

No. 667,248.

Patented Feb. 5, 1901.

C. P. O'NEILL.
REVOLVER.

(Application filed May 17, 1900.)

(No Model.)

2 Sheets—Sheet 1.

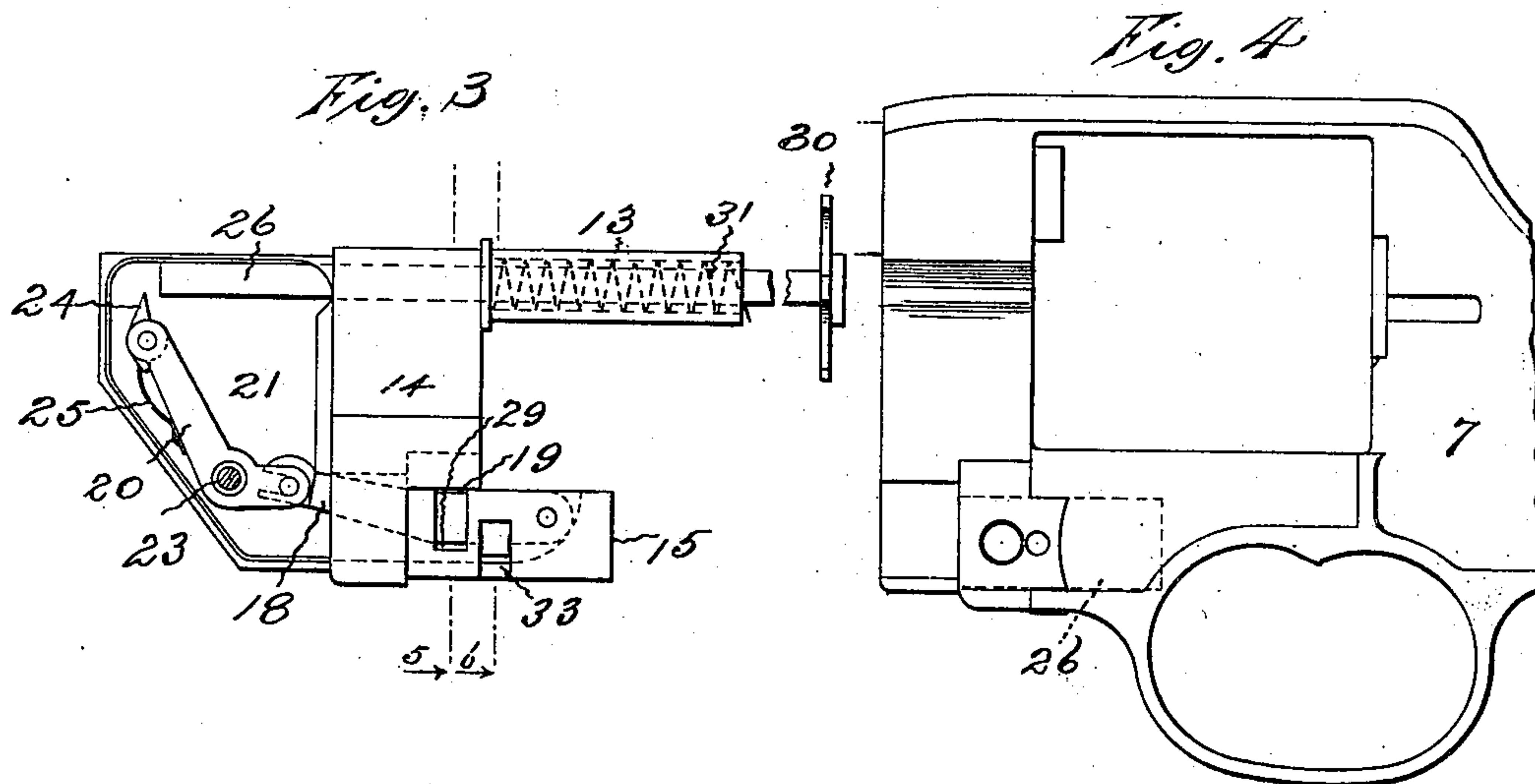
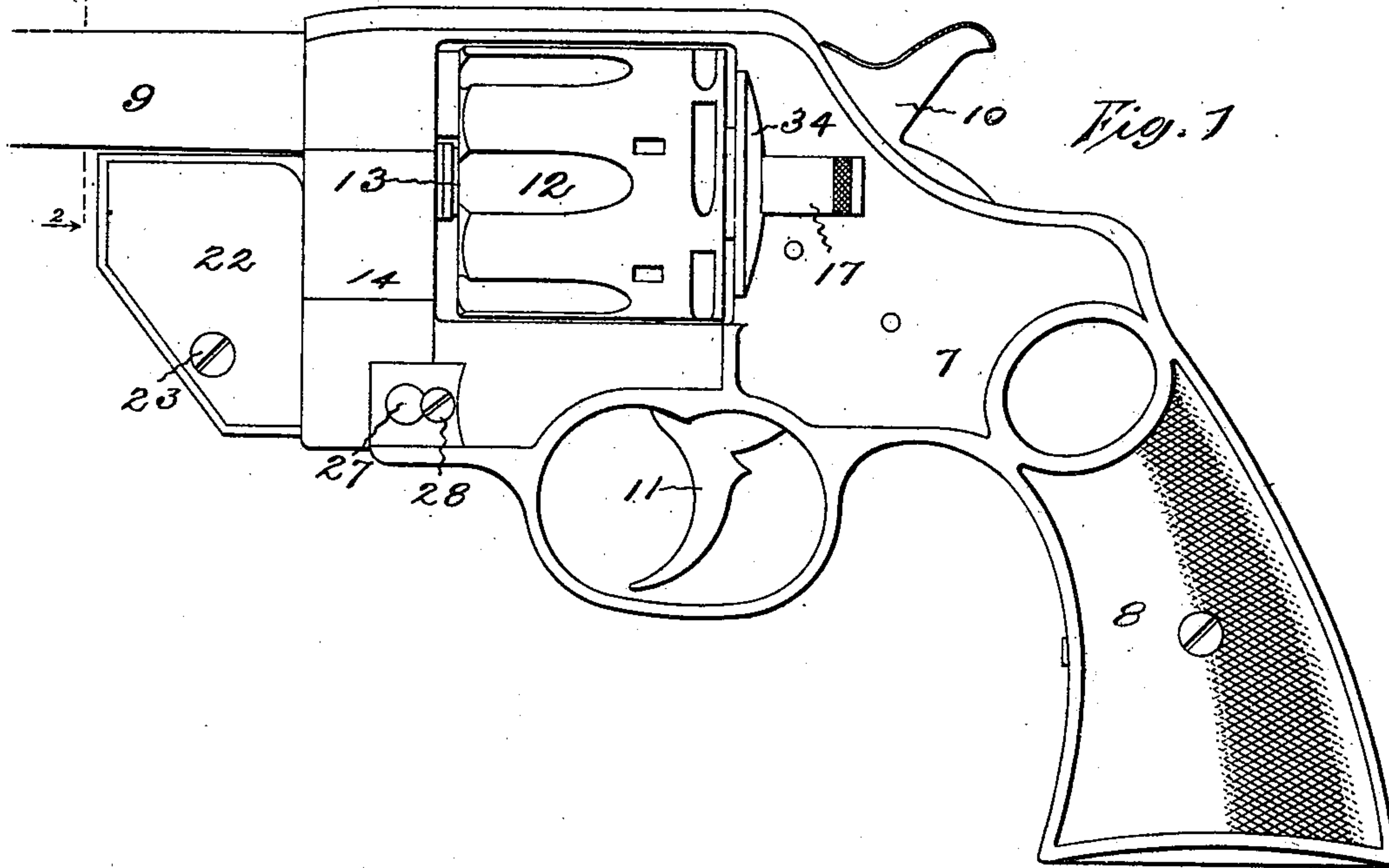


