

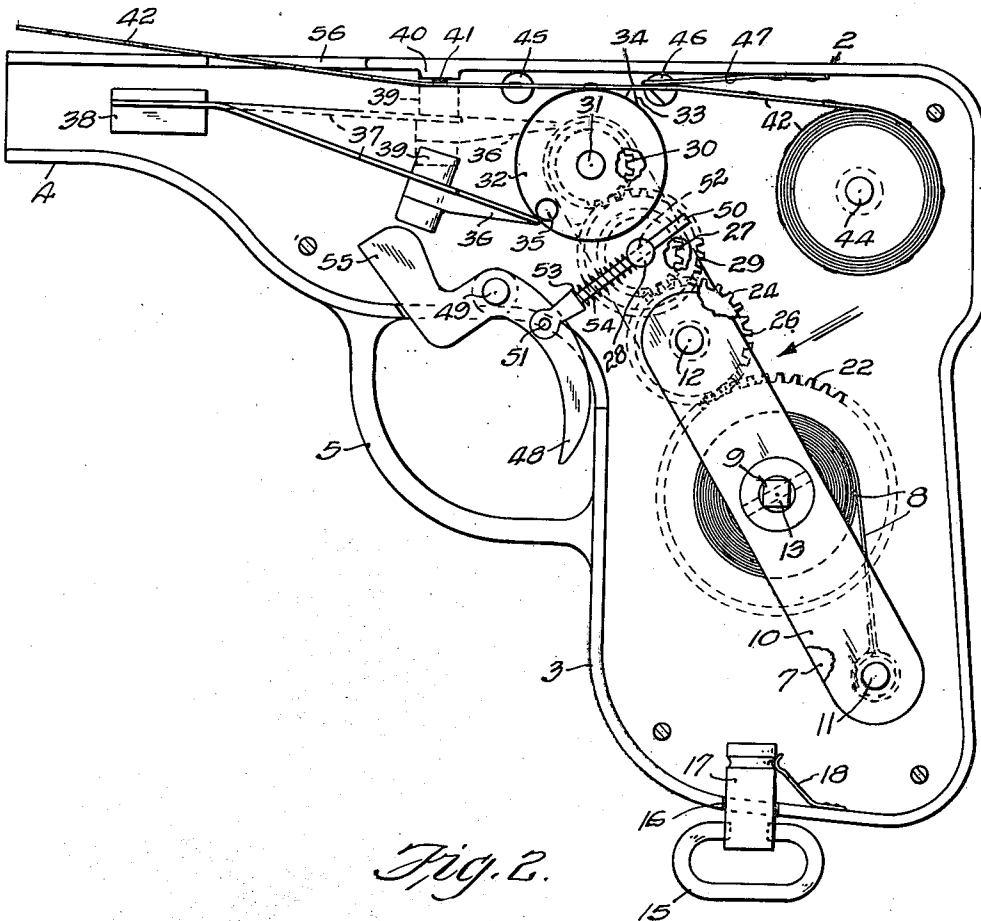
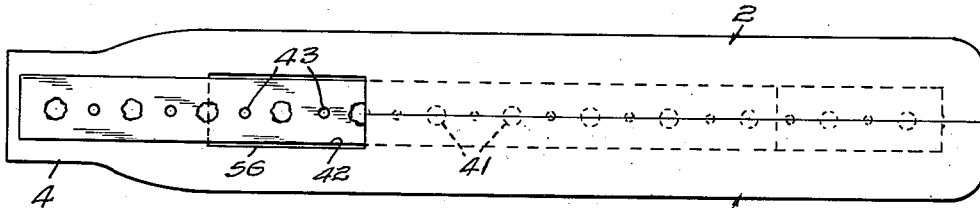
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R. T. MILNE
CAP PISTOL

