

TIESING & GERNER.
 Breech Loading Fire Arm.
 No. 113,470. Patented April 4, 1871.

Fig. 1.

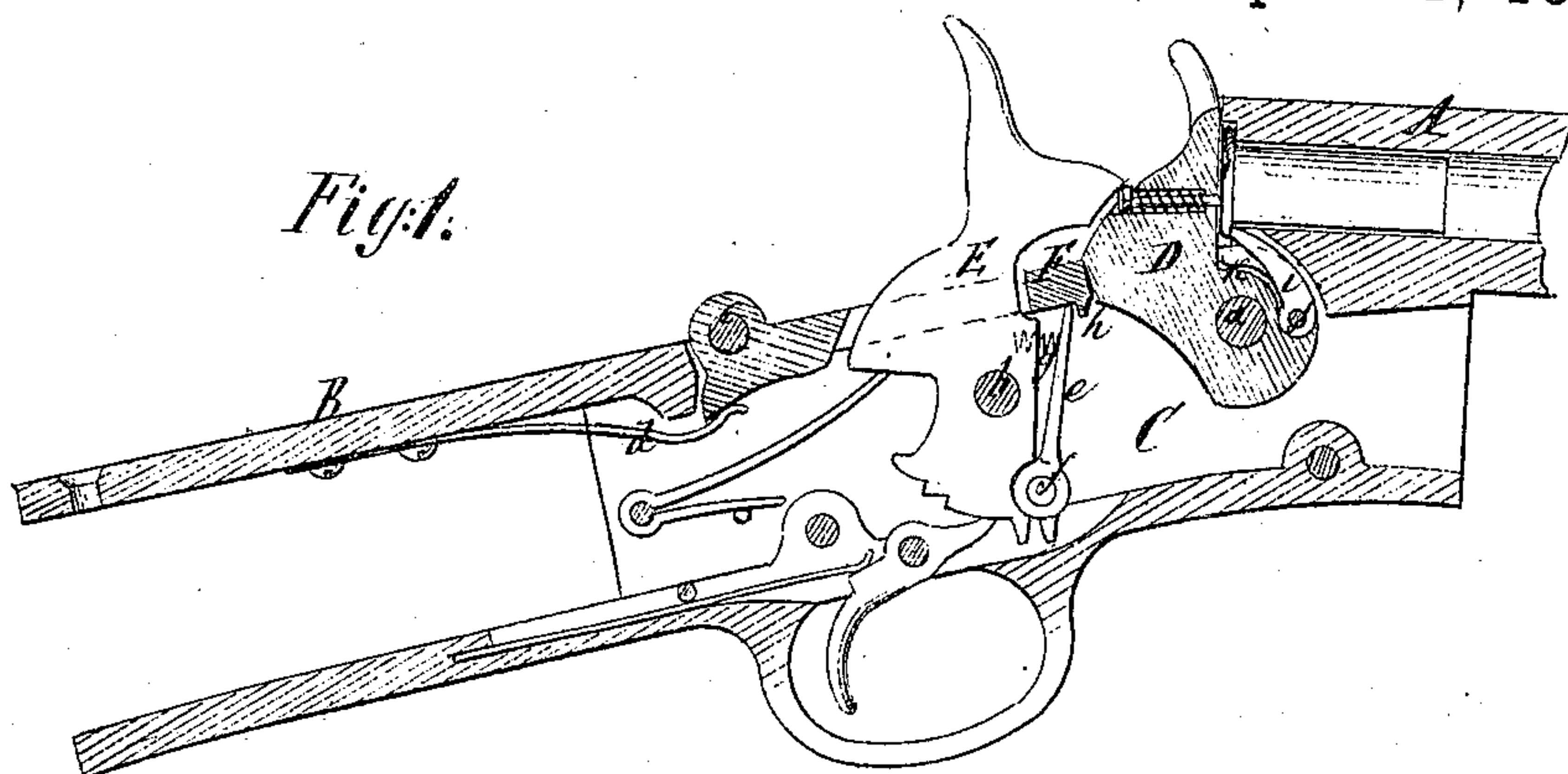


Fig. 2.