Fig. 4

Witnesses:

V. R. Holcomb.

C. E. Burtland.

Inventor:

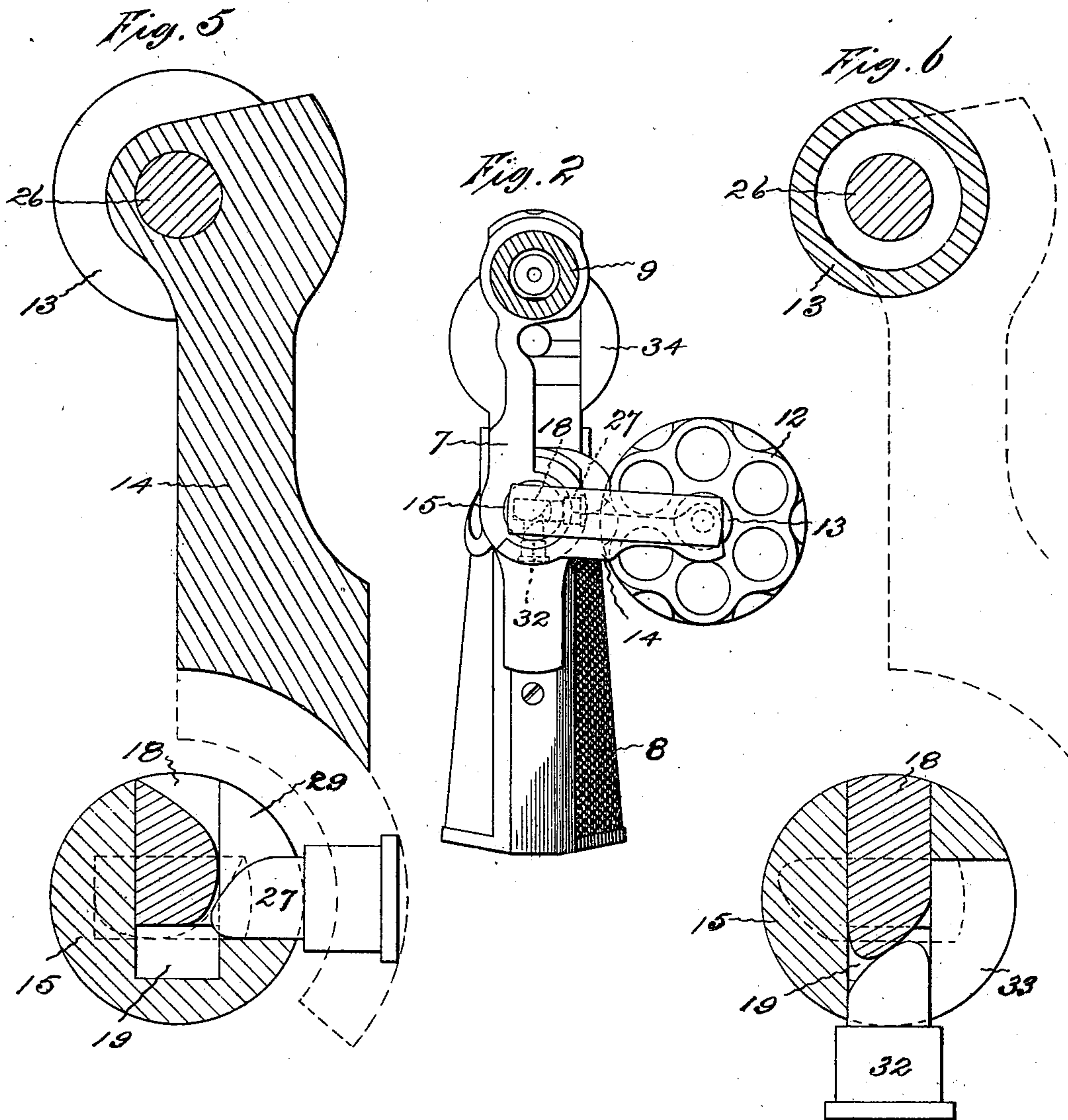
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2 Sheets—Sheet 2.



