigger adjacent to the downturned end portion, of a spring-actuated pivotally-mounted carrier-arm having at one end means for holding removably a target, said carrier-arm being adapted to be released by said trigger.

JOHN C. PORTERFIELD.

In presence of—

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