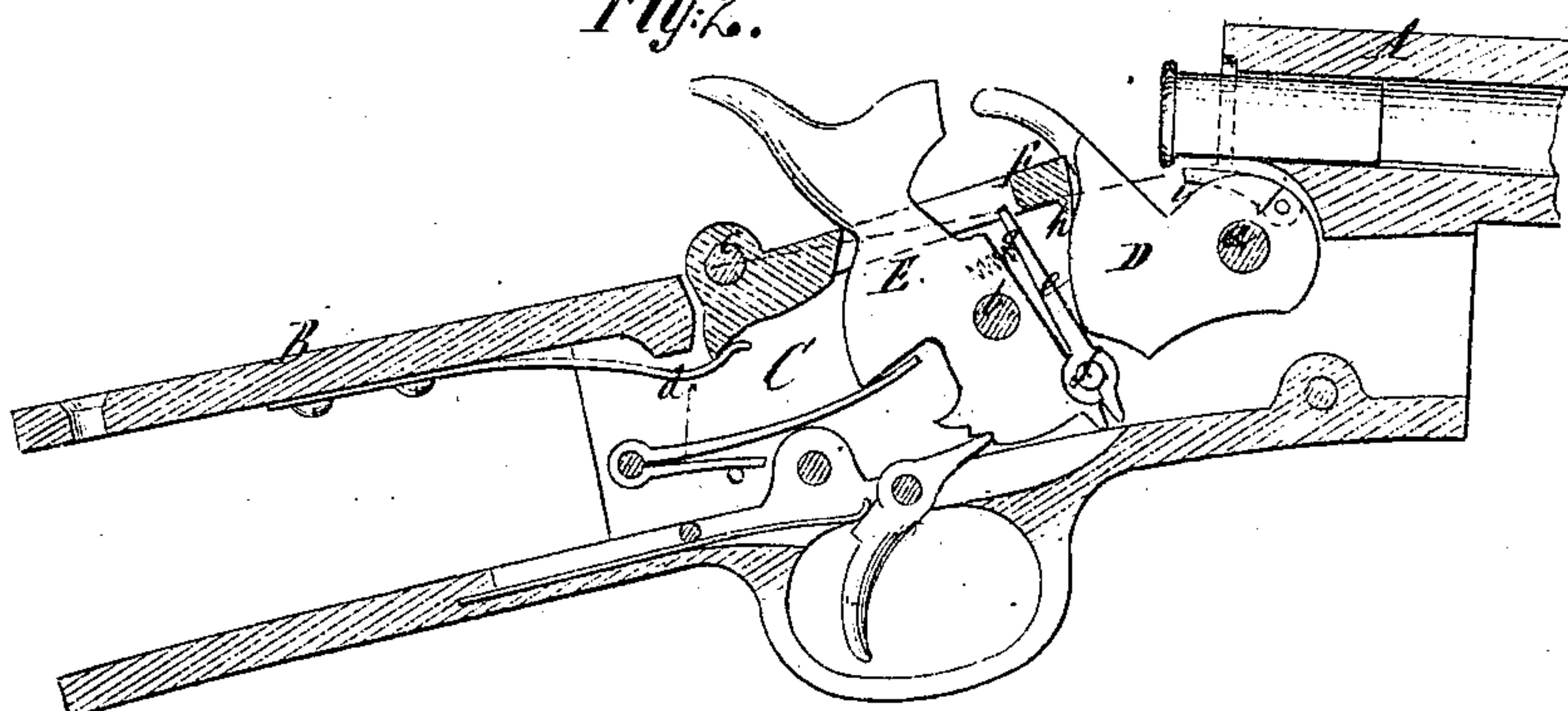
