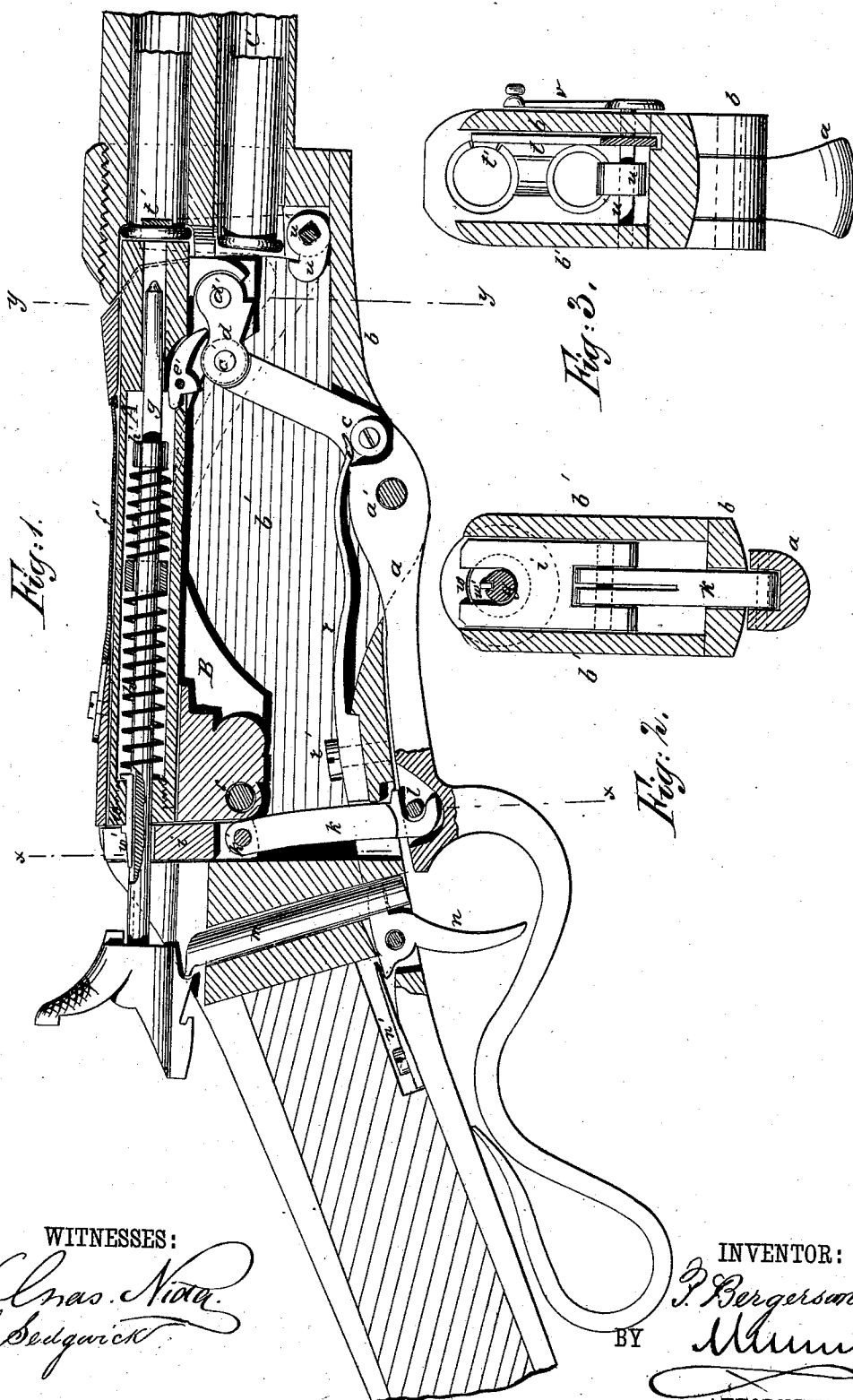


P. BERGERSON.
Magazine Fire-Arm.
No. 215,557.
Patented May 20, 1879.



WITNESSES:

Chas. Nida
C. Sedgwick

INVENTOR:

