

J. Q. A. SCOTT.
Magazine Fire-Arm.

No. 36,174.

Patented Aug. 12, 1862.

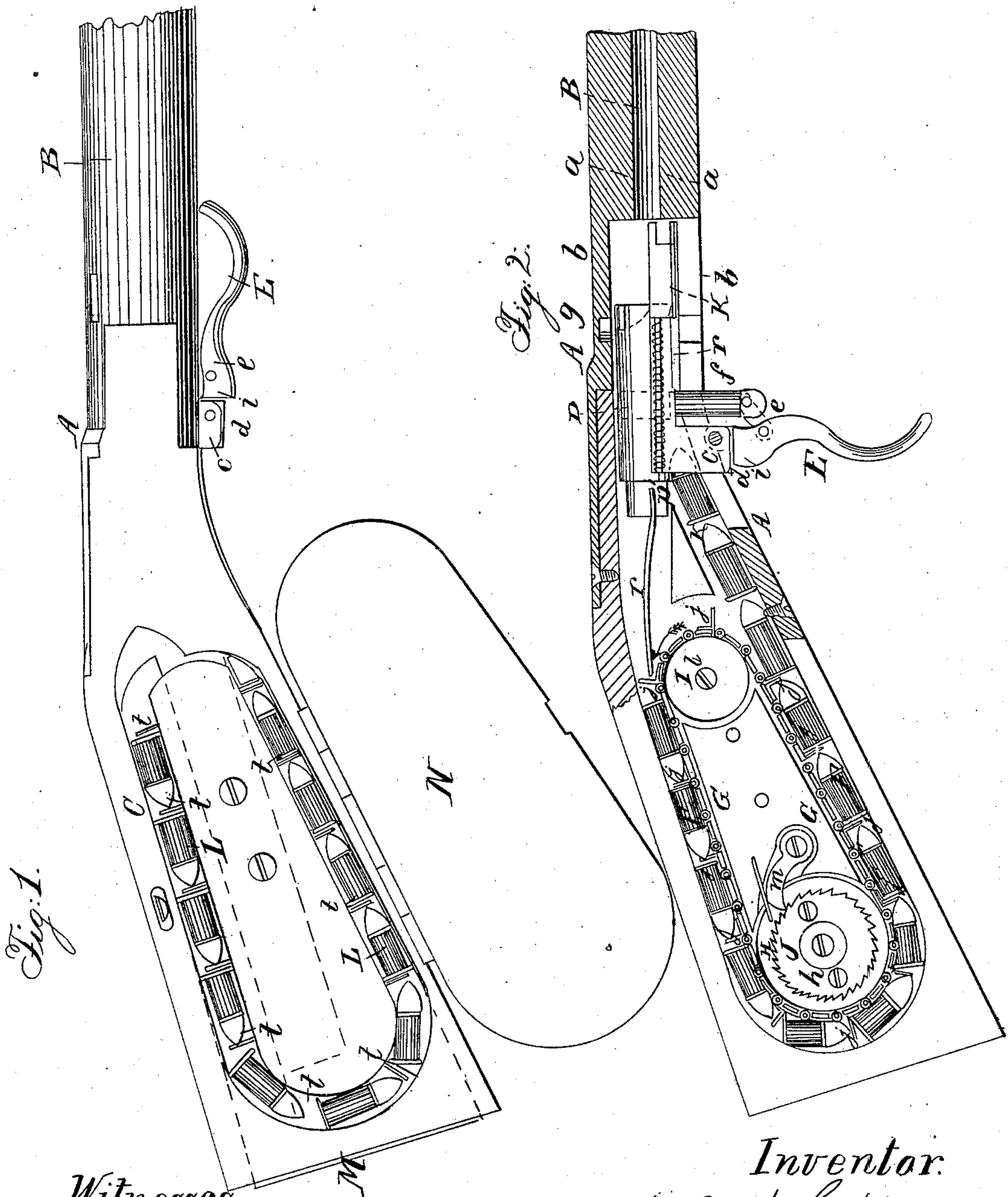


Fig. 1.

Fig. 2.

