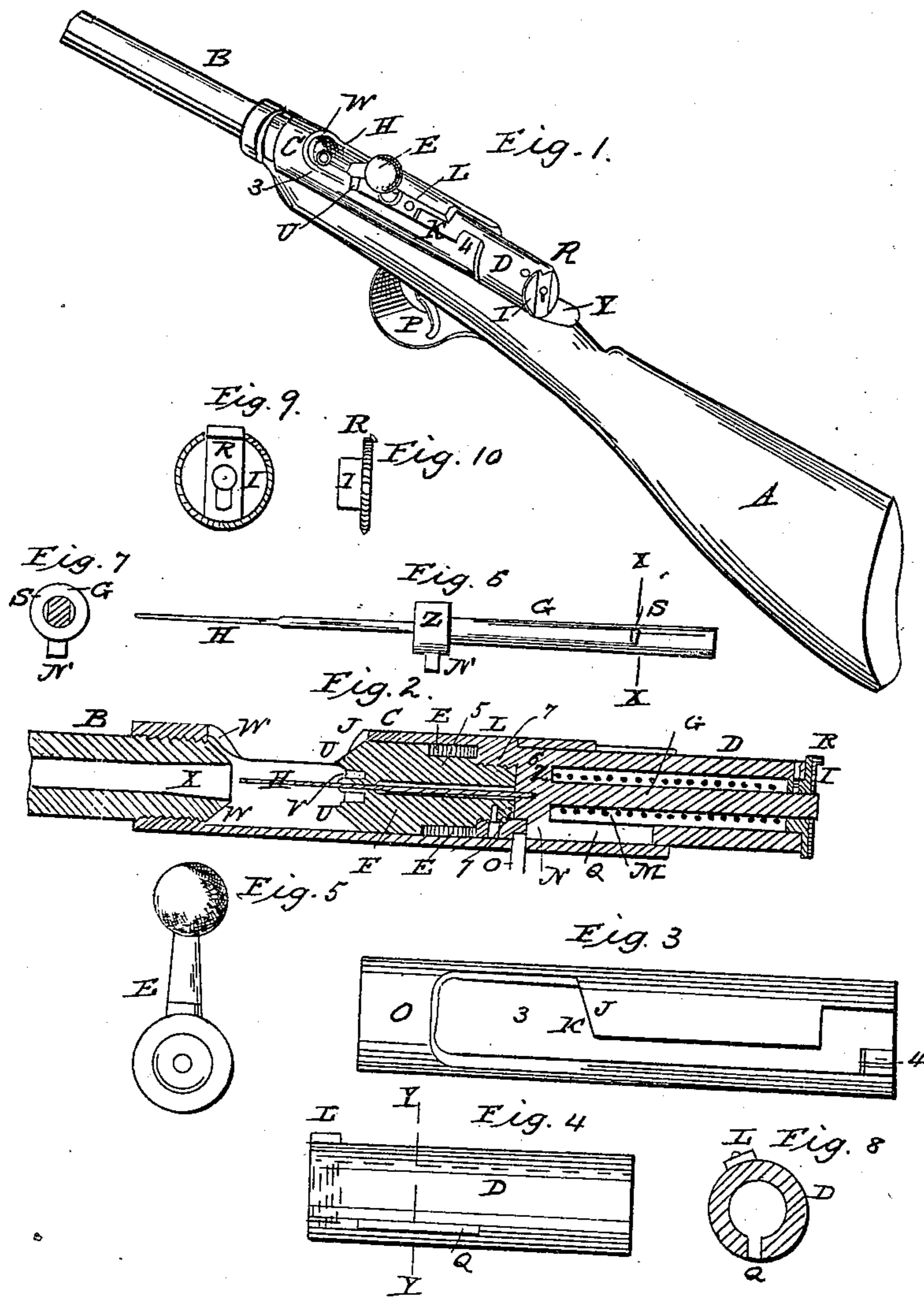


M. J. HINDEN.
Breech Loader.

No. 92,048.

Patented June 29, 1869.



Attest
 Jas. J. Luy.
 H. F. Ebert.

Inventor.
 M. J. Hinden.
 Per Attorney
 Thos. S. Sprague.

United States Patent Office.

MATHIAS J. HINDEN, OF DETROIT, MICHIGAN.

Letters Patent No. 92,048, dated June 29, 1869.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

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

To whom it may concern:

Be it known that I, MATHIAS J. HINDEN, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and useful Improvement in Needle-Guns; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a perspective view of my improvement.

Figure 2 is a longitudinal sectional view of the same.

