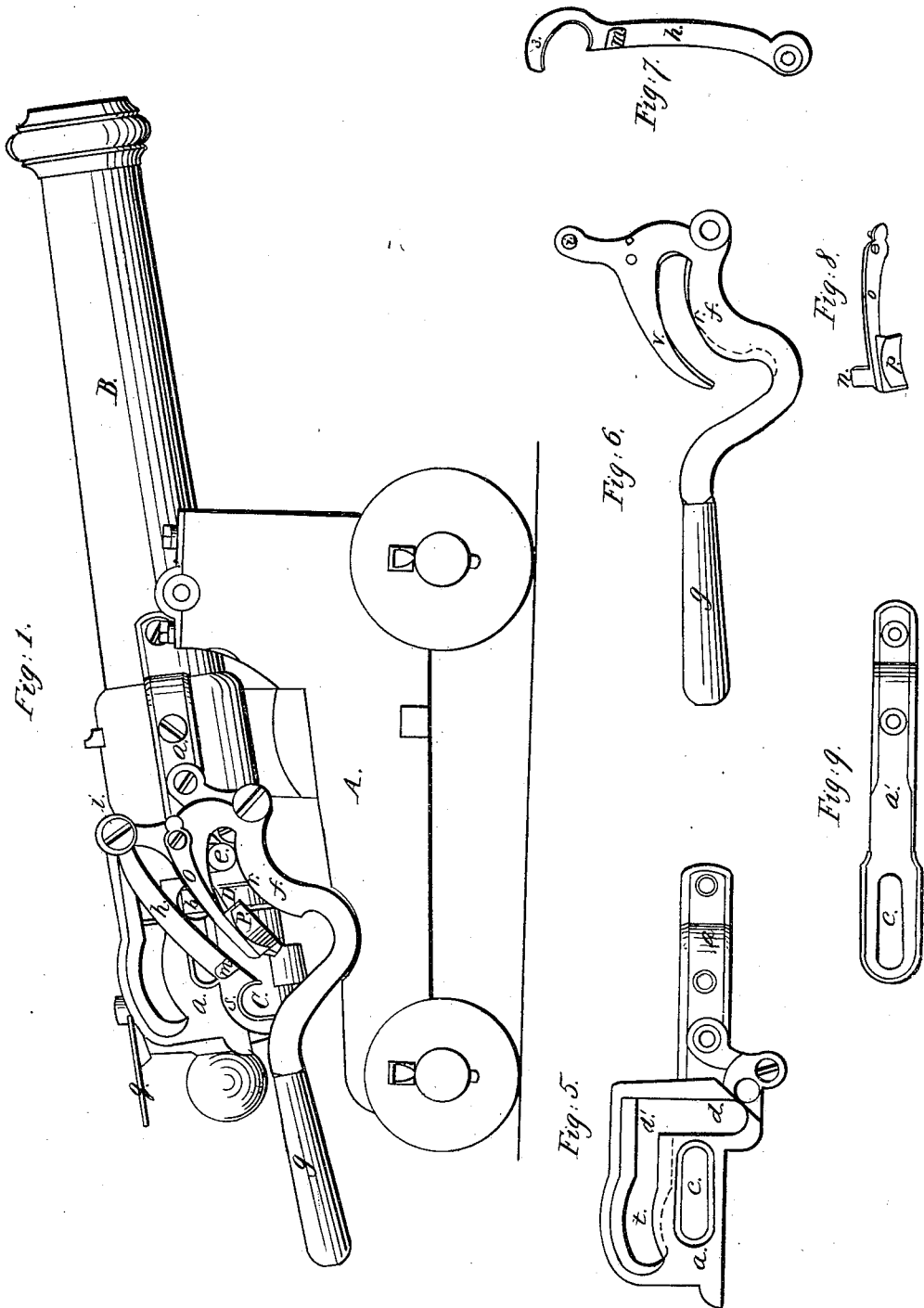


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BREECH LOADING FIREARM.

No. 9,943.

