No. 843,064. PATENTED FEB. 5, 1907.

H. BENNETT.

REPEATING CAP PISTOL.

APPLICATION FILED SEPT. 13, 1902.

2 SHEETS—SHEET 1.

Fig. 1.

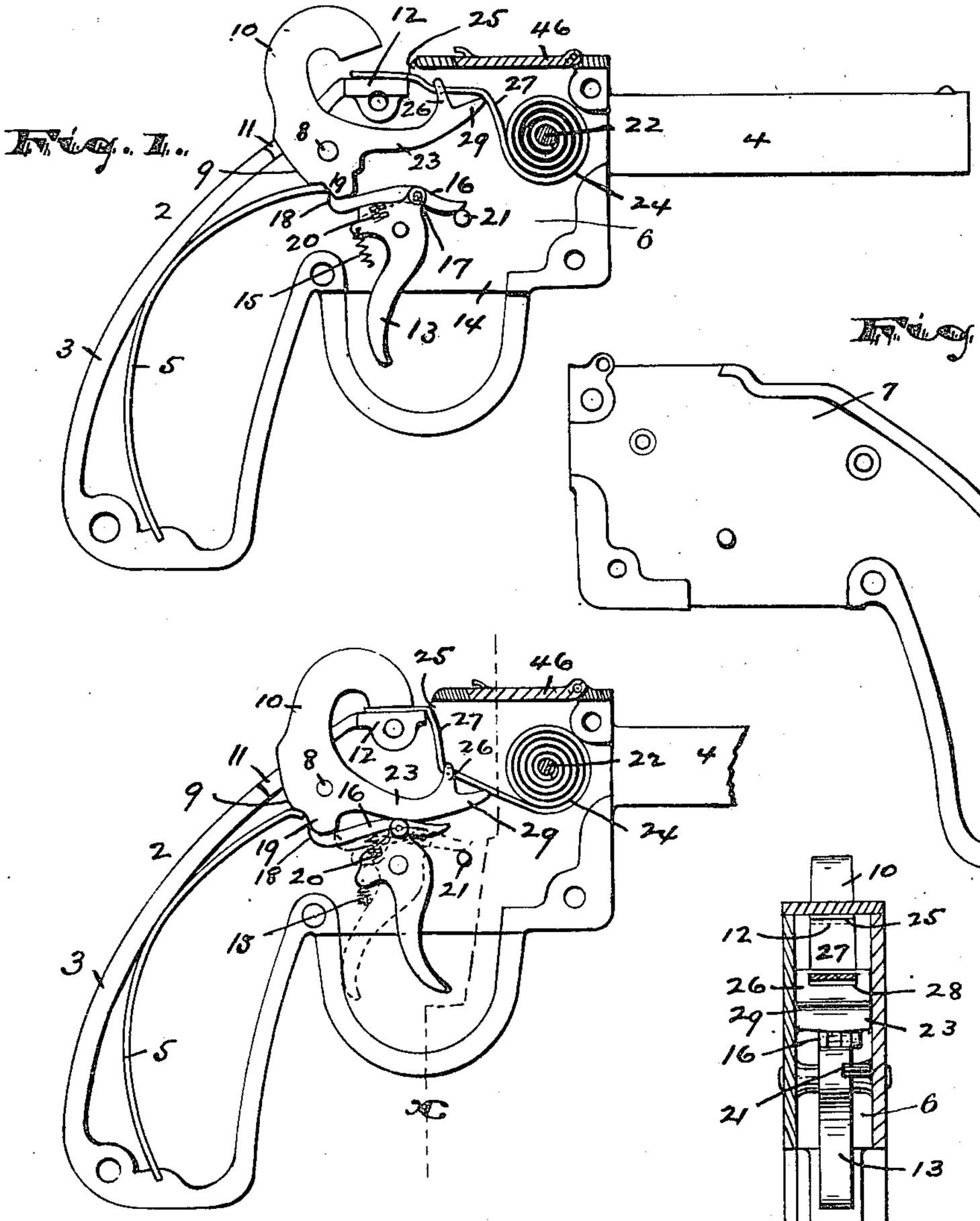

Fig. 3.

Fig. 2.

Fig. 4.

