

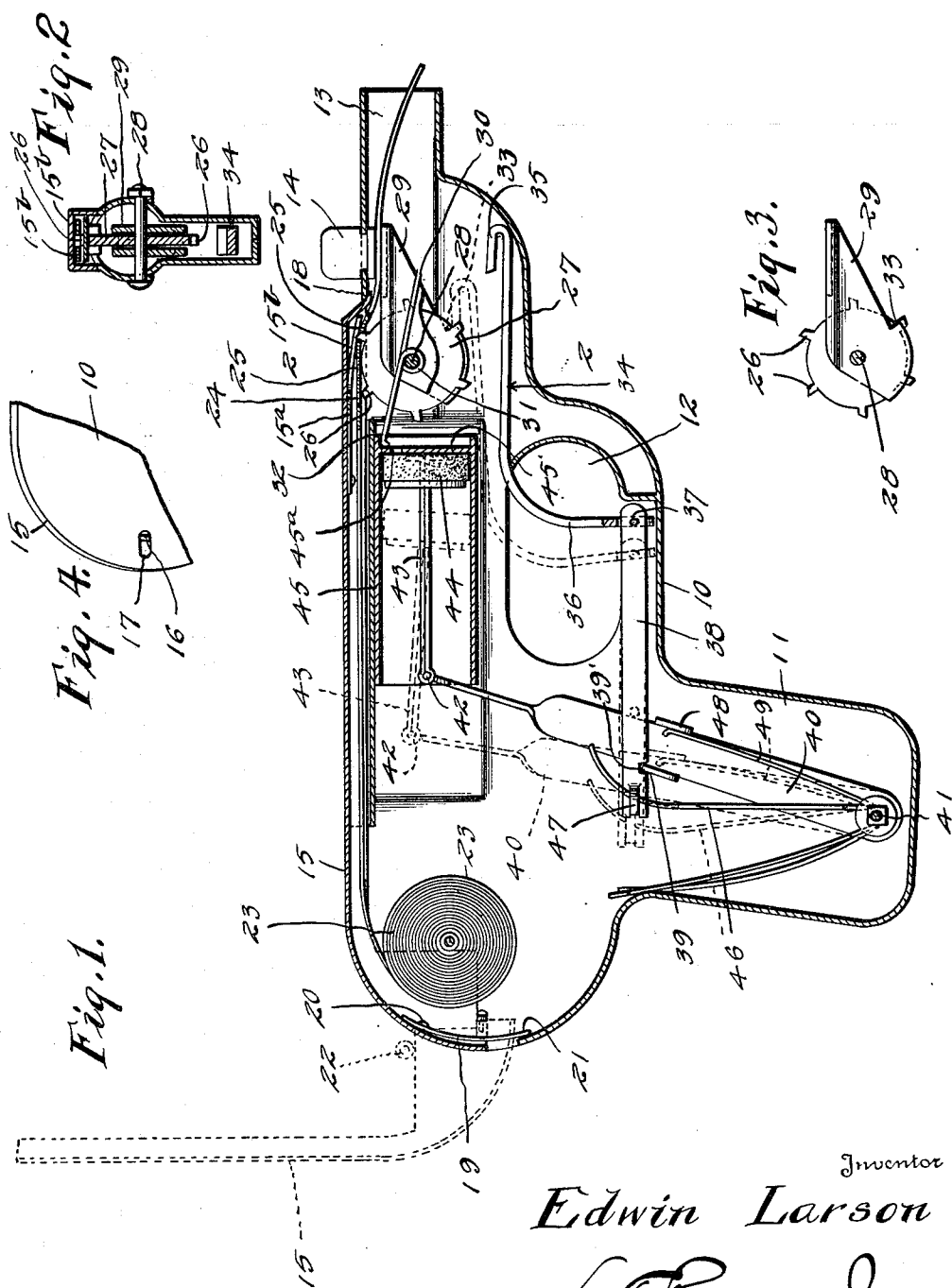
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E. LARSON

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AUTOMATIC TOY PISTOL

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Inventor

Edwin Larson

334 *A. F. Randolph Jr.*

Attorney

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AUTOMATIC TOY PISTOL

Edwin Larson, Eagle Bend, Minn.

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3 Claims. (Cl. 42—57)

This invention relates to an automatic toy pistol.

It is primarily aimed to provide a novel construction wherein caps are fired and means is associated with the pistol for immediately blowing the smoke therefrom to better simulate the actual action incidental to the firing of a pistol.

It is further aimed to provide such a construction wherein the smoke is ejected by a suitable compressor, and a construction such is generally novel, improved, durable and efficient.

Various additional objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawing illustrating an operative embodiment.

In said drawing:—

Figure 1 is a view in substantially central longitudinal section through a toy pistol embodying my improvements;

Figure 2 is a cross-sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a side elevation of the hammer and feeding wheel, and

Figure 4 is an enlarged fragmentary, rear end elevation of the pistol casing.