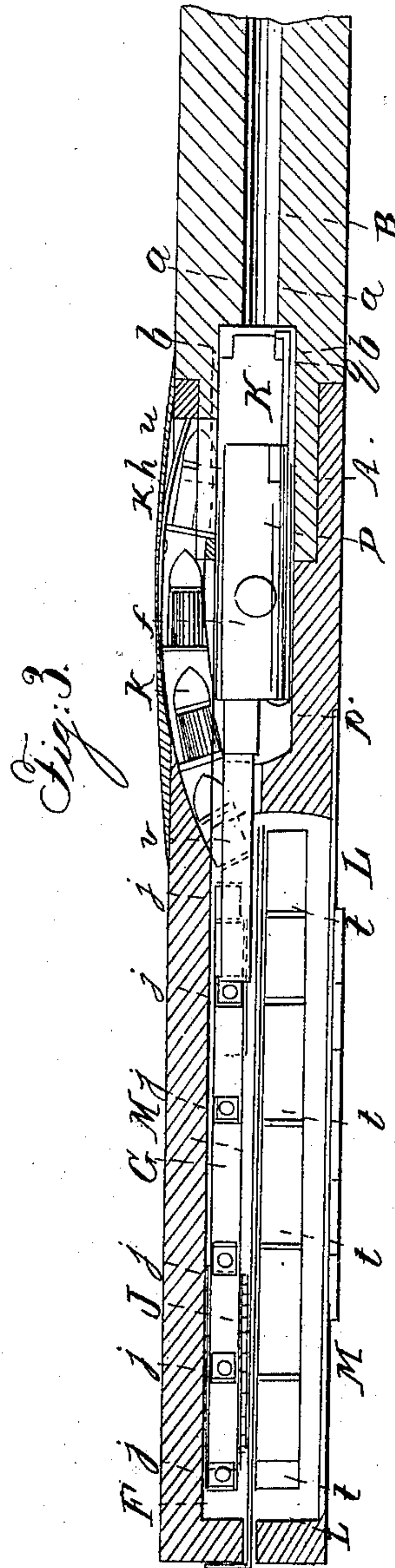
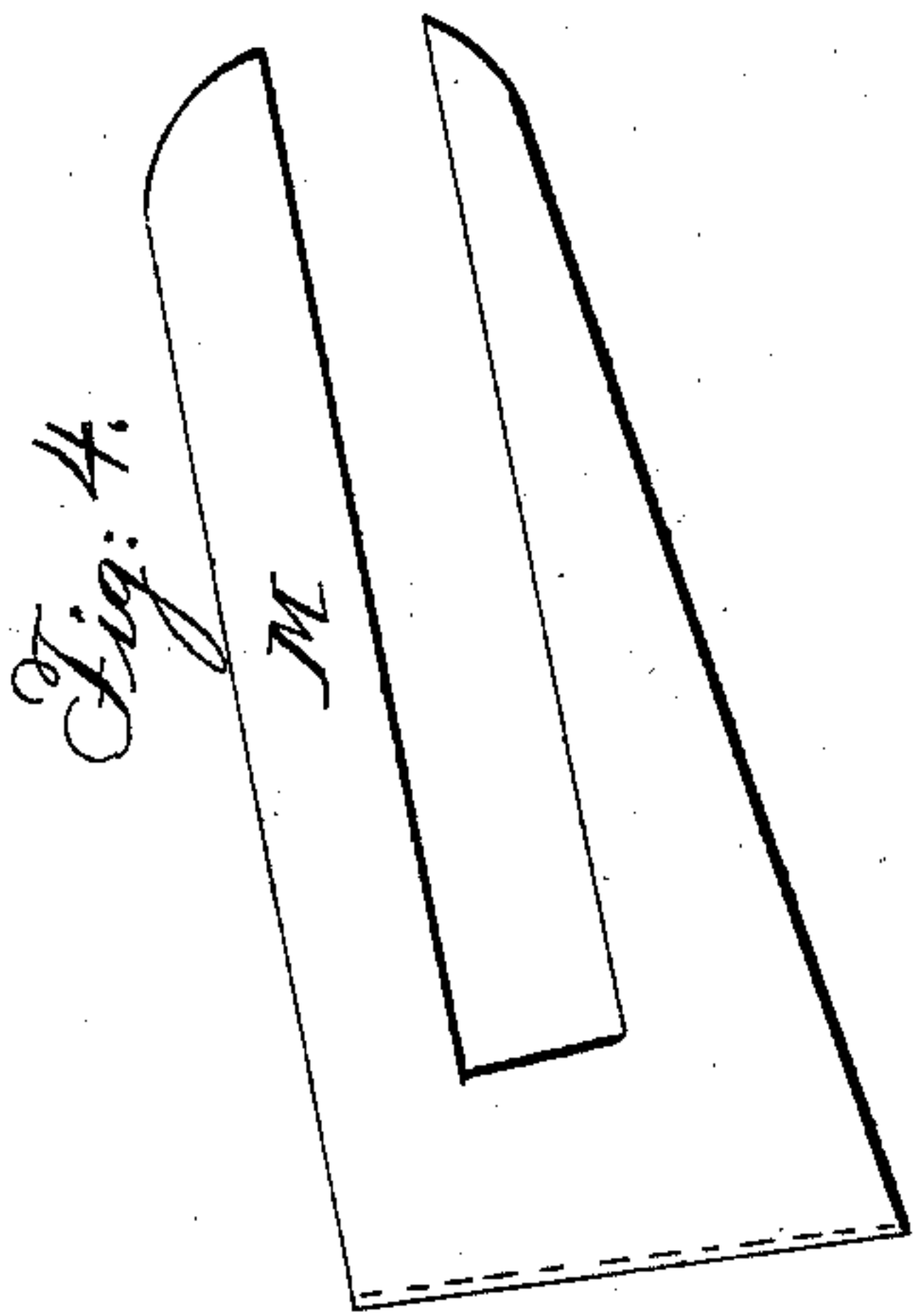
Witnesses.
J. W. Coombs
J. W. Reed

