

No. 706,399.

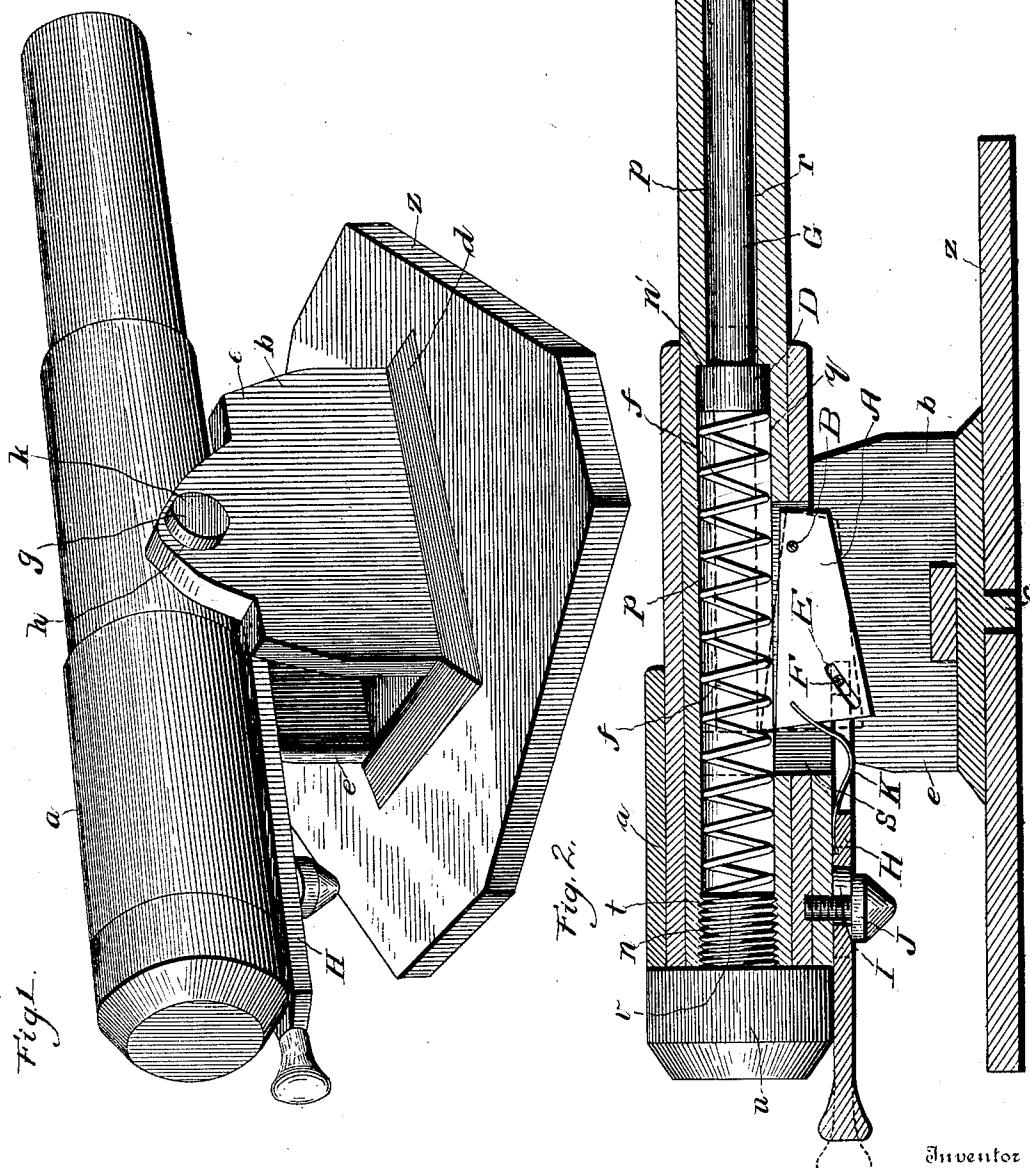
A. G. FIFER.

TOY CANNON.

Patented Aug. 5, 1902.

(Application filed Oct. 23, 1901)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

ARCHIE G. FIFER, OF QUINCY, ILLINOIS.

TOY CANNON.

SPECIFICATION forming part of Letters Patent No. 706,399, dated August 5, 1902.

Application filed October 23, 1901. Serial No. 79,694. (No model.)

To all whom it may concern:

Be it known that I, ARCHIE G. FIFER, a citizen of the United States, and a resident of Quincy, in the county of Adams and State of Illinois, have made a certain new and useful Invention in Toy Cannons; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The invention has relation to toy guns; and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, Figure 1 is a perspective view of a toy cannon having my invention applied thereto, and Fig. 2 is a central longitudinal section of the same.