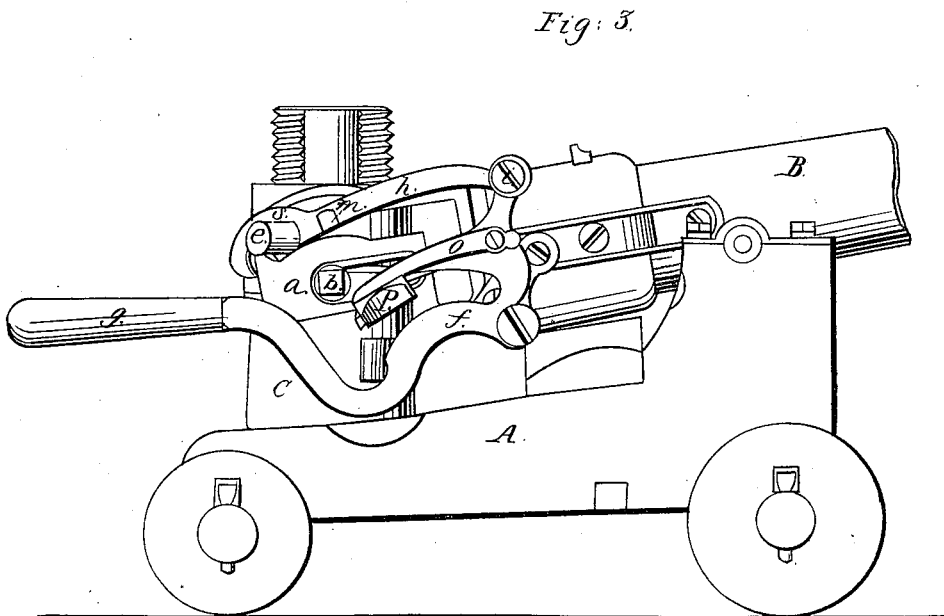
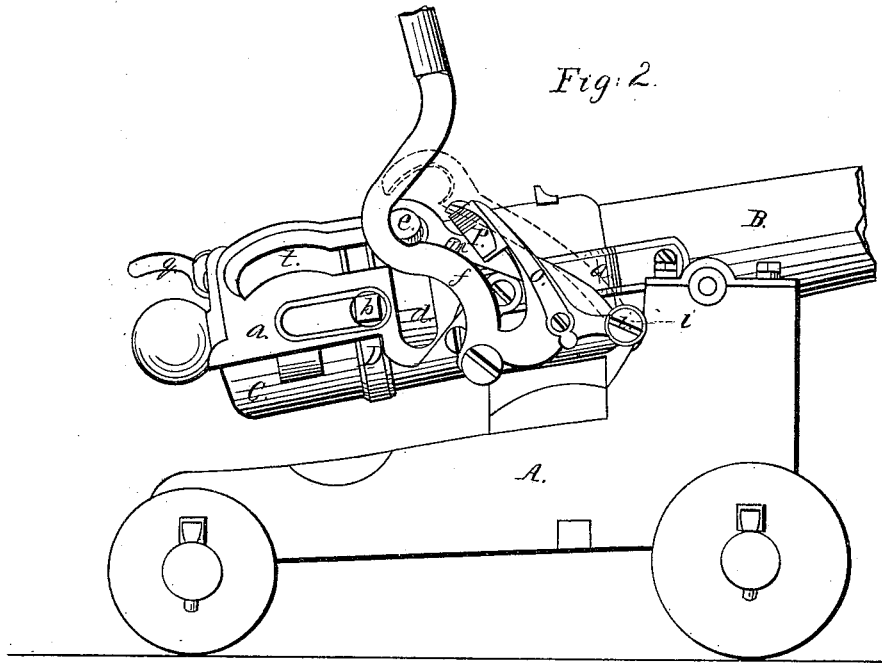
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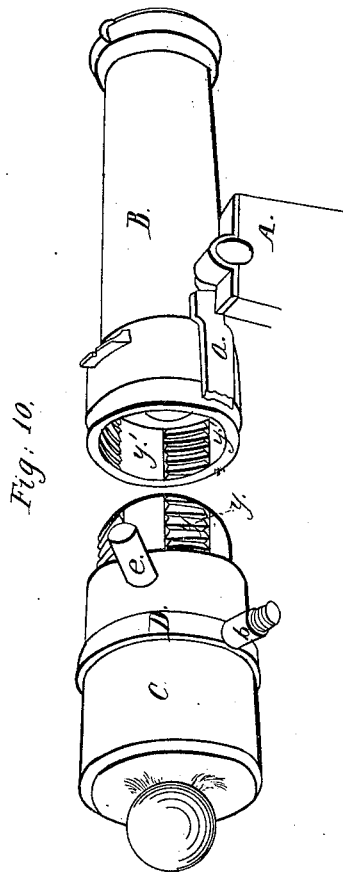
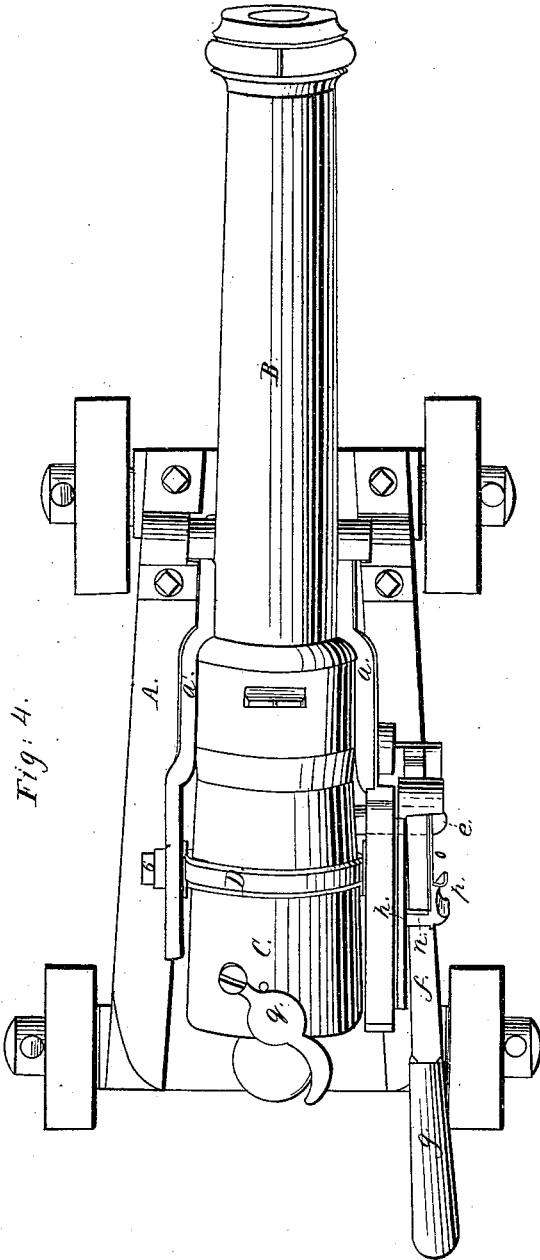
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UNITED STATES PATENT OFFICE.