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J. Q. A. Scott
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UNITED STATES PATENT OFFICE.

J. Q. A. SCOTT, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN MAGAZINE FIRE-ARMS.

Specification forming part of Letters Patent No. 36,174, dated August 12, 1862.

To all whom it may concern:

Be it known that I, J. Q. A. SCOTT, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Repeating Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of the stock and breech of a rifle with my improvement, showing the cover of the cartridge-magazine open. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a horizontal section of the same. Fig. 4 is a face view of the sliding plate which separates the two magazines.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to the supplying of cartridges to the barrel through the breech from a magazine in the stock by means of an endless chain working in the magazine. I use in combination with such a magazine and endless chain a movable breech, whose opening-and-closing movement is directly backward and forward toward and from the barrel; and my invention consists in certain means, in combination with such a breech, for the purpose of giving the said chain the necessary movement and conveying the cartridges from the belt into the chamber of the barrel.

It also consists in the employment, in combination with the cartridge-magazine in which the endless-chain feeder works, of a second cartridge-magazine, arranged side by side with the first one, and separated therefrom by a partition, which is movable, for the purpose of transferring its cartridges into the first one when that has been emptied, whereby I am enabled to carry in the stock nearly twice the number of cartridges that could be carried in the single magazine.

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

A is the breech part of the gun, to which the barrel B is rigidly secured, and which is itself rigidly secured to the stock C. D is the sliding breech-pin, made somewhat larger than the bore *a a* of the gun, and fitted to slide toward and from the barrel within a bore, *b b*,

in the part B. The said breech-pin has formed upon its under side, close to the rear end, a tenon, *c*, which is fitted to slide in a slot in the lower part of A, and to which there is attached by a pin, *d*, the lever E, by which the breech is opened and closed. This lever is connected by a link, *e*, with a bolt, *f*, which is fitted to work vertically through a hole provided for it in the breech-pin.

There is provided in the upper part of A, above the bore *b*, a hole, *g*, so arranged and of such size that it may receive the upper end of the bolt *f* when the breech-pin is in its most forward or closed condition, in which condition the said bolt serves to lock it. When the breech-pin is thus locked the lever is close up under the barrel. (Shown in Fig. 1.)

The lever and bolt are kept in the above-described position by the pressure of a spiral spring, *h*, Fig. 2, which, by exerting a tendency to force back the breech, causes the bolt to be pressed against the back of the hole *g*, and so to have friction enough produced upon it to prevent its very easy withdrawal.

To unlock and open the breech, the lever is pulled down from the barrel, and when it has withdrawn the bolt *f* from the hole *g* the spring *h* starts the breech back; but the drawing back may be completed, in case of the spring not being stiff enough, by pulling the lever, which is shouldered at *i*, to come in contact with the bottom of the tenon *c*, and so prevented from swinging backward on the pin *d* beyond the position shown in Fig. 2.

F, Figs. 2 and 3, is the magazine, from which the cartridges are supplied to the barrel through the opened breech by means of the endless chain G. This magazine is arranged within the stock on the left-hand side of the center thereof.

The endless chain G is furnished with a series of feeding-plates, *j j*, standing out perpendicular to the face of the chain, and the spaces between these plates constitute pockets for the reception of the cartridges, which are represented therein in red outline in Fig. 2; and the said chain is placed upon two wheels or pulleys, H I, which are fitted to turn freely on fixed pins *k l*.