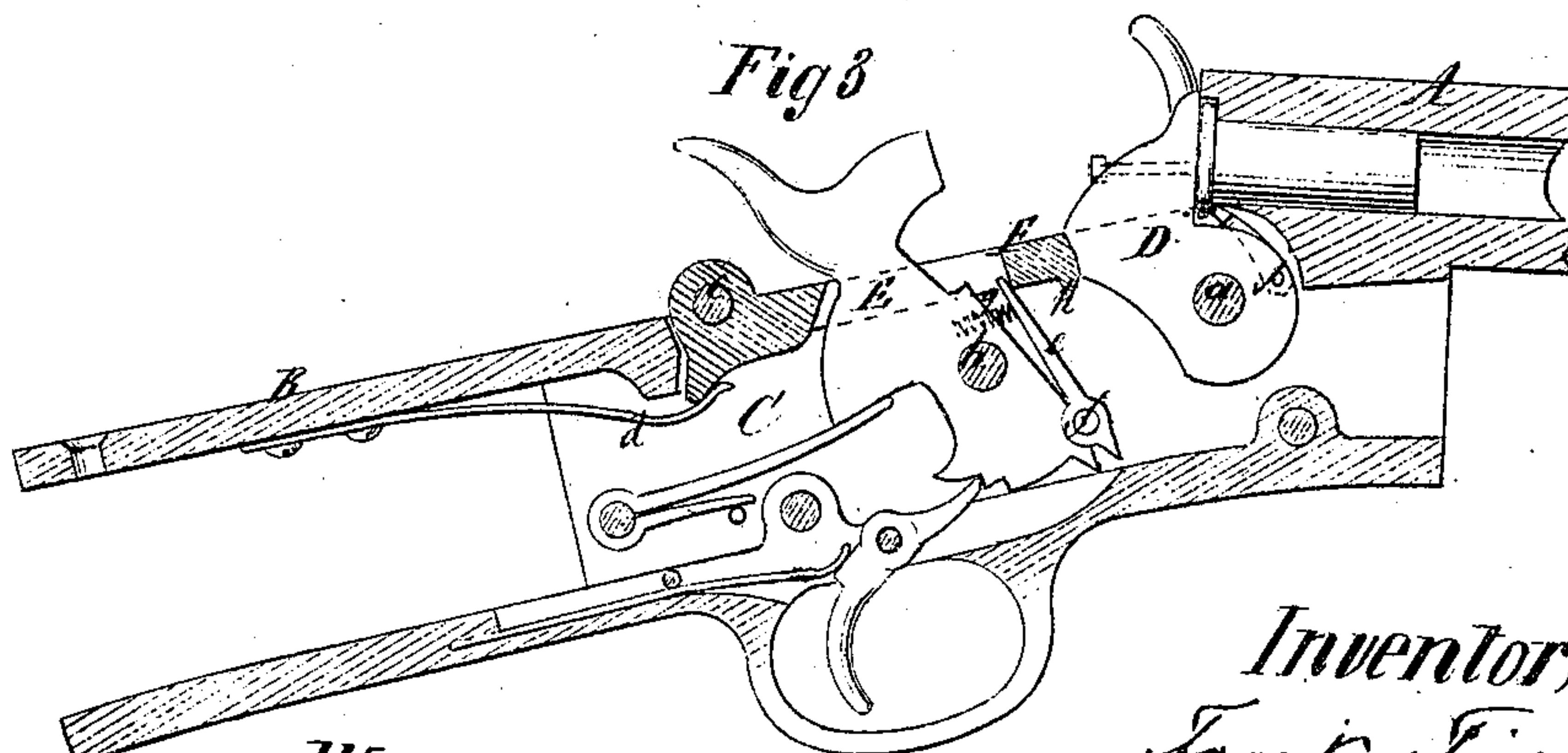