JOHN P. SCHENKL, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO J. P. SCHENKL AND A. S. SARONI.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 9,943, dated August 16, 1853.

To all whom it may concern:

Be it known that I, JOHN P. SCHENKL, of Boston, in the county of Suffolk and State of Massachusetts, have made certain new and useful Improvements in Breech-Loading Guns; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of the accompanying specification.

My invention is applicable to that class of fire-arms in which the breech is secured to the barrel of the gun by means of a screw upon both breech and barrel, portions of each screw being cut away to allow the breech to enter the barrel, when a portion of a turn of the breech secures the two together; and my invention consists in a method of unscrewing the breech from the barrel and withdrawing the same, of turning up the breech so as to bring its chamber into a vertical position for loading, and then returning the breech into the barrel and locking the two together, which motions are performed through the intervention of appropriate cams, catches, and springs, by the motion of a single lever, worked by the hand of the gunner.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 is a side view of a gun with my improvement attached; Fig. 2, a side view of the same, the breech being unscrewed preparatory to withdrawal; Fig. 3, a side view of the gun with the breech withdrawn and in position for loading. Fig. 4 is a plan. Figs. 5, 6, 7, 8, and 9 are details, which will be referred to hereinafter. In Fig. 10 is seen the manner in which the breech is secured to the barrel.