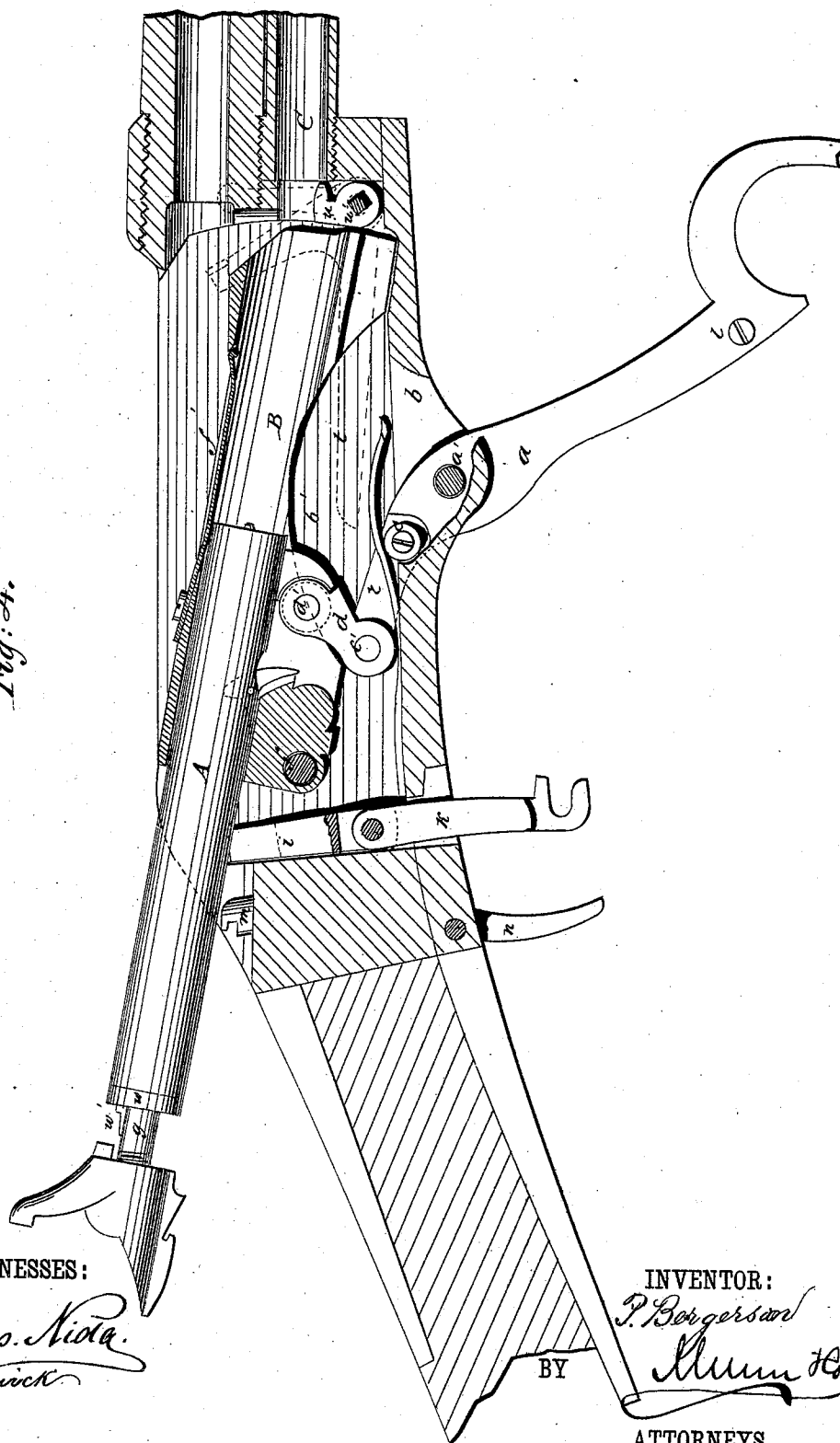
P. Bergerson
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Fig. 4.



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UNITED STATES PATENT OFFICE.

PEDER BERGERSAN, OF CHEYENNE, WYOMING TERRITORY.

IMPROVEMENT IN MAGAZINE FIRE-ARMS.

Specification forming part of Letters Patent No. **215,557**, dated May 20, 1879; application filed February 6, 1879.

To all whom it may concern:

Be it known that I, PEDER BERGERSAN, of Cheyenne, in the county of Laramie and Territory of Wyoming, have invented a new and useful Improvement in Breech-Loading Fire-Arms, of which the following is a specification.

My improvements relate to breech-loading fire-arms adapted for use as magazine-guns or as single breech-loading rifles.

My improved gun is shown in the accompanying drawings, wherein Figure 1 is a vertical longitudinal section, showing the breech mechanism closed. Fig. 2 is a cross-section on line *xx*. Fig. 3 is a cross-section on line *yy*. Fig. 4 is a vertical longitudinal section with the breech open.

Similar letters of reference indicate corresponding parts.

The breech mechanism is opened and closed by means of a lever, *a*, hung on a fulcrum, *a'*, that is held between ears projecting from the under side of the trigger-plate *b*.

Upon a screw-pin adjacent to fulcrum *a'* is a small steel roller, *c*, that bears upon a plate-spring, *r*, so that spring *r* retains the lever *a* in position by yielding pressure.

The inner end of lever *a* is bent upward into the breech-cavity between the side plates, *b'*, and is connected, by a link, *d*, and link-pins *c'* *d'*, to the inner end of a tubular piston, *A*. This piston *A* carries the firing mechanism, and is itself carried in the carrier-block *B*, that is hung at its rear end on a cross-pin, *f*, between side plates *b'*.

