

(No Model.)

4 Sheets—Sheet 1.

S. CLOVER.
TARGET TRAP.

No. 534,685.

Patented Feb. 26, 1895.

Fig. 1

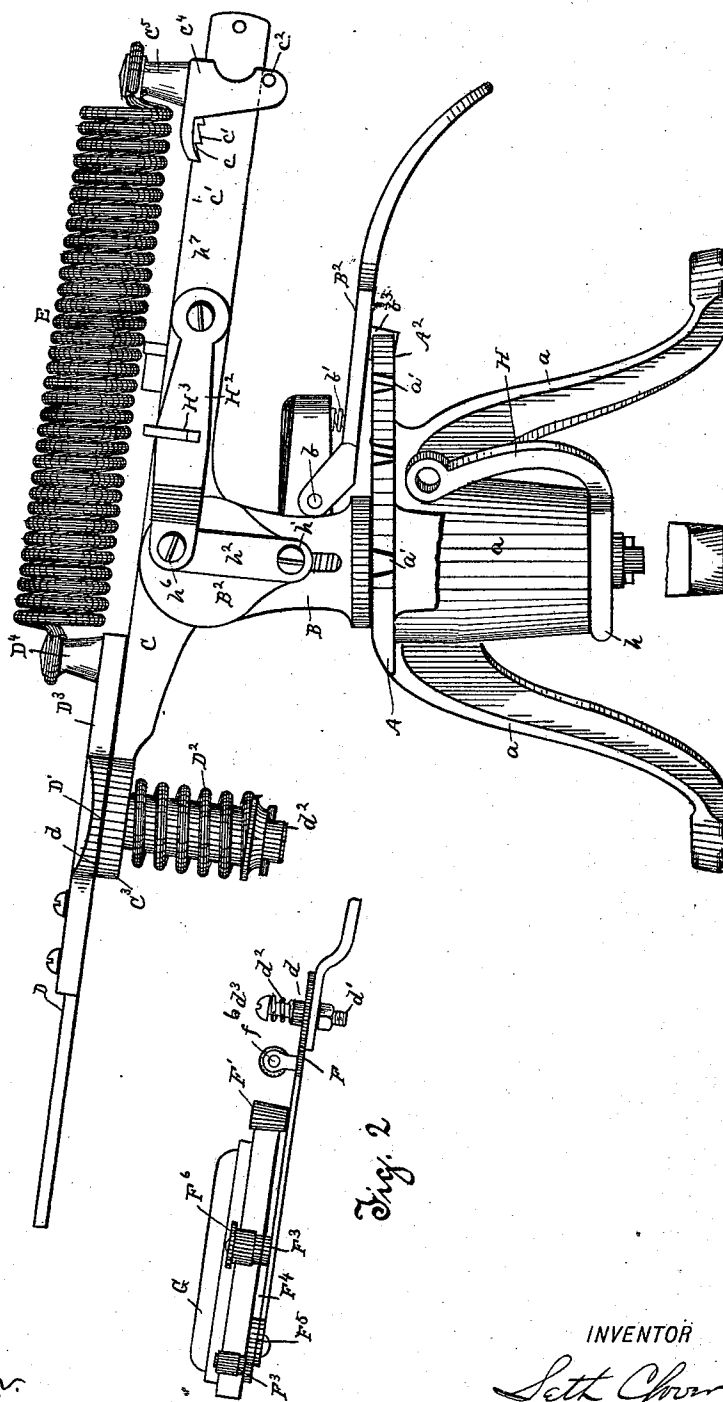


Fig. 2

WITNESSES:
Wm. A. Lee, Jr.
Justin O. Bloom

INVENTOR
Seth Clover
BY
Hallock & Lord
ATTORNEYS

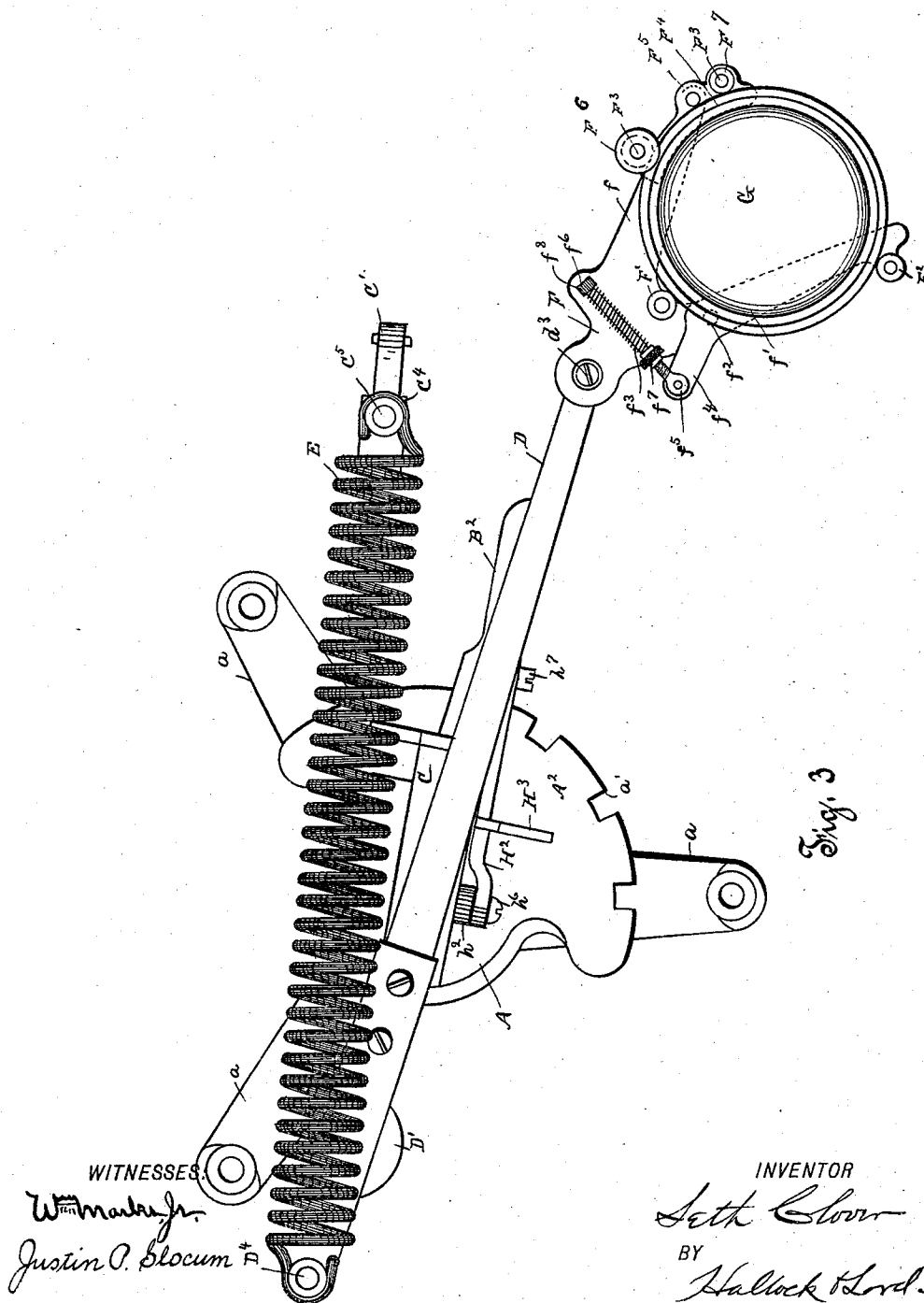
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Sig. 3

