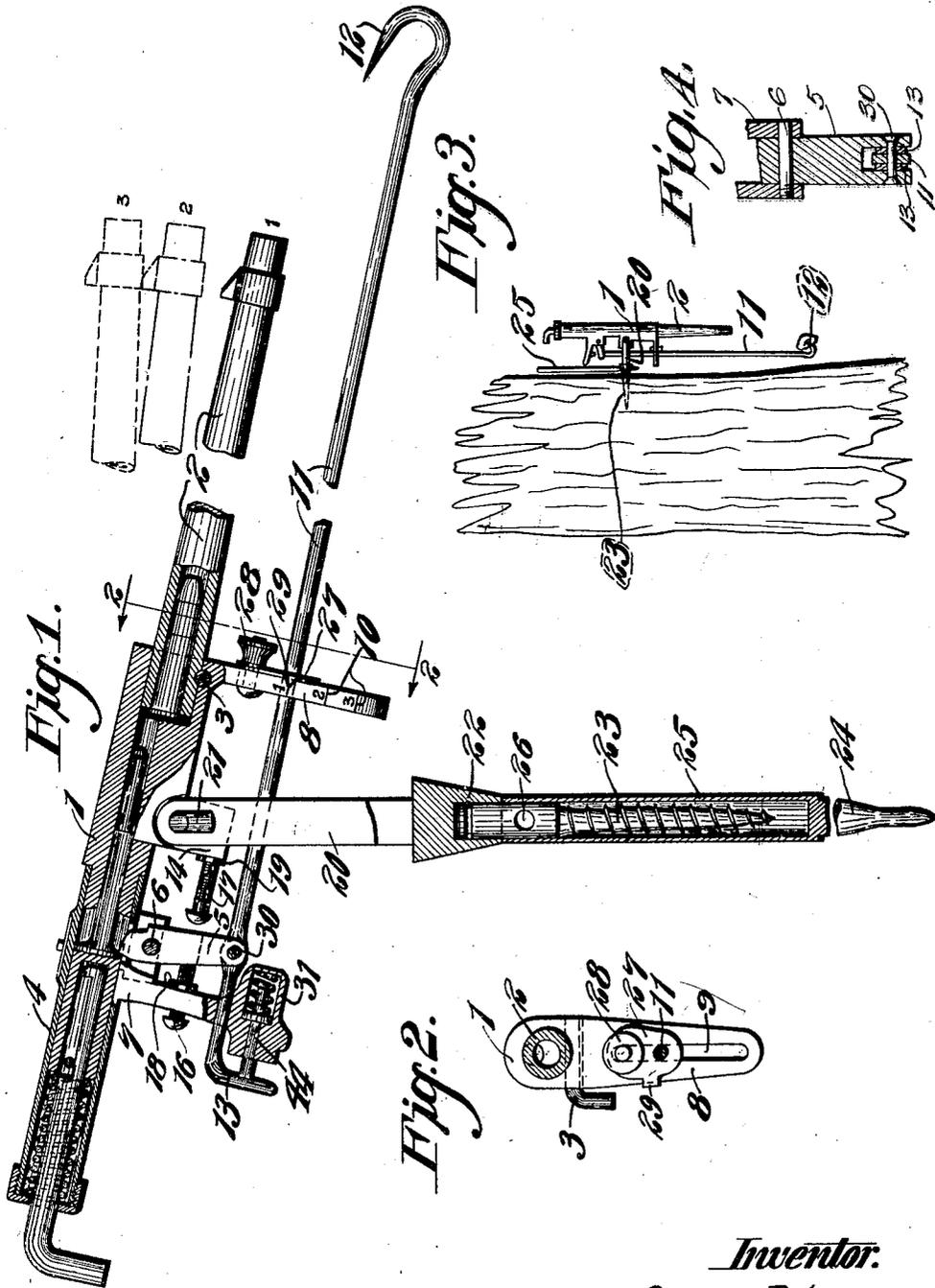


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C. D. LOVELACE
TRAP GUN AND SIDE ARM
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UNITED STATES PATENT OFFICE.

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TRAP GUN AND SIDE ARM.

Application filed July 29, 1922. Serial No. 578,360.

To all whom it may concern:

Be it known that I, CHARLES D. LOVELACE, a citizen of the United States, residing at San Antonio, county of Bexar, and State of Texas, have invented a certain new and useful Improvement in Trap Guns and Side Arms, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this application.

