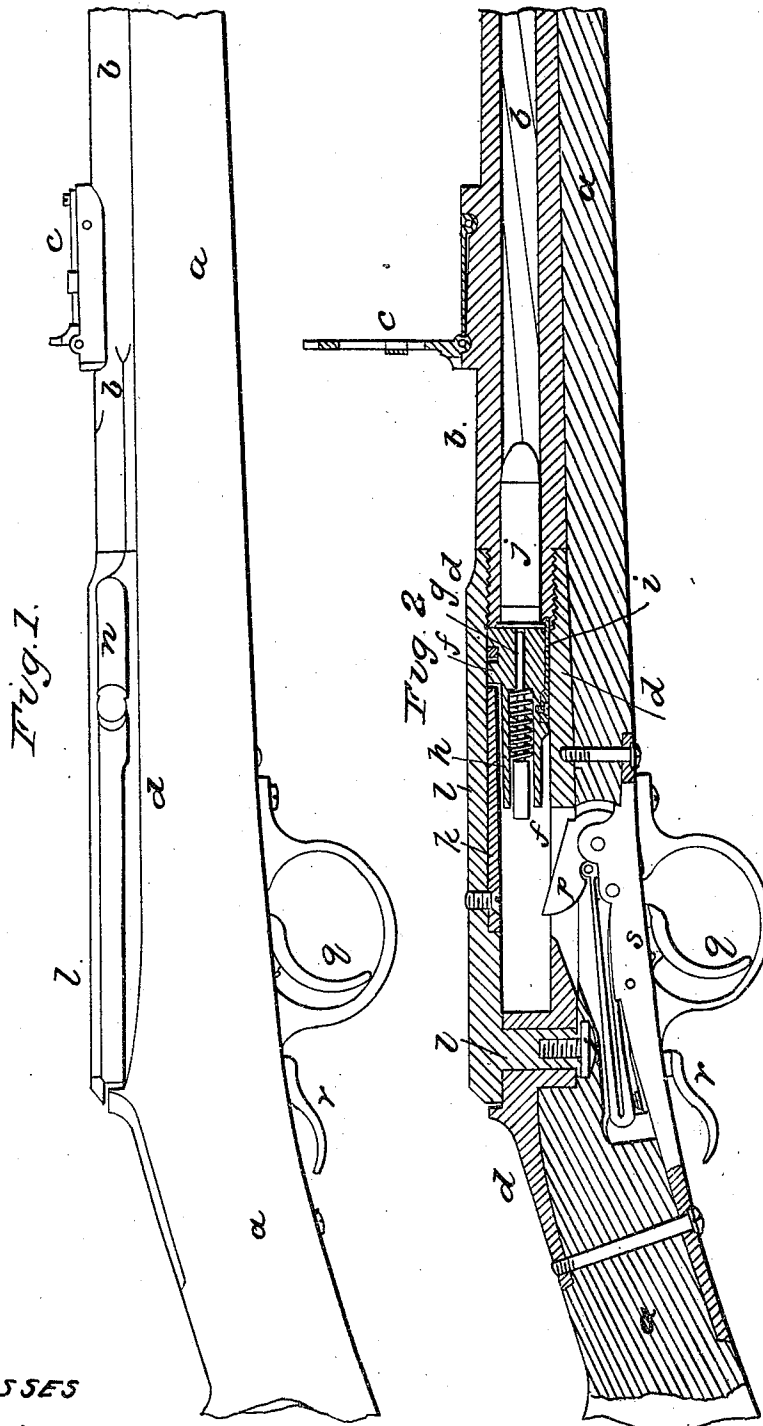


J. M. DEPREZ.

Breech-Loading Fire-Arm.

No. 86,739.

Patented Feb. 9, 1869.