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANK TIESING AND CHARLES GERNER, OF NEW HAVEN, CONNECTICUT,
ASSIGNORS TO ELI WHITNEY, OF SAME PLACE.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 113,470, dated April 4, 1871.

To all whom it may concern:

Be it known that we, FRANK TIESING and CHARLES GERNER, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Breech-Loading Fire-Arms; and we do hereby declare the following to be 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 drawing, forming part of this specification, in which drawing—

Figure 1 represents a longitudinal central section of this invention when the breech is closed and the hammer down. Fig. 2 is a similar section of the same when the breech is open to admit a new cartridge, the hammer being at half-cock. Fig. 3 is a similar section of the same when the arm is charged and the hammer cocked ready for firing.

Similar letters indicate corresponding parts.

This invention consists in a latch for locking the breech-block, said latch being hinged and combined with the hammer in such a manner that by pulling the hammer back the latch is made to release the breech-block. With the hammer and latch is combined a finger or hook, which serves to throw the latch back when the hammer is cocked, and which is afterward made to release the latch when the breech-block is opened, the latch being subjected to the action of a spring, which carries the same back to its locking position as soon as the breech-block is closed.

The breech-block is provided with a yielding spring-dog, which catches in front of the flange of the cartridge-shell when the breech-block is closed, and which, when the breech-block is opened, throws out the shell and then drops down, so as to give free access to the chamber for the introduction of a new cartridge.

In the drawing, the letter A designates the barrel of our fire-arm, which is secured to the stock B in the usual manner. C is the breech-opening, in which are secured the breech-block D and the hammer E, the breech-block being made to swing on a pivot, *a*, and the hammer on a pin, *b*.

When the breech-block is turned up to its

closing position, as shown in Fig. 1 of the drawing, it is locked by a latch, F, which is secured in the breech-opening by a pin, *c*, and which is subjected to the action of a spring, *d*, that has a tendency to keep the same down in its locking position.

In the drawing we have shown the latch with a separate pivot; but it must be remarked that said latch could be so constructed that it would swing on the same pin with the hammer. We prefer, however, to place the pin *c*, on which the latch swings, as near as possible in the line of the recoil.

With the hammer is connected a finger, *e*, which swings on a pivot, *f*, and is subjected to the action of a weak spring, *g*, that has a tendency to throw the finger out to the position shown in Fig. 1, so that its tip bears under the outer end of the latch F, said latch being provided with a lip, *h*, to prevent the finger from being turned out beyond its end. When the hammer is raised to half-cock, the finger *e* raises the latch against the action of the spring *d*, and the breech-block can be thrown back to the position shown in Fig. 2. While being moved back, however, the back of the breech-block bears against the finger *e*, and forces the same away from under the latch, so that when the breech-block is returned to its closing position the latch is free to follow the action of its spring *d* and to drop back to its locking position, as shown in Fig. 3. During these operations the hammer remains at half-cock; but as soon as the latch has returned to its locking position the hammer can be cocked ready for firing.

It is obvious that the form of the finger depends upon the construction of the latch and its relation to the hammer, and we do not wish to confine ourselves to the precise form shown in the drawing; but we reserve the right to change the form of said finger to a hook, or any other device which will be capable of raising the latch when the hammer is pulled back, and of releasing it by the action of the breech-block.

With the breech-block is combined a dog, *i*, which has its fulcrum on a pivot, *j*, secured in the breech-block in front of the pin on which said breech-block swings. Said dog is sub-

jected to the action of a spring, *k*, so that in turning the breech-block up to its closing position said dog will spring up behind the flange of the cartridge, as shown in Figs. 1 and 3, and in opening the breech-block the empty shell is withdrawn from the chamber, and then the dog drops down to the position shown in Fig. 3, so as to offer no obstruction to the introduction of a new cartridge.

What we claim as new, and desire to secure by Letters Patent, is—

1. The relative arrangement of the latch or locking-brace *F*, breech-block *D*, and hammer *E*, when combined for operation as set forth.

2. The finger *e*, in combination with the hammer, the latch, and the breech-block, substantially as described.

3. The combination and arrangement herein shown of the breech-block and finger, whereby, in the act of throwing the breech-block back, the finger is operated to release the latch, as set forth.

4. The spring *d*, in combination with the latch *F*, finger *e*, hammer *E*, and the breech-block *D*, substantially as and for the purposes described.

This specification signed by us this 16th day of December, 1870.

FRANK TIESING.
CHARLES GERNER.

Witnesses:

SIEGWART SPIER,
WM. MILLER.