My invention relates to trap guns normally adapted to be operated automatically by the seizing of bait by an animal and consists in improvements upon the device illustrated in Patent No. 1,098,742, issued to me June 2, 1914.

One object of my invention is to eliminate guess work in the setting of a gun by providing indicating means whereby the trapper may easily determine the adjustment of the bait holding rod and the barrel of the gun for different sized animals.

Another object of my invention is to limit the pivotal movement of the gun sear to maintain it in predetermined relation between the end of the rotating rod and the end of the gun barrel and also to prevent relative movement between these parts due to recoil of the gun when fired.

An additional object of my invention is to adapt the gun to be used as a side arm by providing a hand hold and means for operating the sear by the muscles of a hand used in holding the gun.

I also desire to provide an improved support for the gun, one which is adapted to facilitate mounting the gun either on the ground or in a log or tree trunk.

In the accompanying drawings, which illustrate a selected embodiment of my invention,—

Figure 1 is in part a side elevation and in part a longitudinal section through my device.

Figure 2 is a transverse section taken on line 2—2 of Figure 1.

Figure 3 is a view of the gun supported on the trunk of a tree.

Figure 4 is a detail sectional view.

The gun breech block 1 mounts a removable barrel 2 which is retained in place by a transverse pin 3. A mechanism housing 4 is secured to the breech block and a spring-

pressed member is slidably mounted in the housing and is adapted to be held in retracted position by a sear 5 pivoted at 6 on a lug 7 fixedly mounted on housing 4, and extending downwardly from the latter. Extending downwardly from the front of the breech block is a fixed lug 8 having a vertical slot 9 in its front face and provided with markings 10 on its side adapted to form a scale for the purpose hereinafter referred to. Lugs 7 and 8 are so spaced and shaped that they form a hand hold whereby the gun may be held and aimed when in use as a side arm.

When the gun is used for trapping, the sear 5 is operated by a rod 11 pivoted to the lower end of the sear, extending forwardly, and terminating in a bait holding hook 12 in front of the gun barrel. When the gun is used as a side arm the sear is operated by the application of pressure of the hand, holding the gun by gripping lugs 7 and 8, to the rear of an L-shaped element 13 slidably in lug 7 and connected to sear 5 by a pin 30. Pin 30 may be a cotter pin or other easily removable type and also serves to connect rod 11 to the sear. Rod 11 and element 13 are separate parts and either may be removed from the gun.

A plunger 44 is spring supported in a recessed boss 31 on lug 7 and serves to yieldingly hold element 13 in the position shown. While I show rod 11 and element 13 as both being present on the gun, this is illustrative only and is not likely to be the usual assembly. Preferably the gun will be without the manual sear operating means or else without rod 11 and the gun supporting member 20.

Screws 16 and 17 are threaded into lugs 7 and 14, respectively, and are adapted to engage the opposite edges of sear 5 so as to limit the pivotal movement of the latter. By means of screw 16 the trigger pull may be rendered as long or as short as desired by varying the projection of the hammer engaging end of the sear into the mechanism housing. By means of screw 17 forward movement of rod 11 relative to the gun barrel may be limited and consequently the perpendicular distance between hook 12 and the path of a bullet fired from the gun. This screw also serves to check recoil of the gun, when fired, by the engagement of its head with the sear which in turn is held

by the animal discharging the gun, the latter pulling rod 11 and the sear in the opposite direction to the recoil movement. Nuts 18 and 19 serve to lock screws 16 and 17 in adjusted position.

The gun supporting member 20 is pivotally secured to the breech block at 21 and is provided with a swivel element 22 terminating in a screw 23. A steel stake 24 of any desired length is usually provided with the gun and the upper end 25 of the stake is adapted to receive screw 23 and to be secured thereto by means of a cotter pin through aligned openings 26 in the stake and screw.

When the gun is to be set upon the ground the parts are assembled as shown in Figure 1 and the stake is pressed into the earth. The gun, being pivotally supported, is free to swing in any direction as impelled by the pull of an animal. If it is desired to mount the gun upon a log or the trunk of a tree, pin 26 is removed, pressure applied to the screw through the breech block of the gun, and screw 23 may be rotated by inserting the pointed end of the stake through the opening 26 in the screw, as shown in Figure 3.