In the drawings the letter *a* designates the platform or bed, on which rests the gun-carriage *b*, connected to said base by means of a pintle *c*, so that the carriage can be turned in any direction.

The carriage *b* consists of the base *d*, the cheeks *e*, and the trunnion-pins *g*, which are seated in bearings *h* of said cheeks. These pins have heads *k*, which project outside of the cheeks, and they are provided with inner extensions, which are made a little tapering, so that when they are pressed into the apertures in the sides of the gun with a turning motion they will become sufficiently well secured thereto.

a represents the gun or cannon, which is of any ordinary form, the modern reinforced pattern being preferred.

Through the barrel portion is formed the bore *p*, which is shouldered near the rear end of the narrower part of the barrel, the bore in rear of said shoulder, as at *q*, being of larger diameter than the portion *r* in front of the same. The rear end of the bored portion is provided with an interior screw-thread *t* to engage the thread *n* of the plug *v* of the breech-closure *u*, which when the parts are assembled together is screwed up closely against the rear face of the barrel. A slot *s* is made longitudinally and vertically into the bore at its middle portion, the ends of said slot being about

equidistant from the trunnion-pins in front and in rear thereof.

In the rear portion of the bore is a coiled spring *f*, the rear end of which rests against the inner end of the plug of the breech-closure and the front end of which engages the headed end *D* of the plunger *G*, said headed end being normally in engagement with the interior shoulder *n* of the bore, hereinbefore referred to. The body of the plunger extends forward into the smaller portion of the bore, reaching normally nearly to the muzzle.

The sear *A* is an angular plane-sided piece which extends into the slot *s* and is pivoted at its front end therein by a transverse pin *B*, extending through the lower portion of the body of the gun. The rear end of the sear *A* is provided at its upper portion with an oblique slot *E*, in which plays the transverse connecting-pin *F* of the forked trigger *H*. The trigger is attached to the sear by means of a bow-spring *K*, which plays in the interval between the branches of the trigger and operates to hold the sear up in the bore in a yielding manner. When so held up, the under edge of the trapezoidal sear is inclined slightly downward and rearward from the upper portion of the wall of the bore. In rear of the fork the trigger is provided with a short slot *I*, through which passes a headed pin or stud *J*, which is secured to the body of the gun and serves to hold the trigger in flat position against the gun, while allowing it a short movement of reciprocation. Normally the trigger is pushed backward by the spring *K*, this action carrying the transverse connection *F* to the rear and lower end of the oblique slot *E* of the sear, elevating the rear end of the latter in the bore.

When the arrow or shaft formed missile is pushed into the bore from the muzzle, the plunger is pushed back until its head is caught by the upper rear corner of the spring-sear in the bore. The gun is then set. In order to discharge it, the trigger is slightly pushed forward. This action causes the connection *F* to move forward in the oblique slot *E*, lowering the rear end of the sear until the head of the plunger is disconnected therefrom, when the mainspring *f* at once acts, throwing the plunger forward and the missile out of the gun.

As a miniature cannon this device is sufficiently like a modern piece of ordnance to afford instruction, and as its parts are strong and durable it is not readily put out of order.

5 The parts are all detachable and the trigger and sear of such simple form that should they become broken it would be an easy matter to form new parts from a strip of flat wood or other suitable material.

10 Having described this invention, what I claim, and desire to secure by Letters Patent, is—

15 1. The combination with the slotted and shoulder-bored toy gun, of the mainspring and headed plunger, the pivoted angular spring-catch and reciprocating trigger, substantially as specified.

20 2. The combination with the slotted and shoulder-bored toy gun, of the angular slotted catch, the reciprocating trigger, movably connected therewith, the spring connected with said trigger and bearing against the catch, the mainspring and the headed plunger, substantially as specified.

3. The combination with the slotted shoulder-bored and screw-breeched toy gun, of the mainspring, and headed plunger, the pivoted catch, and the reciprocating trigger, connected to said catch, substantially as specified. 25

4. The combination with the shoulder-bored toy gun, its screw-breech piece, the mainspring, and headed plunger, of the catch and trigger, the bed and pivoted carriage, substantially as specified. 30

5. A toy gun, comprising a bed, a pintle-carriage, a slotted shoulder-bored gun and screw-breech, trunnion-pins, a mainspring and headed plunger, a pivoted spring-catch, and a reciprocating trigger connected thereto, 35 substantially as specified.

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

ARCHIE G. FIFER.

Witnesses:

ANSON M. BROWN,
ARTHUR L. STOCKS.