The wheel H has attached to it a ratchet-wheel, J, upon which a spring-pawl, *m*, operates to prevent the chain from moving other-

wise than in the direction of the arrows shown near it in Fig. 2, which causes it to feed the cartridges forward along the lower part of the magazine and along the passage *k* to the barrel.

The passage *k* is curved, as shown in Fig. 3, to permit the breech-pin *D* to pass it and to deliver the cartridges in front of the said pin when the latter is drawn back far enough; and in the front part of the said passage there is provided on the outer side of it a curved spring, *n*, Fig. 3, to press the cartridges aside into the space formed between the breech-pin and the chamber of the barrel by the drawing back of the said pin.

K is a slide arranged below the breech-pin in suitable ways parallel with the barrel, and attached to the breech-pin by a rod, *p*, in such a manner as to permit the said pin to move back some distance without drawing back the said slide, the said rod being free to slide through a hole provided for it in the breech-pin, but furnished with a projection, *p'*, at its rear end to cause the breech-pin to draw it back, and so draw back the slide *K*, after having itself moved back to a certain point. The spring *h*, before mentioned, is coiled around the said rod *p*, and so applied as to press and hold the slide *K* forward while the breech is moving back until the back of the breech-pin *D* comes in contact with the projection *p'*. The object of the said slide *K* is to receive the cartridges from the passage *k* and to carry them forward in front of the breech-pin until they are pushed forward into the barrel by the latter part of the forward-closing movement of the breech-pin. To one side of the said slide there is attached a hook, *q*, Fig. 3, for withdrawing the cartridges, the said hook being intended to catch against the flanges that are formed around their rear ends.

To the rear end of the breech-pin *D* there is secured a tongue, *r*, which, every time the breech is drawn back, catches against one of the feeding-plates, and so pushes back the upper portion of the endless chain and produces a forward movement of the lower portion and of the cartridges in its lower pockets. In this operation the foremost plate *j* on the lower portion of the chain pushes forward the cartridges in the passage *k*, which is always kept full, and so, as the breech is coming back, the foremost cartridge is pushed into the space between it and the barrel and received upon the slide *K*, which supports it until the breech is moved forward again and pushes it into the barrel. The position of the front end of the passage *k* is, however, so far back that it is not opened by the breech-pin far enough to permit the delivery of the cartridge in front of the latter until after the discharged-cartridge case (if any were in the barrel) has been drawn out from the barrel by the hook *q*. The cartridge-case when drawn out from the barrel drops over the front end of the slide *K* and out through the slots.

The second magazine, *L*, Figs. 1 and 3, is arranged within the stock on the right-hand side of the center thereof, and exactly opposite the magazine *F*, consisting of a channel wide enough for the reception of the cartridges, and resembling in form the channel which is formed in the magazine *F* around the endless chain *G*, as will be understood by a comparison of Figs. 1 and 2. This channel is divided by a number of transverse partitions, *t t*, arranged at a distance apart corresponding with the distance between the plates *j j* on the endless chain, and forming a number of pockets for the reception of single bullets, which are shown in red outline in Fig. 1.

The magazines *L* and *F* are only separated by the sliding plate *M*, which is fitted to slide into and from the stock through the butt thereof. The magazine *L* is fitted at the outside with a door, *N*, to be opened for filling both it and the magazine *F*.

To fill the magazine *F* the slide *M* has to be drawn out, and it is then filled through the pockets of *L*, after which the slide *M* is replaced and *M* is filled and closed up. When all the cartridges have been fed out from magazine *F* the gun is laid down right side up, and on the withdrawal of the slide *M* the cartridges will drop from *M* into *F*, after which the slide is replaced.

I do not claim the employment, in a breech-loading fire-arm, of an endless-chain feeder combined with a sliding breech-pin; but

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

1. The combination of the magazine *F*, containing an endless-chain feeder, the longitudinally-moving breech-pin *D*, the side passage *k*, the spring *n*, and the slide *K*, the whole arranged and operating substantially as herein described.

2. The employment, for locking and unlocking the breech-pin *D* and opening the breech, of a bolt, *f*, lever *E*, and link *e*, the whole combined with the breech-pin, and applied in relation to a hole or notch, *g*, in the fixed portion of the breech, and operating as herein set forth.

3. The combination, with the endless-chain feeder and its magazine *F*, of a second cartridge-magazine, *L*, constructed with partitions *t t*, corresponding with the feeding-plates of the endless chain, and a sliding plate, *M*, or other movable partition, the whole arranged, substantially as herein specified, to allow the cartridges to be transferred in a proper manner from the interior of one magazine to the endless chain of the other one, as herein set forth.

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Witnesses:

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