C. H. RICHARDSON.

REVOLVING FIRE-ARM.

No. 191,178. Patented May 22, 1877.

Fig. 1.

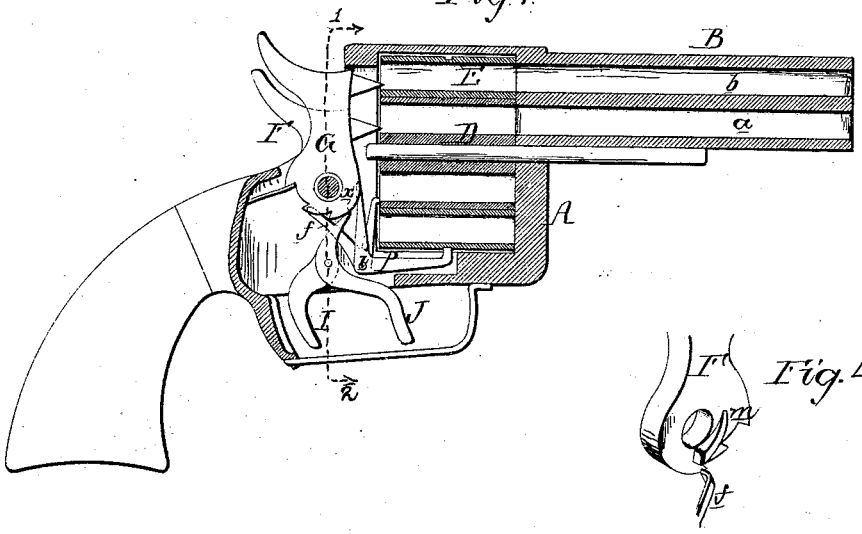


Fig. 4.

Fig 2

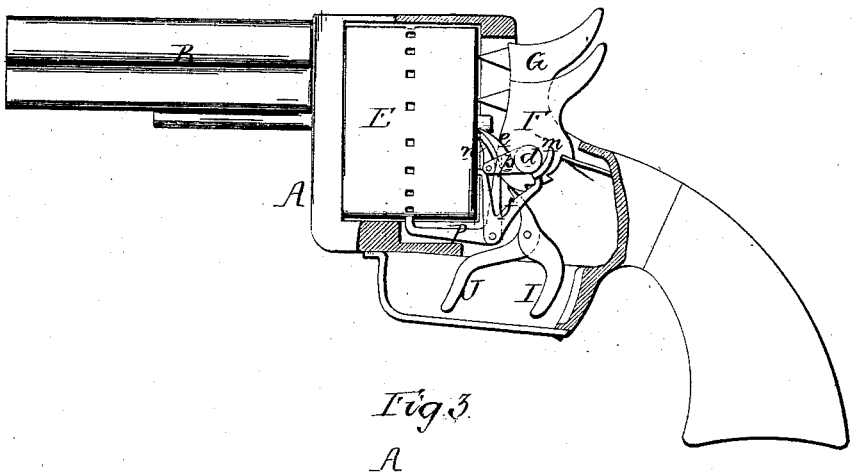
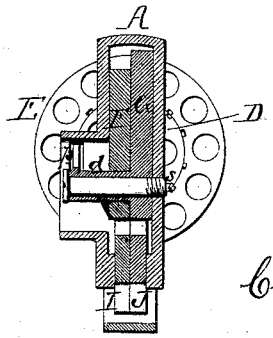


Fig. 3



Witnesses
John K. Rupertus.
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UNITED STATES PATENT OFFICE.

CHARLES H. RICHARDSON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN REVOLVING FIRE-ARMS.

Specification forming part of Letters Patent No. **191,178**, dated May 22, 1877; application filed December 29, 1876.

To all whom it may concern:

Be it known that I, CHARLES H. RICHARDSON, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Revolving Fire-Arms, of which the following is a specification:

The object of my invention is to construct a revolving fire-arm of greater capacity than usual as regards the number of shots which can be fired without reloading; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical section of my improved revolving fire-arm; Fig. 2, a side view, partly in section, looking at the side opposite that in Fig. 1; and Fig. 3, a transverse vertical section on the line 1 2.

The frame A of the fire-arm is constructed substantially as usual; but its barrel B is elongated vertically, and has two bores, *a* and *b*, one above the other.

The lower bore *a* is in line with the cartridge-chambers of the usual cylinder D, while the bore *b* is in line with cartridge-chambers formed in a ring, E, which embraces the cylinder D, but is at liberty to turn freely thereon.

The fire-arm has two hammers, F and G, and two triggers, I and J, the hammer F and trigger I acting in conjunction with the cylinder D, and entirely independent of the hammer G and trigger J, which act in conjunction with the ring E.

The hammer F is hung upon a sleeve, *d*, which is attached to the hammer G, and turns upon the usual pivot-pin.

The hammer F carries the usual operating-finger *e*, which acts upon a ratchet on the rear of the cylinder D, and serves to partly turn the same when the hammer is raised, the locking of the cylinder during the firing operation being effected by means of a bell-crank lever, *f*, hung to a pin, *i*, the end of one arm of this bell-crank lever being adapted to notches cut in the rear of the cylinder D, while the end of its other arm is acted upon by a cam, *m*, on the side of the hammer F.

This cam *m* is of a peculiar character, as best observed in the perspective view, Fig. 4, on reference to which it will be seen that the cam at its commencement is comparatively thick, but gradually decreases in thickness from front to rear, so that as the hammer is raised the cam will only act on the lever *f*, so as to withdraw the end of the same from the slot in the cylinder, and allow the latter to move slightly when the narrow portion of the cam will permit the outer end of the lever to move upward, so that its front end will bear upon the rear edge of the cylinder, so as to project into the next notch in the same as it is turned.

Upon the descent of the hammer the outer end of the lever is moved sidewise until it is brought in line with the front end of the cam, which is so close to the pivot-pin that the end of the lever is allowed to spring in close to the hammer, so as to be in position for being again acted on by the cam upon raising the hammer.

The turning of the ring E is effected by means of a finger, *n*, hung to an arm *p*, carried by the end of the sleeve *d*, this finger acting on notches *s*, formed in the rear edge of the ring, the locking of which is effected by means of a bell-crank lever, P, hung to the pin *i*.

One arm of this lever has an end adapted to recesses in the periphery of the ring E, while the other is adapted to a cam, *x*, on the edge of the hammer G, this cam being of such a character that it will operate the lever P, so as to lock and release the ring E, in the same manner as the lever *f* is caused, by the cam *m* on the hammer F, to lock and release the cylinder D.

It will be evident that by my invention the capacity of a fire-arm can be increased largely without unduly increasing its size or weight.

I claim as my invention—

1. The combination, in a revolving fire-arm, of the following elements, namely: a barrel, B, with two bores, a revolving chambered cylinder, D, a revolving chambered ring, E, and two independently-operating hammers, F and G, as set forth.

2. The combination of the cylinder D, provided with ratchet and recesses, with the bell crank lever *f*, and the hammer F, having a finger, *e*, and the cam *m* on one side, constructed and operating substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES H. RICHARDSON.

Witnesses:
HERMANN MOESSNER,
HARRY SMITH.