To open the breech, the lever *a* is swung downward, which action first throws the piston *A* backward in the block *B*, and then swings block *B* and piston *A* on pin *f*, the inner end of *B* dropping down and opening the breech, as shown in Fig. 4. In closing the breech the reverse motion takes place.

Within piston *A* is the firing-bolt *g*, projecting at the rear end of the piston through the screw-cap *w*. Connected with cap *w* is a guide-rib, *w'*, that projects into a groove in bolt *g*, to prevent it from turning.

h is the mainspring of the firing-bolt, consisting of one or more coiled springs acting between the cap *w* and a collar, *h'*, on *g*.

The rear projecting end of bolt *g* is provided at its under side with a toothed projection

for engagement with the sear *m*, and also carries a thumb-piece, by which the bolt may be cocked when the breech is closed.

When the breech is opened the bolt *g* goes back with piston *A*, and in closing the breech the sear *m* catches bolt *g* and holds it at full-cock. *n* is the trigger, and *n'* the trigger-spring.

At the rear end of piston *A* and carrier *B* is a slide-block, *i*, slotted to pass, when raised, at each side of bolt *g*. From its under side a link, *k*, depends, extending through trigger-plate *b* to a cross-pin, *l*, in a mortise in lever *a*. The connection between *k* and *l* is by an open slot, so that while the first movement of lever *a* acts to draw down block *i* the farther movement of *a* disconnects *l* from *k*. On the return movement of the lever the pin *l* catches *k*, and raises block *i* to place after the breech is closed.

The cartridge-extractor consists of a bent lever, *t*, (see Fig. 3, dotted lines Figs. 1 and 2,) hung loosely on a cross-pin, *u'*, the shorter arm of which lever is provided with a lug, *t'*, that lies in a groove in the barrel behind the cartridge-rim when the breech is closed. The longer arm of lever *t* is beneath a friction-roller on the link-pin *c'* of lever *a*, so that when the breech is opened, as before described, the longer arm of *t* is depressed and the cartridge-shell drawn out by lug *t'*. By this construction the first motion of the extractor is slow and forcible in starting the cartridge, and then rapidly increases.

Upon the fulcrum-pin *u'* of lever *t* is fixed the cut-off *u* of the magazine *C*. This cut-off consists of a collar on the pin *u'*, having a radial projection that may be thrown upon against the bottom cartridge by means of an arm, *v*, on the projecting end of pin *u'* outside the gun. In the other position the cut-off is turned down out of the way, and the cartridges are thrown out by a spring in the magazine, as usual.

To fill the magazine, the carrier-block *B* will first be depressed to its lowest point by means of lever *a*. The cartridges may then be pressed in, one by one, through an opening in the top of the carrier-block, which opening is covered by a spring-cover, *f'*, that may be depressed for the insertion of the cartridge.

In using the magazine, the cut-off *u* will be

turned down; then when the breech is opened the inner end of the carrier-block drops to the level of the magazine, and a cartridge enters the space left by the retraction of piston A. The cartridge is forced into the gun-barrel, when the breech is closed, by the forward movement of piston A.

To prevent accidental discharge of the cartridge before the breech is closed, a swing-stop, *e'*, is fitted in the under side of piston A at the forward end, so that when the breech is opened this stop *e'* projects in the path of bolt *g*, and prevents forward movement of the bolt. The stop *e'* is positioned where, in closing the breech, its tail will be acted on by link *d*, and the stop turned out of the way.

By the described construction the gun may be used as a single breech-loader, and the cartridges inserted by hand. The carrier-block, piston, and slide-block constitute a compound breech-block that when in place offers a solid and direct resistance to the cartridge.

The parts are simple, few in number, and durable. By having the parts perform the compound duties described the number of parts is reduced, and the breech mechanism rendered compact.

The gun may be easily taken apart, as the breech mechanism is all carried upon the trigger-plate, and the detachment of that plate from the gun permits the withdrawal of all the parts.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the piston A and bolt *g*, of the slide-block *i*, connected with lever *a* by the link *k* and pin *l*, as shown and described.

2. In a breech-loading fire-arm, the piston A, fitted with the firing-bolt *g*, the carrier-block B, hung upon the fulcrum-pin *f*, and the slotted slide-block *i*, provided with the link *k*, combined and arranged for manipulation by the lever *a* and link *d*, substantially as described and shown.

3. The swinging stop *e'*, arranged on the under side of piston A, and within reach of the link *d*, in combination with the lever *a*, link *d*, and bolt *g*, as and for the purpose specified.

PEDER BERGERSAN.

Witnesses:

THOS. M. FISHER,
GAYLORD BELL.