WITNESSES

J. S. Tinsman
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JEAN MATHIEU DEPREZ, OF LIEGE, BELGIUM.

Letters Patent No. 86,739, dated February 9, 1869.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, JEAN MATHIEU DEPREZ, of Liege, in the Kingdom of Belgium, have invented new and useful Improvements in Breech-Loading Needle-Guns; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention refers to an improved system of breech-loading needle fire-arms, the peculiar distinctive features of which are—

First, the manner of opening and closing the breech, for the insertion of the cartridge, and the drawing off of the same, this opening and closing of the breech being effected by means of a rotary key, describing an arc of a circle in a horizontal plane. This key sets in motion the cylinder, to which it is connected by a lever or chain, and, while opening the said breech, it will, at the same time, and self-actingly, cock the gun.

Second, the adaptation of this arm to the use of either paper or pasteboard cartridges, or metallic central-percussion ones.

Third, the employment, according to the use of either paper or metallic cartridges, of either one or two cylinders, one of these cylinders serving only, for instance, to fire paper cartridges, while the other serves to fire the ones, the shells of which are entirely metallic.

An important advantage of this system is, that it admits of the transforming of old guns, so as to utilize them.

In a word, my improved system of arm can, by means of its two cylinders, which are interchangeable, admit of either a paper or a metallic cartridge being used, the peculiar arrangement of the breech, with opening and closing-key, allowing, in a comparatively short time, the firing of a great number of shots, the working of the arm being both quick and easy, its simple arrangement facilitating the operation thereof, and obviating any liability to be put out of order.

I will observe that when the firing takes place, or when the arm is closed, the resistance is normal everywhere, or acting in the line in which the parts have the greatest resistance, they being arranged with a view to give great steadiness.

I have, in the accompanying drawings, represented my system of gun.

Figure 1 shows, in elevation, a view, and

Figure 2, a longitudinal vertical section of the arm, ready loaded.

Figure 3 shows a plan of the same, opened, and ready to admit a cartridge. In this figure the position of the key is seen in dotted lines when the arm is closed.

Figures 4 and 5 show detail views of the needle, and the spare cylinder for firing paper cartridges.

Figures 6, 7, and 8, show the detached pieces of the hammer-tumbler of the detent and safety-trigger.

In all these figures the same letters of reference indicate the same parts.

a, stock receiving the barrel, the breech, and hammer.

b, barrel, secured to the stock by the usual rings. It is threaded at its back end, so as to be screwed into the breech.

The barrel may be rifled, or not, and is formed at its upper part with a guide-bridge, *c*, to take the aim.

d, breech, screwing with the barrel's end *b*.

It is secured to the stock, and receives inside it the needle-cylinder, whereby the obturation, and also the deflagration of the cartridges are effected.

f, needle-cylinders, moving within the breech *d*.

The one represented in fig. 2 is intended for metallic cartridges, and that represented in fig. 5 for paper ones.

g, needle of cylinders *f*.

h, spiral spring of the needle.

i, draw-cartridge, secured to the cylinder *f*, fig. 2.

j, cartridge, the shell of which is entirely metallic.

The needle-cylinder *f* is worked by a lever or link, *k*, which connects it to the rotary key *l*.

This key, in its opening motion, describes an arc of a circle on a horizontal plane, and cocks the hammer by drawing the end of the cylinder against it, and at the same time it permits introducing a new cartridge.

The key is maintained in its closed position by a spring, *m*, fixed to the end of the hook *n*, which catches in the projection *o*.

The hammer consists of a tumbler, as shown in detail, fig. 6, serving to effect the percussion of the needle, by the action of a spring, against which it is held, when cocked, by a detent, *q*, fig. 7, intended to discharge the hammer *p*, and provided with a safety-trigger, *r*, shown in detail, fig. 8.

The end of this trigger *r* comes, when the hammer is cocked by the needle-cylinder, to engage a notch, *s*, formed in the detent, to prevent the latter from working the hammer until raised out of the said notch.

It results from this arrangement, that the hammer cannot be brought in contact with the detent, unless the safety-catch leans at the same time thereupon.

I claim as new, and desire to secure by Letters Patent—

The combination, with the slotted breech *d*, of the rotating key *l* and cylinders *f*, either arranged for metallic or other cartridges, and connected to the said key by a link, *k*, all substantially as and for the purpose described.

J. M. DEPREZ.

Witnesses:

HARRY PHILLIPS,

VICTOR HAGMANN.