Witnesses:
V. R. Holcomb.
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UNITED STATES PATENT OFFICE.

CHARLES P. O'NEILL, OF HARTFORD, CONNECTICUT.

REVOLVER.

SPECIFICATION forming part of Letters Patent No. 667,248, dated February 5, 1901

Application filed May 17, 1900. Serial No. 17,010. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. O'NEILL, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Revolvers, of which the following is a specification.

This invention relates to the so-called "army" and "police" type of revolver that is provided with an ejector which automatically pushes out the exploded shell as the cylinder and yoke swing downwardly on one side of the stock-frame.

The object of the invention is to construct such a revolver with an ejector-operating mechanism which is simple, durable, and positive.

The views illustrate the invention as applied to a Colt army revolver. The yoke of this revolver carries a lever that when the yoke is opened outwardly engages a stud projecting inwardly from the stock-frame and is moved in one direction with relation to the swinging-yoke and when the yoke is closed inwardly engages a stud projecting upwardly from the stock-frame and is moved in the opposite direction relatively to the swinging yoke. This stud-lever acts upon a lever which in front of the extractor-post is provided with a hinged spring-finger. When the yoke is opened downwardly, the levers are so moved that the finger engages and forces backwardly the ejector-post and ejector until the exploded shells are thrown out of the cylinder-chambers and then the finger allows the ejector-post and ejector to be drawn forwardly by a spring, so that cartridges may be loaded into the cylinder-chambers. When the yoke is closed inwardly, the levers are moved in the opposite direction, so as to return the finger to its normal position in front of the ejector-post, the finger folding down while passing under the ejector-post until reaching the end, when a spring causes it to assume an upright position.

Figure 1 shows a side elevation of a Colt army revolver fitted with the improved ejector mechanism. Fig. 2 is a view taken on the plane of the broken line 2 of Fig. 1 looking in the direction indicated by the arrow, with the yoke opened downwardly. Fig. 3 is a view of the yoke with the cover-plate removed to

expose the levers. Fig. 4 is a view of the cylinder-supporting portion of the stock-frame. Fig. 5 is a sectional view, on a greatly enlarged scale, of the yoke, taken on the plane indicated by the broken line 5 of Fig. 3 looking in the direction indicated by the arrow; and Fig. 6 is a sectional view, on the same large scale, of the yoke, taken on the plane indicated by the broken line 6 of Fig. 3 looking in the direction indicated by the arrow.

The stock-frame 7 has common hand-grips 8 and barrel 9. The lock mechanism connecting the hammer 10 and trigger 11 is the ordinary self-cocking rebounding type. The cylinder 12 is mounted upon the sleeve 13, projecting from the yoke 14, that has the pivot-hub 15, which passes into a socket 16 in the lower front part of the stock-frame in the usual manner. When the latch 17 is drawn backwardly, the cylinder is free to be swung outwardly and downwardly, the yoke turning on the pivot-hub. The stud-lever 18 is located in a mortise 19, formed in the yoke. The free end of this stud-lever has a fork engaging the end of the short arm of the finger-lever 20, that is located in a chamber 21, formed in the front part of the yoke. This chamber is closed on one side by a plate 22, held in place by the screw 23, that forms the pivot-stud of the finger-lever. The end of the long arm of the finger-lever is provided with a hinged finger 24, that is held upright by a spring 25, attached to the finger-lever. The point of this finger projects in front of the end of the extractor-post 26, that extends through the cylinder-sleeve, and at the rear of the cylinder is provided with common shell-extractor arms. The extractor-post and extractor, being of common construction and being held in the usual manner, are not shown in detail.