INVENTOR

Seth Clow

BY

Hallock & Lord.

ATTORNEYS

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Fig. 4

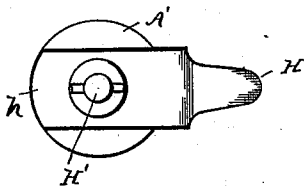
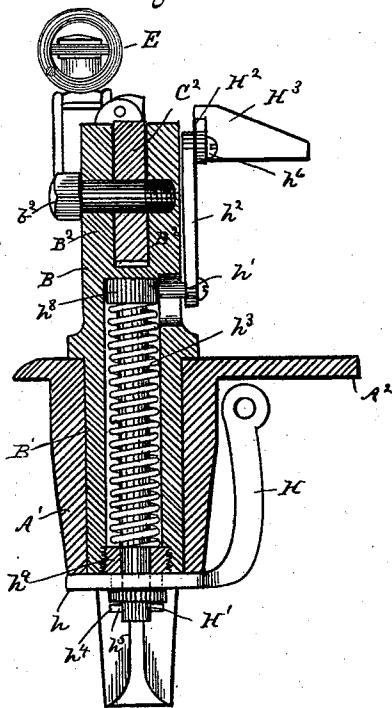


Fig. 5.



WITNESSES:

W. M. Markes Jr.
Justin P. Blocum

INVENTOR

Seth Clover
BY
Hallowell Lord
ATTORNEYS

(No Model.)