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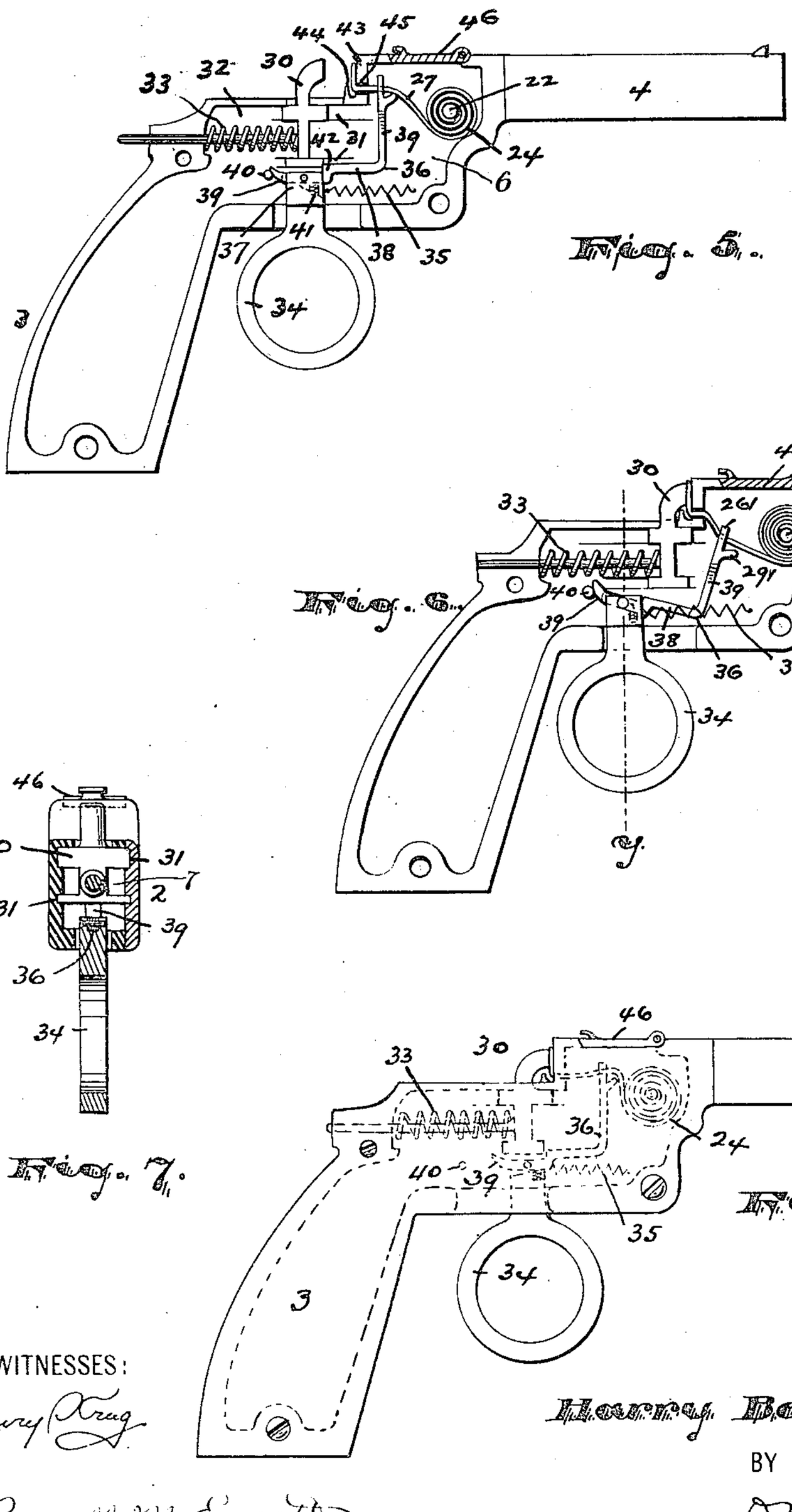

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

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UNITED STATES PATENT OFFICE.

HARRY BENNETT, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO M. SAMUEL KAMM AND ONE-HALF TO EMERY E. HARDY, BOTH OF NEWARK, NEW JERSEY.