Figure 3 is a plan view of the steel tube.

Figure 4 is a plan of cylinder.

Figure 5 is a plan of lever and sleeve.

Figure 6 is a plan of needle-stock and needle.

Figure 7 is a section of the same, on the line $x x$ of fig. 6.

Figure 8 is a section of cylinder, on the line $y y$ of fig. 4.

Figure 9 is a plan view of safety-guard.

Figure 10 is a side view of the same.

Like letters indicate like parts in each figure.

The object of this invention is so to construct a gun, as that it may be rapidly loaded at the breech, and discharged by means of a needle, perforating the fulminator of a proper cartridge, that will be so simple in its construction, that there is very little liability of its getting out of order, and so that it can be made safe from premature discharge, by a proper safety-guard.

In the construction of this gun, I use a new combination of parts which are old, or of doubtful novelty, except the safety-guard, which I believe to be my own invention.

In order to accomplish this end, I construct a stock, A, to which I attach a barrel, B, by any proper means, the rear end of the same being conical in shape, as at W, in fig. 2.

The bore of this barrel is enlarged, as at X, in the same figure, the more readily to receive the necessary cartridge.

In a suitable groove, Y, in the stock, I fasten a steel or metal tube, C, provided with angular slot K, by means of which the cylinder D is controlled in its movements.

The needle-stock G has loosely sleeved upon it the lever E, by means of which the cylinder is moved forward or backward, as may be desired, the two ends of the cylinder, 5 and 6, forming collars to hold the same in place, and being screwed together, as at 7, in fig. 2.

It is also provided with a rigid guide or stop, L, which, engaging with the angles of the slot K, prevent the cylinder from dropping out of the tube C.

Within this cylinder, works the needle-stock G,

carrying the needle H, which is attached to said stock, which is provided with a collar, Z, and stop N, and is surrounded by spiral spring M.

The cylinder is also provided with slot Q, within which the stop N works.

Attached to the rear end of the cylinder D, is the safety-guard I, provided with slide plate R, which, being raised, engages with the flat planes S upon either side of the needle-stock G, and prevents a premature discharge of the gun.

The slot K, in the tube C, should be enlarged, as at 3, in fig. 3, to allow room for the insertion of the cartridge into the rear end of the barrel, and one fractional end of the slot J, should be an inclined plane, to allow the lever E to lock against the incline of the plane, and hold the conical end U, of the cylinder D, against the conical end of the barrel.

The cylinder D is provided with a recoil-chamber, V, the mouth of which is chamfered to fit over the conical end of the barrel, before described.

O is an extension of the trigger P, which projects upwards through the tube C, and acts as a stop against the stop N, and prevents the recoil of the spring M which forces the needle H forward through the end of the cartridge. By pulling the trigger P, the extension O, of the same, is withdrawn, when the recoil of the spring M forces the needle forward into the cartridge, and into contact with the fulminator.

T is a trigger-guard of the ordinary construction, and for the usual purpose.

To operate this gun, requires a peculiar cartridge, upon the construction of which I am about to apply for Letters Patent.

We will suppose the gun and cartridge to both be ready for work, and the gun to have just been discharged.

With the right hand I disengage the lever from the inclined plane of the slot, by turning it to the left until it is flush with the stop L; then draw it backward, and by its means the cylinder, within which is the needle-guard and needle, until the stop L reaches and is stopped by the angle 4, of the slot, when a sufficient space will be opened in the enlargement 3, of the slot, to insert the cartridge into the rear end of the barrel B.

After the cartridge is thus inserted, push the lever forward again until it reaches the enlargement of the slot 3, and turn it to the right until it engages with the inclined plane heretofore mentioned. By this operation the chamfered and conical end of the cylinder shuts over and against the conical end of the barrel, thereby making a very close joint and abutment to withstand the explosion of the cartridge, and consequent recoil. In moving the lever forward, as described, it carries with it the cylinder D and needle-

stock G, until the stop N is engaged with the extension O, of the trigger, which prevents the needle-stock from going any further.

The continued forward motion of the lever and cylinder, until the end thereof engages with the barrel as before described, compresses the spiral spring M, which compression is only relieved by the removal of the extension O, of the trigger, which is done by pulling said trigger, when the recoil of the spring forces the needle-stock and needle forward until the latter has punctured the fulminator of the cartridge, when the gun is discharged.

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

The safety-guard I, provided with slide R, in connection with the cylinder D and the needle-stock G, when arranged and operating for the purpose aforesaid.

MATHIAS J. HINDEN.

Witnesses:

H. F. EBERTS,
G. C. HYDE.