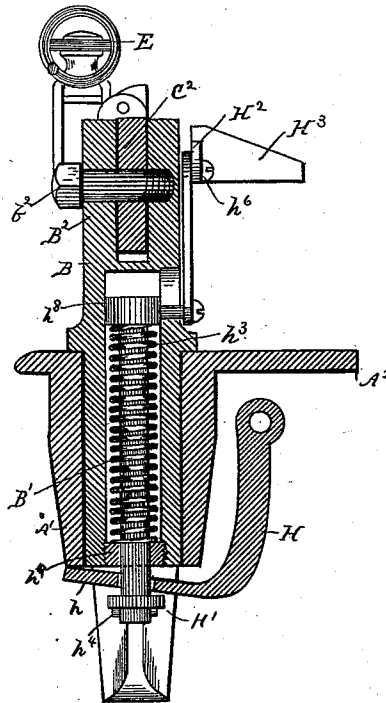
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Patented Feb. 26, 1895.

Fig. 6



WITNESSES:

W. Marlar, Jr.
J. P. Stocum

INVENTOR

Seth Clover
BY
Hallak & Lord
ATTORNEYS

UNITED STATES PATENT OFFICE.

SETH CLOVER, OF DUNKIRK, NEW YORK.

TARGET-TRAP.

SPECIFICATION forming part of Letters Patent No. 534,685, dated February 26, 1895.

Application filed July 11, 1894. Serial No. 517,246. (No model.)

To all whom it may concern:

Be it known that I, SETH CLOVER, a citizen of the United States, residing at Dunkirk, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Flying-Target Traps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to traps for throwing flying targets and consists in certain improvements in the construction thereof as will be hereinafter fully described and pointed out in the claims.

The invention is illustrated in the accompanying drawings as follows:

Figure 1 shows an elevation of the trap with the throwing arm released and broken off for convenience in drawing. Fig. 2 shows the continuation of the throwing arm with the carrier thereon. Fig. 3 shows a plan of the trap, the throwing arm being shown as set. Fig. 4 shows a plan of the trigger looking from the bottom of Figs. 5 and 1. Fig. 5 shows a section of a fragment of the base and standard, showing the arrangement of the trigger mechanism in elevation the "trigger" being in its normal position. Fig. 6 is a like view with the trigger in position to spring the trap.

A, marks the base having legs *a a a*; B, the standard having a journal part B', which is journaled in a journal part A', in the base; B², a pivot crotch on the standard in which is pivoted the cross arm C, the pivot face of which C², fills the space between the jaws of the crotch; b², a bolt for clamping the cross arm between the jaws of the crotch and fixing its position; D, the throwing arm, which is pivoted on the cross arm at *d*, by means of pivot faces D', on the throwing arm, and C³, in the cross arm and pivot pin *d*²; D², a spring tensioned against the pin *d*² for keeping the pivot joint tight; E, the main spring of the trap, attached at one end to a stud D⁴, which stud is on an extension D³, on the throwing arm. These parts are as commonly made.

The cross arm C, has an extension C', which is set slightly at angle to the cross arm C, so as to bring the spring out of line of the throw-

ing arm when set, so that its tension will have a tendency to turn the throwing arm on its pivot. Mounted loosely on this extension C', is a yoke C⁴. This yoke carries a stud C⁵, to which the fixed end of the spring is attached. A pawl *c'*, engages teeth *c*, on the extension C', and holds the yoke against slipping when in engagement and a small pin *c*³, passed through the yoke under the extension holds it from tilting forward. To release the spring the yoke is tilted back. This disengages the pawl and the yoke can slide up the full length of the extension so that the throwing arm can be folded back in position to be carried without straining the spring. When it is desired to tension the spring for use, the yoke is simply drawn back until the spring is sufficiently tensioned. The pressure of the spring will tilt the yoke forward, and the pawl will engage the teeth of the extension and hold the yoke securely in place. This construction affords a quick adjustment of the spring and allows the spring to be completely relieved when not in use.