REPEATING CAP-PISTOL.

No. 843,064. Specification of Letters Patent. Patented Feb. 5, 1907.

Application filed September 13, 1902. Serial No. 123,247.

To all whom it may concern:

Be it known that I, HARRY BENNETT, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Repeating Cap-Pistols; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of pistols commonly known as "cap-pistols" and chiefly used by children or young people upon the Fourth of July or similar occasions.

The objects of the invention are to secure an automatic feeding of the explosive caps beneath the hammer; to accomplish this by simple and yet positive and effectual means; to secure great regularity in feeding and obviate the liability of failure to work properly; and to obtain other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved toy pistol or detonator and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of my improved pistol with a certain removable side plate taken off and showing the trigger drawn back and the hammer elevated. Fig. 2 is a similar view with the hammer fallen. Fig. 3 shows the removable side plate of the pistol, and Fig. 4 is a vertical cross-section of the pistol, as on line *x*, Fig. 2. Fig. 5 is a side elevation of a pistol of modified construction with the side plate removed and showing my improved cap-feeding means applied thereto, the hammer being retracted. Fig. 6 is a view similar to Fig. 5, but showing the hammer at the moment of impact with the anvil, the trigger being still in rearmost position. Fig. 7 is a vertical cross-section of the pistol, as on line *y*, Fig. 6; and Fig. 8 is a side elevation of the complete pistol shown in Figs. 5, 6, and 7 and showing in outline the position of parts just prior to firing.

In said drawings, 2 indicates a casting forming the body of a pistol to which I have shown my improved cap-feeding devices applied, although it will be understood that said devices can be employed in connection with other detonators of any suitable form. Said body provides the usual grip or handle portion 3 and barrel 4, and intermediate of said grip and barrel is hollowed out or chambered, as at 6, to receive the lock mechanism, as is usual. The handle is also preferably hollow to contain a spring 5 for the hammer, and at one side of the pistol a removable plate 7 is provided to expose said chambers.

In the rear part of the middle chamber 6 of the pistol is pivoted upon a transverse pin 8 the hammer 9, having an upwardly and rearwardly curving arm 10, extending through a slot 11 in the walls of the chamber and adapted under the normal action of the spring 5 to strike upon an anvil 12 above the chamber 6. Beneath and slightly forward of the said hammer is similarly pivoted a trigger 13, projecting outward at its lower portion through a slot 14 and adapted to receive the finger in any usual manner. Said trigger is normally thrown forward by a spring 15, and at its upper end the trigger carries a catch or hooked lever 16, pivoted on the trigger, as at 17, to swing in the same plane therewith. The said lever 16 is hooked at its rear end, as at 18, to engage a suitable projection 19 on the hammer, to the end that said hammer may be retracted or lifted for firing. Said hooked arm of the lever is normally held out from the trigger to engage the hammer by a spiral spring 20 and to press the hooked arm away from the hammer at the proper movement and permit said hammer to fall. The opposite end of the lever 16 forms a curved bearing or cam adapted to engage a fixed pin 21 and depress the other or hooked end as the trigger turns on its pivot.

Coming now to the automatic feeding device, in which my invention more particularly inheres, 22 indicates a stud at the forward part of the chamber 6 of the pistol and onto which a roll 24 of the paper caps common in the market is loosely slipped, so that

it is free to rotate. The free end of the strip of caps is passed rearwardly through a feeding-arm 23 out through a slot 25 in the wall of the pistol-body onto the anvil 12. Said feeding-arm in the preferred construction of pistol above described is integral with the hammer 10, curving forwardly upward from the pivot 8 of said hammer and adapted to rock or oscillate with the hammer, whereby the free end of the arm alternately rises and falls. At a point a little back from the extremity of the feeding-arm is a projection 26 from the upper side, which is disposed at approximately right angles to that portion of the feeding-arm. This projection 26, which gives to the arm an appearance in side view of being bifurcated, is near its end transversely slotted to receive the strip 27 of caps, said slot 28 being preferably a closed one.