As pointed out in my above-mentioned patent, the operating rod and barrel are to be adjusted to and from each other for different sizes of animals to be shot. Hitherto this adjustment has been determined by judgment which is often erroneous and in my present gun I have provided the scale markings 10 positioned on the side of lug 8 and numbered 1, 2 and 3, respectively. A plate 27 slidably mounted upon the front face of lug 8 is adapted to be clamped to the latter at any desired point by the thumb nut on a screw 28 which extends through slot 9 and a hole in plate 27. Plate 27 is provided with a hole to receive rod 11 spaced from the hole for screw 28, and extending from the edge of plate 27 around the side of lug 8 is a pointer 29 positioned abreast of the axis of the opening in the plate for rod 11. This construction spaces the rod 11 from the nut so that tightening of the screw is not interfered with by the rod. Another advantage of this arrangement is that the rod is always the same distance from the screw and nut while in the gun described in my earlier patent the operator had to attend to the positioning of these parts in order to secure proper adjustment and prevent lost motion.

It will be understood from experience and from instructions accompanying the gun that when the plate is secured to the lug with the pointer at 1 as shown in Figure 1, the gun will be set for small animals such as weasels. When the pointer is set at the middle mark on the scale, the gun will be set for larger animals such as fox and opossum, and when the pointer is set at No. 3 marking on the scale, the gun is set for still

larger animals, such as coyotes. The provision of this scale affords simple and easily adjusted means for setting the gun for the different sizes of animal.

It is obvious that modifications may be made in the details of my device, without departing from the spirit thereof, and I contemplate all such as are provided in the commercial development of my article and as fall within the spirit of the appended claims.

I claim:

1. In a gun, a firing pin, a pivoted sear adapted to engage said pin to withhold the latter from firing position, the extent of such engagement being determined by the pivotal movement of the sear in the direction opposite to that resulting in the release of the pin, and adjustable means for limiting the pivotal movement of the sear in said direction.

2. In a trap gun, a support on which the gun is mounted to pivot in a vertical plane, a barrel located above the pivot point, a sear, an operating rod connected to said sear, and an element below the pivot point adapted to engage said sear to limit the recoil movement of the gun.

3. In a gun, a firing pin, a sear member for withholding said pin, and means for adjusting the functioning position of said sear to vary the length of its movement necessary to release the pin, said means comprising a threaded element operable from the exterior of the gun, one end of which element is adapted to contact with a face of said sear member.

4. In a trap gun, a barrel, a pivoted sear, a sear operating rod adapted to carry bait, and adjustable elements positioned in front and in back of said sear to limit the movement of the latter and said operating rod relative to the gun barrel.

5. In a trap gun, a barrel, a breech block, a mechanism housing, a pivoted sear, a sear operating rod adapted to carry bait, fixed projections on said block and housing in front and in back of said sear, individual sear engaging elements threaded into said projections, and means for locking said elements in various positions to adjustably limit the pivotal movement of the sear.

6. In a trap gun, a barrel, a breech block, a sear, a bait holding sear operating rod pivoted to said sear, a depending slotted lug on said block receiving said rod, a rod guide slidably mounted on the face of said lug and perforated to receive said rod, and to receive a guide securing screw extending through said slotted lug and having a lug clamping thumb nut, the perforations in said guide being barely large enough to permit passage of said rod and screw, respectively, whereby the latter are fixedly spaced from each other.

7. In a trap gun, a sear, means connected thereto and extending in front of said sear for operating the same. and means connected thereto and extending in back of said sear
5 for operating the same.

8. In a trap gun, spaced rigid elements forming gripping means, a sear, a bait holding operating rod adapted to operate said sear when pulled, and a hand engageable
10 member movable on said gripping means and adapted to operate said sear.

9. In a trap gun, a breech block provided with hand hold elements, a barrel, a sear, and a dual control for said sear comprising
15 a hooked rod secured to said sear and extending to a point in front of the gun barrel and a manually operated element secured

to said sear and extending to a point adjacent one of the hand hold elements.

10. In a trap gun, a breech block, a mechanism housing, spaced downwardly projecting lugs on said block and housing forming
20 a hand hold, a sear pivoted to one of said lugs, a sear operating rod extending forwardly and terminating in a bait holding
25 hook in front of the gun barrel and a sear operating element mounted on one of said lugs and provided with a surface adjacent to said lug and adapted to be engaged by a
hand holding the gun by said lugs. 30

In testimony whereof I hereunto affix my signature this 21 day of July, 1922.

CHARLES D. LOVELACE.