At the end of the throwing arm is pivoted the carrier F, by means of pivot *d*³. It is composed of a fixed finger *f*, and a hinged finger *f'*, pivoted at *f*². The hinged finger is given a grip by means of spring *f*³, which is coiled around a pin *f*⁶, and tensioned against a nut *f*⁷, on said pin and a stud *f*⁸, on the carrier F. The pin *f*⁶, is hinged at *f*⁵, to an extension *f*⁴, on the hinged finger. When the finger is opened the pin *f*⁶, slides through the stud *f*⁸, and the recoil of the spring gives to the finger its grip. At the end of the hinged finger is a post F², preferably rubber coated, and on the carrier near the crotch of the fingers is another post F', also preferably rubber coated. On the end of the fixed finger is a plate F⁴, pivoted to the finger by pivot F⁵, and on the ends of this plate are mounted two studs F³ F³, on which are rollers F⁷, one of which has a slight shoulder F⁶, to hold the target G, down in place while it is being thrown. In order that the flight of the target may be regular it is necessary that it be given a strong rotary movement when thrown. This is accomplished by retarding one side of the target as it leaves the fingers, more than the other. The efforts heretofore to get greater rotative movement have been directed

largely to more surely retarding the retarded side of the target. In my device, by means of the rollers F^7 , the target can be firmly held in place while being thrown and the side first released is practically unretarded so that a greater rotative movement is attained with same retarding force at the retarded side. In this carrier the target is retarded by the rubber coated post F^2 and rolls out from the posts F^3 F^3 , giving to the target a movement toward the right.

In order that the target may be thrown in different directions a dial plate A^2 , on the base is provided, in which there are catch notches a' . A lever B^3 , having a catch lug b^3 , adapted to enter the catch notches a' , is pivoted so as to move vertically on the standard B , at b , and a spring b' , presses it down so as to hold the lug in engagement with the dial plate. When it is desired to change the direction of flight the lever is raised and turned to the notch desired where it is allowed to drop into engagement.

The trigger H , is loosely swiveled so as to be capable of tilting (as shown in Fig. 6) on the trigger pin H' , and is fulcrumed at h , against the journal part of the base A' . The trigger pin H' , extends up through the center of the standard. A stud h' , extends from the trigger pin out through a slot in the side of the standard. A link h^2 , is pivoted on said stud and connects it with a lever H^2 , to which it is hinged at h^6 . The lever H^2 , is pivoted on the cross arm at h' , and carries the trigger catch H^3 , which is adapted to catch the throwing arm and hold it until drawn down by a movement of the trigger. At the upper end of the trigger pin is a collar h^8 , and a nut h^9 , is screwed into the lower end of the standard. A spring h^3 , is coiled around the trigger pin and is tensioned against the collar h^8 , and nut h^9 , so that its recoil holds the trigger catch up in place until drawn down by a movement of the trigger and resets the trigger catch when the trigger is released. Heretofore the triggers of this class of traps have been fixed against rotative movement with relation to the base. It is often desirable to run the cord with which the trigger is operated in a direction different from which the trigger is directed. In this case it has been necessary to run the cord through a pulley or other directing means so that it would operate upon the trigger in the proper direction. With

my device the cord may be run at different angles to the trap and the trigger will swing around to accommodate itself to the direction of the cord.

What I claim as new is—

1. In a flying target trap, the combination with the cross arm; a throwing arm pivoted thereon and a main spring attached to said throwing arm; of a sliding yoke on the cross arm opposite the throwing arm and to which said spring is attached; and means of locking the yoke on the cross arm.

2. In a flying target trap, the combination with the cross arm; a throwing arm pivoted on said cross arm; and a main spring attached to said throwing arm; of a sliding yoke on the cross arm opposite the throwing arm, and to which said spring is attached; teeth on said cross arm; and a pawl on said yoke adapted to engage said teeth.

3. In a flying target trap, the combination with the cross arm; a throwing arm pivoted on said cross arm; and a main spring attached to said throwing arm; of a yoke C^4 , to which said spring is attached and on which is a pawl c' ; and teeth c , on the cross arm, and with which the pawl c' is adapted to engage.

4. In a flying target trap, the combination with the gripping mechanism thereof; of a non-revoluble retarding post at one side of said mechanism that contacts the target when in place; a pivoted plate at the opposite side; and revoluble roller posts on said plate at each side of its pivot that contact said target when in place.

5. In a flying target trap, the combination with the throwing arm thereof and a trigger catch thereon; of a horizontally swinging trigger operatively connected with said catch for the purposes set forth.

6. In a flying target trap, the combination with the base, the standard, the throwing arm and trigger catch thereof; of a trigger pin extending into the center of said standard; and the trigger swiveled on said pin operatively fulcrumed and adapted to swing horizontally.

In testimony whereof I affix my signature in presence of two witnesses.

SETH CLOVER.

Witnesses:

H. C. LORD,
JOS. P. HOLLEN.