Referring specifically to the drawing wherein like reference characters designate like or similar parts, 10 designates a suitable casing or housing, which may be made from sheet metal and in the shape of a pistol or the like. This casing has a depending shallow portion simulating a handle as at 11, has openings 12 in its side wall for insertion of the finger to engage a trigger and has a barrel as at 13 to which a sight or head 14 is fastened in any suitable manner. At the top, the casing 10 is open throughout the major portion of its length and such opening is covered by a closure 15 of suitable shape, which has a pair of outwardly extending lugs 16 adjacent one end thereof extending through elongated slots 17 in the casing 10. Such closure 15 at its forward end has a lug 18 which hooks beneath the top wall of the barrel 13 adjacent the sight 14, as best shown in Figure 1. At the rear end, closure 15 carries a leaf spring 19 fastened as at 20 to the closure and bearing as at 21 against a part of the casing proper. Such spring 19, urges the closure 15 forwardly so that the lug 18 will occupy the locking position shown in Figure 1. The spring however permits closure 15 to be pushed or to slide rearwardly relatively to the casing proper due to the provision of the elongated slots 17, and to be swung into the dotted line for open position shown in Fig-

ure 1. This closure carries a spindle or shaft as at 22 about which a coil 23 is disposed. This coil may be of paper or the like alternately having openings 24 and bodies of powder 25 therein.

Said openings 24 are equidistantly spaced and are adapted to be engaged by equidistantly spaced teeth 26 of a feeder wheel 27 pivoted on a pin 28, disposed transversely of the casing at the rear of the barrel. Secured to the closure member 15 is a leaf spring 15a that has its free end bifurcated as shown at 15b to engage the strip on opposite sides of the teeth 26.

The outer or cap portions 25, through the feeding of the wheel 27 as later explained, will be disposed beneath the sight 14 or the equivalent and a hammer 29 will strike against the same to fire or explode the powder. Such hammer at the rear end is preferably bifurcated and journaled on the shaft 28 on opposite sides of the feeding wheel 27. Such hammer is normally urged into engagement with the strip of the roll or coil 25, by means of a suitable spring 30 which is coiled as at 31, about the shaft 28, and is fastened at an end 32 to any adjacent part. The bifurcated portions of the hammer 29 have shoulders as at 33.

Disposed within the casing 10 is a trigger 34 having a returned portion 35 at the forward end and having a downwardly and rearwardly extending portion 36 adapted for engagement by a finger thrust into the opening 12. Trigger 34 is fastened at 37 to the forward end of a bar 38. Such bar rests on a laterally extending lug 39 and has a notch 39' loosely straddling such lug 39 of a lever 40, pivoted to a bolt 41 passing transversely through the handle portion 11. This lever at its upper end is pivoted at 42 to a connecting rod 43 of a piston 44, slidable within a cylinder 45, suitably fixed within the casing 10. This piston and cylinder form a compressor to expel all smoke and gases incident to firing of the caps or powder 25, such smoke and gases escaping through the barrel 13. The cylinder 45 has a front end wall 45' provided with one or more ports 45a for the constricted escape of the smoke. At the rear end, arm 38 is fastened to one leaf of a U-shaped spring 46, as by pinching a part 47 of such arm to the spring. Such spring 46 is coiled about the shaft 41 and has its other arm engaging a fixed part of the casing. Spring 46 urges the arm 38 and trigger 34 forwardly to the full line position shown in Figure 1.

Lever 40 has another lug as at 48 which is engaged by one arm 49 of a generally U-shaped spring, coiled about the bolt 41 and having its

other arm or portion abutting a suitable stationary part of the casing.

Normally the parts are in the position indicated in full line in Figure 2, the strip 23 having been coiled about the shaft 22 when closure 15 was in open position. Prior to the closing of closure 15, the adjacent openings 24 are engaged with the teeth 26 of the feeder wheel 27. Thereupon the finger is inserted in opening 12 in advance of portion 36 and drawn rearwardly which causes the return portion 35 of the trigger to simultaneously engage shoulders 33 and the adjacent tooth of the feeder wheel, causing both of them to turn until the trigger moves past and disengages them, thus releasing the hammer 29 which through the action of spring 30 forcibly engages the cap or powder 25 and explodes the same. Incidental to the rearward movement of trigger 34 bar 38 moves rearwardly accordingly moving the lever 40 and the piston 44, hence, and the trigger is released, the springs 46 and 49 operate the piston 44 and the trigger, especially causing piston 44 to expel the smoke and gases through the barrel 13. Thus the explosion and expulsion of the smoke and gases occurs practically simultaneously. The action thus simulates the actual action which takes place incidental to the firing of a pistol.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:—

1. A device of the class described having a feed wheel provided with teeth, a hammer, means pivotally journalling said feed wheel and said hammer, said hammer having a shoulder, a trigger to

engage said shoulder and one of said teeth to actuate the hammer and advance the cap strip, a compressor, and a mechanism operable to actuate the compressor through the actuation of said trigger.

2. A device of the class described having a feed wheel provided with teeth, a hammer, means pivotally journalling said feeder wheel and said hammer, said hammer having a shoulder, a trigger to engage said shoulder and one of said teeth to actuate the hammer and advance the cap strip, a compressor, and a mechanism operable to actuate the compressor through the actuation of said trigger, comprising a lever connected to the compressor and to the casing, a bar connected to the lever, and spring means urging forward movement of the bar.

3. A device of the class described having a feed wheel provided with teeth, a hammer, means pivotally journalling said feeder wheel and said hammer, said hammer having a shoulder, a trigger to engage said shoulder and one of said teeth to actuate the hammer and advance the cap strip, a compressor, and a mechanism operable to actuate the compressor through the actuation of said trigger, comprising an arm extending rearwardly from the trigger, a lever pivoted to the casing, a lug on said lever, said bar having a notch engaging said lug, a spring urging forward movement of the bar, said compressor comprising a cylinder, a piston to which said lever is pivoted, said cylinder having a forward end wall provided with a port therethrough, and a barrel on said casing substantially in line with said port.

EDWIN LARSON.