Fixed in a socket in the side of the stock-frame is a stud 27. This stud is held in place by a screw 28, with its inner end, that is provided with a cam, projecting through the slot 29 in the pivot-hub of the yoke into the path of the stud-lever, which is provided with a complementary cam-surface, so that when the yoke is opened downwardly the stud-lever 18 will at the proper time engage the cam end of the stud 27 and be moved toward the bottom of the yoke by the continued

movement of that frame. This movement of the stud-lever 18 will so oscillate the finger-lever 20 that the finger 24 will engage and force backwardly the end of the extractor-post, causing the extractor 30 to discharge all shells from the chambers of the cylinder. When the finger-lever 20 oscillates sufficiently far to cause the finger 24 to become disengaged from the extractor-post, the spring 31 thrusts the extractor-post and extractor forwardly in the usual manner, so that cartridges may be loaded into the cylinder-chambers.

Held in a socket in the bottom of the stock-frame is a stud 32. The inner end of this stud, which is provided with a cam, projects through a slot 33 in the pivot-hub of the yoke into the path of the stud-lever 18, which has a complementary cam-surface, so that when the yoke is closed inwardly the stud-lever will at the proper time engage the cam end of this stud 32 and be moved toward the top of the yoke by the continued movement of that frame. This movement of the stud-lever 18 so oscillates the finger-lever 20 that the finger 24 is returned to its normal position in front of the extractor-post. As the finger 24 moves forwardly it turns upon its pivot, so that it may pass beneath the post, and when it reaches normal position is caused by its spring to assume an upright position.

The stud 27 is so located and arranged that its cam end is engaged by the upper edge of the stud-lever 18 after the cylinder is opened beyond the outer edge of the recoil-plate 34, attached to the latch. The stud 32 is so located and arranged that its cam end is engaged by the lower edge of the stud-lever when the cylinder is nearly closed.

This ejecting mechanism is positive in action and it is very simple in construction. There are but few parts, and these parts are not subjected to much wear and are not liable to become damaged.

I claim as my invention—

1. In combination in a revolver, a side-swinging yoke, a cylinder borne by the yoke, an ejector and ejector-post carried by the

yoke, a stud-lever mounted in a recess in the yoke, a finger-lever mounted in a recess in the yoke and engaged by the stud-lever and arranged to engage the ejector-post, and a fixed surface adapted to be engaged by the stud-lever as the yoke is opened and closed for causing the oscillation of the lever, substantially as specified.

2. In combination in a revolver, a side-swinging yoke, a cylinder borne by the yoke, an ejector and ejector-post carried by the yoke, a stud-lever mounted in a recess in the yoke, a finger-lever mounted in a recess in the yoke and engaged by the stud-lever and arranged to engage the ejector-post, and a stud projecting from the stock-frame into the downward path of the stud-lever, substantially as specified.

3. In combination in a revolver, a side-swinging yoke, a cylinder borne by the yoke, an ejector and ejector-post carried by the yoke, a stud-lever mounted in a recess in the yoke, a finger-lever mounted in a recess in the yoke and engaged by the stud-lever and arranged to engage the ejector-post, a stud projecting from the stock-frame into the downward path of the stud-lever, and a stud projecting from the stock-frame into the upward path of the stud-lever, substantially as specified.

4. In combination in a revolver, a side-swinging yoke, a cylinder borne by the yoke, an ejector and ejector-post carried by the yoke, a stud-lever mounted in a recess in the yoke, a finger-lever mounted in a recess in the yoke and engaged by the stud-lever, a spring-finger hinged to the finger-lever and arranged to engage the ejector-post when the finger-lever is oscillated in one direction, a stud projecting from the stock-frame into the downward path of the stud-lever, and a stud projecting from the stock-frame into the upward path of the stud-lever, substantially as specified.

CHARLES P. O'NEILL.

Witnesses:

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V. R. HOLCOMB.