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2 Sheets-Sheet 1



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2 Sheets-Sheet 2

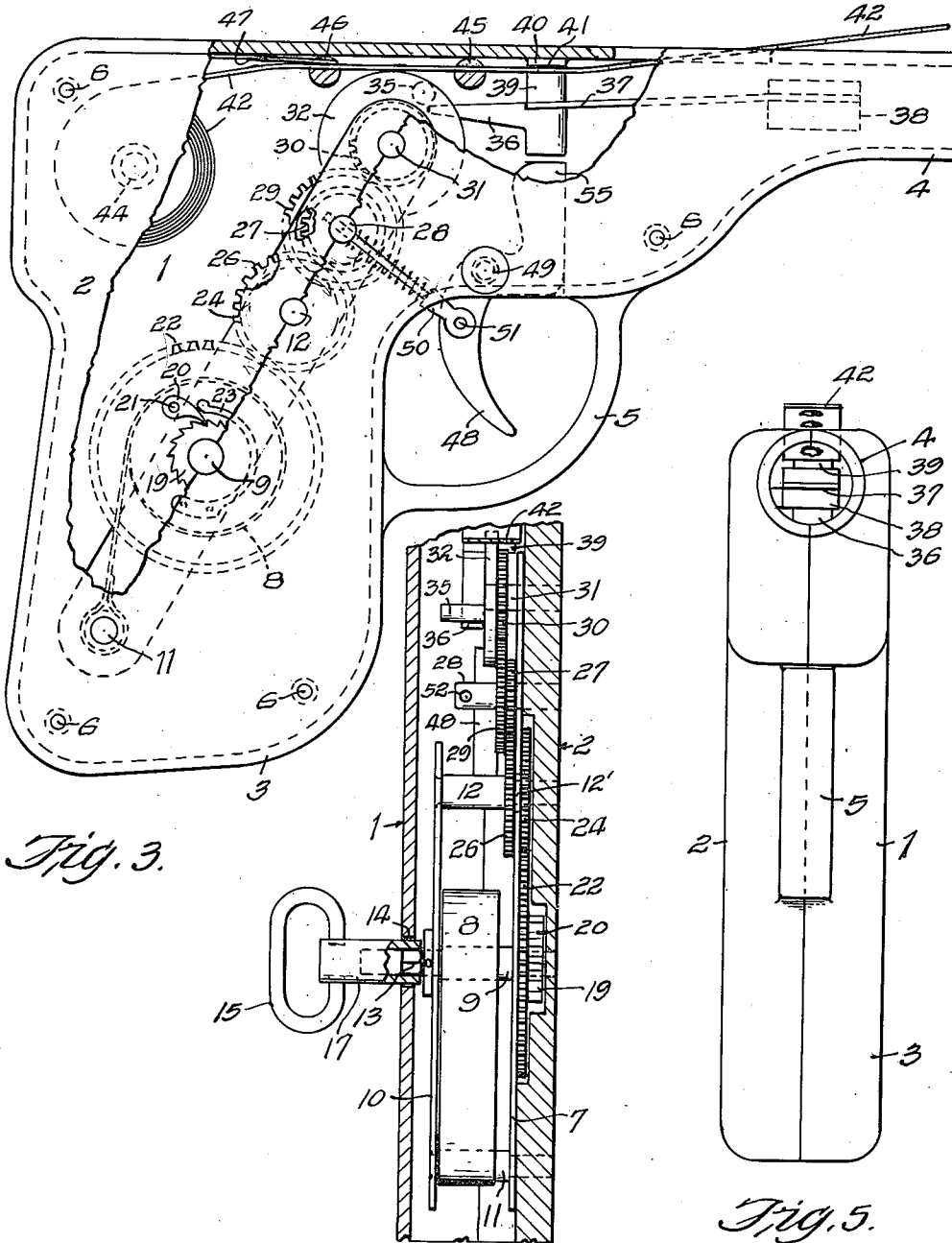


Fig. 3.

Fig. 4.

Fig. 5.

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CAP PISTOL

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1 Claim. (Cl. 42—57)

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This invention relates to cap pistols, and, has for an object to provide a repeating cap pistol employing a strip of ammunition in roll form having spaced caps which will, by pulling on a trigger, repeat firing as a machine gun until the roll has been consumed, and, which can also be used to fire, or detonate a single cap, or any other number of caps less than that contained in a full length strip, by merely actuating the trigger with a finger.

A further object of the invention resides in providing means for guiding the ammunition cap strip from the roll to a feeder element for feeding the cap strip to and between a stationary anvil and a resiliently supported reciprocable hammer head, which feeder element is actuated by means of a suitable train of gears driven by means of a spring motor and controlled by trigger actuated means controlling reciprocation of the reciprocable hammer head.