A screw is cut upon the end of the former, and a corresponding female upon the interior of the barrel. These screws are then marked off into six sections, and the threads upon every alternate section in each are cut away. It is then evident that by turning the breech so that the sections *y* upon which the threads remain be opposite to the sections *y'* of the female screw, from which the threads have been cut away, that the one may be slipped into the other. If, now, the breech be made to perform a sixth of a revolution, the sections of the male screw upon which the threads remain will en-

gage with the screw-sections of the female, and the two will be drawn firmly together.

A is the gun-carriage; B, the barrel of the gun; C, the movable breech.

a a' are straps secured to the barrel of the gun. *a* is seen detached in Fig. 5, and *a'* in Fig. 9.

D is a ring, which surrounds the breech, and in which the latter is permitted to revolve. Upon each side of this ring is a pin, *b*. These pins revolve and traverse in the slots *c* of the straps *a a'*. The strap *a* has also an irregular slot, *d d' t*, in which plays a pin, *e*, secured to the breech, and through which the latter is moved in a manner which will be hereinafter explained.

f is a lever of the form represented in Fig. 6. Pivoted to this lever, at the point *i*, is an operating-dog, *h*, seen detached in Fig. 7. This dog turns freely upon its pivot, and has near to one end a recess or notch, *m*, into which at certain junctures the tooth *n* of the spring *o*. Fig. 8, is allowed to fall. The tooth *n* is raised out of the notch *m* at certain intervals by the pin *e*, which presses against the projection *p* of the spring *o*, and thus the tooth *n* is borne outward sufficiently to clear the lever *h*, which is thus permitted to drop of its own weight. *q* is the cover of the powder-pan.

Operation: In Fig. 1 the gun is represented with the breech in place. When it is desired to withdraw the same for reloading, the handle *g* of the lever *f* is raised. The pin *e* slides along the surface *r* of the lever, and is thereby raised through the vertical portion *d* of the strap *a*, carrying with it the breech, which is permitted to revolve within the ring D, and is thus unscrewed from the barrel of the gun. At the close of this first motion of the lever *f* the parts are in the position represented in Fig. 2, the pin *e* in its passage having raised the spring-tooth *n* out of the notch *m* in the dog *h*, which is thus permitted to fall and grasp the pin *e* with its hook *s*, as seen in Fig. 2. The motion of the lever *f* is now reversed, when the dog *h* forces the pin *e* along the horizontal portion *d'* of the strap *a* until the pin *b* has reached the end of the slot *c*, when the continued operation of the dog *h* causes the pin *e* to revolve round the pin *b* and in the curved portion *t* of the slot. This brings the

parts into the position seen in Fig. 3, the breech being in a vertical position and ready for loading. The breech is now to be returned to its former position preparatory to being fired. This is also effected by the motion of the lever *f*, assisted by the hook *S* of the dog *h*, the lever striking the pin *e* and carrying it first through the curved portion *t* of the slot, which brings the breech again into a horizontal position, and then, as the pin passes through the horizontal portion of the slot, the breech passes into the barrel. The spring-tooth *n* upon the lever *f* remaining in the notch *m* of the dog *h*, the latter is raised out of the way of pin *e*, as seen in dotted lines in Fig. 2. The breech is now to be screwed to the barrel, and for this purpose receives a portion of a turn, which is effected in the following manner: The lever *f* is again depressed, and as the dog *h* is held up out of the way by the spring-tooth *n*, the hooked portion *v* of the lever *f* passes over the pin *e*, which is thus depressed through the slot

z, and the breech is again screwed up, as represented in Fig. 1, and the piece is ready for firing.

I do not claim uniting the breech to the barrel by means of male and female screws, portions of which are cut away to enable the one to enter the other, the two being secured together by a partial revolution of one of them, as this has been done before; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The above-described combination of parts, for the purpose of operating the movable breech, constructed and arranged substantially as described.

In testimony whereof I have hereunto set my signature this 19th day of April, 1853.

J. P. SCHENKL.

Witnesses:

SAM. COOPER,
H. B. SPINNEY.