The roll of caps 24 lies in the same plane with the anvil, hammer, and feeding-arm 23, and the free end of the strip extends from the roll over the extremity 29 of the feeding-arm, so as to lie thereagainst, then through the slot 28 in the projection 26, and thence to the anvil 12. When the feeding-arm is on its upward stroke, the lower forward edge and upper rear edge of the slot 28 engage the strip 27 and grip the same sufficiently to unwind a little from the roll 24 and push the free end out through the opening 25 onto the anvil. Then on the downstroke the strip slips loosely and idly through the slot 28, its natural stiffness being enough to hold the free extremity in place on the anvil to receive the hammer-stroke. Thus at every pull of the trigger the hammer is retracted, a cap fed, and the hammer released in rapid succession and automatically.

Obviously the feeding-arm described can be used in connection with other trigger and hammer constructions than the one thus particularly described, and in Figs. 5–8 I have illustrated another such construction. Here the hammer 30 slides horizontally forward in ways 31 at the sides of the interior chamber 32 of the pistol-body under the action of a spiral spring 33. A trigger 34 of the type shown in my copending application filed May 1, 1902, Serial No. 105,538, works also horizontally beneath said hammer, being normally held in forward position by a spiral spring 35. Said trigger has pivoted on its upper end, as at 37, a feeding-arm 36, which extends horizontally forward, as at 38, and then upward, as at 39, to engage the cap-strip 27, as before described. To oscillate the feeding-arm 36, the rear end of its horizontal portion is beveled, as at 39, and adapted to engage a fixed pin 40 as the trigger is drawn back, whereby the forward end portion 38 is thrown downward, as indicated in Fig. 6. A small spiral spring 41 normally holds the feeding-arm in upward position.

In either of the constructions shown the free end of the feeding-arm when in lowered position, as well as during its downward movement, loosely engages the cap-strip, so that the outer end of the latter remains in position upon the anvil by its natural stiffness, and the feeding-arm slips loosely along the strip. On its upward stroke the table or extremity 29 of the feeding-arm presses upward against the under side of the cap-strip, causing the same to bind in the slot 28 or become fixed with respect thereto, so that the cap-strip is carried forward with the feeding-arm and more inward from the roll 24. With every pull on the trigger, therefore, the hammer is raised, a cap fed beneath, and the hammer caused to fall again.

In the modified construction shown in Figs. 5–8 the hammer 30 is engaged for retraction by a shoulder 42 on the feeding-arm, and since in this constructior the anvil 43 is vertically disposed a guide 44 is located at the base thereof opposite the opening 45, through which the cap-strip feeds to turn the end of the strip upward, as shown in said figures. A door 46 in the top of the hollow middle portion 6 of the pistol-body enables the roll of caps to be conveniently inserted.

Having thus described the invention, what I claim as new is—

1. In a repeating cap-pistol, the combination with an anvil and a hammer, of a pivoted feeding-arm having a slot in its free end adapted to receive a strip of caps extending in the direction of movement of the arm, said arm having a portion of itself adapted to engage the strip at a distance from said slot, and means for oscillating said feeding-arm.

2. In a cap-pistol, the combination with an anvil and a hammer, of a feeding-arm pivoted at one end and adapted to engage at the other end a strip of caps, a projection upon said arm near its free end slotted to receive the strip of caps and hold the same in the plane of the arm, and means for oscillating said feeding-arm.

3. In a cap-pistol, the combination with an anvil and a pivoted hammer, of a cap-feeding arm projecting from said hammer and adapted to oscillate therewith, said arm having a slotted projection to receive the cap-strip and an extremity portion adapted to alternately engage and disengage the cap-strip.

4. In a cap-pistol, the combination of a pivoted hammer having a forwardly and upwardly extending feeding-arm slotted near its end to receive a strip of caps, a spring normally throwing said hammer forward, and a trigger for retracting said hammer and automatically releasing the same.

5. In a cap-pistol, the combination of a pivoted hammer having a forwardly and up-

wardly curving cap-feeding arm integral therewith and transversely slotted near its end to receive a strip of caps, a hammer-spring, a trigger independent of said hammer, a lever on said trigger adapted to engage the hammer, and means for tripping said lever and releasing the hammer.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of June, 1902.

HARRY BENNETT.

Witnesses:

CHARLES H. PELL,

C. B. PITNEY.