The above and other objects and features of novelty of this invention, such as construction, combinations and relations of parts by which the objects are attained, will become apparent when referring to, for a better understanding of the invention, the following specification, taken in conjunction with the accompanying drawings, wherein:

Fig. 1 is a top plan view of the cap pistol.

Fig. 2 is a side elevation with one side of the pistol casing removed, clearly showing the embodiment of my invention.

Fig. 3 is a view showing the other side of the cap pistol, and showing the casing partly broken away.

Fig. 4 is a view partly in section, looking in the direction of the arrow in Fig. 2, and showing the train of gears, the spring motor and the cap strip feeder element.

Fig. 5 is a rear elevation of the cap pistol.

In carrying my improved cap pistol of the repeater type, into practice, I employ a casing consisting of two casing members designated, generally, as 1 and 2. Each casing member includes and forms a handle, or butt portion 3 and a barrel, or muzzle portion 4. The casing also includes a trigger guard 5 which may be integral with one of the casing members, or, it may be separable by being a part of, or suitably connected with one or both of the casing members. The lower end of the guard 5 joins with the butt portion 3 of the casing, as illustrated. The casing members 1 and 2 may be connected by suitable fastening devices such, for instance, as screws 6.

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The casing is designed to house and conceal the operating mechanism and to contain the operating mechanisms such, as clearly shown in one embodiment thereof in Figs. 2 and 3. Part of the mechanism is mounted or carried by a strip like plate 7, which constitutes a support suitably carried by the casing member 2.

The operating mechanism supported by the plate 7 includes a suitable clock-spring 8, the inner end of which is secured to a winding shaft 9 mounted at one end in an opening in the plate 7 and passing therethrough, and mounted near its opposite end in an opening in a strip plate 10 supported at opposite ends by and suitably secured to suitable pins 11 and 12. The outer end of the coiled spring 8 is connected, or anchored to the pin 11 between the plates 7 and 10. The end of winding shaft 9 is provided adjacent the plate 10 with a square end portion 13 receivable in an opening 14 in the butt 3 of the casing member 1 and is adapted to receive a winding key 15 for winding the spring 8. The lower wall of the butt 3 is provided with an opening 16 through which the stem portion 17 of the key 15 may pass to be frictionally held, when not in use, by means of a suitable supporting member 18.

A suitable ratchet wheel 19 is secured to the winding shaft 9 adjacent the casing member 2 and is controlled when winding the spring by a pawl 20 pivoted, as at 21, to a gear 22 of suitable pitch diameter and rotatably mounted on the winding shaft 9 between the pawl 20 and the plate 7. The pawl 20 is normally held between two teeth of the gear 19 by means of the free end of a suitable spring 23 secured at its opposite end to the gear 22 mounted on the shaft 9. The gear 22 meshes with a gear 24 of suitable pitch diameter which is fixed to a suitable sleeve 12' mounted on a pin 12 supported by the plates 7 and 10. A gear 26 of suitable pitch diameter is fixed to the sleeve 12' mounted on pin 12 to rotate with gear 24 and meshes with a gear 27 of suitable pitch diameter that is mounted for rotation on a shaft 28 secured at one end to the plate 7. A gear 29 of suitable pitch diameter is mounted on shaft 28 and suitably connected with gear 27 to rotate therewith. Gear 27 meshes with a gear 30 of suitable pitch diameter mounted on a shaft 31 secured at one end to the plate 7.

A cap strip feeder element, such as a wheel 32 having a single peripheral tooth 33 having a pointed end 34, is mounted on the shaft 31 to be rotated by the gear 30, and the feeder wheel 32 is provided with a laterally projecting crank-pin

35 located near the edge thereof, as clearly shown in Figs. 2 and 4.

Projecting into the path of travel of the crank-pin 35 is a suitable finger 36 supported on the free end of a suitable leaf spring 37 anchored at its opposite end to a suitable support 38 carried by the barrel, or muzzle portion 4 of the casing member 2. The crank-pin 35 rides counterclockwise upon the upper face of the finger 36 until it rides off of the finger below the shaft 31. The crank-pin 35 rides on the finger 36 for approximately ninety degrees of its path of travel, thereby causing the finger 36 to be lowered, moving therewith a hammer head 39 carried by the finger 36 due to the resiliency of the spring 37. This arrangement retracts the hammer head 39 from contact with a stationary anvil 40 which may be the inner face of the top wall of the casing member 2, or an insert carried thereby in front of the feeder wheel 32. When the crank-pin 35 rides off of the finger 36, the spring 37 causes the hammer head 39 to suddenly strike the anvil 40 and to detonate ammunition caps 41 spaced along a cap strip 42 with, or without perforations 43 between each ammunition cap along the cap strip 42.

The cap strip 42 is in roll form, and it is rotatably mounted on a suitable supporting pin 44 secured at one end to the casing member 2. The cap strip 42 is threaded between two spaced pins 45 and 46 and the top wall of the casing adjacent the upper edge of the feeder wheel 32, and is under the tension of a suitable leaf spring 47 to cause the strip 42 to ride under pressure, or tension on the pin 46. The tooth 32 on the feeder wheel 32 engages in the spaced holes, or perforations 43 in the cap strip 42, and as the feeder wheel 32 rotates, it moves the cap strip 42 forward one station, or the distance between spaced ammunition caps each time the crank-pin completes one revolution, due to the unwinding action of the clock spring 8. For each revolution of the feeder wheel 32, the cap strip 42 is moved forward one station to bring the succeeding ammunition cap to the stationary anvil 40 to be detonated by the sudden release of the hammer head 39 as the spring supported finger 36 is released from riding action on the crank-pin 35. Where the ammunition strip 42 is not provided with perforations, the pointed end 34 of the feeder wheel tooth 33 will perforate the strip 42 between the ammunition caps carried thereon to advance the ammunition caps on the strip 42 to detonating position under the stationary anvil 40.

To control the action of the feeder wheel 32 and the hammer head 39, I employ a trigger 48 pivoted, as at 49 to the casing member 2. A pin 50 is suitably hinged, as at 51, to the trigger 48 and the free end thereof is mounted to ride in an opening 52 in the gear supporting shaft 28. The pin 50 is provided with a shoulder 53 and there is a suitable coiled spring 54 encircling the pin 50 disposed between the shoulder 53 and the gear shaft 28. The upper end of the trigger 48 is provided with a head 55 which is adapted to engage the underface of the spring supported finger 36 directly under the hammer head 39 to prevent the rotation of the feeder wheel 32 and crank-pin 35 until pulling finger pressure is applied to the trigger 48 to release the head 55 from contact with the spring supported finger 36. When the trigger 48 has been pulled to release the trigger

head 55 from contact with the spring supported finger 36 supporting the hammer head 39, the hammer head 39 will be free to reciprocate and strike the anvil due to the action of spring 37, thereby detonating the ammunition caps along the cap strip as they are fed or advanced to the stationary anvil 40. One ammunition cap can be detonated at a time by quickly releasing the trigger 48, or by holding the trigger 48 in, the entire roll of caps can be detonated in rapid machine gun fashion, or two, three, four or any other number of caps can be detonated by finger control of the trigger 48.

The top wall of the casing is provided with an opening 56 through which the fired end of the ammunition cap strip can be fed through as fast as the caps are detonated. The opening 56 is adjacent and beyond the stationary anvil, as shown in Fig. 1.

It will be apparent to those skilled in the art to which the invention relates, that various changes and substitutions may be made therein without departing from the spirit and scope of the invention, as set forth in the appended claim.

What I claim is:

The combination with a separable pistol casing having a body portion provided with a stationary anvil, a butt, a muzzle and the upper wall of the casing adjacent the inner end of the muzzle having an opening therein, of mechanism housed in the casing operative to fire ammunition caps spaced along a paper strip, said mechanism including a trigger, a train of spring operated gears, an ammunition cap strip feeder wheel associated with and rotatable with one of the gears, a peripheral finger on the feeder wheel for progressively advancing the ammunition cap strip in controlled stages to and below the stationary anvil under control of the trigger, a crank-pin on the feeder wheel, a spring supported hammer head biased in cap firing direction and said hammer head arranged to be retracted by said crank-pin from a cap firing position, a head member carried by the inner end of the trigger, a pin having a shoulder hingedly connected at one end with the trigger, means for slidably supporting the opposite free end portion of the pin, a coiled spring mounted on the hinged pin between the shoulder thereon and the means for slidably supporting the free end portion of the hinged pin for normally supporting the trigger whereby retraction of the hammer head is prevented until the trigger has been pulled to allow retraction of the hammer head by the crank-pin on the feeder wheel.

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